პროექტის მართვა

Project Management

რიდერი

მომზადებულია თეონა მატარაძის მიერ

Getting started: introducing the project design tools

Before presenting the different steps in project design, this chapter will briefly introduce you to the project cycle and its different phases, and provide you with key definitions and references for starting any development project well. Project design is part of project cycle management (PCM). We therefore need to understand PCM better before we tackle project design in more detail.

i. What is a project?

A project can cover a wide range of operations, from small initiatives to complex programmes. For instance, a dairy cooperative union can run a project to introduce a computerized management information system. This would involve purchasing computers and a software programme and training book-keepers. A more complex programme might be setting up a national health insurance scheme through cooperatives, which would involve many stakeholders (the government, health care providers, advisory services, the cooperative movement, future clients, etc.), take time and require substantial investment.

To be viable and sustainable, a development project, whatever its size and outreach, should be anchored to a few essential guiding principles[4]:

- **The starting point of a project is the existence of a problem affecting a certain group (a cooperative, a community).** It can also involve an opportunity to improve that group's living and working conditions.

  The existence of a problem affecting a certain group (or groups) is the starting point for many development projects. The description of the problem justifies the need for intervention and the project document will explain how the intended action will contribute to the solution. Sometimes, project ideas are set out in terms of opportunities which may be of strategic interest to the selected group. In these cases, which are more frequent in the business environment, problems are defined in terms of challenges, and the project document is likely to be part of a business plan.

  Having said that, beginning with a problem or challenge analysis does not mean that the project starts with a negative vision. On the contrary, it will help you to detect conditions that can be improved for the group. In this way, the project will have a positive mission right from the start.

- **A sustainable project is integrated and coherent with broader development or business plans.**

  In a society characterised by multiple challenges and dimensions, a project can increase and improve its impact to the extent that it is an integral part of a larger plan of a cooperative organization or enterprise. It may be one component of a multi-annual business plan, or part of a response to a national action plan for private sector development. If it is intended to contribute to development goals and poverty reduction strategies, the project's core objective must be compatible with and connected to international and national development priorities, such as the Millennium Development Goals (MDGs), Poverty Reduction Strategy Papers (PRSPs), Decent Work Country Programmes (DWCPs), gender equality national plans, international conventions and recommendations such as those that embody the ILO fundamental principles and rights at work, and the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW).

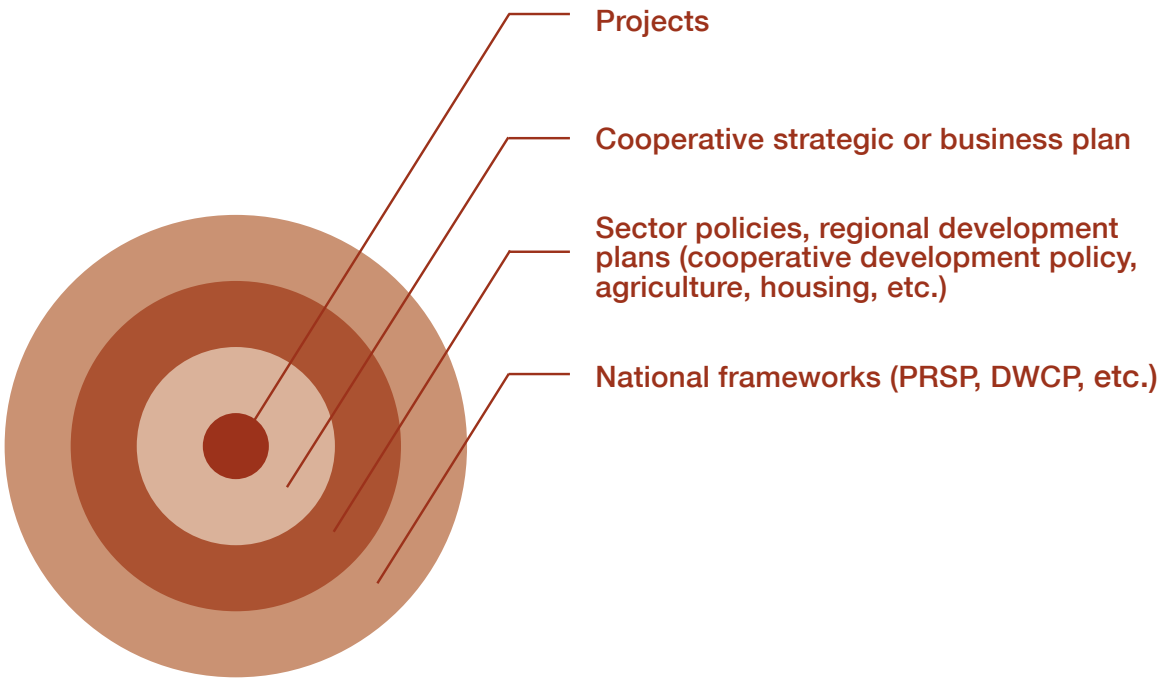
[4] Based on: ILO, 2010, ILO Technical Cooperation Manual –Version 1, PARDEV, Geneva.

Decent Work is captured in the four strategic objectives of the ILO: 1) fundamental principles and rights at work and international labour standards; 2) employment and income opportunities; 3) social protection and social security; and 4) social dialogue and tripartism. These objectives hold for all workers, women and men, in both the formal and the informal economy; in wage employment or working on their own account; in fields, factories or offices; in their homes or in the community.
Decent Work Country Programmes (DWCPs) are the main vehicle for ILO support to countries. They promote decent work as a key component of national development strategies.

Source: http://www.ilo.org/global/About_the_ILO/Mainpillars/WhatisDecentWork/lang--en/index.htm and http://www.ilo.org/public/english/bureau/program/dwcp/index.htm

As the diagram below shows, coherence and integration among development partners and stakeholders are crucial for success and for poverty reduction through cooperative development.

Diagram 1: Projects are part of broader development efforts



- **A project is a participatory exercise from beginning to end**

  Any individual or institution likely to be affected (positively or negatively) by the project must take an active part in its design, decision-making and implementation phases.
  The formulation, implementation and monitoring of a project proposal is meant to involve all stakeholders. Project design is the product of negotiation and consensus. The methodology and tools presented in this manual are specifically designed to be used in a participatory way, and by different types of audiences.

- **Sustainable projects are gender-sensitive**

  In every society, there are differences between the roles and responsibilities of women and men,

their access to and control over resources, and their participation in decision-making. Women and men also very often have inequitable access to services - such as education and health - and to opportunities in economic, social and political life.

Gender inequalities hinder growth and harm development. Failure to address gender issues adequately can damage the effectiveness and sustainability of projects and, in the worst case, can exacerbate inequalities.

It is therefore vital to analyse gender differences and inequalities, and to take them into account in planning your project's objectives, activities and resource allocation. Furthermore, good project planning can help redress the lack of access and control over resources that women may face in a particular context, particularly if they also face other types of discrimination.

Box 1: Women participation in African cooperatives

In cooperatives in the majority of African countries, women remain under-represented as employees, members and in particular leaders. Achieving active and equal participation by women is a great challenge, although the democratic nature of the cooperative does mean women members, like men, can have a stronger voice in a cooperative than in other types of enterprise.

Gender equality

"Enjoyment of equal rights, opportunities and treatment by men and women of all ages in all spheres of life and work. It implies that all human beings are free to develop their personal abilities and make choices without the limitations set by stereotypes and prejudices about gender roles or the characteristics of men and women. It means that the different behaviour, aspirations and needs of women and men are considered, valued and favored equally. It does not mean that women and men are the same of have to become the same, but that their rights, responsibilities, social status and access to resources do not depend on whether they are born male or female."

"A gender-sensitive project implements measures and actions that address the different situations, roles, needs and interests of women, men, girls and boys with a view to close gender gaps and achieve equality."

Source: ILO, 2010, Gender mainstreaming strategies in decent work promotion: programming tools, Bangkok.

- **A well defined project is results-based**

Results-based management (RBM) is about setting objectives and targets and what you do to achieve them. RBM does not look at the project activities (e.g. a training course for members of a cooperative) but at the achievements that the project activities bring about (e.g. thanks to the training, the cooperative members increase their productivity). RBM helps in assessing the performance of a project. In a world in which there is increasing competition for resources, and in which donors want proof that organizations are achieving tangible results with the funds they receive, also cooperative organizations must demonstrate the added value of their work unequivocally and measurably.

Results-based management (RBM)

"It is a management strategy focusing on performance and achievement of outputs, outcomes and impacts."

Source: OECD-DAC, 2002, Glossary of key terms in Evaluation and results-based management, Paris.

- **Being results-based, a project seeks clearly defined objectives or outcomes, and it includes a series of interrelated and coordinated activities.**

Outcomes, or immediate objectives, are actual or intended changes in development conditions that interventions seek to support.

Objectives are a series of specific benefits that a project will leave once it has finished, which will

contribute to solving the problem.

- **Whereas the problem is the project's starting point, the objectives are the end point.**

Activities and outputs are the individual components of every project. They are interrelated to create an organised process oriented toward achieving the objectives and producing an impact on the existing environment.

To achieve the desired situation, every project is implemented by means of activities, which generate a series of outputs that, in turn, lead to attainment of the objectives. The activities, outputs and objectives have no meaning in themselves, but are means for bringing about a change (impact) that benefits the project's target group.

Diagram 2: Project activities are interrelated

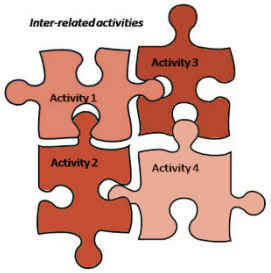


Diagram 3: The cause-effect relationship between the planned action and its desired effects

- **Project implementation is organised with a fixed budget, limited resources and specific deadlines.**

Projects use a certain amount of financial, material and human resources and are implemented within specific times.

Resources and time are limited, and are often scarcer than you would like. The project seeks to make the best use of both to achieve the greatest possible contribution to the solution of the problem and the attainment of positive changes. Ultimately, this concern is the basis for project planning for any organization or enterprise, including cooperatives. It is often needed to mobilise further resources and to look for additional funding in order to tackle the core problem.

- **Each project has a specific management structure.**

A project needs a specific team of people in charge of implementing it and supervising a series of administrative and financial procedures. This team is not permanent, but it exists throughout the project.

- **Any project includes a monitoring and evaluation (M&E) system**

An **M&E system** allows you to assess the project's progress toward its objectives, and it provides the basis for any adjustment necessary. It also makes it possible to evaluate and document the project's performance once the project has finished.

An M&E system is an essential tool for results-based project management. It makes the project accountable to the target group, the stakeholders and the donor. It also contributes to organizational learning and to the improvement of projects. That learning can then be transferred and used in other locations and projects. A good evaluation strategy will ensure learning can be passed on to relevant cooperative organizations. Control and monitoring by cooperative members is an expression of responsibility for mutual learning, and provides feedback to other stakeholders.

- **A project has to be sustainable**

  Thorough consideration should always be given to sustainability, especially the future of services and products for the beneficiaries. It also means planning the origin of the resources necessary to continue activities in the medium and long term, once the project has ended.

  When we say that projects must be sustainable, we refer to content, resource use, size, impact on the environment, and finance. The core elements of sustainability are:

SUSTAINABILITY

"The continuation of benefits from a development intervention after major development assistance has been completed.
The probability of continued long-term benefits. The reliance to risk of the net benefits flow over time."

Source: OECD-DAC, 2002, Glossary

  - **social sustainability** - impact on working conditions, compliance with international labour standards, social protection, etc.;
  - **financial sustainability** - financing of follow-up activities, sources of revenue for all future operating and maintenance costs, etc.;
  - **institutional sustainability** - structures that allow the results of the action to continue. Consider local "ownership" of outcomes;
  - **environmental sustainability** - impact on the environment. Avoid negative effects on natural resources and on the broader environment.

- **Finally, each project is unique.**

  This is due mainly to its temporary nature and to the multiplicity of factors involved. In terms of time-frame, every project has a definite beginning and an established end. Over time, problems change, just as people, dynamics, politics and opportunities do. Therefore, the same type of planned action may differ both in its conception and in its implementation, simply because one of the ingredients has changed. For example, new quality standards for the export of agricultural produce may require fundamental changes in processing and marketing practices of cooperatives, and thus require changes in the project strategy.

II. How is a project designed?

There are different approaches to project design. Many development organizations and donor agencies use project cycle management methodology and the logical framework tool the most. In many cases, they are even mandatory.

Project cycle management

Every project has to follow a series of phases, allowing the process to be guided from the moment the problem is identified until it is solved. This series of phases is known as the **project cycle.** Project cycle management (PCM) is a results-based decision-making tool. **Each phase is crucial and should be fully completed before going on to the next.** Programming new projects will draw on the final evaluation in a structured process of feedback and institutional learning.

Design is the starting point of the project cycle. Project design provides the structure of what has to be achieved, how it is to be implemented and how progress will be verified. Therefore the design is the most crucial phase. Its quality will influence the following stages in the project cycle.

Too often, little time is devoted to this phase due to scarcity of resources. Designing a project requires an upfront investment. Nevertheless, the less people are willing to invest in designing their project, the higher

the risk of compromising its quality when the time for implementation comes. In the case of resources, it is best to allocate a considerable amount to this stage, which can facilitate and improve the quality of analysis and identification of real needs. If financial resources are not available, time is still an important factor, one that can, for instance, contribute to cohesion among stakeholders and familiarity with the context and its main problems and challenges.

The project cycle management approach helps to ensure that:

- projects are relevant to the real problems of the target groups and make the most of existing opportunities;
- projects are feasible: objectives can be realistically achieved within the constraints of the external environment and capacities of the organization;
- the benefits generated by the projects are sustainable;

Although this may differ according to the procedures established by each donor agency, the project cycle generally has the five phases described in *Diagram 4.*

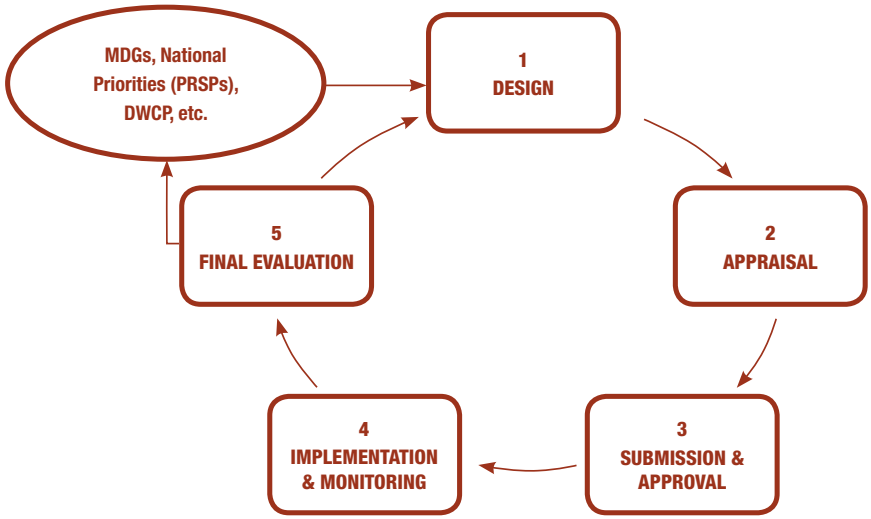


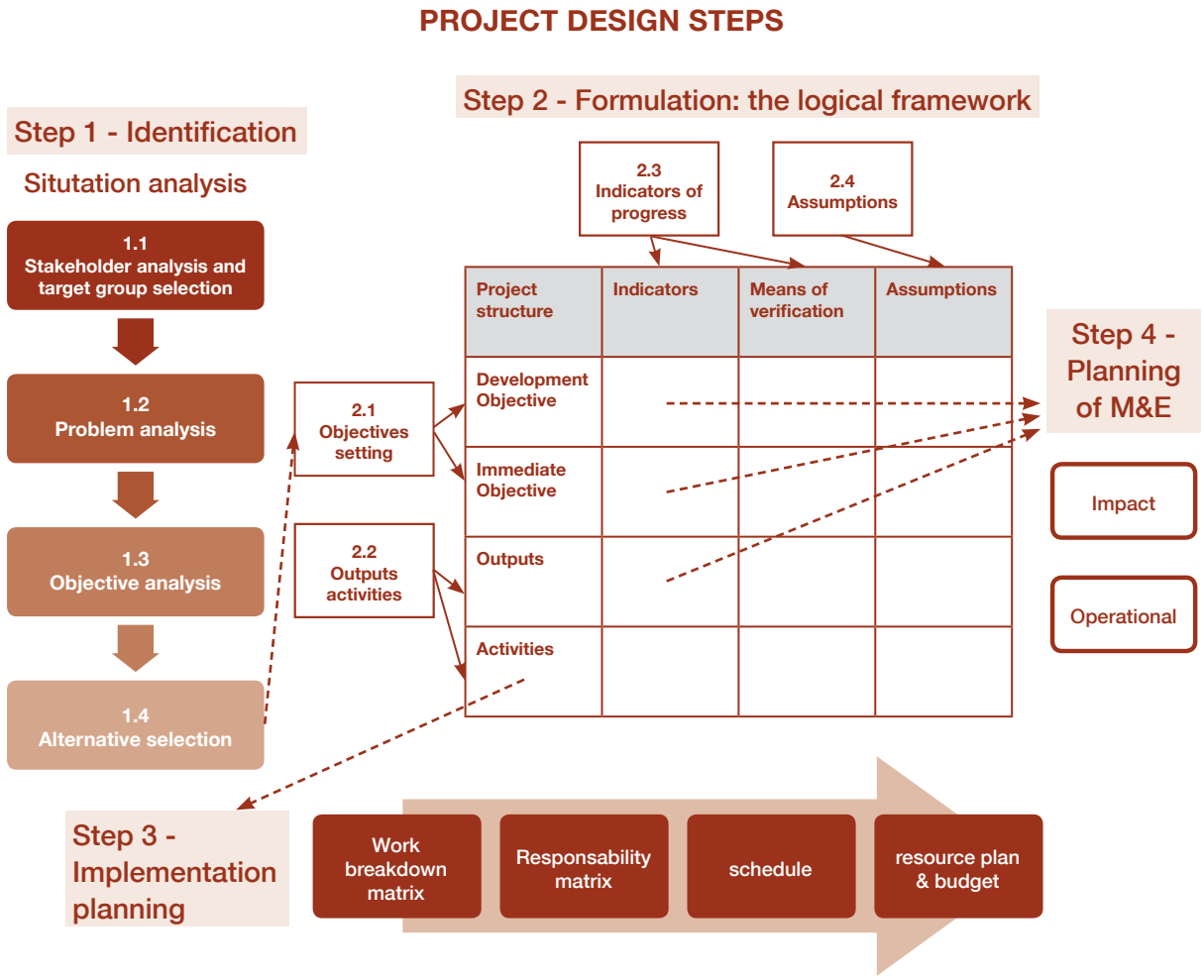
Diagram 4: The Project Cycle

<u>Phase 1</u>- Designing your project: analysing the situation, formulating your strategy and structure, preparing your implementation plan and planning an M&E system.

The design phase is the one presented in this manual. This manual suggests four subsequent steps to follow in order to design a good, simple and feasible project:
Step 1) Project Identification; Step 2) Project Formulation; Step 3) Implementation Planning; **and** ***Step 4) Planning of monitoring and evaluation.***[5] This is illustrated in diagram 5.

[5] If time and resources allow, these steps can be developed further. See the bibliography for more project design approaches.

Diagram 5: Project Design Steps



Step 1 - **Identification** is a participatory consultative process that analyses the situation and the problem.

Step 2 - Once the situation has been analysed and understood, the team in charge of the **formulation of the project** should establish concrete outcomes (objectives and outputs) to achieve, and outline the actions to be taken and the resources needed. It should also establish proper indicators for each objective.

Step 3 - Then, an **implementation plan** will be devised, based on the logical framework, in order to have both a results-based work plan and a budget.

Step 4 - Finally, your **monitoring & evaluation system will be planned** and budgeted for.

Phase 2 - Appraising your project

The **appraisal** is part of project quality control. It is an analytical assessment of the design to ensure that technical and design standards have been met and that the proposal is consistent with the cooperative's strategic or business plan, the priorities of national development frameworks, and the donor criteria before it is presented to a donor to mobilize **extra resources** for specific projects.

Quality control is integrated into the entire project cycle by various means. It should therefore start at the beginning of the design. The project designers must keep quality criteria in mind and must have an appraisal done before submitting the proposal. In the case of a cooperative, the appraisal could be done by a small, representative group of members. In the case of a cooperative's support organization, it could

be done by other staff members and representatives of stakeholders and the target group.

During the implementation phase, the monitoring and evaluation system ensures that the project stays on track.

Projects are periodically evaluated to determine the level of achievement of the project objectives during the project and upon completion. Thus, appraisal is one of the quality control mechanisms within the project cycle.[6]

Phase 3 - Submission of the project proposal to the donor, and approval

Once the project document has been formulated, it is submitted to the donor for appraisal. If approved, a contract will be signed and the project document annexed with the budget and timeline. The objectives should be achieved within the budget and deadlines listed in the document.

Phase 4 - Implementation and monitoring of the project

This phase is the concrete implementation of the activities planned in the approved document. The work plan (or implementation plan) is generally prepared at the formulation stage in order to assess its feasibility and plan the needs in terms of human resources, financial resources and time before submission to the donor. In some cases, the work plan will only be prepared if not done at the formulation phase or adjusted.

Monitoring takes place **throughout the project. It is an internal, participatory process**. It allows the cooperative or cooperative support organization to see whether the outputs are being achieved and the resources efficiently and effectively used and to take corrective action when needed. In some cases, the project's management, cooperative members or stakeholders may decide that the original design was unrealistic, the internal structure or the budget irrelevant or the management incompetent.

Phase 5 - Final evaluation of the project

This is generally conducted at the end of the project to see whether the planned benefits were achieved. Lessons learnt are underlined and could be documented so that they can be replicated or scaled up and integrated into future cooperative development strategies and projects.

Gender Mainstreaming

Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in any area and at all levels. It is a strategy for making the concerns and experiences of women and of men an integral part of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that women and men benefit equally, and inequality is not perpetuated. The ultimate goal of mainstreaming is to achieve gender equality.

Source: United Nations Economic and Social Council (ECOSOC) 1997, cited

Gender is mainstreamed in all five phases.
In each of these phases, **gender equality concerns** need to be taken into account in order to ensure

[6] PARDEV, 2010, E-learning self-guided workbook, Module 5, ILO, Geneva.

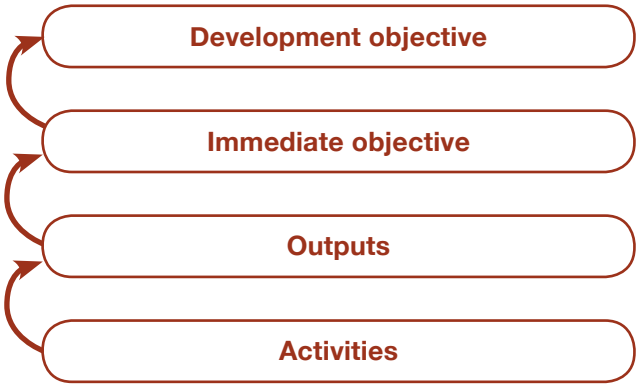
that the project design and implementation respond to the needs and interests of both women and men. For example, in the implementation phase, specific activities (e.g. additional, specific training courses for women, or other measures to allow women to participate in activities, meetings, decisions) may be needed to enable both sexes to benefit from the project. Such activities, like other measures to ensure gender-equitable outcomes, should be integrated into the project's planning and budget. Similarly, in monitoring and evaluation, the effects – and possible longer-term impact - that the project will have on women and men need to be assessed.

The logical framework tool (logframe)

The logical framework is based on a logic of **cause-effect relationships. It states that certain activities will produce certain outputs. These outputs will contribute to producing certain immediate objectives (or outcomes), and these will lead to certain development objectives. This is called the vertical logic of the logical framework**.

The **logical framework** is a **tool** that allows you to analyse the situation that will be used to design the project using a matrix. It gives you the logic and rationale behind how change is brought about.

Diagram 6: The vertical logic of the logical framework



The **logical framework is not an end in itself** but the product of your planning process throughout the project cycle. It ensures that the project you want to develop is results-based.

It is both an **aid to structured thinking** at the design stage and a **tool for ongoing project management and evaluation**. It is therefore highly valuable for ensuring the successful design and running of a project. However, although it is specifically designed to be participatory and as inclusive as possible, it does not automatically ensure engagement and commitment by all the different audiences that might be influenced by, or benefit from, the project. It is the responsibility of the project team to promote cooperative member-driven actions, based on negotiation and consensus.

Box 2: Advantages and limitations of the logical framework

The logical framework is a very useful management tool, and most donors and development players require it; but it is not, in itself, a solution to problems, and it does not replace the management skills that any implementing body needs to have. It presents the results of the situation analysis at the identification stage (stakeholder and problem analysis - see Phase 1 in the next chapter of this manual) in such a way that it is possible to set out the project objective systematically and logically.

Advantages:

It focuses the planning process on objectives, and not on inputs, activities or outputs (which are merely means by which to reach the objectives). It is precisely this feature that makes the logframe coherent with the principles of results-based management.

It presents the different components of the project in a systematic, concise and coherent way, thus clarifying and exposing the logic of how the project is expected to work.

It provides a structure with which to document and assess a project's progress. The logframe makes the identification of concrete and observable evidence of project progress a key part of the design process. Such verifiable evidence, called project indicators, form the basis of project monitoring during implementation.

Limitations:

The logical framework is only one of several tools to use during project identification, formulation, implementation, monitoring and evaluation. It does not replace institutional analysis, risk analysis, time planning, impact analysis, etc.

The risk that organisations will adopt a rigid or unchangeable strategy, making the logical framework act as a straitjacket on creativity and innovation.

III. Presentation of the case study

CASE STUDY – Decent work promotion and income generation through capacity development in the Hanassi Dairy Cooperative

INTRODUCTION

Throughout the manual, the case study of the "Hanassi Dairy Cooperative", located in a poor rural district in a developing country, will illustrate how a project document can be developed step by step. The case is imaginary, but inspired by real life.

THE CONTEXT

The **district of Tabacounda** is located in a developing country which is slowly progressing in human development and has experienced relative economic growth and political stability over the past decade. Despite these positive national trends, the district of Tabacounda still faces a number of development challenges such as unequal distribution of income, limited access to education and health, gender inequality and high youth unemployment. Young people are inclined to migrate to urban areas and generally do not consider agriculture an attractive employment opportunity. The district economy relies mainly on agriculture and suffers from low public and private investment and poor infrastructure; half of the sector's output remains at subsistence level. Farmers frequently form cooperatives that provide mainly supply and marketing services to their members. Processing of primary produce by cooperatives is not well developed in the district.

Hanassi Cooperative is a dairy cooperative. It has 750 members, including women and young people. The members bring their milk to the cooperative's five collection centres twice a day. The collection centres transport the milk in cans to the main cooperative collection site, from which it is sold to the one and only dairy processing plant in the district. The cooperative employs a manager and an accountant. The president, vice-president and management board members are elected and do their work on a voluntary basis. All leadership and management functions are filled by men.

The Hanassi cooperative aims to alleviate poverty among its members through a sustainable increase in income from cow's-milk production. In the next chapters, we will come to understand how the cooperative can develop and implement such a plan and thereby meet members' needs and aspirations.

PROBLEMS FACED BY THE COOPERATIVE

On top of the challenges posed by the broader context, the cooperative faces problems in its interaction with other agents, and suffers from internal problems:

Livestock disease. The high incidence of livestock disease has reduced the income of dairy farmers. The lack of veterinary services and skills, as well as the impossibility of farmers getting insurance against such hardship, means that some have turned to alternative means of livelihood. This has resulted in fewer transactions between the members and the cooperative and thus in falling turnover for the cooperative.

Dormant member base. Members, especially young people, are dropping out or have become inactive, which threatens the democratic governance and economic viability of the cooperative. Will the cooperative be able to survive in the long run without young members?

Insufficient equipment. The cooperative does not have cooled storerooms nor sterilizing facilities

to prevent the milk from getting spoiled. Nor does the cooperative have the equipment to produce butter, cream, yoghurt or cheese. Accordingly, the cooperative misses out on income-generating opportunities.

Inadequate management, entrepreneurial and technical skills. Hanassi is highly dependent on its main buyer and has not ventured into additional business opportunities or diversification of activities. Its management board is not sufficiently versed in business management and entrepreneurship. Members' technical skills in production of milk products are not well developed.

Gender and youth inequality. The declining income for dairy farmers particularly affects women and young members, who have fewer qualifications and generally face more difficulties in accessing business services. Women lack assets due to the inheritance law. Young people also have difficulty obtaining credit. Furthermore, despite their efforts, women and young people are not represented in cooperative leadership and management functions such as the management board and committees.

Limited social investment. The cooperative used to invest in the social well-being of its members and their communities by financing health centres, school fees and the rehabilitation of farm-to-market roads. Due to the lack of surplus generated by the cooperative, members cannot decide to invest in such projects any more.

STAKEHOLDERS INVOLVED

Several players in the district are concerned by the performance of the Hanassi cooperative, among them:

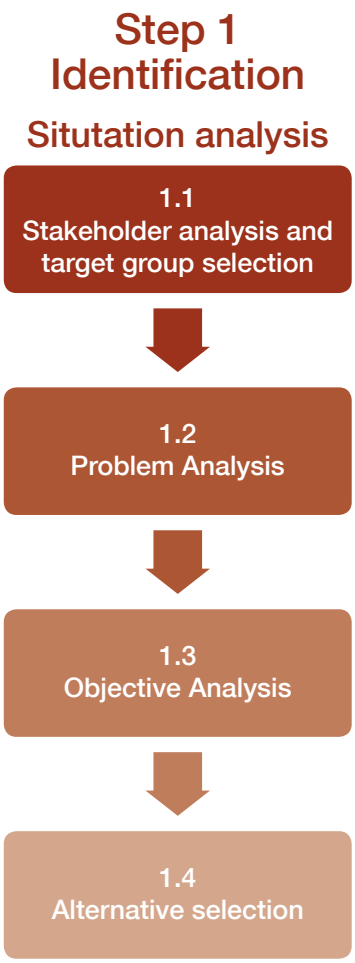
- the members, in particular the women and young cattle farmers and their households as well as the cooperative leaders;
- the employees of the cooperative (the manager and the accountant);
- the dairy processing plant, the local supermarkets, and other enterprises involved in the dairy value chain;
- the communities where economic activity and social well-being is influenced by the cooperative, including youth who are not members of the cooperative and seek for income generating activities;
- the Tabacounda vocational training centre, which is a branch of the Cooperative College in the capital, is responsible for providing training programmes to cooperative members, managers and leaders on cooperative education, technical skills as well as cooperative management and entrepreneurship training;
- the microfinance institutions, including saving and credit cooperatives, which wish to expand and diversify their client/user portfolio;
- the local government, which is responsible for implementing the district regulatory framework and providing basic services and infrastructure to the population;
- the Ministries of Agriculture, Industry and Commerce and of Health, which, through their local departments or through the local government, should guarantee equal access to their services and promote the socio-economic development of the district;
- the national union of dairy cooperatives, which provides business services to its primary society members and is a member of the national confederation of cooperatives;
- the national confederation of cooperatives, which seeks to promote the sustainable development of cooperatives and to voice cooperative interests at the national policy level, as well as internationally through its membership of the International Co-operative Alliance.

In the next chapters, we shall see who the key stakeholders in this project are, and how they can participate in the formulation of a project proposal.

STEP 1 – Project identification

The first step in the design phase (Phase 1 of the PCM cycle) is the **identification** of your project. The methodology used is called **situation analysis**. It consists of a series of tools that allow you to develop your project idea. It is the most important component of the project cycle because it facilitates the anchoring of the project activities to needs and priorities of the target group.

At the same time, it is crucial to conduct it in the wider framework of international and national priorities (such as the MDGs, PRSPs, DWCPs and gender equality national plans), to which the project aims to contribute in the long term.



Analysing the situation **in the framework of international, national and local priorities**:

- helps to identify the nature and magnitude of needs, prioritise them and establish the first criteria for developing the project idea;
- can be used by the project team as an institutional reference and starting point for the specific project's situation analysis;
- helps to map the relationships among all those involved and to create a sense of ownership of the project and its future development;
- improves the whole project proposal in terms of sustainability, and emphasises how the project is part of a wider strategy.

Several tools exist for a situation analysis. To prepare a results-based project, the following will have to be done:

1. *Stakeholder analysis and target group selection*
2. *Problem analysis*
3. *Objective analysis*
4. *Alternative selection.*

A gender analysis should be an integral part of the situation analysis. It will provide baseline information on the status of women in the community and in the cooperative, and critical information on how you can involve them in the project. See Box 2.

Situation Analysis:
"A project is essentially a structured action to solve a certain problem. Therefore, project design must start with an agreed understanding of the existing situation, in terms of what the problem to be addressed is, what are its causes and consequences, whom it is affecting, and which other key stakeholders are involved. Situation analysis focuses on answering these questions."

Source: PARDEV E-Learning training package: Module 2

The order in which to conduct the analysis will vary in line with the situation and the project. Indeed, **stakeholder analysis and problem analysis are closely connected**. People's views on a problem are essential to understanding its nature and possible solutions. In most cases, an organization already has a broad idea of the problem they want to tackle through a specific project. A project can also be a way to implement part of a cooperative development strategy, or be part of a business plan. We therefore suggest that you start your situation analysis once you have set out the core problem. This problem could later be formulated better, during the problem analysis stage. Moreover, certain aspects of the situation analysis (e.g. the stakeholder analysis) need to

be revised once the project has been approved but before getting into the real implementation phase, in case the project's conditions change.

The core problem of the Hanassi cooperative is the **declining income of the cooperative members, particularly its women and young cattle farmers.**

1.1 Conducting a stakeholder analysis and selecting your target group

Starting the project design by analysing the stakeholders and their context helps ensure that the project is adapted to the cooperatives' needs and capacities. But in many cases it is useful to start with the problem in order to identify all the stakeholders concerned.

The focus of a results-based project is the target group. Since the project also aims at achieving sustainability, in addition to the target group, other players have to be considered at this stage, by understanding their potential role in the project and their interests and expectations in terms of benefits. Right at the beginning, it is therefore necessary to identify all the stakeholders likely to be affected (either positively or negatively) by the project and analyse their potential involvement in it. The stakeholders are "not only the people and institutions that carry out the project, but also those structures and cooperative organizations that play a role in the project environment".

1.1.1 Methodology

As the first action in the project design process, people in charge of the project design can get organized into a group. This group is usually chosen when the first project idea emerges and – if implementation is confirmed – it could support the identification of the project team (including members of the design team). The main task of the project team is to coordinate the whole process and the project implementation. This does not mean that they are alone in carrying out the activities, but that they are accountable for them.

In the ideal case, the project should be designed using participatory planning methods which actively involve the cooperative members. For instance, a project design workshop combined

Box 3: Gender dimension of the stakeholder analysis

The stakeholder analysis must systematically identify gender differences, as well as specific interests, problems and potential among the stakeholder groups. Not all women are the same, and inequalities can also exist among different groups of women (rural or urban dwellers, women from different ethnic groups, different age groups, etc). The circumstances, needs and views of different groups of women need to be taken into account in any gender analysis.

The same analysis should be done with youth and people with disabilities, who often experience similar inequalities.

Box 4: Socio-economic and gender analysis: The questions to ask

When identifying and examining impacts of development on male and female members of the cooperative or the community at large, you can ask the following questions. Try to come up with sex-disaggregated data.

- Who does what work?
- Who has access to, and who has control over, resources?
- Who has access to, and who has control over, benefits?
- Who participates in decision making?
- Which needs are being met?

Source: Bishop, 2001, SEAGA project cycle management technical guide , FAO, Rome http://www.fao.org/sd/SEAGA/downloads/En/projecten.pdf

Cooperative stakeholders: individuals, organizations or institutions from the cooperative movement, or linked to it, that may – directly or indirectly, positively or negatively – affect or be affected by a project or programme.

They could include:

- cooperative members;
- cooperative unions, federations or confederations;
- cooperative colleges and other educational institutions with cooperative-related curricula;
- ministries, departments or state agencies at national and local level mandated to support the co-operative movement (e.g. registration and broader policy and legal environment) or involved in areas affecting the co-operative movement (e.g. finance, agriculture, health, housing);
- service providers (e.g. private consultancy companies, micro-finance institutions [MFIs], cooperative and other banks, non-governmental organizations [NGOs], community organizations) providing expertise, financing, lobbying and advocacy, etc.;
- Individuals who bring a particular expertise to the project;
- Donors.

with a series of brainstorming sessions, individual meetings, focus group discussions are very useful. Indeed, one single workshop often facilitates the prevailing of dominant positions, based on power, leadership and influence, whereas small group discussions allow better reflection, better participation by women and more inclusive plans, and generate stronger ownership by the members. In some cases, the capacities of less experienced stakeholders need to be reinforced. In other cases, stakeholders may abuse their power, and cooperative stakeholders might not be allowed to speak freely in front of them. This can also be due to a lack of capacity in participatory and inter-active methods.

Although in practice this variety of participation and ownership rarely happens, due to many different factors, in the case of co-operatives, the team can build on consultation and management processes within the cooperative's governing mechanisms (such as for instance the general assembly, supervisory and working committees) The project team must bear in mind that there is a direct relationship between **participation** and **sustainability**, and should be aware of the risks of exclusive processes.

A series of tools exist for identifying and analysing the different stakeholders. Some of them are presented below[7].

1.1.2 Stakeholder matrix

Different tools can be used to conduct a stakeholder analysis. One such is the stakeholder matrix.

Having identified the core problem, you need to ask **WHO** these problems actually affect most, and what the characteristics and interests of different stakeholders might be in tackling the problems and finding solutions.

The main objectives of the stakeholder matrix are to:
understand the interests of different groups and their capacity to tackle the core problem; and design activities that appropriately address institutional capacity and social issues.

It is highly recommended that a second stakeholder analysis is done once the project design has been finalised (see step 2) in order to agree on the groups who will benefit and contribute to getting the desired results.

The type of information presented can be adapted to the different needs of a situation analysis. Additional columns can be added to deal specifically with the different interests of men and women, such as "motivation to bring change" and "power and influence".

[7] For further tools, please refer to the bibliography.

Key actions in developing a stakeholder matrix at a participatory workshop:

1. Identify the **core problem of the cooperative** being addressed.
2. Identify **all those groups** affected positively or negatively by the problem.
3. Make sure that **gender balance** is respected and that women feel comfortable expressing themselves in large and mixed groups.
4. Investigate their respective **characteristics and capacities.**
5. Identify their different **interests and expectations** in resolving the core problem (positive or negative) by sex. In some cases, you can have conflicts of interest (e.g. in the case of the Hanassi cooperative, the supermarket may not have any interest in seeing the cooperative improve its milk marketing. The supermarket might even take a counter-measure, such as reducing its prices.)Interpret the findings and incorporate relevant information into the project document (**implications for planning**).

In the Hanassi cooperative case study, the key stakeholders directly concerned by the core problem (*the declining income of the cooperative members, particularly its women and young cattle farmers*) are presented in the following matrix, together with their main characteristics, capacities, interests and expectations, and the implications for planning. The list of characteristics is not exhaustive, but it highlights the elements which affect the project design.

Stakeholders	Characteristics / capacities	Interests / expectations	Implications for planning
Cooperative members (750)	• Nearly 60% have an income below the national minimum wage • Almost half the members are women but they are not represented in cooperative governance and management functions • 30% of the members are below the age of 35. • Lack of technical skills (e.g. cattle care, milk storage and processing) • Limited awareness on obligations and rights • Limited access to affordable credit and other financial services • Good quality of milk produced despite the limited conditions	• To improve their livelihoods • To improve the quality and quantity of milk and dairy products • See their requests and priorities taken into consideration by the management board and leaders • Women and youth want to be represented in the management and leadership functions of the cooperative	• Capacity-building needed, especially of women and young members • Need to reduce the incidence of livestock diseases • Need for access to credit and micro-insurance schemes, especially by women and young members.
Youth in the district	• Lack of entrepreneurial skills • High unemployment • Potential migrants to urban areas • Not particularly interested in agriculture	• Positive interest in new opportunities • Want to get more skills • Interest in getting a job	• Capacity-building needed • Level of commitment highly related to employment opportunities
Tabacounda vocational training centre	• Curricula not updated and not in line with local labour market needs • Good understanding of cooperative training needs	• Need more training and management skills • Interest in attracting more students	• Curricula need to be updated • Capacities of teachers need to be reinforced • Improve their research techniques for a better understanding of local labour market

Cooperative leaders (president and elected board members) and staff	• Limited governance skills • Lack of management skills • Lack of entrepreneurial and business skills • Lack of motivation due to low salaries of staff and unpaid jobs for leaders • Male-dominated	• Positive interest in improving the cooperative's performance • Positive interest in retaining young and female members for the future of the cooperative	• Capacity-building needed • Cooperative governance mechanisms and bodies need to be more inclusive
Microfinance institutions (MFIs)	• Female-dominated client base, few young people • Low revolving fund and lack of funds • Little diversification in financial services • Crucial for development of income-generating activities	• Positive interest in having new clients and offering new services • Need support and resources	• Access to credit should be included in the cooperative business plan • Capacity-building of the (MFI) management needed
Local government	• Responsible for the development and maintenance of infrastructure such as feeder roads • Decentralized responsibilities in taxation, land ownership, land registry, education, consumer health and safety • Little interaction with enterprises , including the Hanassi cooperative • Legal framework does not provide for public-private investment projects involving local government, cooperatives and other enterprises • Poor human and financial resources	• Positive interest in improving the quality of life of the district population • Need to mobilise more funds in order to maintain and rehabilitate infrastructure • Want to formulate a district development plan together with key stakeholders	• Need to develop partnership with other development players to support the government in infrastructure rehabilitation • Stronger links among agricultural training and extension, crop production, access to credit, processing, marketing and insurance need to be promoted, institutionalized and regulated • Capacity-building needed for public servants and decision-makers

Ministry of Agriculture – local agricultural extension service	• Monopoly of service provision (veterinary services, etc.) • Incentive for knowledge-transfer to farmers is low • Lack of resources	• Interest in improving agricultural production	• Client responsiveness to be developed • Promote cooperation with other service providers • Move from direct service provision to enabling service provision by the cooperative union and Hanassi
Dairy plant	• Monopoly • Highly dependent on milk supply of the cooperative • Close to supply but far from clients • Obsolete equipment	• Fear collective negotiation power of dairy farmers • Interest in improving milk quality at the cooperative site • Fear losing local market share if cooperative starts production of dairy products (butter, yoghurt, cheese) • Interested in modern equipment and joint ventures	• Need to engage in dialogue on common interests • Need to explore joint ventures
Local supermarkets	• Sell imported milk cheaper • Good but expensive distribution chain • Low-income clients	• They fear competition from the cooperative • Interest in increasing the purchasing power of potential clients	• Need to engage in dialogue on win-win situation, for instance through differentiation of dairy products sold by the supermarket (fresh, local, “bio”, etc.), reliable supply and limited transportation costs
Cooperative dairy union	• Low service provision to Hanassi cooperative • Suffers from political influence	• Interest in developing the cooperative dairy value chain (cooperation among cooperatives) • Interested in setting up cooperative insurance system.	• Capacity-building needed to offer relevant, high quality and affordable services to member cooperatives

National confederation of cooperatives	• Limited influence on national policy making • Little interaction with dairy union	• Interest in improving its members' performance • Interest in taking part in policy dialogue at national level	• Need to improve their services to members • Capacity-building needed for lobbying, advocacy and social dialogue

1.1.3 Selecting the target group (direct recipients and ultimate beneficiaries)

The target group is a group of people who will benefit from the project. Within the stakeholder analysis, the target group analysis is of particular relevance and requires special attention.

In most projects, organizations will not deliver direct services to persons, but run services that build the capacities of organizations so they can provide new or better services to a certain group of people. We therefore need to distinguish between the **direct recipients** of project outputs or services and the **ultimate beneficiaries**.

The **direct recipients** are **those who are directly affected by the core problem, and who will benefit from the project outputs and services**. The **ultimate beneficiaries are those who will benefit from the project in the long term**. During project design, it is particularly important to assess the **capacity of the direct recipients** carefully: are they really committed, do they have the resources (time, staff, etc.) to participate in the project, and do they have the capacity to play their role in the project? Building up the capacity of the target groups is crucial not only to achieving the project's objectives and outputs, but also to ensuring that the benefits are sustained once the project ends.

When considering capacity-building activities, it is important to examine whether women comprise a good part of the recipients, and to see whether they need specific targeted action (such as literacy) to be on a par with men.

Target group:
Those benefiting from the project. You can distinguish between:

- direct recipients (or direct beneficiaries): the group/institutions who will be directly affected by the project at the level of the outputs, e.g. primary cooperative, a cooperative union or federation;

- ultimate beneficiaries: those who benefit from the project's development objective (such as local food security) in the long term, e.g. family of the cooperative members, consumers and clients of products and services provided by the cooperative.

Project partners:
Support and participate in the design and implementation of the project. They can be part of the project's Steering Committee, e.g. Ministries, cooperative apex body, trade unions, employers' organizations, cooperative support agencies.

The case study presentation and the stakeholder matrix above show that the direct recipients (direct beneficiaries) are the Hanassi cooperative members especially women and youth, cooperative management and leaders.
The ultimate beneficiaries are the members' households and communities (which can benefit indirectly from increased production and incomes, identification of new community-based projects, etc.).

1.1.4 Analysing the target group: a SWOT analysis

As a parallel process in the analysis of the situation, a **self-diagnosis of the capacity of the direct recipient** to carry out the proposed project needs to be done through the analysis of the cooperative's or cooperative support organization's strengths and weaknesses, as well as the opportunities and threats in the external environment (a SWOT analysis). The SWOT analysis is a powerful tool for carrying out a diagnosis of the target group. It can be used to complement and enrich the stakeholder analysis.

A SWOT analysis examines both the internal and the external situation of the target group and partners. Therefore it is particularly useful in projects where the target group's capacities might have a big influence on the achievement of the objectives, or when there are external elements in the context of the target group's capacities that can affect the project.

In a nutshell, a SWOT analysis can reveal the capacity of the target group and the implementation partners to perform their roles, as well as their comparative advantages. It can also show hidden obstacles to a potential project.

Strengths and weaknesses

Strengths and weaknesses are internal features of the organization that facilitate or hinder its ability to achieve certain results. Strengths and weaknesses are always relative to a certain goal. Therefore, when used for internal analysis of the applicant and partners, strengths and weaknesses analysis must concentrate on those features that can be positive or negative for participating in the project and providing and sustaining quality services to the target group.

When the SWOT analysis highlights a lack of capacities on the part of the applicant to perform all the activities listed in the project, the organization must find other partners among the stakeholders who can fill the capacity gaps.

Strengths are positive aspects internal to the organization, and refer only to those capacities that make up its specific core competencies.

Weaknesses refer to either the absence of key capacities and resources, or the presence of inappropriate capacities and resources.

Strengths and weaknesses can be modified to some extent by the project. Project designers should include measures to consolidate the key strengths and overcome critical weaknesses of the stakeholders, particularly ones that could compromise the sustainability of the project results. A good project strategy takes as much advantage as possible of stakeholders' strengths. It is also important to take measures to neutralize the impact of weaknesses.

Opportunities and threats

Threats and opportunities are factors in the context outside the cooperative or cooperative support organization that can trigger events which affect the organization's ability to achieve certain results. Unlike strengths and weaknesses, threats and opportunities cannot be manipulated, since they are beyond the control of the organization. What the organization can do is develop strategies to maximize its ability to take advantage of the opportunities and to minimize any impact of the threats.

Threats and opportunities are those factors external to the cooperative (or cooperative support organization) and beyond its control but affecting it positively or negatively at the political, economic, socio-cultural and environmental levels.

Threats and opportunities are identified during project design. In this way, the project strategy can include measures to benefit from the opportunities. In addition, the strategy can include preventive action to lessen the negative effects of threats. Such measures would help to bring the negative effects down to an acceptable level at which the success of the project is not compromised.

Key actions in conducting a SWOT analysis

1) Using the matrix below, ask the target group, such as cooperative members or staff, to brainstorm on the following question: "What are the **internal strengths** within your cooperative (or cooperative support organization) that could affect the problem you want to solve?"

2) Identify your **internal weaknesses** that may prevent you to from solving the core problem.
3) Brainstorm on external **opportunities** beyond your control that could have a positive impact on solving the core problem.

4) Identify **threats** in the external environment that might hinder your efforts to solve the core problem.

5) Develop an **overall strategy**. This information can be used to help develop a strategy that uses the strengths and opportunities to reduce the weaknesses and threats, and to achieve the objectives of the organization. Internal weakness will have to be turned into positive results to be achieved while emphasising the strengths and opportunities.
The following questions can guide the discussion:

- How can the cooperative use and capitalise on each strength?
- How can the cooperative remedy each weakness?
- How can the cooperative exploit and benefit from each opportunity?
- How can the cooperative mitigate each threat?

Source: adapted from *ITC/ILO, 2009, Strategic planning: At the core of sustainable development. DELNET training course on disaster risk management and sustainable local development, ITC/ILO, Turin.*

A SWOT matrix of the Hanassi cooperative

INTERNAL	EXTERNAL
Strengths • *Large member base* • *Important player in the local economy* • *Good quality of milk, despite limited equipment and capacity* • *Youth represented among the members* • *Independent and autonomous leadership*	**Opportunities** • *Cooperative union interested in developing cooperative diary value chain* • *Dairy plant interested in joint ventures* • *District development plan to boost local economy*
Weaknesses • *Lack of business and member management skills* • *Lack of entrepreneurial skills* • *Passive members with little involvement in the decision-making process* • *No representation of women and youth in management functions* • *No milk storage and processing facilities* • *Limited access to credit for youth* • *Limited experience in managing projects of over $US 20,000*	**Threats** • *Dependence on dairy plant as only client* • *Government monopoly of veterinary services* • *Bad road conditions* • *Cooperatives are not on the national development agenda* • *Legal framework does not provide for public-private investment projects involving local government, cooperatives and other enterprises* • *Local supermarket sells imported milk cheaper*

How to interpret this SWOT analysis

The analysis of the SWOT can include, for instance, the following findings:

Since the target group has some weaknesses, a strategy to reinforce its internal capacities through a partnership with a service provider could be part of the project.

Large membership and local political support should be taken advantage of.

A training programme on business plan formulation for the Hanassi management board could be designed together with the MFIs, with the objective of investing in storage facilities and assessing the feasibility of starting milk processing and product diversification.

At the policy level, advocacy activities could seek to initiate legal reform on public-private investment involving local government and cooperatives.

Etc.

This analysis should be taken into consideration at the next step in identification: analysing the problem. Indeed, some conclusions from the SWOT should be added to the problem tree.

1.2 Analysing the problem

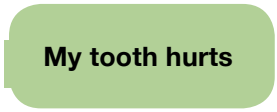
Every project aims to help solve a problem that affects the target group or groups (e.g. the cooperative members and the community).

The problem analysis identifies the negative aspects of an existing situation and establishes the "**cause and effect**" relationships among the problems that exist. The core problem of the target group must be clearly identified. It is essential to understand the root causes of the problem and the effects the problem has on the beneficiaries. This can be represented diagrammatically by constructing a problem tree. The causes are structured by clustering similar ones and by developing a hierarchy of causes.

The problem tree has three different components:

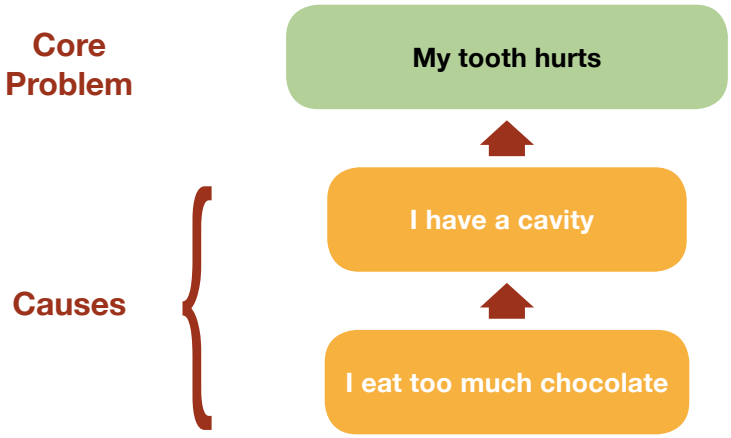
1.2.1 The core problem

The core problem must be the starting point for every project. It provides the rationale and gives it meaning, in that it aims to make a significant contribution to solving a relevant problem for the target group. If the starting point for the project is a detected opportunity, then it is still important to identify the main problem (or challenge) hindering the desired situation from becoming reality. So, regardless of our initial positive or negative considerations when looking at the existing situation, we will always end up identifying the core problem (or challenge) to tackle.



1.2.2 The causes of the core problem

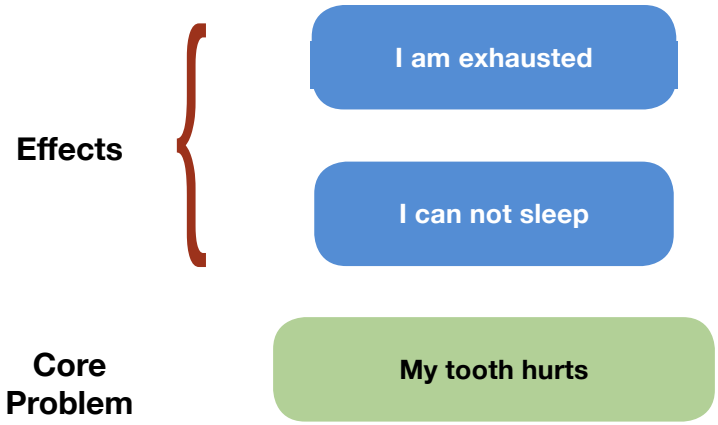
Each problem has its own history, and we have to find out what underlying factors (causes) have led to the current situation. Once identified, the **causes (roots) of the core problem** are located under the core problem:
The core problem is my toothache. Usually we stop at the first level of the cause, just going to the dentist to remove the caries. But it is a short-term solution, since the root of the problem was not tackled. I therefore need to ask all the relevant questions and make the cause-and-effect links, then change my dietary habits and solve the core problem in the long term.



The key purpose of this analysis is therefore to make sure that all the “root causes” are identified and subsequently addressed in the structure of the project, not just the “symptoms” of the problem. The key to a successful project is to tackle the causes of the core problem. Unless we do that, the problem will arise again.

1.2.3 The effects of the core problem

The cause-and-effect chain can also be continued beyond the core problem. In this case, the chain forms the set of events that are the **effects of the core problem.** All problems or needs are embedded in a social, political or environmental context and are often systemically linked to other needs. Therefore, anything affecting one area also interacts with others parts of the system. The core problem generates consequences or other problems. The effects of the core problem are in the form of more general social, environmental, political or economic conditions (usually negative) that result from the problem. They are placed on top of the core problem:



A problem analysis aims to understand the causes of the core problem you want to address with your project.

1.2.4 Building the problem tree

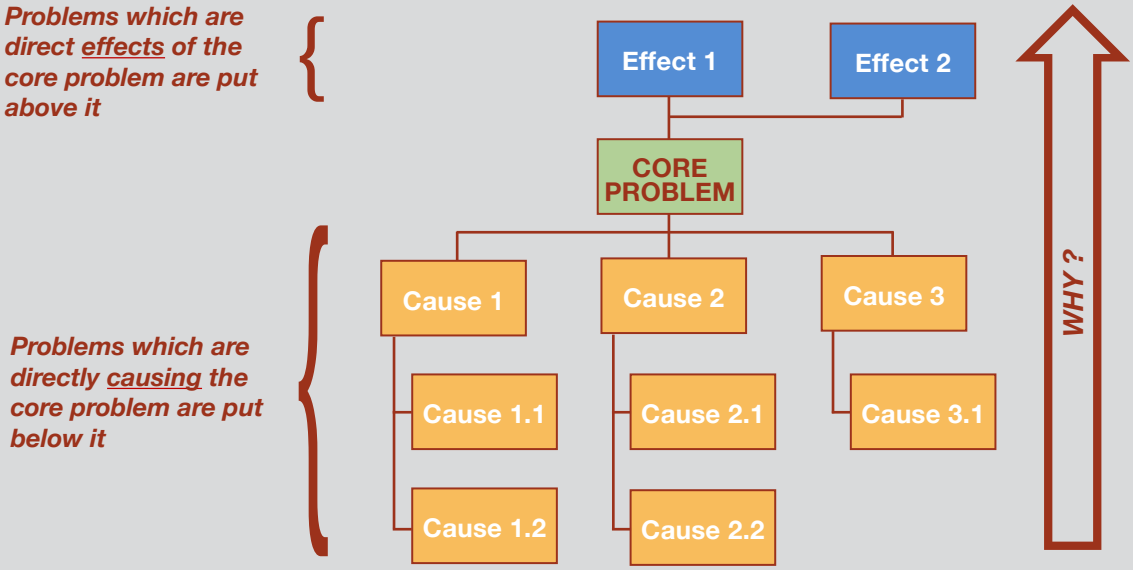
Key actions in building a problem tree:

1) Organise a participatory workshop, discussions and meetings with the target group and all the relevant stakeholders, paying particular attention to the ability of different groups (e.g. women or youth) to participate and voice their issues.

2) Starting with the core problem the project team identified at the beginning of the situation analysis, openly **brainstorm on problems and their causes** which stakeholders consider to be a priority. Each participant could write a problem on a card. All the problems will then be posted on a wall or flipchart.

3) Use the problems identified through the brainstorming exercise to reformulate the core problem and then begin to establish a **hierarchy of causes and effects,** as illustrated in Diagram 7:

Diagram 7: Hierarchy of causes and effects



4) All other identified problems are sorted in the same way. The guiding question is "**WHY?**" More causes can be added

5) Connect the problems with cause-effect arrows

6) Look at the problem tree and verify its cause-effect links

Source: European Commission, 2004, Aid Delivery Methods, Volume 1 : Project cycle management guidelines, EC, Brussels

The exercise of building a problem tree is important as it is an opportunity to discuss openly the problems to address with all the stakeholders, whilst it is also a learning process.

During the process, remember that not everyone will necessarily feel able to express openly the problems they have identified. This may be because they feel it may affect their relationships with others or because they are not used to speaking out in large groups. For example, gender issues might be seen as difficult to discuss in a large group even if they are affecting the business success of the cooperative. In some cases, it may therefore be useful to set up smaller groups to brainstorm problems. The membership of these groups might be limited to one stakeholder group, e.g. women cooperative members or cooperative management board members. It is therefore important to determine whether the different groups of people perceive the problem in the same way.

Interviews and anonymous questionnaires may also be used to collect additional points of view. Although these techniques do not promote open dialogue and active participation, they provide additional data that might otherwise be inaccessible.

The product of the problem analysis workshop will be a simplified version of the reality without trying to explain all the complexity of the problems. It is a summary of the existing negative situation. It is the most important stage of the project design because it will be the basis of the subsequent analysis and decision-making on the project priorities.

Problems need to be stated as a subject, a verb and an object of the verb. They should not be stated as a lack of something because this presupposes the solution.

When formulating the problems, it is important to avoid:

- vague concepts such as “lack of infrastructure”: we should specify the type of infrastructure (feeder road, electricity network, school buildings) and the geographical place;
- interpretation of problems: “too much bureaucracy in local government”: we should specify whether it is a problem of delays, of adequate support, of computerised system, etc.;
- absence of a solution, such as “lack of money so young people cannot get vocational training”: we should analyse why they cannot get access to training: “fees are not affordable”.

Box 5: Main points to consider for gender mainstreaming

- Do gender issues underpin the core problem?
- Are gender issues an important component of the problems identified?
- Participation (“giving a voice”), awareness and access to consultation meetings can often be problematic for women. Is this taken into account during the participatory situation analysis?

As an example of a problem tree, we will use the case study.

In step one (identification), we found that the core problem of the Hanassi cooperative was the

declining income of the cooperative members, particularly its women and young cattle farmers.

Therefore this problem is at the centre of the problem tree.

A workshop was organised with representatives of all the stakeholder groups and representatives of the direct recipients (the cooperative members, management board and leaders , with special attention to women and young people) in order to analyse the problems.

After reading the case study and analysing the stakeholder and SWOT matrices, some of the problems selected as **causes** (roots) of the core problem could be:

From the case study presentation:

- high incidence of livestock diseases
- few transactions with members
- high dependence on dairy plant
- little expertise in business management, entrepreneurship, competitiveness and marketing strategies at the level of cooperative management
- fall in active members
- inadequate storage of milk
- lack of capacity to process milk and diversify products
- weak technical skills of members
- poor road conditions

From the stakeholder analysis:

- supermarket sells cheaper imported milk
- MFIs have a small revolving fund
- local government lacks resources for infrastructure rehabilitation
- no district development plan devised yet
- lack of technical and management skills among youth members
- lack of information and awareness of rights and obligations of cooperative members

From the SWOT analysis:

- lack of modern management information system
- lack of access to micro-credit for young people
- limited experience of designing and managing projects
- legal framework does not provide public-private investment projects involving local government and cooperatives

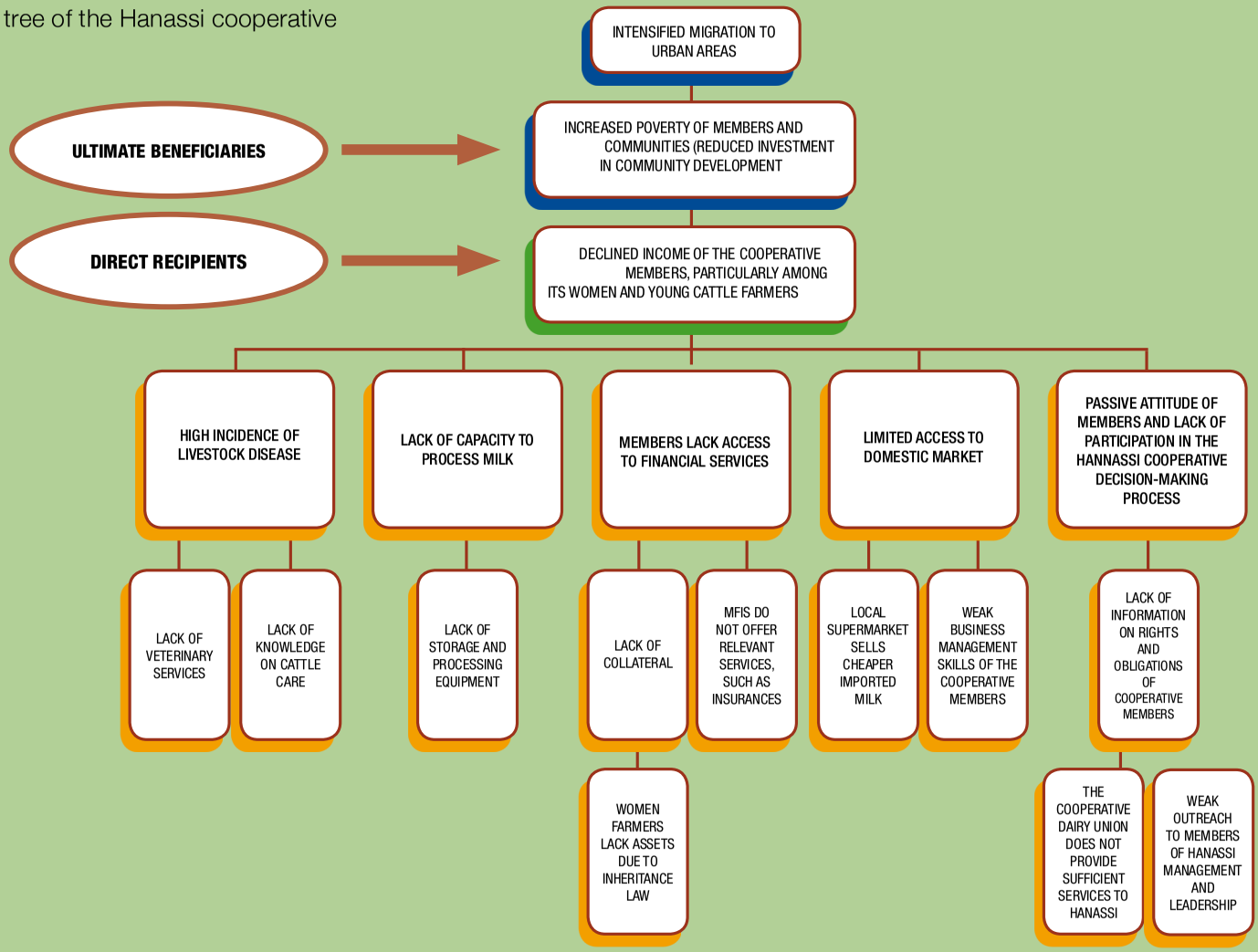
Some of the **consequences/effects** of the core problem (on top of it) could be:

- an increase in poverty in the district due to lack of income-generation and self-employment
- intensified migration to urban areas.

While doing the problem tree, the team used the above list of problems identified and tried to find cause-and-effect relationships among them, which means that some are the root causes of others. The stakeholders added the cause-and-effect links among these different causes in order to build the problem tree. For some problems, causes were missing. For example “limited access to financial services”: the group should start asking **WHY** they have this problem. It can be because of the “lack of collateral”, “little knowledge of how to develop a business plan”, “MFIs do not offer relevant services, such as insurance”, etc.

Please note that this problem tree is just a **simplified example** and more root causes could be identified when designing a "real" project.

Diagram 8: Problem tree of the Hanassi cooperative



1.3 Analysing the objectives

The analysis of objectives is a participatory approach used to describe the situation in the future once problems have been resolved, and to illustrate the **means-end** relationships in the diagram. The negative situations on the **problem tree** are converted into solutions, expressed as positive achievements on the **objective tree**. The core objective or the desired situation will be at the heart of the objective tree, the effect on top of it and the causes, which should be results, underneath.

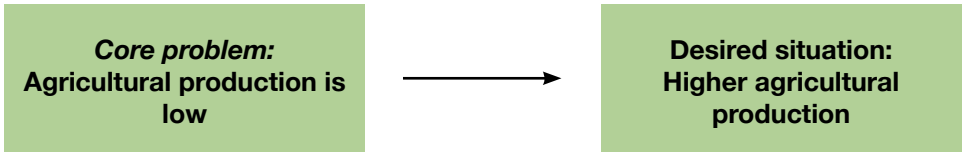
Like the problem tree exercise, the objective tree should be developed through a consultative workshop, ideally with the same stakeholders. The stakeholder and internal analyses should also be taken into account while assessing how realistic the achievement of some objectives is and also identifying other means necessary to achieve the desired end.

Like the problem tree, the objective tree has three main components:

1.3.1 The desired situation

This corresponds to the core problem on the problem tree transformed into a positive statement.

Example:



The desired situation represents the real change that the project will achieve. In accordance with results-based management, the desired situation describes a result and refers to a change in the target group and the impact (above the desired situation) on the ultimate beneficiaries.

1.3.2 The means to achieve the desired situation

The objective tree includes all the necessary and sufficient situations (also called means or objectives) that are necessary to obtain the desired situation. On the objective tree, objectives are graphically connected to each other based on means-end logic. The result is a visual model (see Diagram 9) that shows how the desired situation can be brought about.

1.3.3 The desired situation impacts

In the problem tree, the main problem was also the cause of other problems: these are called “problem impacts”. Correspondingly, the desired situation is the means to achieve positive situations that contribute to tackling the problem’s effects. These positive situations are called “desired situation impacts”. An impact can be “poverty reduced in the region”, “young people have decent employment in district X”, etc. It is important to note that your project (the desired situation it aims to achieve) will only **contribute** to the long-term impacts. Other projects will need to be implemented, by other partners, to actually achieve long-term impacts.

1.3.4 Building the objective tree

Key actions in building an objective tree:

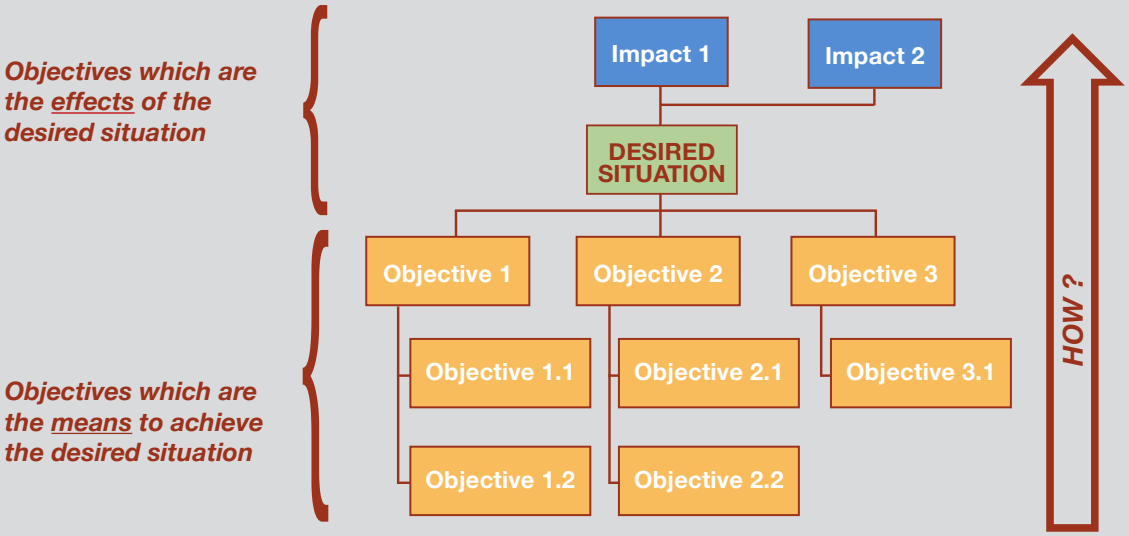
1) **Reformulate all negative situations from the problems analysis into positive situations** that are desirable and realistically achievable.

2) Check the means-ends relationships to ensure the validity and completeness of the hierarchy (cause-effect relationships are turned into means-ends links).

3) Check assumptions of equity. Will everyone involved really benefit or will some groups have more access to benefits than others?

4) The guiding question is **"HOW"**?

Diagram 9: Objective tree



5) If necessary: revise statements, add new objectives and delete the ones which do not seem suitable or necessary.

Some problems cannot be transformed into realistic objectives. "Strong typhoons during the rainy season" cannot become "reduction in typhoons". This problem is beyond the control of the project. But if it has a strong influence on the achievement of the desired situation (destroying the crops in an agricultural project, for example), then the problem will need to be kept. At a later stage, once the project is formulated, this problem could be added to the list of assumptions. The project managers will probably have to think of measures to take to cope with the typhoons, like building protection walls or protecting dikes.

We will use the case study as an example of an objective tree:

In the case study, the core problem was:

"the **declining income of the cooperative members, particularly its women and young cattle farmers".**

The core objective will become:

"Members' income, particularly that of women and young farmers, increased through the improvement of the cooperative's governance and business performance"

When drafting the objectives, it is important to follow the steps listed above. The causes and the effects of the problems will be redrafted into objectives below and above the "desired situation" using the same mean-and-ends logic.

Therefore the objective tree of the case study could be as follows:

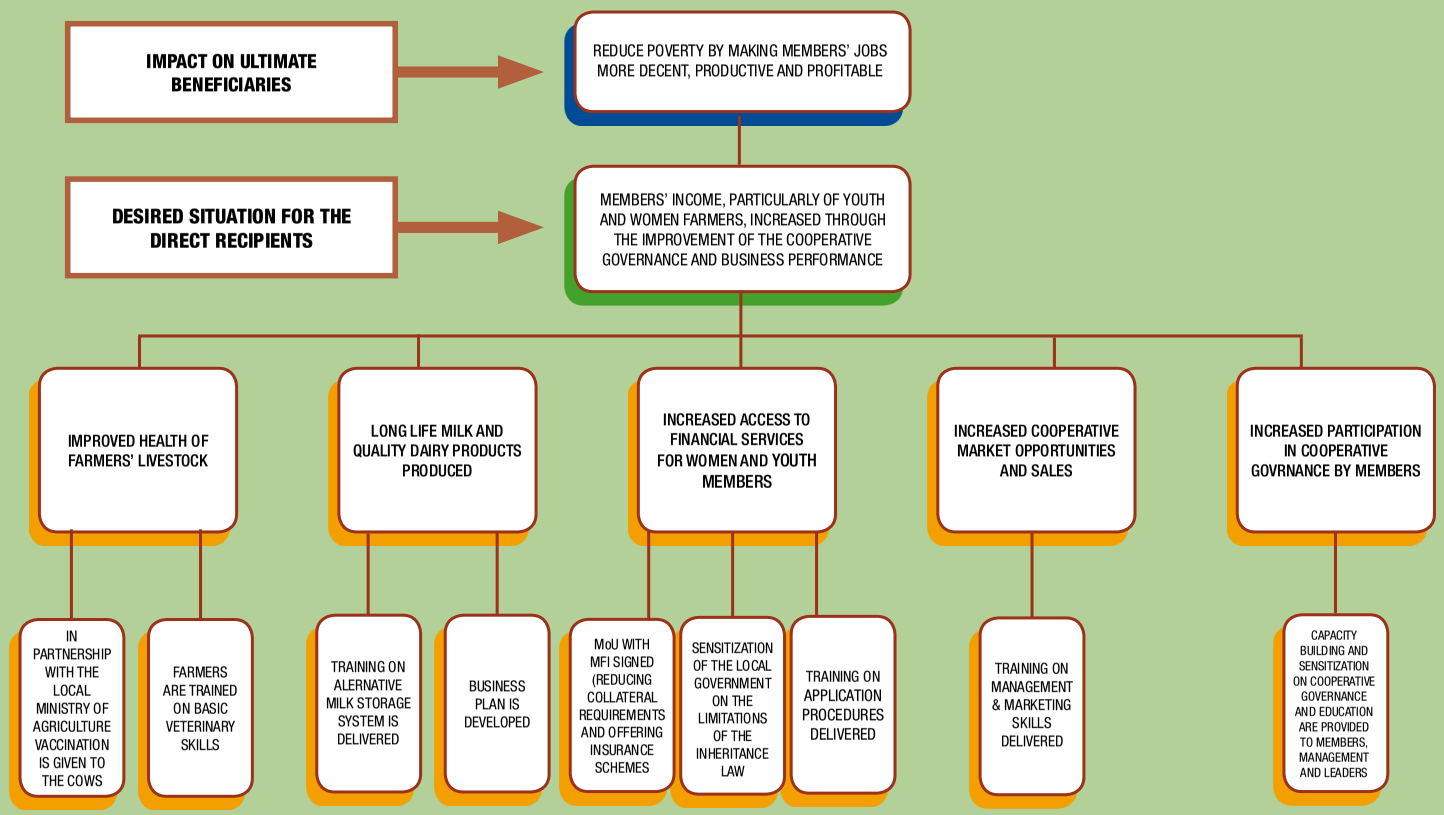


Diagram 10: Objective tree of the Hanassi cooperative

1.4 Selecting your strategy

Once your objective tree has been finalised, you have to select the **project strategy,** which is the final step in the situation analysis. It implies the selection of the strategy that will be used to achieve the desired objectives. It involves deciding what objectives will be included in the project and what objectives will remain outside it. You need to set clear criteria for making the choice.

The criteria have to be chosen and agreed upon by all the stakeholders. Examples of possible criteria are:

Benefits to the target group	• priority / urgency • equity (by sex, age, socio-economic situation) • level of participation
Feasibility (*could use the SWOT analysis already done*)	• financial and economically • technical • human resources • duration of implementation
Link with stakeholders policy	• consistent with cooperative business/strategic plan • fit with mandate • consistent with national strategies (such as PRSP, MDG) • compatibility with potential donor priorities
Sustainability	• of the benefits • ability to repair and maintain assets post-activity • environmental impact

In most cases, a single project cannot address all the objectives necessary to solve the problem fully. The project team must therefore use the objective analysis to choose the strategy that can make the most significant contribution to solving the problem.

In this regard, recalling the core principles stated in the previous chapter, the uniqueness of each project has also to be seen in the light of the multiplicity of actions and strategies that characterise each territory, community and potentially each cooperative. The success or failure of each and every project will also depend on the synergy that its management team creates with other, complementary initiatives. For example, the objective of an agricultural cooperative is to improve its members' production by ensuring compliance with quality standards at all levels of the production process. The cooperative will need to monitor a variety of factors, for instance physical assets (soil, water, seeds, fertilizer, pesticides, etc.), processing techniques, work place practice (hygiene), storage, packaging, time management and transport conditions. One single project is unlikely to cover all these aspects and, in this case, cooperative support organizations should be able to detect and promote parallel initiatives that can converge on a common objective. This type of synergy should already be visible at the early stage of the situation analysis.

In the case study, the target group agrees to delete the “change of inheritance law” from the objective tree. It is a very important issue but does not fall within the cooperative’s mandate. It was agreed with the cooperative union that this issue should be brought to the attention of the confederation of cooperatives and of the government.

The problems were reformulated into solutions in the objective tree above. Some problems were too vaguely formulated, e.g.: “Lack of veterinary services”. Therefore, during the formulation of the objective, discussions were held with the other stakeholders in order better to decide the best way to resolve this important problem. It was the agreed that “In partnership with the local Ministry of Agriculture, the cows will be vaccinated”. The positive statement gives more information than the problem statement.

Some problems, such as “local supermarket sells cheaper imported milk”, were removed when building the objective tree because there were **beyond the direct control** of the project management. But they should be added to the assumptions when formulating the project, and the project team should envisage developing specific activities to reduce those risks.

Finally, some objectives in the tree (e.g. capacity-building and sensitization activities on cooperative governance and education) group together several potential activities that will need to be better defined/spilt in the next steps (when preparing the logframe).

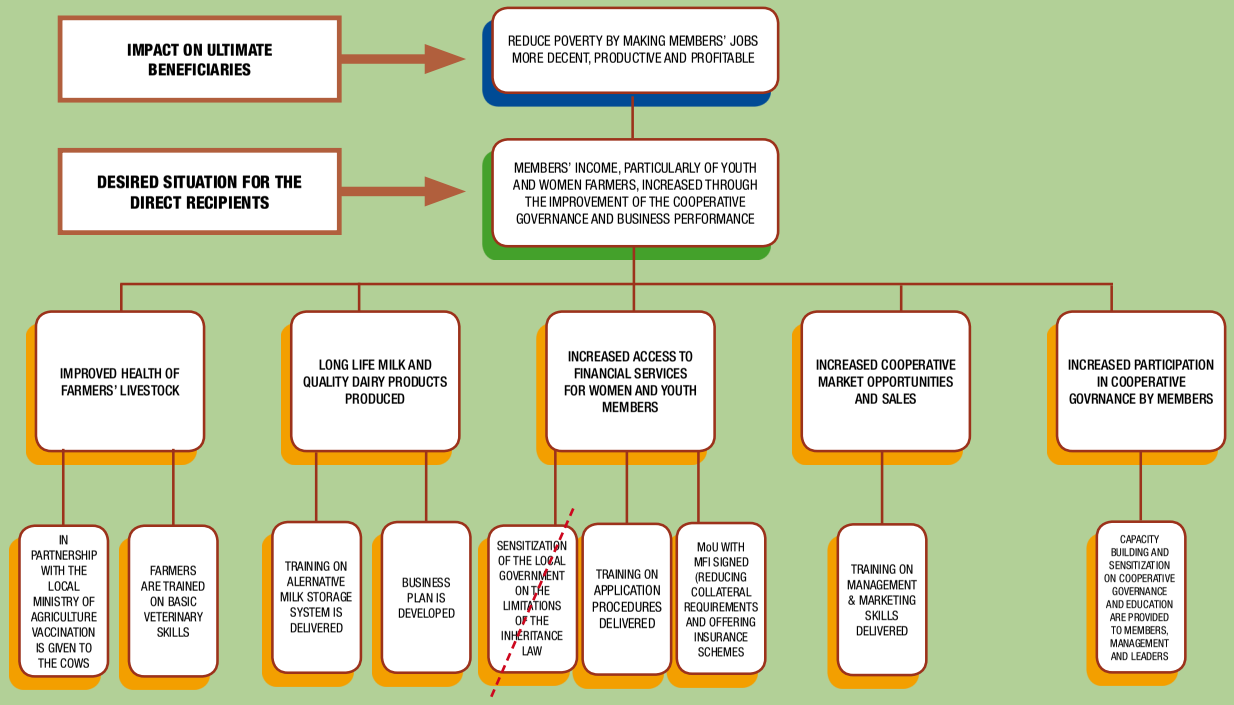
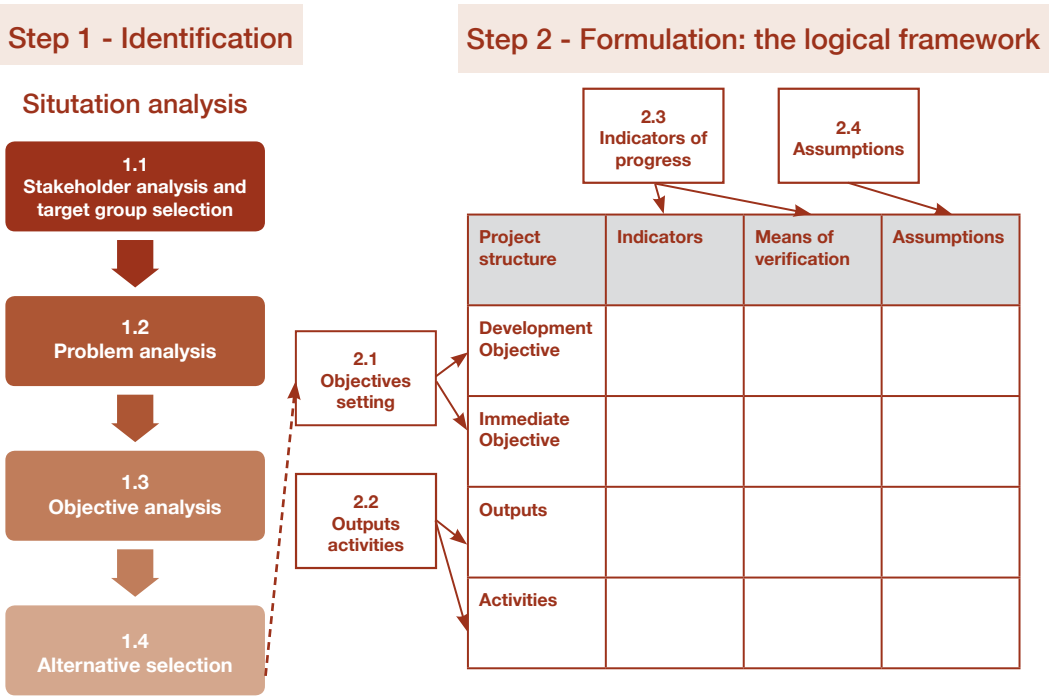


Diagram 11: Objective tree - alternative selection

STEP 2- Project formulation



The formulation step is based on the understanding gained during the situation analysis, which both justifies and drives the project identification. At the same time, it sets out the benefits the intended action will bring to the target group.

As described in the beginning of this manual (Ch. I: Getting started) the logical framework has proved to be the most useful and effective tool with which to formulate the project. The outputs of your stakeholder, problem, objective and alternative analyses are the core ingredients of your project frame, called the logical framework matrix (or logframe). Once completed, it will show, in a clear and organised manner, what must be achieved, how it will be achieved, with what resources, and in which timeframe (implementation planning).

Recalling the example presented in Chapter 1 (i.e. My tooth hurts / I cannot sleep / I am exhausted), the logical framework matrix will organise a step-by-step solution to the main problem, by answering a series of operational questions that target its root causes. If the solution to the fact that my tooth hurts (main problem) is that I go to the dentist, in order to make things happen as I wish, I will have to find a practical response to the following questions: who is the nearest and best affordable dentist? When can I have an appointment? How much does the treatment cost? Do I have the money for it and, if not, how do I get it? Etc. This series of operations, if successfully carried out, will bring me to the desired situation (my tooth will not hurt, therefore I will be able to sleep and I will not be exhausted).

Applied to more complex scenarios, the purpose of a project formulation is to come up with **the best possible operational way** to deal with the core problem affecting the target group. Like in the identification step, the key stakeholders and target groups usually take a leading role in formulating the project. This ensures that the project deals with the real context and promotes ownership and commitment. Again, make sure that all stakeholder groups have the opportunity to voice their views, especially those who are often less vocal, such as women, young people and people living with a disability.

The project design phase should include a clear statement of which gender issues will be addressed. This can be done through specific targeted activities and/or through a women-friendly approach to delivery. This

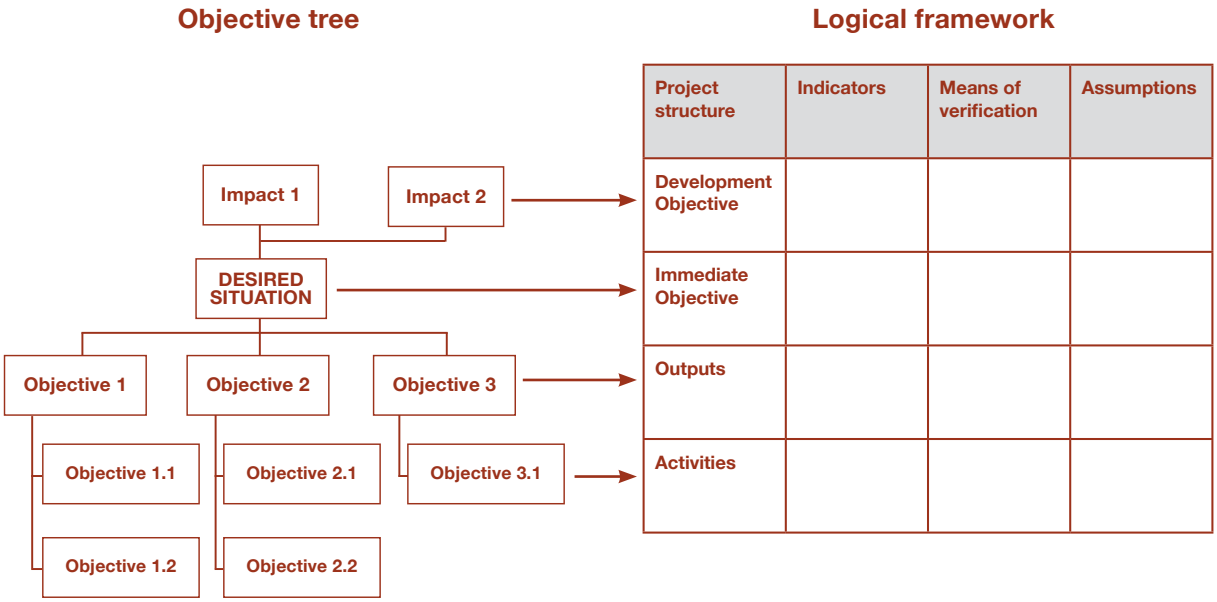
will then be included in the project objectives, strategy and structure.

2.1 Building your logical framework

The logical framework is a way of presenting the substance of the project in a comprehensive and understandable form. **It is the structure of your project proposal.**

It is used to organize all the main elements of your objective tree, including the objectives, outputs, activities, indicators and assumptions, as illustrated in the diagram below:

Diagram 12: From objective tree to logical framework



The logical framework matrix (also called *logframe*) is considered a planning tool, because:

- it shows the output chain (series of expected results) for the project, with a cause-effect relationship among the different project components;
- as described in the introductory chapter (Getting Started, i.i.) it describes the results-based management approach we need to follow if we are to achieve the objectives;
- it shows how assumptions influence each level of the output chain;
- it also contains the indicators that we will use to measure progress and the means of verifying results.

Typical structure of a logframe and definitions:

The logframe usually consists of a matrix with four columns and four rows which summarise the project structure:

- ***The first column*** is the project's hierarchy of **objectives**. It identifies what the project wants to achieve and how, and clarifies the causal relationships. Project objectives are achieved by providing the direct recipients with certain outputs. Outputs are produced by a set of activities. In RBM project design, the outputs and activities are the means by which to obtain the objectives. Therefore they are defined after the project objectives have been set out.
- ***The second and third column*** list **indicators** and the **means of verification** of impact, and the knowledge and sources required to assess the reliability of data. In other words, the indica-

tors provide evidence of the project's progress toward the intended objectives. Hence they are the core components of the project monitoring and evaluation system, which enables the implementing agency (e.g. a cooperative support organization) to make the necessary adjustments throughout the implementation, as well as to demonstrate the project's progress (or lack of it) to the stakeholders, donors and other partners. Once the indicators have been decided, the means of verification provide precise reference to the sources of information to be consulted in order to verify the project's performance and results. As we will see later on, indicators can be quantitative (number of members, percentage of women participating in board meetings, etc.) or qualitative (customer satisfaction, quality of services, etc.) but all of them have to be assessable.[8]

- ***The fourth column*** specifies important **assumptions** and uncertainties beyond the control of the project. The context in which the project operates plays an essential role in its success. Factors beyond the project's control may affect the achievement of the outputs (e.g. a major unexpected flood or drought can provoke substantial crop failures, regardless of the successful implementation of a rural development project). Such events or conditions are identified in the assumption analysis and incorporated into the project design. If assumptions do not prove valid (the rainy season is regular, as expected), the project is unable to proceed. Sometimes this column contains "risks", namely factors that may compromise the success of the project, and therefore need to be taken into account.

[8] Indicators of achievement can be broken down into targets and milestones. This will be explained further down.

Structure of the project	Indicators	Means of verification	Key assumptions
Development objective *What is intended to be the longer-term **impact** of the project on the ultimate beneficiaries?*	*What are the quantitative or qualitative indicators by which the achievement of the development objective can be measured? Please note that indicators for the development objective are often beyond the control of the project.*	*What information sources enable the measurement of the indicators? Please note that means of verification for the development objective are not always accessible within the time-frame and range of action of the project.*	*What external factors are necessary to sustain the overall goals in the long run?*
Immediate objective *What are the intended benefits (the desired situation) and outcomes of the project for the target group?*	*What are the quantitative or qualitative indicators by which the achievement of the immediate objectives can be measured?*	*What information sources enable the measurement of the indicators? Do they exist (e.g. annual report of the cooperative registrar) or do they need to be developed (e.g. project progress report)?*	*What external factors are necessary if the immediate objectives are to be achieved?*
Outputs *What are the tangible products or services delivered by the project to achieve the immediate objectives?*	*What are the quantitative or qualitative indicators by which the achievement of outputs can be measured?*	*As above*	*What external factors are necessary if the outputs are to be achieved?*
Activities *What activities must be carried out to generate each intended output?*	*Inputs (raw materials, equipment, human resources, etc.)*	*Costs (of each input)*	

Terminology

There is a variety of terminology used by each donors and international organizations to name the different "results" of a project logframe. This manual uses the standard ILO terminology for technical cooperation, but you could find different wording if applying to other sources of funds. The following matrix gives synonymous terms to the one used throughout the manual.

OECD/ILO/Guidelines	European Commission	World Bank	Other terms
Development objective/impact	Overall objective	Country Assistance Strategy (CAS) Goal	Goal Long-term objective Overall goal
Immediate objective/ outcome	Specific objective or purpose	Development objectives	Purpose Project objective
Outputs	Results	Outputs	Products Expected results
Inputs	Inputs	Components	Means

The vertical logic:

This matrix is called a "logical framework matrix" because it follows both vertical and horizontal logic. The first column represents the vertical logic of the logframe. Like the problem and objective trees presented in Chapter 1, it clarifies vertically the causal relationships between the different levels of "objectives", as illustrated in the following diagram.

Diagram 13: The vertical logic

Structure of the project	Indicators	Means of verification	Key assumptions
Development objective			
Immediate objective			
Outputs			
Activities	*Inputs and resources*		

THE CAUSAL VERTICAL LOGIC:

If you want to contribute to the development objective, THEN you must achieve the immediate objective

If you want to achieve the immediate objective, THEN you must deliver the listed outputs

If you want to deliver the outputs, THEN the listed activities must be implemented

The horizontal logic:

This states how the activity objectives specified in the first column of the logical framework will be measured (column 2, indicators), how the means will be verified (column 3, means of verification) and the assumptions that are beyond the control of the project manager (column 4).

Diagram 14: the horizontal logic

Structure of the project	Indicators	Means of verification	Key assumptions
Development objective			
Immediate objective			
Outputs			
Activities	*Inputs and resources*		

THE CAUSAL HORIZONTAL LOGIC:

What are the quantitative or qualitative indicators by which the achievement of this development objective can be measured?

What are the quantitative or qualitative indicators by which the achievement of the immediate objectives can be measured?

What are the quantitative or qualitative indicators by which the achievement of outputs can be measured?

What are the inputs and resources needed to implement the activities?

2.2 Setting the objectives, outputs and activities: first column

The first column of your logical framework describes the vertical cause and effect logic. It sets out the basic strategy of the project and reflects the objective tree. As we showed in Chapter 1, your objective tree can be divided into four levels of "objectives":

- The activities
- By carrying out these activities, the outputs are achieved
- By achieving the outputs collectively, the immediate objective is achieved
- The immediate objective contributes to the development objective.

The development objective

This explains what the project does for **the final beneficiaries** in the **longer term** (see the difference between direct recipients and final beneficiaries in Chapter 1). Depending on the action domain of the target group (from a ministry to a local self-help group), it also shows how the project contributes to international development priorities, such as the Millennium Development Goals (MDGs) and national development policies (PRSPs, national gender equality plans, DWCPs, etc.). The development objective can also describe how the project contributes to local development strategies or to the strategic plan or business plan of a cooperative. The development objective will not be achieved by your project alone. The project is just one piece in a complex puzzle. The development objective corresponds to the overall picture, to which various development projects, strategic plans and business plans all contribute.

In short, a development objective has to:

- be consistent with the strategic development policy (at the level of the business plan or other

overarching development strategies);
- avoid being a restatement with other words of the immediate objectives;
- be expressed as a desired end and not as a means;
- be a long-term objective to which the project will contribute;
- be a long-term objective for the ultimate beneficiaries;
- be stated clearly in verifiable terms.

Box 6: Linking cooperative projects to Decent Work Country Programmes (DWCPs)

One of the requirements of the ILO COOP^{AFRICA} Challenge Fund is that applicants need to indicate how their project will contribute to the DWCP in their country. Here are two examples of how grantees have designed their projects in line with decent work priorities.

A fish farming cooperative has obtained a grant to establish a fish feed manufacturing plant and a fish breeding centre. The cooperative will contribute to the decent work priority of mitigating the socio-economic impact of HIV/AIDS at the workplace. How? During farmers' meetings, health workers will be invited to give training on the dangers of HIV/AIDS, preventive measures and caring for the sick.

A private midwives association has obtained a grant to promote a saving and credit cooperative (SACCO) among its 1000 mainly young members. The association will contribute to the decent work priority of reducing poverty through increased opportunities for youth employment and productivity. How? The SACCO will enable the midwifes to grow and expand their business and improve the quality of their services. As such, the midwives will benefit from higher income. Moreover, young pregnant women and mothers will benefit from an increased access to better maternity and infant child care support. In this way, they will be in a better physical condition to work.

Source: http://www.ilo.org/public/english/employment/ent/coop/africa/areas/challenge/uganda.htm

The immediate objective

Your project is responsible for its achievement. It should address the core problem and be set out in terms of sustainable benefits for the target group. We suggest that you only have one immediate objective per project, in order to avoid excessive complexity. Multiple immediate objectives are used by large organizations with a wide domain of action, such as a cooperative confederation, a ministry or an international development agency.

An immediate objective describes the desired project outcome for the target group (direct recipients). In general, these are desirable **changes** for the target group:
- in **behaviour,** such as: "cooperative members follow good safety and health practice on HIV/AIDS prevention and mitigation";
- in a **system or service**: "cooperatives make increased use of renewable energy", "the cooperative union has set up three primary schools";
- in **institutional performance**: "the number of students in cooperative colleges has increased", "the productivity in agricultural cooperatives has improved ".

In short, an immediate objective has to:
- contribute to achieving the development objective
- avoid being a restatement of the outputs with other words
- be expressed as a future completed action, an end state, and not a process.
- be a medium-term objective to be achieved by the end of the project for the target group
- be stated clearly in verifiable terms.

The outputs

These are the products of the activities, the combination of which leads to the achievement of the immediate objective. **The implementing organization is accountable for delivering these services and products**. Some examples of outputs are:
"The policy framework for cooperative development is improved"
"The management capacity of young entrepreneurs in district X is reinforced"
"The irrigation system is upgraded and expanded to the neighbouring district".

In short, an output has to be:

- delivered by the project
- necessary to achieve the immediate objective
- demand-driven and not supply-led
- stated clearly in verifiable terms
- feasible with the available budget.

The activities

These are the actions and means that will produce the outputs. In most cases, they are related to: training, equipment, institutional support, planning, studies, etc.

Activities cannot always be taken directly from the objective tree. In many cases, they will have to be defined during the formulation step, as it is quite rare that a problem and objective tree exercise allows such detail of analysis. In terms of ownership of the project, it is therefore advisable to submit the log-frame again to the key stakeholders and partners. This will make sure that the described activities are based on consensus.

In short, an activity has to:

- define the action strategy of the project;
- be realistic in terms of inputs, resource needs and managerial capacity;
- be stated clearly in verifiable terms.

Key actions in identifying the different objectives:

1) Identify the project **immediate objective(s),** which is generally the action you have to take in order to address the core problem on your problem tree, therefore the desired situation of your objective tree.

2) Identify the **development objective**. It is one of the objectives at the top of the objective tree which describes the long-term benefits, the long-term **impact** on society to which the project will contribute.

3) Identify the **outputs**: select from the objective tree the objectives that – by the "means to end" logic – will achieve the immediate objective. You can add other outputs that contribute to achieving the immediate objectives.

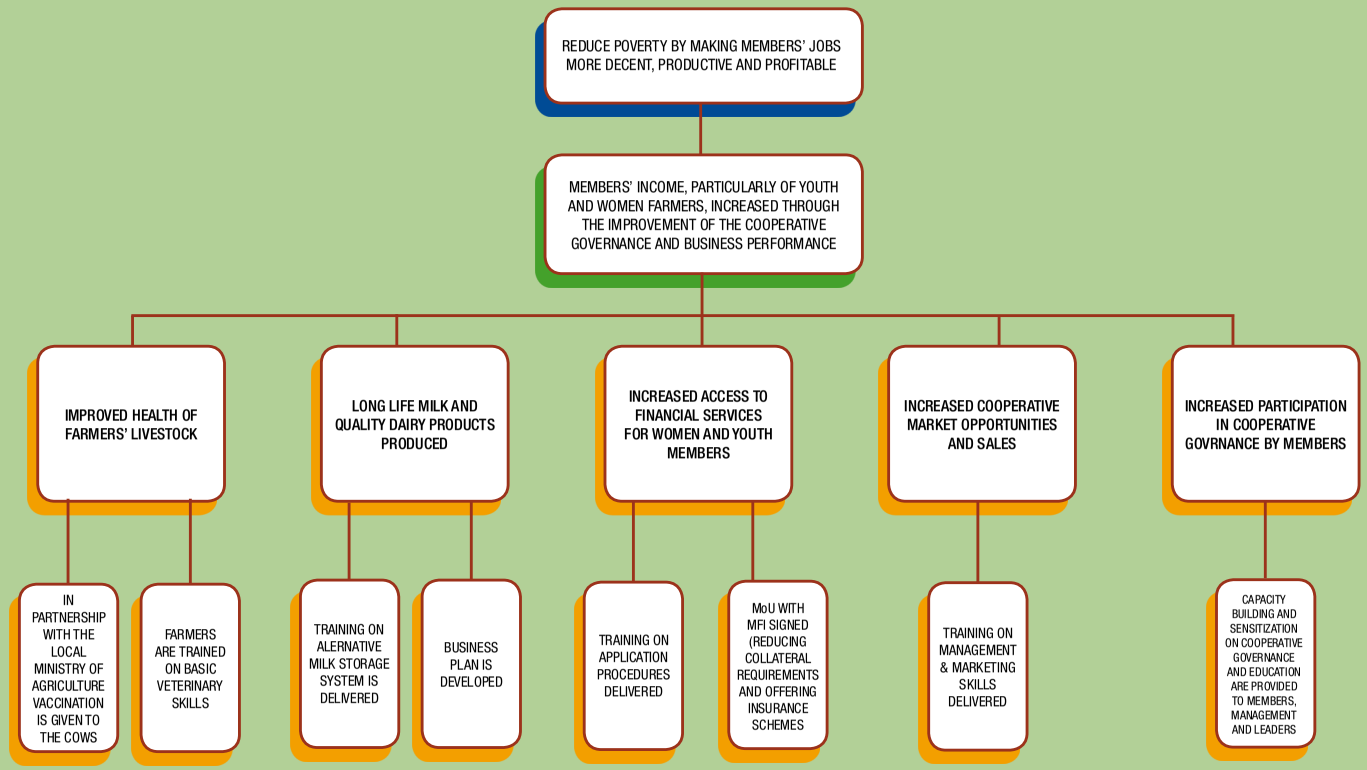
4) Identify the **activities**. Select from the objectives tree the objective that – by the "means to end" logic – will produce the outputs and translate them into activities. Activities are formulated with the verb in front, such as "organise training sessions". **Add other activities needed**, paying attention also to the specific interests of under-represented groups.

Using the case study of the Hanassi cooperative, the following logframe (next page) is based on the objective tree developed in chapter 1. The structure of the project is listed in the green column on the left of the matrix. **The core objective is the immediate objective of the tree.**

"Members' income, particularly that of women and young farmers, increased through the improvement of the cooperative's governance and business performance"

The first level of means, under the core objective, of the objective tree is listed in the matrix as outputs. Activities are the level below the activity and new ones were added, particularly for output 3. The development objective is one of the effects. The final objective tree was the following:

Diagram 15: Final objective tree of the Hanassi cooperative



When formulating the logical framework, some new activities were added, such as: "Carry out a market survey to assess the demand for long-life milk and dairy products on the local market". The management board agreed that it was a necessary action to be taken to increase the cooperative's access to the local market (output 4). Other activities could be added.

The logframe for this objective tree could be as follows:

Structure of the project	Indicators	Means of verification	Key assumptions
Development objective Reduce poverty by making members' jobs more decent, productive and profitable			
Immediate objective Members' income, particularly that of women and young farmers, increased through the improvement of the cooperative's governance and business performance			
Outputs **1)** Improved health of farmers' livestock **2)** Long-life milk and quality dairy products produced **3)** Increased access to financial services for women and youth members **4)** Increased cooperative market opportunities and sales **5)** Increased participation in cooperative governance by members **Activities** **FOR OUTPUT 1:** **1.1)** Provide training for farmers in basic veterinary skills **1.2)** Run a vaccination campaign for the cows, in partnership with the local ministry of agriculture **FOR OUTPUT 2**: **2.1)** Develop training curricula on alternative milk-processing **2.2)** Train members in milk storage and processing **2.3)** Purchase appropriate equipment (fridges, sterilizers, yoghurt makers, cheese-making supplies, etc.)			

FOR OUTPUT 3: **3.1)** Train members in business plan development **3.2)** Negotiate with MFIs to offer credit lines and insurance for members, in particular for women and young people **3.3)** Sign an MoU with an MFI to reduce collateral requirements and offer insurance services for young and women dairy farmers **3.4)** Train members in the new application procedures for credit lines **FOR OUTPUT 4:** **4.1)** Carry out a market survey of demand for milk and derived products **4.2)** Hold consultation workshops with all the cooperative's members to collect views and input for the cooperative's business plan **4.3)** Train cooperative staff and board members in marketing **4.4)** Develop the cooperative's business plan **4.5)** Carry out the business plan **FOR OUTPUT 5:** **5.1)** Run an awareness campaign, with the support of the national confederation of cooperatives and the cooperative dairy union, on cooperative members' rights and obligations **5.2)** Run specific training courses on participation in cooperative decision-making for disadvantaged member groups **5.3)** Train cooperative managers and leaders in leadership, communication and participatory consultation techniques	Inputs	Costs	

2.3 Setting up the indicators and means of verification: second and third column

You will only know if your objectives and outputs have been achieved by setting **indicators** that are measurable. An indicator is an objective measure that indicates if and to what extent progress (in relation to the **project's objective and outputs**) is being achieved. Indicators of achievement are usually required at output level. Indicators for activities are not developed since it is considered that it is a straightforward action that you have or have not implemented.

Targets and milestones

Indicators of achievement measure change brought about by the project. They can be broken down into targets and milestones. Targets define the desired result that the project intends to reach. Milestones give information on whether the project is on track in achieving the targets. Where possible, targets and milestones should enable measuring change for women and men separately.

Donor requirements determine whether and how you need to develop indicators, targets and milestones in your logframe. For instance, some donors accept that targets and milestones are defined together with the target group during the first months of the project implementation. In this manual, the distinction between indicators, targets and milestones is not used at all instances for the sake of simplicity.

Type of indicators:

Indicators can be quantitative or qualitative:

- **Quantitative indicators** use numerical data, (such as numbers of people or percentages) to indicate progress. They can be specified through a target or milestone or both, depending the donor requirements. See the example below:

Indicator (at the level of an objective)	Target (at output level)
Percentage of tomato production increase by cooperative members	**Increase of tomato production by 10% after 6 months**

Milestones (at output level)

Increase of tomato production by 3% after 3 months.

Increase of tomato production by 6% after 5 months

Increase of tomato production by 10% (3% + 6% + 1%) after 6 months (the achievement of the target)

- **Qualitative indicators** use data based on attributes or qualities, (such as perceptions) to indicate progress.

Indicator	Indicator of achievement
Level of cooperative clients' satisfaction	**Two thirds of the cooperative clients are satisfied with the quality of the tomatoes after 12 months**

Indicators can also be classified as direct or indirect:

Direct indicators have a direct relationship to the objective or output. Direct indicators are preferred because they are very specific and relevant, and we recommend that you use them as often as possible. In some cases, they may be costly to measure (for example, data on household income require expensive statistical surveys and a good baseline[9]). An example of this type of (achievement) indicator is:

60% of women and young cooperative members live above the poverty line at the end of the project

Indirect indicators (proxies) measure variables that are associated with a situation that fluctuates in the same direction as the objective. The stakeholders can propose proxies better because they are more familiar with the habits of the ultimate beneficiaries. But indirect indicators are less specific, because external factors other than the objective they try to measure may interfere and give an incorrect reading of the indicator.

Consumption of tomatoes has increased by 5% in district X

In the above proxy example, a family may decide to put their additional income into a savings account instead of increasing their consumption of tomatoes. In this case, using consumption as an indicator of family income would lead to underestimating project success.

Quantity of indicators:

The fewer the indicators per objective and output, the better. But it is often necessary to use more than one indicator for each objective statement. For example one indicator may provide good quantitative information, which needs to be complemented by another indicator that focuses on qualitative matters (such as the opinions of target groups). However, the trap of including too many indicators should be avoided.

Methodology for producing indicators:

A range of methods can be used to produce indicator data. They include:

- document reviews
- surveys
- interviews

[9] Baseline surveys are explained further down in this chapter.

- focus groups
- observations
- workshops.

Indicators should be independent of each other, each one relating to only one objective in the intervention logic, i.e. to the development objective, the immediate objective or one output.

The meaning of an objectively verifiable indicator is that the information collected should be the same if collected by different people (i.e. it is not open to the subjective opinion or bias of one person). This is more easily done for quantitative measures than for qualitative ones.

Box 7: The characteristics of good indicators

The most effective indicators are those which are 'SMART', or, in other words exhibit all of the following characteristics:

S = Specific
M = Measurable
A = Achievable and agreed upon (by the project partners)
R = Realistic
T = Time-bound

Note that in addition to being 'SMART', indicators must also enable the measurement of project progress, achievements and impact in a gender-sensitive way

20% increase in the number of women involved in the cooperative leadership and management after 12 months

Baselines:

When choosing your indicator of progress, it is important to know the actual data describing the current situation. For example, if your project's immediate objective indicator is
"Tomato production of cooperative members is increased by 10% at the project's end", in order to verify that you have reached this indicator, you need to know beforehand what the current (before implementation of the project) tomato production by the same population (cooperative members) is. The baseline should also be disaggregated by sex (e.g. % of women actively involved in the tomato production at beginning of the project; level of income earned by them before the project starts, etc.).

Baseline is the analysis describing the situation prior to a development intervention, against which progress can be assessed or comparisons made. OECD-DAC, 2002, Glossary

"*In the absence of such data, baseline surveys, capturing quantitative and qualitative information, may form one of the early project activities. These surveys may also be used as an opportunity to sensitise the community about the purpose and nature of the project*."[10]

At the output level, the project management could set up a database with the amount of unhealthy livestock, milk spoilage and income before the start of the project. This information will be used for Monitoring and Evaluation planning (Step 4).

[10] Baseline surveys are explained further down in this chapter.

Indicators at the level of development objective:

At the **development objective level,** indicators should be linked to the ultimate beneficiaries as well as to higher-level national frameworks (national strategies, PRSPs, UNDAF, DWCP, etc.).

Since the project only contributes to the achievement of the development objective, it is very difficult to monitor and assess indicators at that level. Furthermore, there are long-term impacts, which appear after the project. This is why, in some cases, a post-project evaluation could be required five years after completion.

Indicators for development objectives are not always required. If they are, we recommend that you use indicators devised by national organizations, such as the employment rate in the region, and lobby to make sure that they are disaggregated by production type (employment in the tomato sector), sex and age.

Indicators at the level of immediate objective:

The immediate objective brings a change in behaviour, services or institutions for the direct recipients (target group). It is a consequence of the outputs. Therefore the immediate objective's indicators are important and have to describe the project benefits and expected value:

Indicators at the level of immediate objective:

Example from the case study

Immediate objective: Members' income, particularly that of women and young farmers, increased through the improvement of the cooperative's governance and business performance

Indicator 1 (quantitative and direct): The percentage of income increase of the beneficiaries, including 30% women.

This indicator expresses the effectiveness of the project in increasing the cooperative members' income. To verify this indicator, baseline information will be needed at the start of the project. The project management will therefore have to make a survey of the beneficiaries and set up a database listing their income before the project.

Notice that the indicator recognises that the situations of women and men may be substantially different, and that sex-disaggregated information is therefore needed.

Indicator 2 (quantitative and indirect): The percentage of cooperative membership increase.
This indicator expresses the effectiveness of the project in assisting the cooperative in attracting new members. In the problem analysis, it was acknowledged that young people were leaving the cooperative and that fewer producers were attracted to the cooperative because they could not see any benefits. If the farmers' income increases with the project, then we can expect more farmers to ask to become members and fewer young people to leave for the city to look for a job.

Indicators at the level of outputs:

At the **output level**, the indicators are mainly for use by the project management, because they refer to what the project delivers. For example, indicators at the level of output should not be a summary of what has been stated at the activity level, but should describe the measurable consequence of activity implementation.

Output 2: Long-life milk and quality dairy products produced

Indicator 1 (qualitative and indirect): Customers are satisfied with the quality of the cooperative dairy products.

This qualitative indicator complements other indicators by examining the satisfaction of customers with the quality of products. . This provides a qualitative indication of the success of the project.

Means of verification:

The means of verification should be considered and specified at the same time as the formulation of indicators. This will help to test whether or not the indicators can be realistically measured with a reasonable amount of time, money and effort.

Means of verification indicate where and in what form information on the achievement of the development objective, immediate objective and results can be found.

The means of verification should specify:

- **HOW** the information should be collected (e.g. from administrative records, special studies, sample surveys, observation,) and/or the available documented source (e.g. progress reports, project accounts, official statistics, engineering completion certificates).
- **WHO** should collect/provide the information (e.g. local government workers, contracted survey teams, the district agricultural office, the project management team).
- **WHEN/HOW** information should be collected (e.g. monthly, quarterly, annually).

It is important to make sure that the required information can be collected through existing systems or at least with improvements to existing systems, and with the available resources. **In some cases, additional resources might be needed to develop a survey or database.** This should then be added to the project budget.

Structure of the project	Indicators	Means of verification	Key assumptions
Development objective Reduce poverty by making members' jobs more decent, productive and profitable	*Usually not required (if required use existing DWCP and MDGs indicators)*	DWCP and MDGs indicators reviews	
Immediate objective Members' income, particularly that of women and young farmers, increased through the improvement of the cooperative's governance and business performance	***Outcome indicators*** Percentage of income increase of the members	Cooperative accounting files Cooperative audit reports	
Outputs	**Output indicators (achievement)**		
1) Improved health of farmers' livestock	Increase of healthy livestock by 60% at the end of the project	Sample survey	
2) Long-life milk and quality dairy products produced	Decreased incidence of milk spoilage with 80% at the end of the project Level of customer satisfaction with the quality of products at the end of the project	Cooperative records at collection and processing sites Survey	
3) Increased access to financial services for women and young members	MFI counts 10% more women and youth cooperative members amongst its clients at the end of the project	MFI client base	
4) Increased cooperative market opportunities and sales	At the end of the project, 35% of milk sold in the local supermarkets comes from the cooperative	Survey	
5) Increased participation in cooperative governance by members	At the end of the project, participation by women and youth members in the general assembly has increased by 30%	General assembly minutes	

2.4 Setting up the key assumptions: fourth column

While doing your objective tree, it became apparent that the project alone could not achieve all the objectives. Once you have selected a strategy, objectives not included in the intervention logic and other external factors remain. These factors can affect the project's implementation but are outside its control (a natural catastrophe, an economic crisis, etc.).

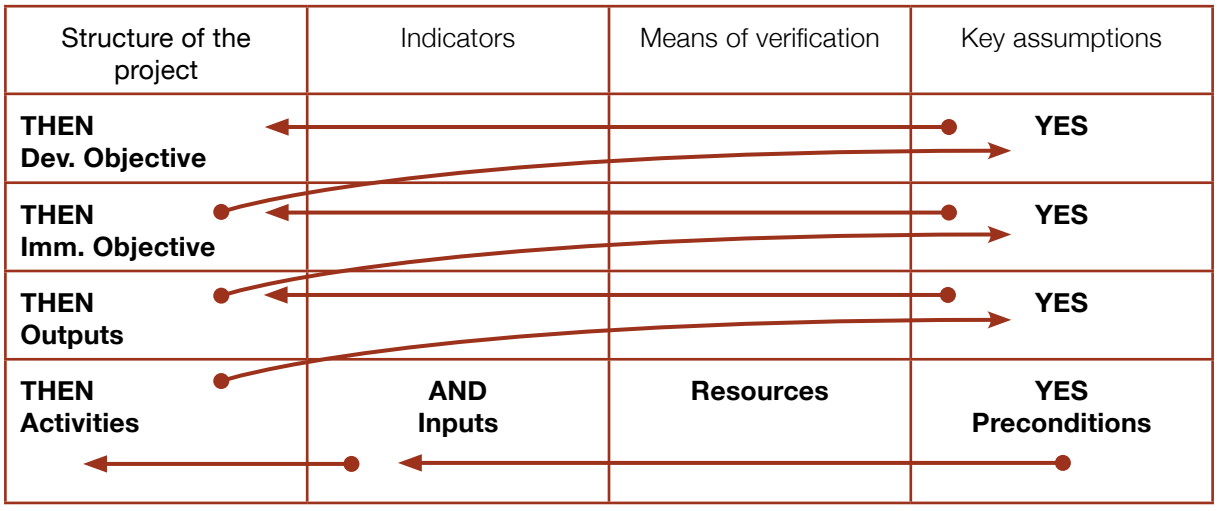
Key assumptions are conditions that have to be met if the project is to succeed. They are included in the fourth column of the logframe. In other words, they are the answer to the question "what external factors are not controlled by the project, but may affect its implementation and long-term sustainability?"

It is frequent to refer also to the concept of risk, together with the key assumptions. The difference between risks and assumptions lies in their either negative or positive statements. For a project to be successful, risks should not occur, while key assumptions need to be correct.

To identify assumptions, you have to assess the probability and significance of external conditions to be met in order to achieve your objectives and outputs. They are not addressed at the level of activities, since you are supposed to control their implementation totally under the project management.

The fourth column in the matrix is used to highlight assumptions about the external conditions that need to be fulfilled if the vertical logic of the project structure (objectives and outputs) is to hold true. This same column highlights those risks that, although they are not likely to happen, may affect either the progress or the success of the project. The relationship between risks, assumptions and levels of objectives is illustrated in the following diagram.

Diagram 16: Relations between risks, assumptions and levels of objectives



Only if the assumptions are met will the next level of objectives be achieved.

Types of assumptions

Implementation assumptions: These assumptions link the immediate objectives of the project to the outputs. Since the project's management is not able to control what happens with projects outputs, there are necessarily important assumptions at this level. These assumptions are critical to the success of the project and form an important part of any evaluation.

For instance, the local government agrees to develop and implement an infrastructure development plan that will benefit the cooperative.

Development assumptions: These assumptions link immediate objectives to the development goal. The question being asked is: How is the achievement of the immediate objective going to contribute to national goals, and to ILO and donor objectives? These are often stated in the form of hypotheses or theories. They are important for the appraisal and evaluation of the project, but are not usually related to implementation of activities.

For instance, stable global economic trends.

Sustainability assumptions: These assumptions relate to the sustainability of the development and immediate objectives

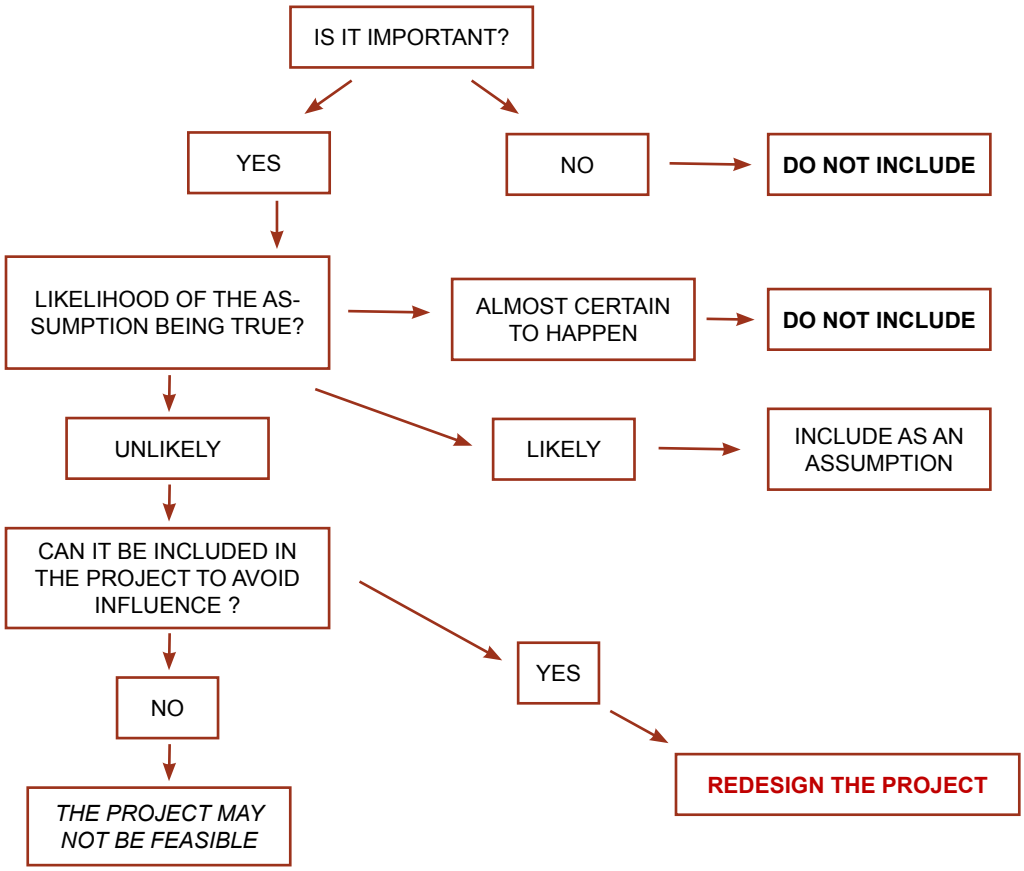
For instance, the government agrees to reform the cooperative law.

An assessment of the importance of each assumption and the probability (risk) of its being true is required (see diagram below). The more important and more risky the assumption, the greater the need to consider:

- **re-designing** the project to '**internalise'** the problem and reduce the risk of the assumption not holding true. This may involve modifying or expanding project components or activities in order to influence or even control those external factors which are critical to project success; and
- **preparing contingency plans** so as to be able to handle "worse case" outcomes.

The assessment of assumptions is illustrated in the following diagram.

Diagram 17 : Assessment of assumptions



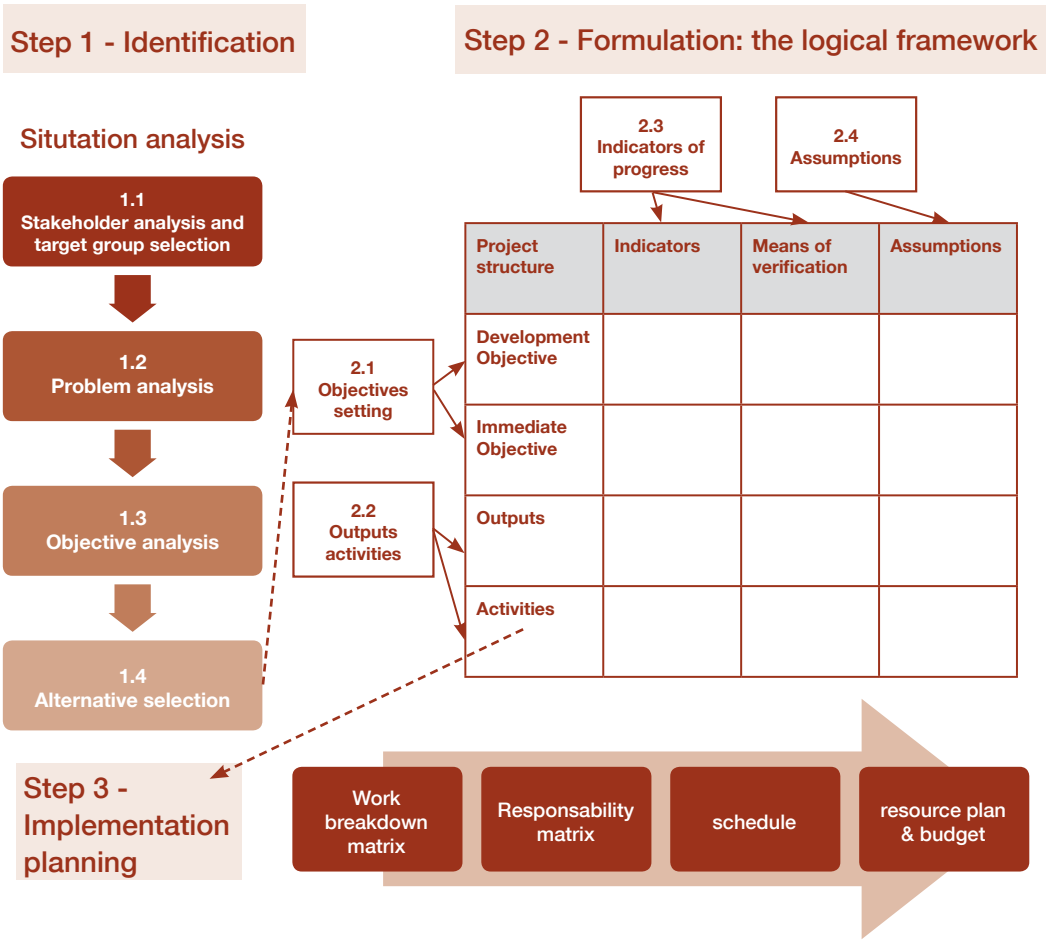
ASSUMPTIONS

The killer assumption

Imagine that one of the project assumptions is that "**young members stay in the Hanassi co-operative**". Now you have to verify whether this is an important assumption for the success of the project. What is the probability of this assumption occurring? If the probability is low because young people tend to prefer working in an office rather than in agriculture, you will have to "**internalise**" the assumption in order to make sure that it will not "**kill**" your project. This means that you will have to make sure that young people stay, through specific activities such as raising young people's awareness of cooperative entrepreneurship or training in modern techniques in agriculture. Then your initial assumption could become an intended output of your project: "young people are motivated and aware of the importance of working in an agricultural cooperative".

Structure of the project	Indicators	Means of verification	Key assumptions
Development objective Reduce poverty by making members' jobs more decent, productive and profitable	Usually not required (if required use existing DWCP and MDGs indicators)	DWCP and MDGs indicators reviews	Stability of global economic trends National-level decision-making aligned with the MDGs, the DWCP and the PRSP
Immediate objective Members' income, particularly that of women and young farmers, increased through the improvement of the cooperative's governance and business performance	**Outcome indicators** Percentage of income increase of the members	Cooperative accounting files Cooperative audit reports	No delocalisation or closing down of the major local buyer No extreme weather conditions affect the shape of cattle. No crisis in cooperative governance due to corruption.
Outputs	**Output indicators (achievement)**		
1) Improved health of farmers' livestock	Increase of healthy livestock by 60% at the end of the project	Sample survey	No new epidemic
2) Long-life milk and quality dairy products produced	Decreased incidence of milk spoilage with 80% at the end of the project	Cooperative records at collection and processing sites	Reliable and sufficient electricity supply
	Level of customer satisfaction with the quality of products at the end of the project	Survey	Young members ask to be trained
3) Increased access to financial services for women and young members	MFI counts 10% more women and youth cooperative members amongst its clients at the end of the project	MFI client base	Reforms in national insurance legislation will not limit the offer of micro-insurance services
4) Increased cooperative market opportunities and sales	At the end of the project, 35% of milk sold in the local supermarkets comes from the cooperative	Survey General assembly minutes	Supermarkets are viable enterprises
5) Increased participation in cooperative governance by members	At the end of the project, participation by women and youth members in the general assembly has increased by 30%		Communication between management and members has improved.

STEP 3 – Implementation planning



The project design requires an implementation plan (also called work plan) for the activities listed in the logframe. The work plan demonstrates that the project is feasible in terms of responsibilities, schedule and resources. It is the basis for monitoring the operations of the project. It allows the project manager to see whether all the planned activities are implemented in the planned time, by the right staff and within the planned budget.
Some donors ask for the work plan before giving their approval. The work plan usually needs to be adjusted just before the project operations start and during the implementation.

The work plan is established by the project design team and consists of the following four matrices:

- A **work breakdown** matrix, which lists the activities and specific tasks.
- A **responsibility matrix**, which sets out who is responsible for each activity.
- A **calendar of activities**, which states when each activity will be completed.
- A **resource (inputs) plan**, which sets out the requirements for staff, equipment and materials and for the budget preparation, giving the cost of the resources needed.

Those tools allow the project team in charge of execution to *monitor the implementation of the project activities* and outputs once the project is operational.

Box 8: Work plan as a monitoring tool when operations start

The work plan is a key tool for monitoring project operations. It helps the team in charge of implementation to see whether the activities are carried out:
on time
by the right people
within the planned budget.

It also gives you an insight into whether the activities actually lead to the outputs in the logframe (see also the next chapter).

3.1 The work breakdown matrix

A **work breakdown matrix** is used to prepare the plan of operation and must be carried out before any of the other steps can be taken. It sets out the activities and tasks required for each output. This is the basis for the subsequent steps, such as allocating responsibilities, scheduling activities and estimating resources and budget.

Project's activities can be broken down into sub-activities, tasks and sometimes sub-tasks. This improves the accuracy of cost estimates and enhances monitoring of project activities and outputs. It also provides improved reporting on obligations and actual expenditure to carry out implementation and achieve the project outputs. You start by identifying the activities, sub-activities and tasks required for each output. The format of a work breakdown matrix can be the following:

OUTPUTS	ACTIVITIES	SUB-ACTIVITIES (not always required, depending on the level of complexity of each project)	TASKS
1. Output	1.1 Activity	1.1.1 Sub-activity 1.1.2 Sub-activity etc.	Task Task
2. Output	2.1 Activity 2.2 Activity	2.1.1 Sub-activity 2.1.2 Sub-activity 2.2.1 Sub-activity 2.2.2 Sub-activity	Task Task Task Task
3. Output	3.1 Activity	3.1.1 Sub-activity 3.1.2 Sub-activity etc.	Task Task

In the case study, the left-hand column of the logical framework is listed in the matrix below and tasks for each activity are specified (while sub-activities are not identified in this case).

Immediate objective :
Members' income, particularly that of women and young farmers, increased through the improvement of the cooperative's governance and business performance

Project outputs	Activities	Tasks
1) Improved health of farmers' livestock	**1.1)** Provide training for farmers in basic veterinary skills	**1.1.1)** Hire a consultant for 20 days to assess training needs and develop material (an example of sub-task being: to prepare terms of reference)
		1.1.2) Draft a training manual
		1.1.3) Hold two 3-day training courses for 20 people altogether
	1.2) Run a vaccination campaign for the cows, in partnership with the local Ministry of Agriculture	**1.2.1)** Set up a vaccination campaign steering team composed of cooperative members, Ministry of Agriculture and other relevant stakeholders.
		1.2.2) Map the vaccination needs
		1.2.3) Sign an agreement with the Ministry of Agriculture and launch the campaign
		1.2.4) Vaccinate cows
2) Life-long milk and quality dairy products produced	**2.1)** Develop training curricula on alternative milk-processing methods (mainly for young cattle farmers)	**2.1.1)** Create a joint task force (staff and consultants) with the Vocational Training Centre to conduct a training needs analysis among cooperative members (target: youth)
		2.1.2) Prepare training curricula and materials
	2.2) Train members in milk storage and processing	**2.2.1)** Define the training calendar
	2.3) Purchase appropriate equipment (fridges, sterilizers, yoghurt makers, cheese-making supplies, etc.)	**2.3.1)** Identify suppliers **2.3.2)** Get at least three offers for each item of equipment **2.3.3)** Select the best supplier, in consultation with member representatives **2.3.4)** Make the necessary contractual arrangements with the selected supplier **2.3.5)** Organize information meetings with selected suppliers to learn about the use of the equipment
	Etc.	
3) Increased cooperative market opportunities and sales	**3.1)** Etc.	**3.1.1)** Etc.

3.2 Responsibility matrix

Good project planning ensures that responsibility for outputs and activities is assigned to teams or individuals. The responsibility matrix sets out who is responsible for each activity by allocating duties to different people within the team. All the activities required of a particular individual or organization form their job description or terms of reference for their involvement in the project. This helps in co-ordinating the work of team members, contractors or partners.

The following matrix sets out who does what. The project team allocates responsibilities for each activity to different people and organizations.

Project outputs	Activities	Responsible staff (implementing agency)	Implementing partner	Partner organisation
1) Improved health of farmers' livestock	**1.1)** Provide training for farmers in basic veterinary skills	**Member of the management in charge of human resource development**	**College of veterinary medicine**	**Tabacounda vocational training centre**
	1.2) Run a vaccination campaign for the cows, in partnership with the local Ministry of Agriculture	**Member of the management board in charge of livestock support**	**Association of veterinarians**	**Local Ministry of Agriculture**
Etc.				

3.3 Calendar of activities

Time is important in any planning process. Scheduling is a way of focusing managerial attention on the time factor, on critical events and on priorities. The calendar states when each activity starts, how long it lasts and when it will be completed. This is usually presented in the form of a bar chart, which sets out the sequence of activities and links them to critical events or milestones.

The recommended tool is called a **Gantt chart**. It is simple but useful. It is easy to read and can be used to track progress against time. The chart uses the activities from the work breakdown matrix as headings for each row, and time units (years, quarters, months, weeks, etc.) as the headings for each column.

Key actions in preparing a calendar of activities for each output

1) Use the work breakdown structure and decide on the level of detail required. This may differ from the level of detail used to prepare the responsibility matrix.

2) Identify the sequence in which the tasks should be performed. Re-arrange the order (rows) of the work breakdown structure to reflect the sequence.

3) Decide whether you will use years, seasons, quarters, months, weeks or days to measure time.

4) Prepare the format of the calendar. The work breakdown structure is presented in the left-hand column and the time scale is presented across the top rows.

For the different outputs/activities, you can add critical events and quantities, or shade in the table cells to indicate the time during which the activity will be carried out.

For the different outputs/activities, you can add critical events and quantities, or shade in the table cells to indicate the time during which the activity will be carried out.

Example of a calendar of activities (also called a Gantt Chart)

Immediate objective/outcome:							
YEAR 1[11]							
Outputs	**Activity**	**Month 1**	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Etc.**
Output 1	**1.1**						
	1.2						
Output 2	**2.1**						
	2.2						
	2.3						

[11] For multi-year projects, it is best to use either the year or the quarter as unit of reference

3.4 Resource plan and budget

A resource plan sets out the requirements and costs for all necessary inputs: personnel, basic office premises or facilities, equipment and materials, or services such as special subcontracting supplies, training workshops and other miscellaneous inputs.

The results-based management approach prepares the resource plan on the basis of the activities in the work breakdown matrix and calendar. For each activity, a list of inputs is prepared, and these can then be aggregated by category (raw materials, equipment, personnel, etc.) to produce an overall project procurement plan.

The resources required to implement the activities associated with each output should be tabulated. For the implementation plan, it is rarely necessary to estimate resource requirements at sub-activity level. The table should list resource requirements and the amount of each resource required.

In the Hanassi case study, the list of inputs below shows what is needed to carry out the activities to achieve the first output.

		Resource Plan		
Project outputs	**Activities**	**Inputs**	**Cost**	**Budget (US$)**
1) Output	**1.1)** Provide training for farmers in basic veterinary skills	**1.1.1)** Twenty days of consultancy	100 US$ per day	2,000
		1.1.2) 50 training manuals	Edition of material: $1,000 Printing: $10 per manual	1,000 500
		1.1.3) Two 3-day training courses for 20 people in all	Renting a room: $500 Lunch: $5 x 6 x 20 Facilitator: $100 per day (6) Material: $5 per person Miscellaneous: $150	500 300 600 100 150
2) Output	**2.1)** [Add activity]	**2.1.1)** [Add input]	[Add cost per unit]	[Calculate total cost]
	2.2) etc.			

The resource plan is the basis for the **budget preparation**. It allows you to assess the cost of each activity exactly. It is important to put the management needs, such as staff and administrative costs, in the resource plan, and then to transfer those costs to the budget format per heading: total staff, equipment, training, etc.

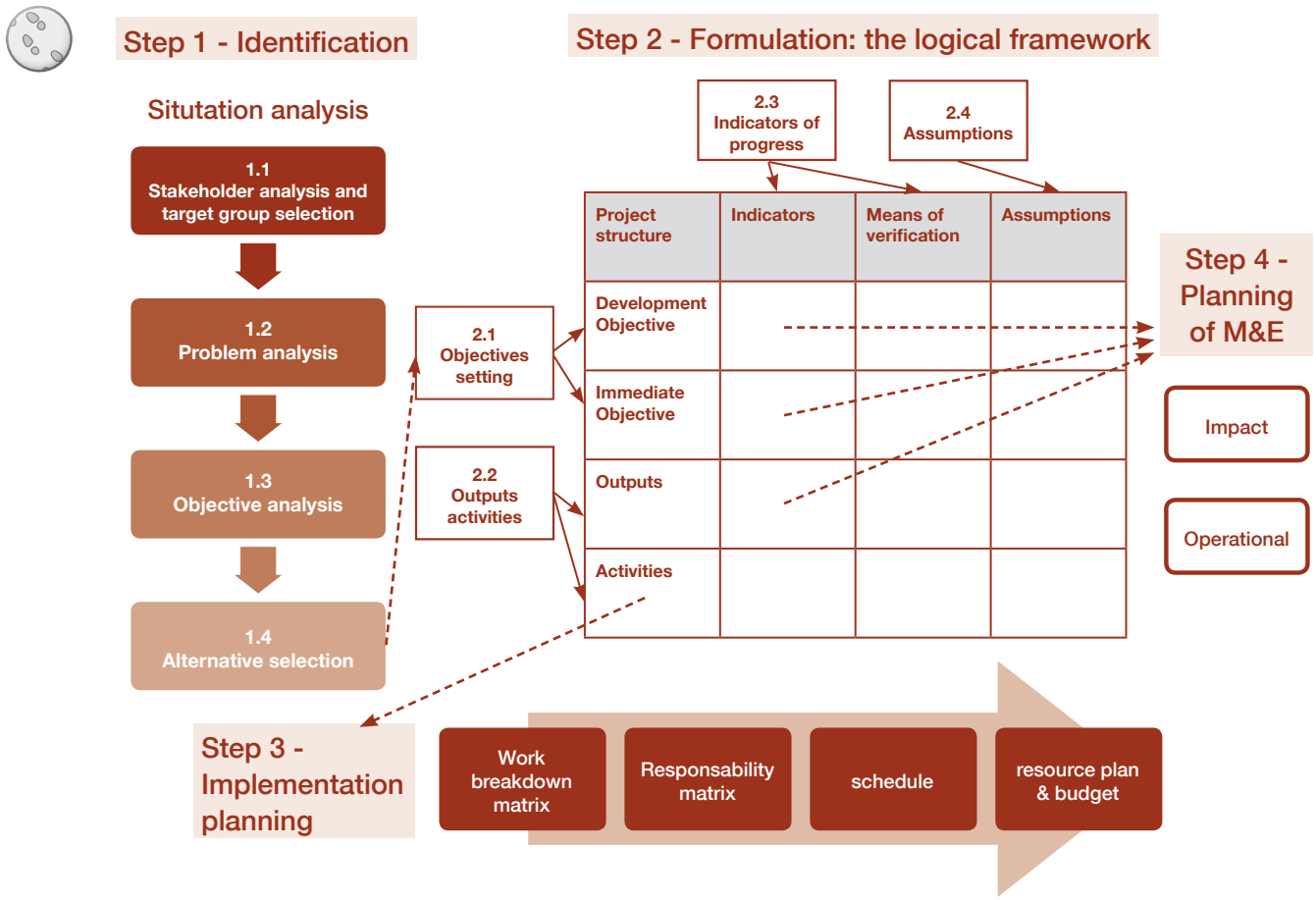
Box 9: Checklist for mainstreaming gender in project inputs

Have sufficient human and financial resources been allocated for the gender components of the project?
Has a gender budget analysis been done to assess and analyze the possible different impact of project expenditures on female and male intended beneficiaries?
Has an assessment been made to what extent gender expertise is required in personnel inputs? If so, gender expertise must be explicitly stated in personnel job descriptions.
If women and girls cannot be effectively reached by male staff, have steps been taken to recruit female staff required, and vice versa for men and boys?
Is there a commitment in project policy and practices:

- to achieve an equal balance among male and female project staff at all levels and provide equal remuneration for men and women for work of equal value?
- to promote the use of proper contracts and ensure the observance of fundamental labour standards and maternity protection in personnel, equipment and subcontracting policies and procedures?

Source: ILO, 2010, Gender mainstreaming strategies in decent work promotion, ILO, Bangkok

STEP 4 - Planning of monitoring and evaluation



Monitoring and evaluation (M&E) needs to be prepared. Therefore it is necessary to build it into the design of the project and to allocate resources for it from the start. This manual aims to assist you in the design of a project. The evaluation process per se will not be presented because it is often conducted by an external person to the project team (an evaluator) and sometimes organised by the donor. However, evaluation has to be planned from the beginning of the design, and a specific budget allocated.

Basically, M&E is about comparing what was originally planned with what actually happens. It tracks progress at each level of the logical framework: activities, outputs, outcomes and impacts (objectives). M&E has four key concepts:

- comparison
- measurement
- verification
- action.

Evaluation is essentially a reality test to assess the significance of the project. In particular, it looks at the efficiency, effectiveness, impact, sustainability and relevance of the project given its stated objectives. Evaluation has two specific purposes: accountability and learning. Accountability refers to the obligation of the project to demonstrate to the donor, stakeholders, beneficiaries and others that it was implemented in compliance with its original design, agreed contracts and plans.[12] Moreover, evaluation offers

[12] ILO, ILO Guidelines to Results-Based Evaluation. Principles, Rationale, Planning and Managing for Evaluations Version 1 - January 2010.

opportunities to learn about the achievement of results and the performance of the project team. Lessons learned can be applied to future projects. For cooperative projects, three modes of evaluation are particularly relevant: (1) Self-evaluation carried out by members of the project team; (2) Internal evaluation conducted by people from the cooperative organization who have no previous links to the project; and (3) External evaluation, which is managed by external evaluators who have no previous links with the project being evaluated. External evaluations are usually initiated, led and financed by a donor agency.[13] Evaluation is thus a periodic assessment, which usually takes place at the middle or at the end of the project whereas monitoring is a continuous internal process that analyses the project's achievements concerning the outputs to enable project managers to take corrective action when necessary.

Differences between monitoring and evaluation.

	Why?	When?	Who?	For whom?
Monitoring	➢ Check progress towards planned objectives (impact monitoring), outputs and activities (implementation monitoring) ➢ Take remedial action if necessary ➢ Contribute to progress report	Continuous activity	The project team	➢ Project management ➢ Main stakeholders
Evaluation	➢ Check whether the right objectives and strategies have been chosen ➢ Learn lessons for future projects ➢ Provide accountability	Periodic: usually at the end of the project. For longer projects, it can also be done halfway.	An external evaluator Members of the cooperative organization with no previous links Project team	➢ Project management ➢ Stakeholders ➢ Beneficiaries ➢ Partners ➢ Donors ➢ Wider audience

To ensure **gender-sensitivity** in monitoring and evaluation, it is important that:

1. All data that are collected, from the baseline to final collections, are disaggregated by sex;
2. Indicators are disaggregated by sex in a way that allows you to assess the programme's impact on the situation of both women and men;
3. Both women and men are consulted and able to voice their views during the process;
4. Possible differences in effects of the project on women and men are analysed and followed up.

[13] Adapted from: ILO, ILO Guidelines to Results-Based Evaluation. Principles, Rationale, Planning and Managing for Evaluations Version 1 - January 2010.

4.1 Monitoring plans

Monitoring is a core management responsibility. It involves collection, analysis and communication concerning the progress of the project and outputs achieved. It identifies actual and potential successes or failures as early as possible, and facilitates timely adjustments to what is being done. It enables the stakeholders to review progress and to propose action to achieve the objectives.

As shown below, there are three types of monitoring. They happen at different levels of the logical framework and serve different functions: 1) **implementation monitoring** is operational: it monitors the activities and outputs; 2) **impact monitoring** concentrates on the immediate objectives; 3) **reporting** concerns the concrete (narrative and financial) reports that have to be prepared and submitted periodically to the main stakeholders, particularly donors.

4.1.1 Implementation monitoring (operational)

What is it?

Implementation monitoring answers the question: ***What have we done?*** It follows what the project produces (goods and services) for its beneficiaries. It is used for implementation management. This type of monitoring is mainly an ***implementation management tool*** for the project manager, because it makes it possible to check at any time that implementation is on track. It provides information on whether resources are being used correctly to produce the activities, whether activities are being carried out within the planned time frames and whether outputs are obtained and delivered as necessary. Implementation monitoring can be used for short-term project progress reporting (e.g. quarterly or bi-annually).

How to do it

The main tools of this type of monitoring are the implementation matrices in step 3 and the output indicators. Project management must keep track of how the project is spending the budget, using the inputs and carrying out the activities in order to produce the outputs. The use of the logframe and implementation tools is recommended. The implementation plans (work breakdown structure, calendar of activities and budget) are just estimates of what will happen in the future. They must be reviewed and modified during implementation on the basis of what really happened.

Box 10: Tools for operational monitoring

The implementation plan (Step 3 of the design process) provides the tools to be used for operational monitoring :

- Monthly work plan
- Work breakdown structure
- Calendar of activities
- Budget

Example of implementation monitoring using the case study:

If administrative records show that 25 dairy cooperatives members have received training, you need to know how this compares to what was planned, in order to assess performance. If the plan was to train 100 dairy cooperative members, and all the resources/costs originally budgeted for have been spent, this would indicate a problem either with implementation performance and/or with the original plan and budget. Planners and managers would need to analyse the causes of the problem and determine an appropriate course of remedial action.

4.1.2 Impact monitoring (immediate objective)

What is it?

This level of monitoring focuses on immediate objectives and their contribution to the development objective during the project's implementation. Impact monitoring is an input into the final evaluation which will verify the impact of the project only at the end. The key question in this type of monitoring is ***What have we achieved?*** The centre of attention is what changes the project has produced in the ultimate beneficiaries and the target group. The development of changes in stakeholders, the ownership of achievements and sustainability are especially relevant aspects of this type of monitoring.

This type of monitoring is a ***performance management tool***, since it provides information on whether outputs are used and owned by the target groups, on the changes that the project is producing on the context, and on any other aspects related to the project's objectives. This is essential information for the project manager and stakeholders to see whether the project is contributing to development beyond its activities and products.

How to do it

Monitoring that focuses on results requires painting the initial picture of the situation that the project will change. This initial situation is called the **baseline**. It will be useful as a comparison point with which to verify progress towards the results. The baseline paints the initial picture, which is essential in the monitoring of results. Progress is measured using the indicators for the immediate objectives. These are complemented by performance questions on key matters such as ownership, use and usefulness of products, sustainability, compliance by strategic partners and contextual factors.

In this type of monitoring, the participation of stakeholders is crucial, given that they are responsible for the outputs. The timing of data collection is therefore usually more spread out than in implementation monitoring. Reports also cover longer periods, usually annual or biennial.

Box 11: Tools for impact monitoring

Tools to be used for impact monitoring: **indicators and means of verification** developed in the **logical framework** (Step 2) and baselines and mid-term targets for achieving those indicators (see below).

Example of an impact monitoring matrix using the case study:

Immediate objective: Members' income, particularly that of women and young farmers, increased through the improvement of the cooperative's governance and business performance

Outputs	Indicators	Means of verification	Data collection method	Responsibility	Baseline	Year 1 indicator achieved	Year 2 indicator achieved	Year 3 Indicator achieved
Output 1 **Improved health of farmers' livestock**	Increase of healthy livestock by 60% at the end of the project	Sample survey	Farm visits	Member of the management board in charge of livestock support	Situation at start of the project (=0)	+ 20%	+ 20%	+20%
Output 2 **Long-life milk and quality dairy products produced**	Decreased incidence of milk spoilage with 80% at the end of the project	Cooperative records at collection and processing sites	Record keeping	Manager	Situation at start of the project (=0)	-20%	-40%	-20%
Etc.								

4.1.3 Reporting

All the information gathered in the monitoring plans will allow you to prepare the mid-term and final reports. The progress of the project against what was planned is assessed and the information is presented clearly in a report. Specific templates exist for each donor, consistent with the initial application form, so that you can compare what was planned with what was actually achieved. Indicators are therefore crucial to monitoring the success of the project and to reporting on it.

4.2 Planning the evaluation

What is it?

The evaluation is intended to make an overall assessment of the completed project. The purpose is to determine the relevance of the achievement of the objectives, the effectiveness, the efficiency, the impact and the sustainability of the project.

The evaluator has to be external. He or she will assess the impact of the project, given the planned objectives. The participation of the stakeholders in the evaluation is crucial in order to ensure that the different perspectives and views are taken into account.

In most cases, the evaluation is only conducted at the end of the project, but for wider projects and programmes mid-term and ex-ante evaluations can be conducted. Mid-term evaluations are often similar to impact monitoring but are conducted by an external assessor, whereas monitoring is internal. It gives the project management and the stakeholders an independent analysis of the progress made towards the planned objectives, one with which they can review the strategy. Ex-ante evaluation is conducted after the end of the project, up to five years later, in order to verify if the results obtained by the project are sustainable.

How to do it

Evaluation, based on the indicators, focusing on the project's immediate objective and how your project contributes to the development objective.

The logical framework clearly specifies what is to be achieved (outputs and immediate objective), how it is to be verified (indicators and means of verification) and the key assumptions. The project management will prepare the terms of reference (ToR) of the evaluation, based on expected outputs as mentioned in the logframe.

Adequate resources should be set aside for conducting the evaluation (hiring a consultant, field visits, etc.) and the necessary conditions and capacities ensured.

Evaluation is the last step in the project cycle presented in chapter 1, but it is not the end of a project. Indeed, it can be considered the starting point for a new planning process, because the conclusions of the evaluation will allow the stakeholders to draw lessons that may guide future decision-making and project identification.

That is the logic of the project cycle.

Section 1
Project management – the basics

This section includes:

1. What is a project?
2. What are the essential characteristics of a project?
3. What is project management and why do we need it?
4. The life of a project – project phases
5. Key Elements – a brief explanation
6. Key Elements in the project lifecycle
7. Determining project size
8. Project management documentation
9. Tips from project managers

Terms used in this section can be found in Appendix 1 Project Management Glossary

1. What is a project?

A project is a group of interrelated activities that are planned and then executed in a certain sequence to create a unique product or service to defined quality criteria within a specific timeframe, in order to achieve planned and agreed outcomes.

Projects are often critical components of an organisation's business strategy, or relate directly to policies and initiatives of the Government.

Projects vary in size and complexity. For example, they may:

- involve changes to existing systems, policies, legislation and/or procedures;
- entail organisational change;
- involve a single person or many people;
- involve a single unit of one agency/organisation or may cross agency/organisational boundaries;
- require the engagement and management of external resources;
- cost anywhere from $10,000 to more than a $1 million; and/or
- require less than 100 hours, or take several years.

2. What are the essential characteristics of a project?

In the Tasmanian State Service, a significant project is usually characterised as having:

- definable, measurable Project Outcomes that relate to the Tasmanian Government and agency corporate goals;
- Project Outputs, required for the attainment of the Project Outcomes, produced by a Project Team(s);
- a project governance structure;
- risk management processes aligned with agency risk management practices;
- well-defined Project Team(s); and
- criteria to measure project performance including Project Output quality.

The structure of a project will vary depending on the benefits it is intended to provide. It may even be necessary to restructure a project into a number of sub-projects or establish a program of projects to achieve these benefits.

3. What is project management and why do we need it?

Project management is a structured way of managing change. It focuses on developing specifically defined Project Outputs that are to be delivered by a certain time, to a defined quality and with a given level of resources so that planned Project Outcomes are achieved. Effective project management is essential for the success of a project.

In applying any general project management methodology, it is important to consider the corporate and business culture that forms a particular project's environment.

Increased accountability requirements in the public sector have led to a greater focus on effectiveness and efficiency in how business is conducted. In a rapidly changing environment with diverse issues and initiatives, effective project management can support the achievement of project and organisational goals and provide greater assurance to stakeholders that resources are managed effectively. Gartner estimates that using a moderately rigorous project management methodology, as compared to a loose methodology, improves productivity by 20 to 30 per cent.[2]

Applying a formalised project management framework, or methodology, to projects can assist in gaining formal agreement to the Project Objectives, clarifying the scope, identifying the resources required, ensuring accountability for results and performance, and fostering a focus on the final Project Outcomes to be achieved.

There are many reasons why projects fail, and all organisations have examples of projects that can be considered failures. Recent international research appears to reiterate the lessons gathered in the last twenty years. The most commonly cited reasons for project failure, in no particular order, are:

- poor or no relationship to the organisation's strategic priorities;
- lack of feasibility including poor estimation of duration and cost;
- poorly articulated Project Objective(s) and Project Outcomes with unachievable and/or unverifiable targets;
- inadequate governance;
- poor management of change;
- poor stakeholder engagement and insufficient expectation management;
- poor management processes and inadequately trained and/or inexperienced project managers;
- inadequate risk management; and/or
- no independent project management quality assurance.

All of these causes could be addressed by the application of project management tools and techniques. See *Section 2, Element 10, 10.5 – Learning from project failure* for a more detailed explanation of the reasons for project failure.

[2] Roberts, JP & Furlonger, J (2000) Successful IS Project Management. Gartner [ID No. TU-09-2012]: p2

4. The life of a project – project phases

A high-level project management approach that fits most projects at a macro level is outlined in Figure 1. It should be emphasised that this model represents an over-simplification of most projects, but it is included to make sense of what, in reality, can be a complex and non-linear process.

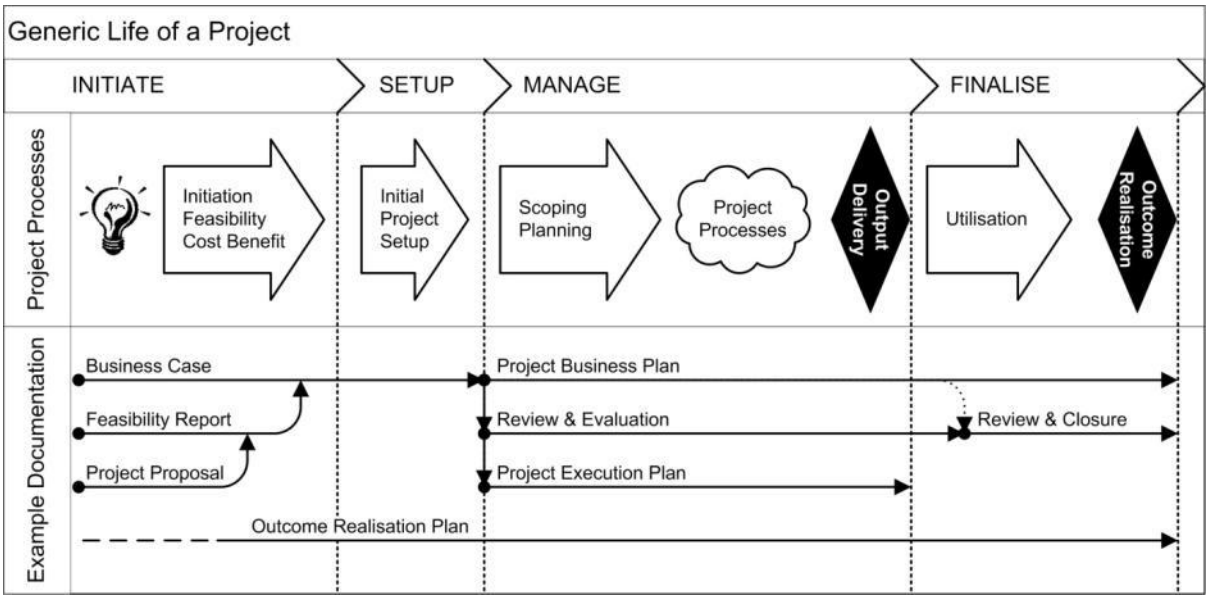


Figure 1 – High-level conceptual view of the generic life of a project

INITIATE phase

Project initiatives may originate directly from government policy or from an agency's corporate and business unit planning processes that in turn are driven by government policy. Other new initiatives may be identified outside these processes due to changes in government policy or other external factors, or simply a good idea.

The INITIATE phase is essential to capture the early understandings of the project rationale, the business driver(s), an initial statement of the Project Objective(s), the high-level or notional Project Outputs required and the potential Business Owner(s). The non-technical or business reason for undertaking the work of the project must be clearly articulated, understood and accepted by senior management.

Projects are usually justified in terms of corporate objectives and should be closely aligned to them. This alignment is explored through initial scoping and start-up planning documents such as the *Feasibility Study Report*, the *Project Proposal* or the *Project Business Case*., which should:

- explore the underlying business drivers;
- describe the relationship of the proposed project to the organisation's strategic agenda;
- define the relative priority assigned to the project;
- analyse the capability and capacity of the organisation to absorb change; and
- identify 'critical success factors' related to time, budget and/or quality criteria.

In the case of large and/or complex projects and programs of projects, considerable time needs to be spent in the INITIATE phase, usually to develop a *Project Business Case* in order to seek management approval for the proposed project to proceed. For large and/or complex projects, this phase can sometimes be a separate project in its own right, particularly in the area of major business changes involving new or enhanced IT systems. In this situation, a *Project Brief* or *Project Business Plan* should be developed and endorsed by the Project Sponsor and/or Project Steering Committee, particularly as a great deal of resources and time can be committed at this early stage. Clear and agreed understanding of why the project is being undertaken should be established in this phase.

The INITIATE phase is often revisited and reviewed following the approval of the *Project Business Case* to test the initial assumptions about the proposed project scope and to facilitate and inform more detailed planning activities, including business process mapping.

SET-UP phase

Once a project is approved and funded, an initial SET-UP period is required that involves the appointment of the Project Manager and Project Team, planning and documenting activities (including developing the initial *Project Business Plan*) and organising the resources required to produce the Project Outputs. This SET-UP phase is important when planning any project, although the duration of this phase may be considerable for larger, more complex projects.

MANAGE phase

Viewed as the most productive (and hectic) period, the MANAGE phase involves the production of the Project Outputs. This phase includes the ongoing management of the stakeholders, risks, quality, resources, issues and work of the project. The main management documents in this phase are the *Project Business Plan* and the *Project Execution Plan*. At the same time, the Business Owner(s) is preparing to make the organisational changes necessary for the business unit(s) to effectively utilise and manage the Project Outputs; this is documented in the *Outcome Realisation Plan* (for larger and/or more complex projects).

FINALISE phase

Closing a project involves the handover of the Project Outputs to the Business Owner(s) for utilisation by the project customers, in order to realise the Project Outcomes. The strategies to support the change management process, and appropriate methods for measuring and reporting the progress toward achieving these benefits, are documented in the *Outcome Realisation Plan*. After the project's success has been evaluated, the Project Steering Committee formally closes the project and celebrations can commence.

This phase involves moving from the project activities to the ongoing 'new' business (transactional) activities.

5. Key Elements – a brief explanation

There are eleven Key Elements that the Project Manager needs to consider, no matter what the size or complexity of the project. These are illustrated in Figure 2. The extent to which each of these elements is managed and documented depends on the size and complexity of the project.

The eleven Key Elements are:

1. Planning and scoping
2. Governance
3. Outcome Realisation (including organisation change management)
4. Stakeholder engagement
5. Risk management
6. Issues management
7. Resource management
8. Quality management
9. Status reporting
10. Project review and evaluation
11. Project closure

Element 1: Planning and scoping

No matter how small a project, a clear definition and statement of its areas of impact and boundaries of the project should be established. The scope of the project includes the Project Outcomes, customers, Project Outputs, work and resources (both human and financial). For large and/or complex projects the scope should be detailed fully in the *Project Business Plan*. For smaller projects, a brief *Project Business Plan* with a brief description of each of these elements and a timeframe for implementation may be all that is required.

Refer to *Section 2, Element 1 – Planning and scoping* for more information about this.

Element 2: Governance

It is important to establish a management structure for the project that identifies the specific players, their roles, responsibilities, accountabilities and the interaction between them for the life of the project. Ultimate responsibility and accountability for the project must be clearly defined and accepted at an appropriate level within the organisation. For small projects, it may be only the Project Manager and a senior or line manager. For larger and/or more complex projects it will be necessary to establish a more formalised governance structure.

More information is provided in *Section 2, Element 2 – Governance*.

Element 3: Outcome Realisation (including organisational change management)

In the context of a project, planning for the achievement or 'realisation' of the Project Outcomes relates to planning for organisational change. Organisational change management is about managing the re-alignment of an organisation to meet the changing demands of its business environment. This includes improving service delivery and capitalising on business opportunities underpinned by business process improvement and technologies.

Any project planning activities must consider the amount of organisational change required to deliver the Project Outputs and realise the Project Outcomes. Once a project delivers its outputs to the Business Owner(s), these outputs must be utilised by the project customers (eg a business unit) to enable the Project Outcomes to be realised. This stage of the project is therefore referred to as Outcome Realisation.

For small projects, it may not be documented formally except in any implementation plans developed for the project. For large and/or more complex projects, planning for this change is closely linked with *Element 4 – Stakeholder engagement*.

More information is provided in *Section 2, Element 3 – Outcome Realisation (including organisational change management)*.

Element 4: Stakeholder engagement

Stakeholder engagement involves identifying people or organisations that have an interest in the project processes, outputs or outcomes. Planning for how their involvement will be managed on an ongoing basis may be done very quickly for a small project, whereas a large and/or more complex project will require a formal stakeholder analysis and a *Stakeholder Engagement Plan* – either as part of the *Project Business Plan* or maintained separately – which will require ongoing monitoring and progress reviews. Stakeholder engagement includes communication planning.

More information is provided in *Section 2, Element 4 – Stakeholder engagement*.

Element 5: Risk management

Risk management describes the processes to identify, analyse and respond to project risk. It covers risk identification, risk analysis, risk evaluation and risk treatment. The processes are iterative throughout the life of the project and should be built into the project management planning and activities.

Small projects may only need a brief scan and ongoing monitoring. Large and/or more complex projects should have a formalised system to analyse, manage and report, including a *Project Risk Register*.

More information is provided in *Section 2, Element 5 – Risk management*.

Element 6: Issues management

Issues management involves monitoring, reviewing and addressing issues or concerns as they arise through the life of a project. If issues are not addressed they may become risks to the project. Small projects may only need a brief scan and ongoing monitoring. For large and/or more complex projects, it is advisable to maintain a *Project Issues Register* that should be regularly reported to the Project Steering Committee.

More information is provided in *Section 2, Element 6 – Issues management*.

Element 7: Resource management

Planning to manage the people, finances, and physical and information resources required to perform the project activities is vital, no matter what the project size or complexity. Documenting this may not be necessary for small projects, but for large and/or more complex projects detailed documentation will enable better management of the resources, as well as transparency for the key stakeholders. Formalised monitoring and reporting on progress against budget is an important element in reporting to the Project Steering Committee in large and/or more complex projects.

More information is provided in *Section 2, Element 7 – Resource management*.

Element 8: Quality management

The purpose of quality management within projects is to ensure that the project management processes are conducted in a quality manner (quality assurance) and that outputs are delivered fit-for-purpose according to agreed quality criteria (quality control). If a project is not managed to incorporate quality management, it is probable that Project Outputs may not be fit-for-purpose and, subsequently, planned Project Outcomes will not be realised or will be realised to a much lesser extent.

Quality management in a project reduces the risk of project failure. It includes a process for managing changes, problems, issues and incidents that emerge during the management of the project and the production of the outputs. These quality management procedures need to be planned for by the Project Manager just as thoroughly as the actual work of the project. These procedures may not be formalised for small projects, but should be scanned for during the life of the project. For large and/or more complex projects, a *Quality Management Plan* can be included in the *Project Business Plan* or as a stand-alone document.

More information is provided in *Section 2, Element 8 – Quality management*.

Element 9: Status reporting

Formalised regular reporting on the status of the project – project performance, milestones, budget, issues and risks – is a major requirement for large and/or complex projects. Reporting is usually to the Project Sponsor and/or Project Steering Committee which includes the Business Owner(s) or their representatives. The frequency of this reporting varies. With very small projects it may be a fortnightly meeting with the senior manager who has taken the role of Project Sponsor about any issues that could affect progress. For large and/or more complex projects, status reporting is an integral part of the quality management of the project and provides a mechanism to regularly validate the project's links to achievement of the organisational strategic agenda.

More information is provided in *Section 2, Element 9 – Status reporting*

Element 10: Project review and evaluation

No matter what the size or complexity of the project, it is necessary to measure project success against well-defined criteria. Reviewing progress against established criteria will help to determine whether the project is under control, the level of adherence to documented plans, methodologies and standards, and achievement of outcomes. For small projects, review might consist of ongoing monitoring through discussions with the line manager and affected staff, with an evaluation debriefing at the end. For large and/or more complex projects, formalised reviews are highly recommended during the project, at the end of major phases and at key decision points, with a post-completion evaluation regarded as essential to capture the learnings for future projects.

More information is provided in *Section 2, Element 10 – Project review and evaluation*.

Element 11: Project closure

Planning for the closure of a project is important. Essentially, successful project finalisation involves formal acceptance of Project Outputs by the Business Owner(s), an internal review of Project Outputs and achievement of agreed Project Outcomes against the *Project Business Plan*, disbanding the Project Team and 'tying up loose ends'. In a large and/or complex project, an external post-completion evaluation/audit often occurs before formal closure by the Project Steering Committee. The extent to which procedures for closure are formalised depends on the nature and size of the project.

More information is provided in *Section 2, Element 11 – Project closure*.

6. Key Elements in the project life

Figure 2 shows the Key Elements throughout the life of the project.

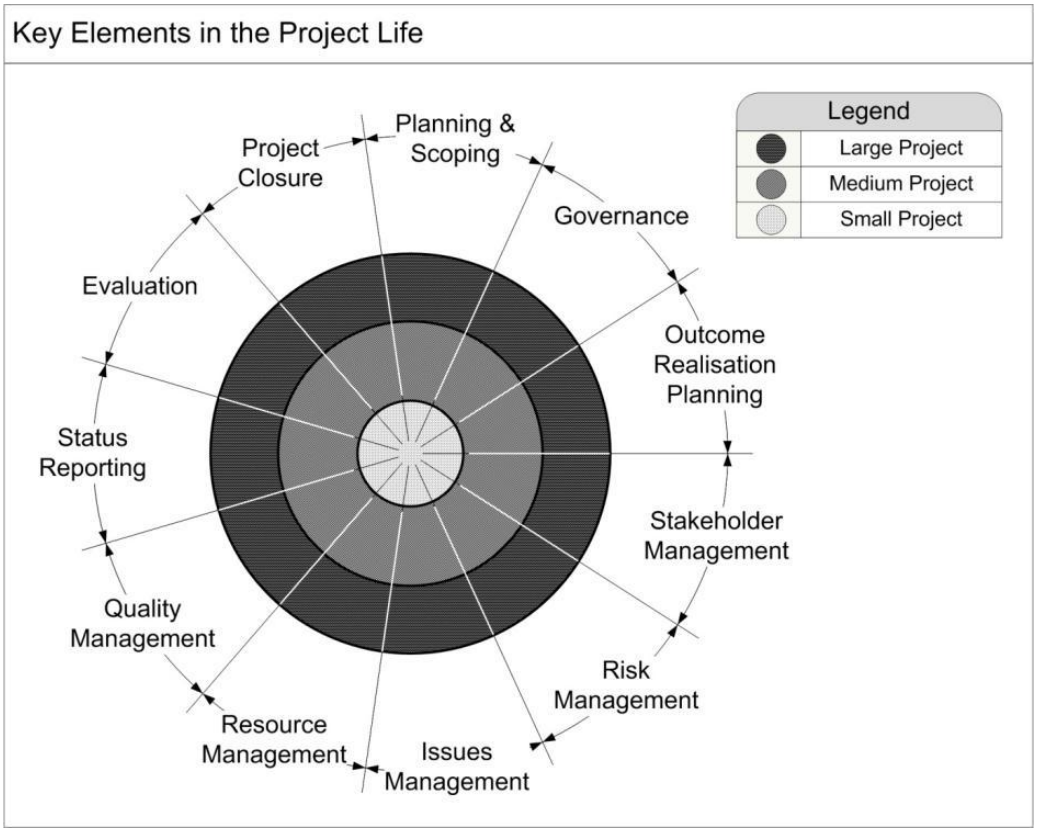


Figure 2 – Key Elements in the project life

Table 1 broadly summarises where each of the Key Elements relate to the project life.

Key Element	INITIATE	SET UP	MANAGE	FINALISE
1. Planning and scoping	✓	✓	✓	
2. Governance	✓	✓	✓	✓
3. Outcome Realisation	✓	✓	✓	✓
4. Stakeholder engagement	✓	✓	✓	✓
5. Risk management	✓	✓	✓	✓
6. Issues management			✓	✓
7. Resource management		✓	✓	✓
8. Quality management			✓	✓
9. Status reporting			✓	✓
10. Project review and evaluation			✓	✓
11. Project closure				✓

Table 1 – How Key Elements relate to the project life

Many of these Key Elements exist in an embryonic state in the INITIATE phase, and are further developed if the project progresses through the other phases. One of the most common reasons for project failure is that insufficient consideration is given to the Key Elements in project definition and monitoring.

7. Determining project size

One of the major problems facing any project is the extent to which the Key Elements of the project management methodology should be addressed, and the level of detail in any of those elements. It is not appropriate for all projects to do all project management activities to the same level of detail and with the same level of discipline.

The Project Sponsor or Project Officer preparing the *Project Proposal* and/or the *Project Business Case* should make an initial determination of the project size. Once a project has been approved, funded and a Project Manager appointed, the size of the project should be formally determined and confirmed. This should be one of the first tasks for the Project Manager, as the size of the project will determine the level of detail and discipline of project management activity to be applied.

For a small project, the Project Sponsor should approve the level of application of the project management methodology. For a medium or large/complex project, the proposed project sizing and level of application of the project management methodology should be approved by the Project Steering Committee.

The result of the process should be clearly defined and accepted agreement as to how the project will be managed, including the level of detail and discipline that will be employed, recorded.

8. Project management documentation

Project management documentation refers to the suite of documents that can be used to assist in managing a project. These documents provide a record of decisions and a means of documenting assumptions and agreement (including responsibilities and accountabilities) on which these decisions are based.

Project management documentation is usually generated by the Project Manager and Project Team, and approved by the Project Sponsor and/or Project Steering Committee. Developing the required documents should not be seen as superfluous to the project, as they can assist the Project Team to focus on the tasks required to achieve the Project Outcomes. It is important to remember that it is the project processes that are the focus – documentation is not an end in itself.

Project management document templates are available to cover the eleven Key Elements of project management outlined in these Guidelines. In smaller projects it is not necessary to produce multiple documents as the various elements can be effectively covered in the *Project Business Plan.*

Project management document templates are available from www.egovernement.tas.gov.au.

Levels of documentation

The documents referred to in these Guidelines can be classified into three types:

- corporate level documents that the Project Sponsor and/or Project Steering Committee own and are responsible for. These are the high-level documents that are used to scope the project and the approach to managing risk, quality, stakeholder engagement, resources and outcome realisation. These documents can also include those that seek initial endorsement of, or funding for, the project;
- business level documents that the manager(s) of the business unit(s) (the Business Owner(s)) are responsible for and that support the organisation to transition to the post-project environment. These documents enable the testing, training and use of the Project Outputs in order to achieve agreed Target Outcomes and longer term business benefits;
- project level documents that the Project Manager and Project Team are responsible for. These includes the documents used to produce the Project Outputs, manage the risks and maintain stakeholder engagement.

Although small projects don't need the full set of project documentation defined in these Guidelines, they do require a certain level of documentation to reflect what has been agreed. The Project Manager should consider which documents are required, based on decisions regarding the project size and complexity, and look at using scaled-down or combined documents for small projects. The quantity of text can be minimised using dot points instead of paragraphs without loss of essential information.

Description of documents

A number of document templates are available to assist in managing each phase of a project. These templates, all of which are scalable, are available at www.egovernment.tas.gov.au. If specific sections of the templates are considered irrelevant, some brief text should be included to explain their exclusion as any omissions will reduce the effectiveness of the document as a whole.

Appendix 6 Project Management Documentation includes more detail on project documentation.

9. Tips from project managers:

Practising Tasmanian State Service project managers and others have made the following observations:

- Canvas all stakeholders for input during document development.
- Ensure independent review of all project documents: an external perspective can bring 'new eyes' to the information and reveal internal assumptions.
- Don't swamp stakeholders with too much documentation at any one time.
- Documents are only one mechanism by which to communicate with stakeholders.
- Obtain agreement from the Project Sponsor and/or Project Steering Committee as to what documentation is required by them.
- Assign responsibility for development, acceptance and maintenance of documents.
- Don't assume the Project Manager has responsibility for maintaining all documentation.
- Documents can provide a useful knowledgebase for future projects.
- State the purpose/intention of each document – ask yourself what would happen if you did not have this document.
- The minimum required documents for a project are a Project Business Plan and a Project Execution Plan (or Project Work Plan or Work Breakdown Structure).
- Confirm reliable baseline data early for monitoring and reporting on progress in achieving the agreed Target Outcomes (ie before the organisational change begins).
- Formally document decisions and actions from meetings (eg Project Steering Committee, reference group, Project Team meetings).
- Clearly define and gain executive agreement to the proposed project governance structure.
- Ensure the process for issues management is defined and agreed.
- Establish a consistent structure and approach for status reporting.
- Minimum reporting to the Project Sponsor and/or Steering Committee includes milestones; risks; issues; and budget.
- Ensure that there are resources and time scheduled in the *Project Business Plan* to develop, review and maintain documents.

Section 2
The 11 Key Elements of project management

Element 1 Planning and scoping

This includes:

Terms used in this Guide can be found in Appendix 1 Project Management Glossary

1.1 What is planning and scoping?

In the context of projects, planning provides a framework for the strategic process required to manage a project. In the Tasmanian Government, planning follows a recommended methodology, and planning activities are recorded in project planning documents. An effective planning process ensures clear understanding of the business objectives to be achieved and the business changes required to achieve those objectives.

Scoping establishes the boundaries of a project and should occur regardless of the size of the project. The scope of the project will specify what can be delivered within the timeframe and resource constraints imposed on the project.

1.2 Planning and scoping a project

Planning and scoping a project is not a static, one-off process. While initial planning and scoping occurs in the pre-project or INITIATE phase, planning is a process that occurs throughout the life of a project; the scope of the project will be re-examined many times over the project's life. In theory, the more complex a project, the more time should be spent at the INITIATE phase undertaking initial planning and scoping activities. These could include a detailed feasibility study, a cost-benefit analysis and/or a business case (sometimes a project in itself). However, in reality many projects are initiated on the basis of a brief proposal, a public announcement or a short email from senior management. As a result, the INITIATE phase can be overlooked due to time constraints and a desire to 'get on with the project'; effective project managers will resist this pressure.

Initial planning and scoping activities should draw on any endorsed documents such as a *Project Proposal, Project Business Case*, ministerial announcement or email from management. Integration of endorsed source documents into the *Project Brief* and/or *Project Business Plan* will provide a basis for further discussion, review, clarification and confirmation of the project scope with key stakeholders.

Achieving clarity in the early stages of the project is crucial for later project success. If the project is unfeasibly defined and scoped, and not properly linked with the agency's organisational goals and objectives, it will be difficult to obtain agreement among stakeholders and the project is unlikely to be completed successfully.

As the project progresses and further clarity emerges, the *Project Business Plan* will develop iteratively (see Figure 3 below). All aspects described in the *Project Business Plan* must be re-examined many times over the life of the project, particularly when a great deal of change is involved. This iterative development should involve the Project Team and the Project Sponsor and/or Project Steering Committee. More information is provided in *Section 1, Part 8 – Project management documentation*.

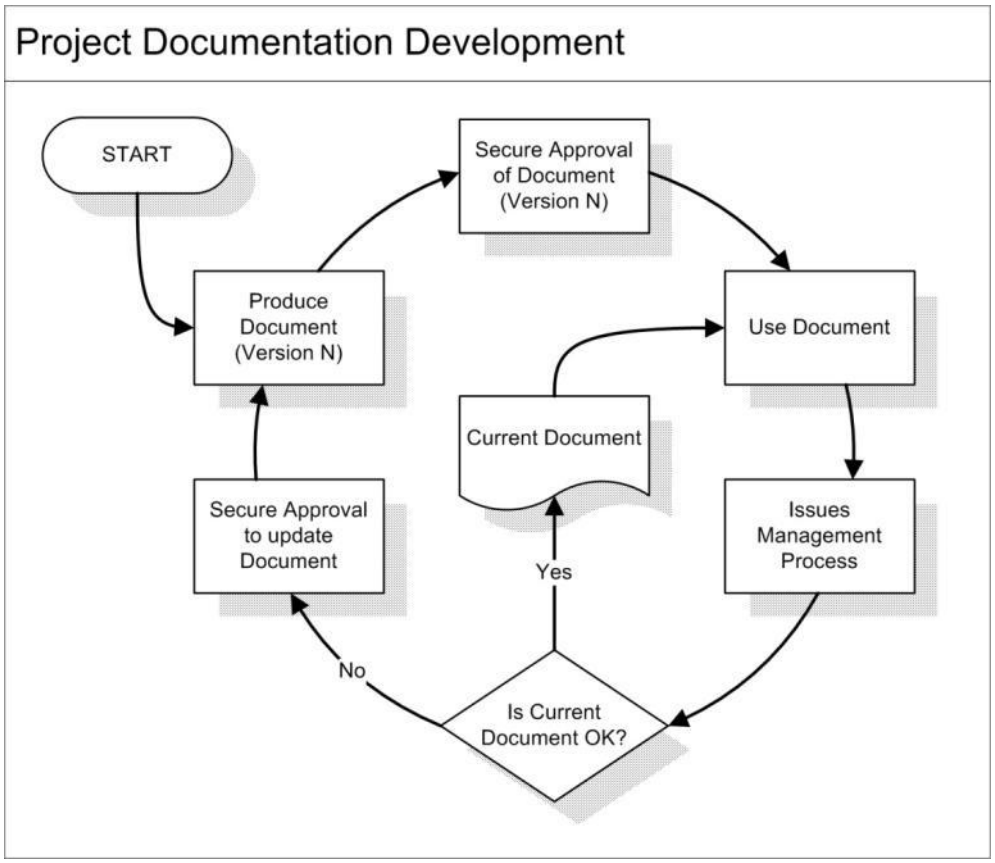


Figure 3 – Project documentation development

1.2.1 Defining project scope using the ITO Model

When initially planning a project, it is imperative to define the project in terms of the desired benefits (Project Outcomes) and the products or services that are required to achieve them (Project Outputs). It helps to directly link the Project Outputs (eg a computer system, procedures, policies), the Project Objective(s) and Project Outcomes to the longer term business benefits the business area wants to realise, while taking into account the overarching organisational goals and objectives of the agency.

John Smyrk's Input-Transform-Outcome (ITO) Model is an effective tool for undertaking the initial project scoping.[3] The ITO Model diagram in Figure 4 – below illustrates the way the work/components in a project are **undertaken** – from **left to right**.

[3] John Smyrk, Sigma Management Science http://sigmafield.com.au/sigma/

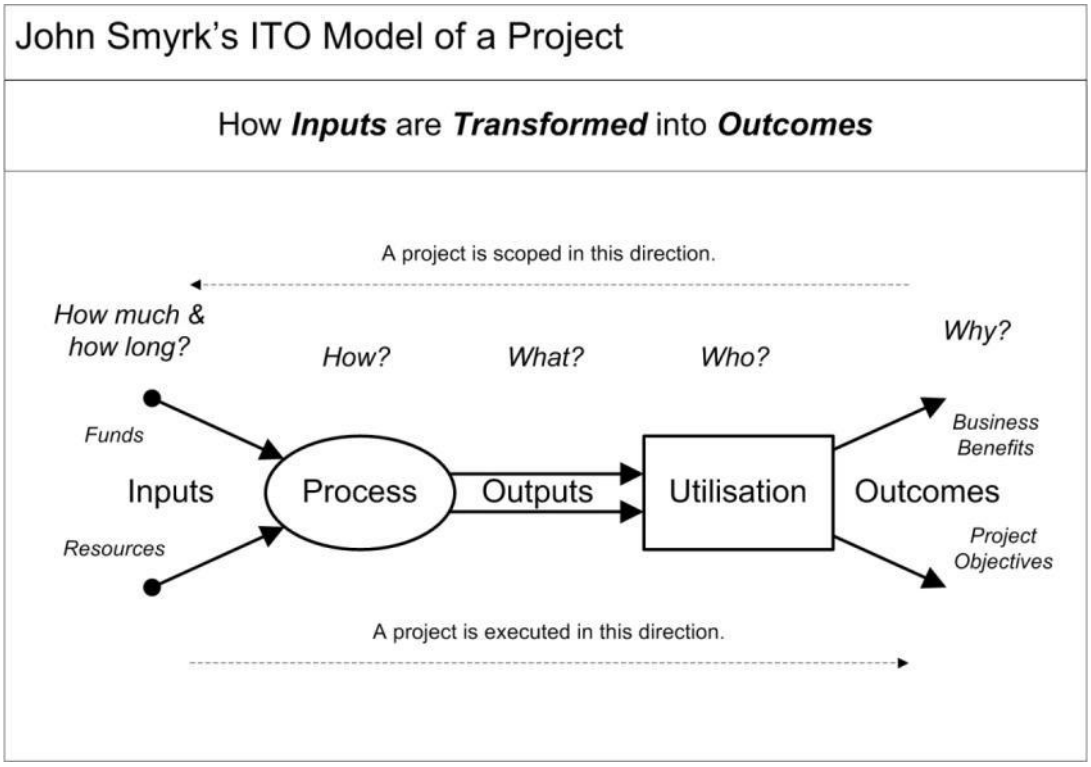


Figure 4 – John Smyrk's Input-Transform-Outcome (ITO) Model diagram

When initially scoping a project, however, each component of the ITO Model is considered in reverse (from right to left). In simple terms, this means that the planning process takes place in the following sequence:

1. The Objectives, Outcomes, Target Outcomes, longer term business benefits and other long-term changes that are sought from undertaking a project are defined (Outcomes).
2. Project customers who will use the Outputs to generate the Outcomes are defined (Utilisation).
3. Products and services that the customers need to use in order to generate the Outcomes are defined (Outputs).
4. Work that is required to produce the Outputs is defined (Process).
5. Resources (both human and financial) that are required to undertake the work to produce the Outputs are defined (Inputs).

The five areas listed above form the scope of the project. The project scope will be determined by defining each of these areas. Project scope is defined as a clear statement of the areas of impact and boundaries of the project.

Project scope is directly influenced by the constraints of time, cost and output quality. Scope change can be achieved, but altering one aspect will influence the others to some degree and the consequences must be fully considered. *Table 2 – Consequences of scope change* demonstrates this. The project's Objective(s) and Outcome(s) should be revised to reflect changes in scope.

Scope change	Consequence
Increased funding	Improve output quality and/or number or Reduce timeframe
Reduced funding	Compromise output quality and/or number (therefore timeframe can be reduced) or Increase timeframe at no additional cost (and maintain output quality and number)
Timeframe increased	Possibly reduce budget or Improve output quality and/or number at no additional cost
Timeframe reduced	More funding required (to engage more resources) or Increase resources (personnel) at reduced cost per unit (if funding level is maintained) and/or Compromise output number and/or quality
Additional or new outputs required	More funding required and/or More time required
Output quality increased	More funding required and/or More time required
Output quality reduced	Less funding required and/or Less time required

Table 2 – Consequences of scope change

Scope should not be compromised to a level that either:

- Outcomes become infeasible: the agreed project scope is incapable of ensuring Outputs are utilised in manner intended to achieve the Outcomes; or
- Output becomes infeasible: the elements of the project scope are mutually inconsistent – ie if the Project Outputs cannot be produced within the specified timeframe and agreed costs.[4]

It is essential to gain documented agreement to any change in project scope from the Project Sponsor and/or Project Steering Committee.

[4] John Smyrk, Sigma Management Science http://sigmafield.com.au/sigma/

Using the ITO Model to define and scope a project can provide greater confidence that the work undertaken will ensure the Outcomes are realised and business benefits are achieved as illustrated in Figure 5 below.

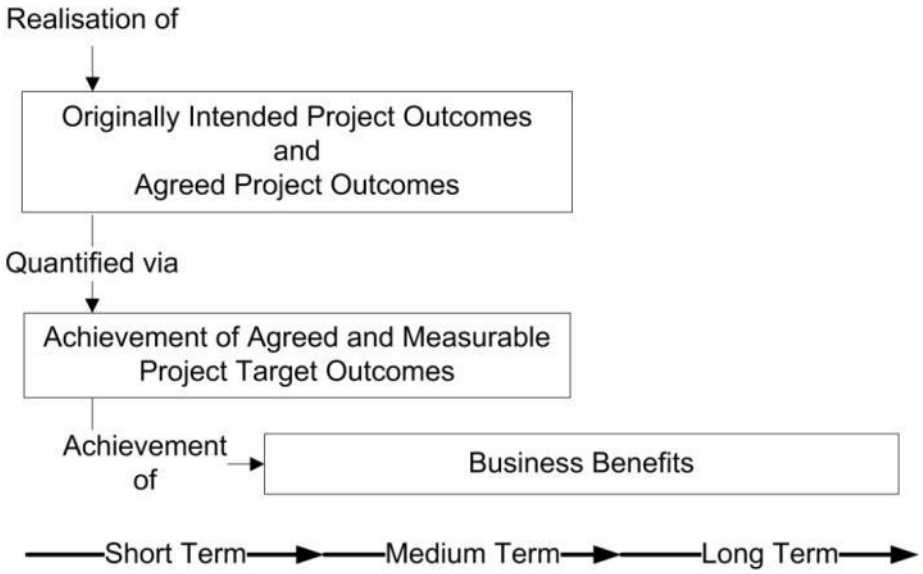


Figure 5 – Achieving business benefits through the ITO approach

In the ITO Model, Outputs are controllable by the Project Manager, while achievement of Outcomes is usually not (although they can and should be influenced).

In these Guidelines, the Outcomes and Outputs described in the ITO Model are referred to as Project Outcomes and Project Outputs to avoid confusion with the outcomes and outputs identified in agency/organisational budgets (although there should be a direct relationship).

1.2.2 Planned and unplanned changes to scope

No matter how well a project is planned, there are likely to be unforeseen circumstances or issues that simply cannot be determined up-front. Change can be divided into two major categories – planned and unplanned:

- Planned changes to scope:

  Changes that are planned and implemented as anticipated

- Unplanned changes to scope:

  Emergent change – a proactive response to unforeseen circumstances (for example additional or conflicting requirements may become apparent and need responding to; alternatively, circumstances may change)

  Unanticipated change – where changes are unplanned and unforeseen (for example, technology may be utilised in a manner that was not originally intended).

Unplanned change is likely to occur regardless of the level of competency and preparation of the Project Manager. Governments may change or be restructured; new technologies develop and old technologies become redundant; people's opinions or viewpoints change. Projects that include substantial changes that require negotiation or substantial learning (either organisationally or individually) usually involve a great deal of emergent or unanticipated change. The Project Outcomes of learning or negotiation can be anticipated, but not wholly planned, as they tend to emerge over time.

Project Managers seeking endorsement or approval from their Project Sponsor and/or Project Steering Committee for a change of scope and/or delivery time for Project Outputs should scan all political statements made by the Government in relation to the project. This scan will demonstrate to the Project Sponsor and/or Project Steering Committee that its decision to change the project scope (for example, by changing Project Output quality requirements and extending the delivery timeframe) will in no way conflict with, or cause embarrassment to, the Government.

Under these Guidelines, **'scope creep' or unmanaged change** is defined as any modification to the scope of a project that has not been authorised or approved by the appropriate individual or group.

Unplanned change does not have to be unmanaged. The project's *Quality Management Plan* should include processes for gaining agreement as to how emergent and unanticipated issues can be addressed. Signs that there is a need to carefully consider the management of emergent or unanticipated issues include:

- difficulties in determining project requirements in depth;
- affected project participants see it as a major issue (indicating a need for major negotiation and/or learning);
- a high degree of technical or other types of innovation; and/or
- a rapidly changing or vague project context.

In practice, dealing with such issues within the scope of a project involves:

- anticipating and planning for possible changes through risk analysis and developing contingency plans (elevated or new risks may determine if the change is acceptable);
- keeping track of emerging or unanticipated issues through issues management procedures;
- bringing issues which could have a major impact on the nature or substance of the project to the Project Sponsor and/or Project Steering Committee so they can re-evaluate the project or make adjustments; and
- using an iterative process of change within the scope of a single project, with approval for the changes carefully documented in iterative versions of the *Project Business Plan*.

Rapid Application Development (RAD) is an example of this approach for information systems/software development projects. RAD is highly recommended by some international consulting groups for projects involving innovation or organisational changes, such as data warehousing. In practice, it involves recognising and planning for desired outcomes on a large-scale, strategic level without committing to a particular set of implementation tactics (including the number, nature or scope of projects down the track).[5] Design and construction projects are also an example of this approach.

1.3 Documenting project scope

Project scope is initially documented at a high level in the *Project Proposal* or *Project Business Case*. Once the project has been approved, the project scope should be defined in more detail in the *Project Business Plan*. Previously endorsed documents such as the *Project Proposal, Project Business Case,* public announcement or relevant emails from management should be acknowledged in the *Project Business Plan*. This process is called integration. This information, along with any gaps, provides a basis for further discussion, review, clarification and confirmation of the project scope with key stakeholders.

Small projects normally require less detail, but the complexity of the project scope should determine the desired level of rigour.

The *Project Business Plan* is essentially the contract between the Project Manager and the Project Sponsor and/or Project Steering Committee for the delivery of the agreed Project Outputs within the defined parameters of time, budget and quality. Once the *Project Business Plan* is agreed to and formally accepted by the Project Sponsor and/or Project Steering Committee, it constitutes formal and documented agreement to the scope of the project.

This formal agreement assists in avoiding project 'scope creep', reducing the risk of stakeholders attempting to add extras, such as outputs or outcomes, during the course of the project without allowing for any subsequent adjustment to the timeframe, budget or output quality. It is important that any agreed changes to scope go through the appropriate approval procedures and are documented. This is outlined further in *Element 2, 2.3.1 – Approving changes to project scope*.

A range of project management templates are available at www.egovernment.tas.gov.au, all of which are scalable. These are explained further in *Section 1, Part 8 – Project management documentation*.

The following elements are typically covered in project planning documents to clarify the scope:

1.3.1 Project Objective

A Project Objective is a statement of the overarching rationale for why the project is being conducted. This should be directly related to the corporate objectives and the business driver(s) for the project. It must be meaningful in the context of the business unit's strategic agenda and focus on what the project is going to achieve, rather than what is produced. A project can have one or more objectives, which do not need to be measurable.

[5] Thomsett, Rob (2000) Radical Project Management. Upper Saddle River, NJ: Prentice Hall

A useful way to frame the objective is to answer the question, 'Why are you undertaking the project?' The result is a one sentence statement, or series of statements, starting with the word 'To …'

1.3.2 Project Outcomes

Project Outcomes are the benefits or disbenefits that will be realised from the utilisation of the outputs delivered by the project (the Project Outputs). Specified Project Outcomes should be plausibly connected to utilisation of the Project Outputs and if possible defined in measurable terms, quantitatively or qualitatively (eg improved, reduced, increased, maintained).

The Project Outcomes must be specified in partnership with the Business Owner(s) to ensure the measures make sense in the context of the business driver(s) for the project and the business unit's strategic agenda.

Disbenefits arise from undesirable outcomes that may flow automatically from the project and impact adversely on particular stakeholders (eg reduced profits for a business unit because the cost of or demand for some services is reduced). Disbenefits must be taken into account when valuing the project from the perspective of those stakeholders who will be impacted by the disbenefits.

1.3.3 Target Outcomes

A small number of Project Outcomes should be selected for further specification as the agreed Target Outcomes for the project. Target Outcomes comprise performance information against which the project's success will be assessed within the agreed project timeframe, including the following:

- Target Outcome – the measurable benefits that are sought from undertaking a project
- Performance Indicator – a description of the type of change that will indicate performance towards the achievement of the Target Outcomes
- Measure – the actual mechanism for gauging the level of performance
- Baseline – the current level of the Performance Indicator (ie before the utilisation of the Project's Outputs has begun)
- Target level – the targeted level of performance
- Target date – the date by when the target levels are to be achieved
- Accountability – who is accountable for the achievement of the Target Outcomes and reports on the progress towards these targets?

It is useful to specify each Target Outcome's metrics using the SMART goals:

- Specific (to the project)
- Measurable
- Achievable
- Realistic
- Timeframed

Identifying the project's Target Outcomes requires clear agreement by the Project Sponsor and/or Project Steering Committee and Business Owner(s), as these are the measures that will be used to gauge the success of the project. As the project progresses, the Project Outcomes and Target Outcomes will need to be re-examined and re-assessed many times to confirm that they accurately measure the benefits the project intends to deliver; these should be meaningful in the context of the business unit's own performance metrics. Any changes to the context of the performance metrics may require a review and update of the Project Outcomes and Target Outcomes.

It is critical that the Target Outcomes are agreed and documented in an *Outcome Realisation Plan* so the changes brought about by the project can be managed, to confirm arrangements for ongoing measurement of achievement against the agreed Target Outcomes once the project is formally closed, and to ensure longer term measurement of achievement against the identified business benefits.

As some projects move towards closure, additional outcomes may become apparent that were not identified during the project's scoping. 'Trawling' for benefits is not advisable and it is important to carefully analyse perceived causal links between output utilisation and outcome realisation before such unanticipated outcomes can be claimed by the project. The Customer/Utilisation Map at Figure 7can help determine if there is a feasible causal relationship.

The Project Horizons Model (see Figure 6 below) is a visual representation of the relationship between a project's objectives and outcomes, the longer-term business benefits it aims to achieve and the organisational strategic agenda. This model visually depicts when (from the point of project initiation) the Target Outcomes, Project Outcomes and longer term business benefits/disbenefits begin to flow.

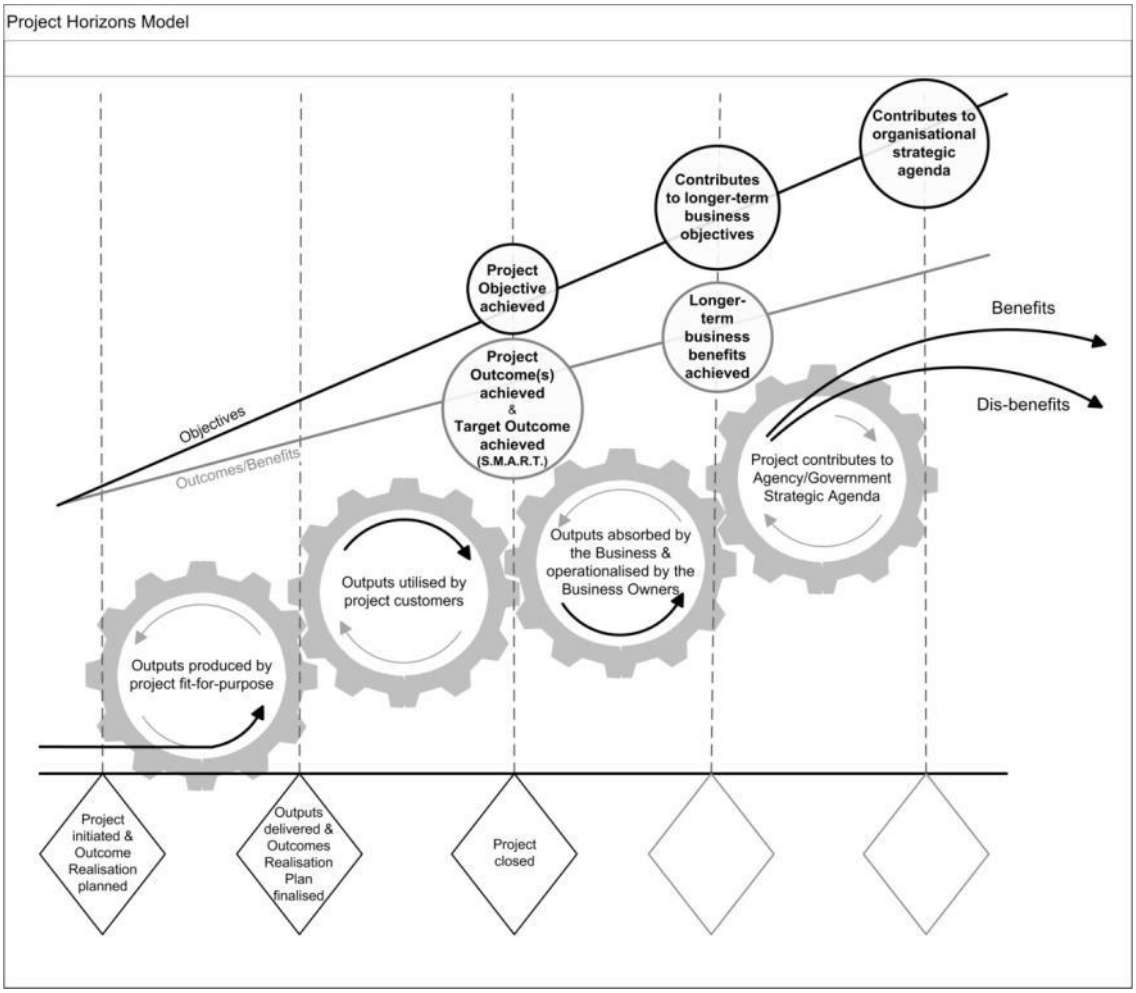


Figure 6 – The Project Horizons Model

1.3.4 Stakeholders

When planning and scoping a project, it is important to correctly identify the groups/organisations that will be required to implement and utilise the Project Outputs to enable the Project Outcomes to be realised. At the initial stages of planning, it is important to record the stakeholders in the relevant section of the *Project Business Plan*.

John Smyrk of Sigma Management Science[6] suggests the use of a Customer/Utilisation Map (see Figure 7) to assist in identifying the relationship between the agreed Target Outcomes, proposed Project Outputs and the customers/stakeholders. This applies a 'logic mapping' approach to analysing the assumed causal relationship between the use of a particular Project Output by specific customers/stakeholders and the intended Project Outcome (ie when Project Output 1 is utilised by stakeholder/customer X, will it result in outcome A/B?). It should highlight whether:

- any of the proposed Project Outputs do not contribute to achieving any of the Project Outcomes (this is sometimes described as the 'benefits flow'); and/or
- the correct customers/stakeholders have been identified to utilise any of the identified Project Outputs in order to contribute to achievement of the Project Outcomes.

[6] John Smyrk, Sigma Management Science http://sigmafield.com.au/sigma/

Number #			**A**	**B**
	Names of	**OUTCOMES**	Name of Outcome A goes here	Name of Outcome B goes here
	OUTPUTS			
1	Name of Output 1 goes here		Name(s) of customer(s) who will utilise Output 1 to generate Outcome A	Name(s) of customer(s) who will utilise Output 1 to generate Outcome B
2	Name of Output 2 goes here		Name(s) of customer(s) who will utilise Output 2 to generate Outcome A	Name(s) of customer(s) who will utilise Output 2 to generate Outcome B

Figure 7 – John Smyrk's example Customer/Utilisation Map

There is not usually a direct one-on-one relationship between the Project Outputs and the Project Outcomes, but the sum of the Project Outputs – through their utilisation by the customers/stakeholders as anticipated – should link directly to the realisation of the Project Outcomes through the achievement of the Target Outcomes.

Refer to *Section 2, Element 4 – Stakeholder engagement* for more information.

1.3.5 Project Outputs

Project Outputs are the new or revised products or services delivered by the project to the Business Owner(s) to manage on behalf of the project customers. They are usually expressed at a high level, and can be broken down into various components or deliverables. In determining the Project Outputs, fitness-for-purpose or quality criteria should also be specified. Fitness-for-purpose is defined as the features by which the quality of an output is determined. In other words, which criteria will be used to test whether the Project Outputs meet the needs of the project customers, and will in turn enable the Target Outcomes to be achieved and Project Outcomes to be realised?

Regardless of the size and/or complexity of the project, the Business Owner(s) for each of the high-level Project Outputs must be identified and confirmed as early as possible.

During the course of the project, procedural or work outputs will also be developed, such as a *Project Business Case*, *Project Business Plan*, *Project Risk Register*, *Project Communication Strategy and Action Plan*, *and* status reports. These 'above-the-line' project documents assist in and support the day-to-day work of managing the project, and they should be maintained by the Project Manager as part of the project's Quality Management Framework. Depending on the size and/or complexity of the project, it may be useful to list these separately in the *Project Business Plan* in order to reflect the level of activity and resources required to undertake the project.

Project Outputs may be produced and Project Outcomes achieved at earlier stages in the project, rather than just in the closing stages. The arrows in the ITO Model (in Figure 3) represent causality, rather than a defined chronological sequence. Table 3 on page 33 uses the Department of Justice Monetary Penalties Project to illustrate these concepts.

	Definition	Example
Project Objective	A statement of the overarching rationale for why the project is being conducted	The purpose of the Monetary Penalties Project, Department of Justice is: to implement an effective and efficient process for the collection of monetary penalties while upholding the principles and values of social justice.
Project Outcomes	The benefits or disbenefits that will be realised from the utilisation of the outputs delivered by the project. Project Outcomes should be plausibly connected to utilisation of the Project Outputs and if possible defined in measurable terms, quantitatively or qualitatively (eg improved, reduced, increased, maintained).	Outcome 1: Strengthen integrity of the criminal justice process through better management of the monetary penalty process.[7]
Target Outcomes	The measurable benefits that are sought from undertaking a project	Target Outcome 1.2: More efficient and earlier collection of monetary penalties through changed processes
Performance indicator	A description of the type of change that will indicate performance towards the achievement of the Target Outcomes	Reduction in the mean/average time to pay a monetary penalty (includes infringement notices and court fines)
Measure	The actual mechanism for gauging the level of performance	Reduction in the average time to pay a monetary penalty compared with current average time to pay
Baseline	The current level of the performance indicator (ie before the utilisation of the Project Outputs has begun)	The average time to pay a monetary penalty before the Project Outputs are utilised (as at 30 April 2008)
Target level	The targeted level of performance	Within a twelve month period there is to be a 30% reduction in average time taken to pay
Target date	The date by when the target levels are to be achieved	30 April 2009
Accountability	Who is accountable for the achievement of the Target Outcomes and reports on the progress towards the target?	• Department of Justice • Department of Police and Emergency Management
Project Outputs	The new/ revised products or services delivered by the project to the Business Owner(s) to manage on behalf of the project customers	• New business processes for managing and processing monetary penalties • The required legislative framework for the enforcement of monetary penalties • Software systems to support the tracking of monetary penalties • The Monetary Penalties Enforcement Service

Table 3 – Example Project Brief: Department of Justice Monetary Penalties Project

[7] The Department of Justice Monetary Penalties Project had five agreed Project Outcomes, each with several Target Outcomes.

1.4 Planning and managing project activities

John Smyrk refers to a two-layered management model for a project. One is the **Control Layer**, or 'above-the-line', the other is the **Work Layer**, or 'below-the-line'. It is a useful distinction for the Project Manager as it provides the distinction between the management of the project (the methodology) and the management of the work of the project (production of the Project Outputs). John Smyrk argues that the Project Manager should be spending at least 15% of their time on 'above-the-line' activities if the project is to be managed in a quality manner and achieve its stated outcomes.

1.4.1 Small to medium-sized projects

Project Business Plan templates specifically for small and medium-sized projects are available from www.egovernment.tas.gov.au. These templates are typically used as the management documents for small to medium-sized projects, supported by day-to-day project plans such as Gantt charts, timeframes and task lists. Whatever planning tool is selected, it should enable the identification of major milestones with tracking and progress reporting against them.

1.4.2 Large and/or complex projects

Large and/or complex can benefit from approaches and methodologies that help to break the project into more manageable parts and by applying tools that help with above-the-line management.

Once a project has been properly scoped, it becomes easier to identify the major activities required to produce each of the Project Outputs. Large projects can be broken down further into **phases**. A phase is a major section of work in a project that delivers Project Outputs, but not Project Outcomes. Large and complex projects that may take several years to complete should be scoped in **stages**, with each stage producing Project Outputs for utilisation. Some Project Outcomes may also be realised by the end of each stage.

Planning for each subsequent phase or stage can be undertaken towards the end of the preceding one as clarity emerges. Activities, tasks, timeframes and milestones can be identified in detail for each phase/stage and linked to the delivery of the Project Outputs for that phase or stage. Milestones are significant scheduled events that act as progress markers in the life of a project. The breaking down of work into related tasks is called the **Work Breakdown Structure,** sometimes described as an **Activity Decomposition Chart**.

The high-level results of this initial planning, called the **Project Development Schedule**, will be documented in the *Project Business Plan* under the Project Development section. This gives an indication of the major project phases, milestones and target dates.

More detailed planning of major project phases, activities, milestones, tasks and the resources allocated to each task can either be documented in the *Project Execution Plan*, or through the use of scheduling tools such as Microsoft Project® or other similar tools. These tools enable the Project Manager to track progress towards the delivery of each Project Output against identified milestones.

The relevant project planning documentation details each Project Output in turn with its associated activities, tasks, milestones and timeframes. The documents also identify the interdependencies of the work required to achieve each of the major milestones.

When planning the baseline project schedule, quality management procedures should to be applied in order to verify output quality. This is especially important where specific groups within the governance structure are to be consulted for endorsement (for example a project reference or advisory group) and acceptance (ie the Project Sponsor and/or Project Steering Committee). This can be a lengthy process and requires careful coordination of meetings if a hierarchical sequence of approvals is required. This introduces the risk of schedule slippage if one of the dependent meetings is cancelled.

The **Critical Path Method (CPM)** is often used to estimate timeframes. The critical path is the chain of activities that links the start to the finish of the project. Any delays will require the timeframe to be extended by the same amount of time. Project Managers who need to shorten the duration of their project focus on the critical path tasks. They add resources and change predecessor relationships to shorten their critical path tasks. Alternatively, Project Managers may change the critical path where feasible (and consequently the critical path tasks) in order to deliver the project on time.

Rolling Wave Planning is another planning and budgeting method that can be employed in large and/or complex projects. This approach to planning involves delaying in-depth analysis of future tasks until that level of detail is needed for the project planning activity. The Rolling Wave Gantt Chart shows near tasks in detail, distant tasks at a high level only and lists those tasks to be left for later discussion.

1.5 Tips from project managers:

Practising Tasmanian State Service project managers and others have made the following observations:

- Scoping activities precede any other project management activities.
- For scoping to occur adequately, there needs to be a full analysis of stakeholders and all stakeholders must be adequately involved.
- With projects that are initiated by edict, active stakeholder involvement is still necessary (though there is a need to facilitate an appreciation of constraints).
- Express the scope in ways and language that people understand and appreciate.
- Make sure the important stakeholders sign off on the scope of the project.
- Be aware of related projects, developments and standards early.
- Carefully define what is in and outside the scope.
- Beware of 'scope creep'.
- Change initiatives do not necessarily have to be translated into single projects. They may be achieved through a series of interlinked projects.
- Ensure that project activities align with the scope. Be aware that some people may have differing agendas that have not been formally defined in the scope.
- Continually monitor the scope and project actions in relation to it. There may be a need to redefine the scope or bring the project back on track.
- It is often easier to start building a *Project Business Plan* using a small template and build up more detail as clarity emerges. Use dot points to capture the essential information rather than lengthy paragraphs.
- When writing the *Project Business Plan* – do the executive summary last
- If specific sections of the templates are considered to be irrelevant for a particular project, include some text to explain why as any 'information gaps' reduce the value of the document as a whole.
- Revisit the Project Outcomes and Target Outcomes many times during a project as things progress. Confirm that they accurately measure the benefits the project intends to deliver and are still meaningful in the context of the business unit's own performance metrics.

Element 2 Governance

This includes:

2.1 What is project governance?

2.2 Ensuring effective project governance

2.3 The roles and functions of a Project Steering Committee

2.4 Project Steering Committee meetings

2.5 Project management governance models

2.6 Governance of interlinked projects (program management)

2.7 Project Portfolio Management

2.8 Post-project governance

2.9 Tips from project managers.

Terms used in this Guide can be found in the Appendix 1 Project Management Glossary.

2.1 What is project governance?

Project governance refers to the process by which the project is directed, controlled and held to account.[8] The aim of project governance is to plan and manage the project throughout its life in order to achieve success.

2.2 Ensuring effective project governance

While there is enormous flexibility in developing a governance structure for a project and the roles within it, there are some general principles that should be applied when planning and managing a project:

- It is vital to establish a management structure for the project that identifies the specific players, their responsibilities, accountabilities and the interaction between them for the life of the project. Ultimate responsibility and accountability for the project must be clearly defined, accepted and exercised within the project governance structure by individuals who have the authority, and whose operational roles place them at an appropriately high decision-making level within the organisation.[9] The governance structure – including roles, responsibilities, accountabilities and authority – must be clearly defined, agreed to and signed off by the Project Sponsor and/or Project Steering Committee as detailed in the *Project Business Plan*.

[8] Based on definition of Corporate Governance in Australian National Audit Office, *Corporate governance in Commonwealth Authorities and Companies Discussion Paper*, 1999

[9] Mahoney, J (20 May 2009) Mismatch of Responsibility, Accountability, and Authority Highlights Governance Hot Spots,

- If a Project Steering Committee is required it should include and represent the Business Owner(s) and key stakeholders as appropriate.
- The Project Sponsor and/or Project Steering Committee must consider how (or if) the Project Objectives, Project Outcomes, Target Outcomes and longer term business benefits align with the organisational strategic agenda and direction.
- Status reporting to the Project Sponsor and/or Project Steering Committee should be against the milestones outlined in the *Project Business Plan* and the *Project Execution Plan* (or *Project Work Plan* or *Work Breakdown Structure*) and should include identified risks and issues for the project.
- The Project Sponsor and/or Project Steering Committee must be committed to providing effective governance until the project's Target Outcomes have been wholly achieved or achieved to a significant extent (this is explained further in *Element 3 – Outcome Realisation (including organisational change management).*
- If necessary, the membership of the Project Steering Committee should change according to the phase or stage of the project to ensure the best expertise and experience are made available.[10]

Project governance structures within and across agencies/organisations are management structures developed specifically for the project and not necessarily a reflection of operational line management structures. Project Team members should have clear, separate responsibilities and accountabilities within the project governance structure that differ from their operational responsibilities and accountabilities Blurring operational and project roles and reporting hierarchies has the potential to:

- negatively influence the project scope by causing confusion about objectives and what is to be done and delivered to whom;
- create stress among the Project Team;
- compromise the project governance structure by confusing reporting responsibilities and authority for project related decisions; and/or
- compromise the successful realisation of the Project Outcomes and business benefits in the longer term.

The project governance structure should be made clear, including how it will operate within the general management structures of the agency/organisation. Even though the structure may be the same or similar, with the same players, the distinction between the project activities (managed through the project governance structure) and normal ongoing business activities should be conveyed clearly. This distinction assists with defining the accountability and reporting arrangements that form the basis of any sound governance model.

Projects funded by the Australian Government usually have a funding agreement that includes processes for decision making, reporting and accountabilities. The Project Sponsor and/or Project Steering Committee should be advised of the terms of any funding agreement as there may be important implications for the project governance processes.

Gartner Inc

[10] Roberts, J., Bittinger, S. (18/09/2006) How to get more value from your Project Steering Committee, Gartner Inc.

2.2.1 Characteristics of an effective Project Sponsor

Ultimate responsibility and accountability for a project's success must be defined clearly and accepted at an appropriately high level within the agency/organisation. The appropriate level is the managerial level that has discretionary control over the bulk of the resources that will be expended in the project's execution. For a large and/or complex project or a program of projects, the responsible and accountable role will generally be held by a member of the senior executive. For small projects, a line manager may fill this role. For the purposes of these Guidelines, this role is called the Project Sponsor.

The Project Sponsor provides the essential link between the sponsoring agency that is seeking to obtain beneficial change through the project and the temporary structure (ie the project) that has been established to create the product or service that is to deliver the desired benefits.[11] It is important to note that this is not a figurehead role and that essential characteristics of this role include:

- Responsible and accountable

  Understands and accepts that the project's success is their responsibility, and truly 'owns' the project from idea to implementation and through to the realisation of the business benefits; they believe the business benefits will be achieved,[12] even if realisation of the benefits will be longer term.

- Visible champion

  Willing to support and defend the project publicly within the larger agency/organisation in the face of opposition from senior colleagues, especially when project funding requires protection or where a high level of organisational change is required.[13]

- Publicly committed

  Consistently supports the Project Manager and the Project Team, including publicly acknowledging effort, rewarding good work and not backing away or distancing themselves from the project when things go wrong or tough decisions are required.

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11 Cooke-Davies, T. J., (2005) The Executive Sponsor – The Hinge upon which Organisational Project Management Maturity Turns?, p.2
Retrieved from: http://www.humansystems.net/papers/Executive_Sponsor.pdf

12 Crawford, L. et al (2008) Governance and Support in the Sponsoring of Projects and Programs, Project Management Journal, 39 (1), pp.43-55
Retrieved from: http://www.uj.ac.za/Portals/11/docs/Governance%20and%20Support.paper.pdf

13 Helm, J., Remington, K. (September 2005) Effective Project Sponsorship: An evaluation of the role of the executive sponsor in complex infrastructure projects by Senior Project Managers, Project Management Journal, 36 (3), pp.51-61

- Strategic and visionary

  Provides business expertise to ensure that the proposed project or program aligns with the corporate strategy and complies with relevant regulations and corporate policy, that the business case is solid from a business perspective, and that the organisation's interests are being served, not someone else's political agenda.[14] Is not afraid to question the project's alignment with the organisational strategic agenda or recommend re-scoping or termination if there is little or no alignment.

- Effective leader

  Respected by stakeholders and seen as credible in the role of Project Sponsor. Has effective communication skills, holds an appropriate level of seniority within the organisation and is willing to use their power and influence (ie political 'savvy' and the right 'connections') to promote the project, often in spite of the agency/organisation's political and cultural realities. Demonstrates courage and a willingness to champion the project within the organisation even in the face of opposition from senior colleagues and resistance to the required organisational change.[15]

- Relationship builder

  Cultivates a good relationship with the Project Manager, characterised by trust, respect and open communication.[16] Can manage up and down and understands the relevant stakeholder groups.

- Balances role requirements

  Balances the requirements of two independent but complementary perspectives, namely the Project Sponsor role and the operational management role, and determine what each particular situation requires.[17]

- Resolves issues

  Has the necessary authority and will to make the required decisions, for example stopping the project if required, or removing an ineffective or obstructive Project Steering Committee member.

- Focused but flexible

  Is clear on the Project Objective and able to provide guidance on priorities, but is flexible on the approach and willing to challenge the Project Team.

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14 Crawford, L. et al (2008) Governance and Support in the Sponsoring of Projects and Programs, Project Management Journal, 39 (1), pp.43-55
Retrieved from: http://www.uj.ac.za/Portals/11/docs/Governance%20and%20Support.paper.pdf

15 Helm, J., Remington, K. (September 2005) Effective Project Sponsorship: An evaluation of the role of the executive sponsor in complex infrastructure projects by Senior Project Managers, Project Management Journal, 36 (3), pp.51-61

16 ibid

17 Crawford, L. et al (2008) Governance and Support in the Sponsoring of Projects and Programs, Project Management Journal, 39 (1), pp.43-55
Retrieved from: http://www.uj.ac.za/Portals/11/docs/Governance%20and%20Support.paper.pdf

- Available

  Assists the Project Manager and Project Team when needed.[18]

Having an appropriate person with the necessary enthusiasm and belief in the project as the Project Sponsor is critical for project success. Ideally a Project Sponsor is self-appointed and has a particular interest in the Project Outcomes.

Many sponsors are appointed to projects without any real analysis of whether the project 'fits' within their area of responsibility. While many usually see their nomination as logical, they are reluctant to accept the role as the project is just one of the 'million things' they are accountable for.[19] The responsibilities and accountabilities of the Project Sponsor should not be delegated because less senior executives usually do not have the status within the agency/organisation to provide the necessary approvals and support or exert the required influence to 'make things happen'.

At the opposite end of the spectrum is a sponsor who becomes too closely involved in the management of a project. While it may be tempting, the Project Sponsor's role is to govern, not manage the work, which means they bear the accountability, but do not have hands-on control[20].

The Project Sponsor oversees the business management and project management issues that arise outside the formal business of the Project Steering Committee. These issues can include the mundane (such as ensuring Project Steering Committee minutes accurately reflect decisions) and the extraordinary (such as representing the project for media interviews).

Usually the Project Sponsor makes an initial determination of the scope of the project and arranges for a *Project Proposal* or *Project Business Case* to be developed. This process may or may not involve the person who is ultimately appointed as the Project Manager.

If a Project Sponsor changes during the course of a project it can cause a loss of focus and may threaten the success of the project. The newly appointed Project Sponsor may not have the same sense of ownership or vision for the project. To minimise potential difficulties in changeover, the previous Project Sponsor and the Project Manager should brief the new Project Sponsor about the strategic context and scope that is defined in key planning documents.[21]

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18 Helm, J., Remington, K. (September 2005) Effective Project Sponsorship: An evaluation of the role of the executive sponsor in complex infrastructure projects by Senior Project Managers, Project Management Journal, 36 (3), pp.51-61

19 Simms, J (2008) What should you expect from your Project Sponsor? Ownership, CIO, http://www.cio.com.au/article/261913/what_should_expect_from_your_project_sponsor_ownership (last accessed 3 February 2010)

20 Value Delivery Management, Project Governance: If Business Project Governance is so easy, how come so many projects fail to deliver to expectations?
Retrieved from: www.valuedeliverymanagement.com/categories/Project-Governance/ (01/06/2009)

21 21 Crawford, L and C Brett, 'Exploring the Role of the Project Sponsor' , UTS Sydney - http://www.projects.uts.edu.au/resources/pdfs/PMINZ2001CrawfordBrett.pdf (last accessed 3 February 2010)

2.2.2 Characteristics of an effective Project Steering Committee

Not all projects require a Project Steering Committee – it will depend on the complexity and nature of the project. Usually the Corporate Client (the high-level champion of the project, who has ultimate authority and who promotes the benefits of the project to the community) and/or Project Sponsor will determine if a Project Steering Committee is required and if so, how large it needs to be. The optimum size of a Project Steering Committee is five to seven people. A Project Steering Committee should be guided by terms of reference that are developed to define the function and role of the Committee.

For Project Steering Committees to work effectively, the right people must be involved and their respective roles and accountabilities must be clearly defined. It is highly recommended that a Project Steering Committee includes the following representatives:

- Business Owner(s) – representing each major business unit that will have responsibility for managing any of the Project Outputs on an ongoing basis

  Confirming who will represent the Business Owner(s) early on will ensure they can participate in the initial clarification of the business problem, refinement of the project scope and development of the Project Outcomes, Target Outcomes and the longer term business benefits that are meaningful in the context of the business unit's strategic agenda.

- Key stakeholders – representing groups that may be positively affected by the project, eg project customer representative.

  Due to the potential conflict of interest, those opposed to the project are disqualified from Project Steering Committee membership and instead should be engaged through reference groups.[22]

- Members – specifically selected for their individual knowledge, skills and specialist area of expertise. These members should remain on the Project Steering Committee even if their role within the agency/organisation changes.
- A member from outside the agency/organisation – to provide a 'reality check' and represent broader government interests.

The Project Manager is not considered a member of the Project Steering Committee and has no decision-making powers.

The Project Steering Committee is expected to 'own' the project rationale and justification that is captured in the *Project Business Case* and expanded in the *Project Business Plan.* Project Steering Committee members should be advocates for the project while representing their particular stakeholder interests.[23] They are accountable to the Corporate Client and/or Project Sponsor for providing the project with effective management and guidance in order to attain the Project Outcomes, and must have the appropriate authority to make the necessary decisions.

Management activities that should be undertaken by the Project Steering Committee include:

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22 Smyrk, J., Sigma Management Science, Primers in Project Management: an integrated glossary of project management terms & definitions, p.32
Retrieved from: http://projectoutcomes.smscience.com/PO%20glossary%202a.pdf

23 Gartner research: 'How to get more value from your Project Steering Committee', J Roberts & S Bittinger, 18 September 2006

- approving the initial Project Proposal or Project Business Case;
- approving the Project Business Plan;
- monitoring progress (not just activity);
- scrutinising the project budget;
- being accountable for risk management activities; and
- assessing, approving or rejecting changes to the scope (as documented in the *Project Business Plan*) as the project progresses.

The Project Sponsor and individual Project Steering Committee members are not directly responsible for managing project activities, but provide support and guidance for those who do manage them. Essential characteristics for Project Steering Committee members include:

- Committed

  Genuinely interested in the project's success, demonstrated by commitment to, and active involvement in, pursuing the Project Outcomes and longer term business benefits.

- Responsible and accountable

  Understands that 'the Project Steering Committee operates above-the-line (see 1.4) and is not involved in producing Project Outputs.' [24]

- An advocate for stakeholder interests

  Understands that the interests and requirements of the stakeholder groups they represent and any corresponding accountabilities, responsibilities, authority and decision-making boundaries. [25]

- Strategic and visionary

  Understands the organisational and strategic context and is willing to question how (or if) the Project Objectives, Project Outcomes and longer term business benefits align with the organisational strategic agenda and direction. Willing to re-scope or terminate the project if there is little or no alignment. Can keep the project scope under control as emergent issues force changes to be considered.

- Willing to adhere to best practice

  Ensures adherence of project activities to professional standards of best practice within the organisation and in a wider context. Applies open and transparent processes, scrutinises the project budget and ensures risk management processes are appropriate.

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24 Smyrk, J., Sigma Management Science, Primers in Project Management: an integrated glossary of project management terms & definitions, p.32
Retrieved from: http://projectoutcomes.smscience.com/PO%20glossary%202a.pdf

25 Australian Government Department of Finance and Administration, (2007) *Gateway Review Process: Lessons Learned*
Retrieved from: http://www.finance.gov.au/gateway/index.html

- Problem solver

  Willing to assist the Project Team by resolving issues, mitigating risks, advocating on behalf of the project and taking necessary action to ensure the project's success.[26] Solution-focused and willing to address problems as they arise.

- Respectful

  Observes professional meeting protocol, resolves project conflicts professionally by reconciling differences in opinion and approach, and provides a safe environment so the Project Manager can speak freely.

A Project Steering Committee should expect high-quality information from the Project Manager and be able to question this information. This could include:

- questioning how (or if) the Project Objectives, Project Outcomes and longer term business benefits align with the organisational strategic agenda and direction; and
- making the hard decisions to re-scope or terminate the project if there is little or no alignment with the organisational strategic agenda.

Relying on a competent and experienced Project Manager does not absolve a Project Steering Committee from its responsibilities and is not a reason to disengage. It may mean that some Project Steering Committee members need to 'learn to ask the right questions' until they 'get the right answers'[27], or seek independent verification of information provided.

In the *Gateway Review Process Lessons Learned* summary the Australian Government Department of Finance and Administration identified that 'the structure, roles, responsibilities, authority and decision-making boundaries and reporting obligations/needs must be clearly documented.' [28] This information should be captured in the Project Steering Committee Terms of Reference.

The effectiveness of a Project Steering Committee can be determined through a self-assessment process, or via feedback from a quality assurance review provided by a third party.

See *2.4* below for further information about Project Steering Committees.

2.2.3 Characteristics of an effective Business Owner

The role of Business Owner is complex and, whether there is one or more Business Owner, their involvement in the project should be continuous:

- from the early conceptual stages and refinement of the project scope and success measures;
- to reviewing and/or testing the completed products (Project Outputs); and
- post-project closure after they have assumed ongoing ownership of the Project Outputs and the benefits are apparent.

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[26] Adapted from www.project-sponsor.com

[27] Norden-Powers, C 'The James Hardie Experience: Another example of failing to ask the right questions?' 2007 http://www.spandah.net/html/s02_article/article_view.asp?id=321&nav_cat_id=165&nav_top_id=69

[28] Australian Government Department of Finance and Administration, (2007) *Gateway Review Process: Lessons Learned* Retrieved from: http://www.finance.gov.au/gateway/index.html

A Business Owner's involvement may be through representation on the Project Steering Committee, reference group(s)and/or working group(s) where appropriate and working in partnership with the Project Manager.

Essential characteristics of a Business Owner include:

- Strategic

  Has long-term vision of the eventual impact of the project on the operational environment of the business unit(s) they represent. This requires their early participation in the initial clarification of the business problem and the identification of the project success measures (ie Target Outcomes) and the desired longer-term business benefits.

- Committed

  Ensures the project scope includes all of the outputs necessary for the realisation of the project's Target Outcomes and the agreed longer-term business benefits. The Business Owner(s) may be required to contribute resources to the project in order to ensure that all required Project Outputs are developed 'fit-for-purpose' in the context of the everyday operational environment.

- Responsible

  Coordinates and implements the required organisational change management within the business environment and ensures the Project Outputs are well integrated into the operational environment after delivery.

  This includes reporting progress of the organisational change to the Project Sponsor and/or Project Steering Committee.

- Accountable

  Manages and maintains the Project Outputs once the project closes, including all ongoing costs and management of any required changes.

The Business Owner is responsible for implementing and coordinating the necessary organisational change management in the business environment; this will facilitate the necessary output utilisation for Outcome Realisation to occur. The Business Owner is also responsible for reporting this organisational change to the Project Sponsor and/or Project Steering Committee. How the organisational change will occur is usually documented in the *Outcome Realisation Plan*, which is effectively the contract between the Business Owner(s) and the Project Sponsor and/or Project Steering Committee to implement the required change management within the business environment. The Project Manager may assist in the development of the *Outcome Realisation Plan*, but it is 'owned' by the Business Owner.

In reality, the Business Owner(s) may not be in a position to execute the *Outcome Realisation Plan* directly, nor manage its execution. While project planning usually includes costs of implementation, relevant Business Owners may be required to contribute additional resources to ensure these tasks are undertaken appropriately (eg coordinating any required working groups, contracting consultants). Depending on the complexity of the change management required, implementation could be regarded as a project in its own right.

It is essential that the Business Owner participates in identifying the project's success measures early in the project planning process. After formal project closure the Business Owner is accountable to the Project Sponsor or their delegate (eg an existing management group nominated by the Project Steering Committee before the project was closed) for monitoring and reporting on progress towards achievement of the project's Target Outcomes, as well as the realisation of the longer term business benefits. They must be satisfied that these measures and metrics are meaningful in the context of the business unit's performance metrics and strategic agenda. The Business Owner is responsible for ensuring the revised measures and reporting requirements are reflected in updated agency or divisional corporate or annual business plans. The operational performance metrics may require further review and updating, once utilisation of the Project Outputs has been incorporated into the day-to-day operations of the business unit.

After the project has been formally closed, the Business Owner is also responsible for ongoing ownership and maintenance of the Project Outputs. This responsibility includes all maintenance costs, as well as ongoing review of problem reporting and management of any required changes ('final tweaking'), and must be considered by the Business Owner early in the project given the obvious implications for forward budget planning and staffing.

In some contexts, output ownership may be split between:

- the Substantive Business Owner – responsible for high-level output maintenance by providing expertise and authoritative content or processes to ensure specific Project Outputs reflect relevant policy and practice; and
- the Operational Business Owner – responsible for the day-to-day management issues and ongoing output maintenance and processes to support stakeholder engagement.

In such situations both the Substantive and Operational Business Owners are accountable for the successful realisation of the longer term business benefits and accountability and reporting lines may need clarifying. Determining who is responsible for meeting the ongoing maintenance costs may require additional negotiation.

2.2.4 Characteristics of an effective Project Manager

The Project Manager is usually the person whom the project will ultimately revolve around, so it is critical to select an appropriate Project Manager. The Project Manager must be adequately resourced and be delegated the appropriate level of authority. They may or may not have been involved in developing the initial project scope and *Project Proposal* or *Project Business Case*.

Essential characteristics of a Project Manager include:

- Responsible

  Understands they are responsible for the delivery of the defined Project Outputs as articulated in the approved *Project Business Plan*, within the agreed parameters of time, cost and quality.

- Relationship builder

  Engages openly, professionally and frankly with the Project Sponsor, Business Owner(s)and/or Project Steering Committee to clarify the Project Objective(s), Project Outcomes, Target Outcomes, Project Outputs and key stakeholders within agreed time, cost and quality parameters. Communicates the project and manages expectations of all stakeholders.

- Scope manager

  Is confident to propose changes to scope as the project progresses and additional clarity emerges. Willing to assess changes to scope proposed by the Project Sponsor and/or Steering Committee members and recommend for or against these changes based on any potential impact on time, cost and output quality.

- Skilled

  Has high-level project management skills.

- An information source

  Provides appropriate information about progress towards achieving agreed Project Objectives and Project Outcomes (not just activity) in reports that are concise and combine clear business language with a careful balance of technical and business information.

- Credible

  Has knowledge of the business area, understands how the Project Outputs will be created and how the Target Outcomes will be realised from the utilisation of those outputs.

- Team builder

  Cultivates an effective Project Team and maintains performance and morale.

For large and/or complex projects or a program of projects, project management knowledge and experience are at least as important as knowledge of the business area(s) in which the project is being run. However, Project Managers should have, or seek to obtain, knowledge of the business area in order to be able to communicate effectively with Project Team members, stakeholders and project customers to ensure that business issues and concerns are addressed.

In some instances it may be necessary to delegate specific responsibilities to particular roles, eg a dedicated Risk Manager or Contract Manager. However, the Project Manager remains accountable for these aspects of the project's management and is required to report relevant issues to the Project Sponsor and/or Project Steering Committee.

A Project Manager can expect the Project Steering Committee to make necessary decisions and provide appropriate guidance as required. For these decisions to occur, the Project Steering Committee requires appropriate information detailing progress towards achieving the agreed Project Objectives and Project Outcomes (not just 'activity'). Reports and information should be concise and combine clear business language with a careful balance of technical and business information, depending on the Project Steering Committee's areas of expertise and knowledge. Knowing that a Project Steering Committee is ineffective does not absolve the Project Manager from their responsibilities and they must still report properly even if difficult decisions are required.

2.2.5 Characteristics of an effective Project Team

The Project Team is led by the Project Manager, working for the successful delivery of the Project Outputs as outlined in the *Project Business Plan* and elaborated in the *Project Execution Plan* (or *Project Work Plan* or *Work Breakdown Structure*) or other implementation plans. Tasks undertaken by Project Team members include project coordination, administration, stakeholder liaison, communication activities, output development and quality assurance.

Within a Project Team there may be a number of project officers, senior project officers and, depending on the size and complexity of the project, one or more team leaders. The Project Team members may change as the project moves through its various phases. Assessing and selecting people who have the requisite skills for each phase of a project is critical to its overall success. The skills should be explicitly identified as a part of the project planning process.

It is not unusual for a Project Team to be appointed on the basis of availability rather than the specific skills required to undertake the project. Ideally, the Project Team should include at least one person with an intimate knowledge of the business area, and preferably more. It may also be an advantage if one or more Project Team members are novices or inexperienced in the business area, so that fundamental issues are not overlooked or simply taken for granted. Many issues can be uncovered through the process of explaining a project to participants with little background in the area.

It can be a challenge to find the right combination of people with project management, technical and business area skills, let alone people who are able to function effectively as a team for any length of time. Cultivating an effective Project Team is an art in itself, and requires the ongoing attention primarily of the Project Manager, and secondly the Project Sponsor.[29]

Issues to consider include:

- balancing the project's skill requirements against the skill set of staff who are appointed to the project. This can provide significant development opportunities if staff are open to acquiring new skills;
- providing appropriate staff training and development early. This will ensure the project's initial skill requirements are met and can serve to integrate the Project Team;
- providing an environment of continuous improvement for the Project Team. This means budgeting for training and development over the life of the project as skill requirements change and individual skills develop and their capabilities increase;
- maintaining staff performance and morale, including providing supportive feedback on performance. This can be challenging if the project is experiencing problems, delays or negative feedback from stakeholders;
- creating the desired cultural environment within the Project Team's physical environment. This takes time, effort and involvement; and
- integrating contractors and consultants within the team, which may require a different approach.

As projects vary, the roles required, and the tasks and responsibilities within those roles will vary. An analysis of most project roles and related accountabilities, responsibilities and tasks is provided at Appendix 2 Governance Roles, which can be used as a handout to ensure all involved are aware of their responsibilities.

[29] Learnings from the Tasmanian Government Motor Registry Replacement Project.

2.3 The roles and functions of a Project Steering Committee

The primary function of a Project Steering Committee is to take responsibility for the business issues associated with a project, including having ultimate responsibility for ensuring appropriate risk management processes are applied. Members of a Project Steering Committee ensure these issues are being adequately addressed and the project remains under control. In practice, these responsibilities involve seven main functions:

1. approving changes to the project scope and its supporting documentation;
2. monitoring and reviewing project progress against agreed parameters as defined in the Project Business Plan;
3. assisting the project when required;
4. resolving project conflicts, issues and risks;
5. formally accepting Project Outputs;
6. confirming Outcome Realisation; and
7. ensuring the criteria for formal project closure have been satisfied.

For a large or complex project, an effective Project Steering Committee is crucial for the project's success. *Appendix 3 Steering Not Rowing: A Charter for Project Steering Committees and Their Members* emphasises the important role that Project Steering Committee members play in a project, both individually and collectively. It is intended as a guide for Project Steering Committee members to ensure they are aware of their responsibilities.

2.3.1 Approving changes to project scope

The Project Steering Committee is responsible for approving the project scope as defined in major project documentation, such as the *Project Business Plan*, in relation to:

- clarification of Project Objective(s), Project Outcomes, Target Outcomes and business benefits;
- budget and human resources (cost);
- Project Outputs and related 'fitness-for-purpose' (quality) criteria;,
- schedule (time);
- risk minimisation strategies; and/or
- project management and quality assurance methodologies.

Changing or emerging issues may require the project scope to be adapted to ensure that the original or modified Project Outcomes and/or business benefits can be achieved. The Project Steering Committee is responsible for approving or rejecting these changes and for ensuring that additional resources are provided for incorporating these changes if required. To do so, the Project Steering Committee requires sufficient information to understand the implications of the requested change and the extent to which the original project parameters are affected and require adjustment.

Any major changes to the project scope should be considered on the basis of the following information prepared by the Project Manager in support of a proposed change:

- nature and reason for the variation;
- effect of the change on the agreed Project Objective(s), Project Outcomes, business benefits, Project Outputs (ie type, quantity and quality), budget and schedule;
- revised *Project Business Plan*, if appropriate; and
- suggested actions for the Project Steering Committee to consider.

2.3.2 Monitoring and reviewing the project

The Project Steering Committee reviews the status of the project at least at the end of each phase and determines whether the Project Team should progress to the next phase.

This can be done by a formal *Project Phase Review Report* or a simple summary of issues and learnings gathered from the previous phase.

The review focuses on major project documentation and any variations in the key components such as Project Outcomes, business benefits, critical milestones, risk, costs and output quality.

2.3.3 Assisting the project when required

The Project Steering Committee assists the Business Owner(s) and Project Manager to complete the project by ensuring the project is adequately resourced and has the backing of people with an appropriate level of authority.

Project Steering Committee members should be active advocates for the Project Outcomes, the related business benefits and help facilitate broad support across the organisation.

If Project Steering Committee members represent the interests of some or all stakeholder groups, they should ensure that the interests of these stakeholders are considered. They may also help illustrate to stakeholders how the project serves these interests.

At times, outside of Project Steering Committee meetings, the Project Team may also seek the particular knowledge or experience of individual Project Steering Committee members.

2.3.4 Resolving project conflicts

Project conflicts can arise from conflicts in resource allocation, output quality and the level of commitment of Project Stakeholders and related projects.

The Project Manager is generally the first reference point for resolving problems and can resolve most internal project problems.

Problems arising that are outside the control of the Project Manager are referred to the Project Sponsor or Business Owner(s) for resolution, but there may be occasions when the Project Steering Committee is asked to assist in resolving such disputes.

2.3.5 Formally accepting Project Outputs

Following review and/or acceptance by the Business Owner(s), the Project Steering Committee is responsible for formally reviewing and accepting Project Outputs. The Project Steering Committee must be confident that the Project Outputs satisfy 'fitness-for-purpose' requirements and that the intended stakeholders are competent to utilise the outputs as intended. It is recommended that the handover of Project Outputs to the Business Owner(s) is documented formally, either in the *Outcome Realisation Plan* or in a separate document specifically intended to confirm output handover (*Handover Plan*). Either plan should be formally endorsed by the Project Steering Committee. Once the Project Outputs have been accepted by the Project Steering Committee, any changes must be formally approved formally.

To achieve this, Project Steering Committee members must have a broad understanding of project management concepts and the specific approach adopted by the Project Team.

2.3.6 Confirming Outcome Realisation

Responsibility and accountability for realising the Project Outcomes rests jointly with the Project Manager and the Business Owner(s) in that successful Outcome Realisation requires:

- delivery of specified Project Outputs that are fit-for-purpose according to criteria defined in partnership with the Business Owner(s);
- acceptance of the Project Outputs by the Business Owners(s), including any ongoing maintenance requirements;
- necessary organisational change management in the business environment to facilitate appropriate output utilisation; and
- measurement to confirm the agreed project Target Outcomes have been wholly achieved, or achieved to a significant extent that is considered sufficient to close the project formally.

After formal project closure, the Business Owner(s) is usually accountable to the Project Sponsor or their delegate(s), who may be a senior manager in the agency/organisation, for reporting on the realisation of the agreed longer term business benefits. This reporting will usually require the business unit's relevant performance measures to be revised based on the agreed project Target Outcomes and longer term business benefits, and updating of agency or divisional corporate or annual business plans. Reporting lines and requirements may also need to be updated post-project.

The Project Steering Committee must formally confirm each of these steps through:

- acceptance of formal documentation (eg the *Outcome Realisation Plan*, *Handover Plan*);
- confirmation from the relevant reference/advisory group or a report from the Business Owner(s); and/or
- appropriate detail in the Project Steering Committee meeting minutes.

2.3.7 Confirming Project Closure

In order to close the project formally and disband, the Project Steering Committee must be satisfied that the following criteria have been met:

- Business Owner(s) have accepted Project Outputs and related maintenance requirements.
- Responsibility for delivery of any outstanding Project Outputs is clarified and accepted (may be detailed in separate *Handover Plan*, but requires restating in the *Project Closure Report*).
- The Project Steering Committee is satisfied and has confirmed that the Target Outcomes have been wholly achieved, or achieved to a significant extent.
- Outstanding issues have been resolved or allocated for resolution.
- Outstanding project risks have been resolved or allocated for resolution.
- Project Team disbandment has been confirmed.
- Outstanding budget issues have been resolved or allocated for resolution.
- Project assets have been redeployed or issue(s) allocated for resolution.
- Post-project responsibilities have been defined and allocated.
- Post-project review or evaluation has been completed and assessed or allocated for completion and recipient of report confirmed.

Projects can be closed once they are completed successfully, or if it is clear the proposed benefits of the project are unlikely to be attained or are unlikely to be relevant in the current organisational context.

2.4 Project Steering Committee meetings

A Project Steering Committee meets regularly throughout the course of a project to keep track of issues and project progress. The Project Manager should attend these meetings to be a source of information for Project Steering Committee members and to be kept informed of Project Steering Committee decisions. Ideally, the Project Sponsor should chair the Project Steering Committee meetings. A Project Steering Committee meeting may cover the following agenda:

- introductory items, such as:
  - apologies
  - minutes from last meeting
  - matters arising from minutes;
- *Project Business Plan* issues – amendments, revisions or arising related issues;
- project management issues, including progress reports and reports from consultants;
- important issues at the time of the meeting, such as a budget committee submission, proposed tendering arrangements, sign-off of functional requirements, related projects;
- review of actions arising from previous Project Steering Committee meetings – it may be useful to keep a formal list of these actions, in order to track them effectively;
- plans for the next meeting.

The Project Steering Committee has responsibility for the project until the project's Target Outcomes are wholly achieved, or achieved to a significant extent that is sufficient for the Project Steering Committee to close the project formally. The longer term business benefits are not usually secured until after the Project Manager and Project Team have completed their involvement and the project has been formally closed.

2.5 Project management governance models

Project management governance models will vary depending on the size and complexity of a project. The model can be modified to allow for diverse corporate cultures and project constraints. For example, for some projects it may be appropriate to collapse or combine some of the requirements into a single function, person or document.

2.5.1 Small projects

For smaller projects a complex structure is unnecessarily unwieldy and duplicative. For a small project within a single business unit (usually managed as part of a number of small projects),\ the governance structure may only involve the Project Sponsor/line manager (who is also the Business Owner) and the Project Manager, as shown in Figure 8 – below.

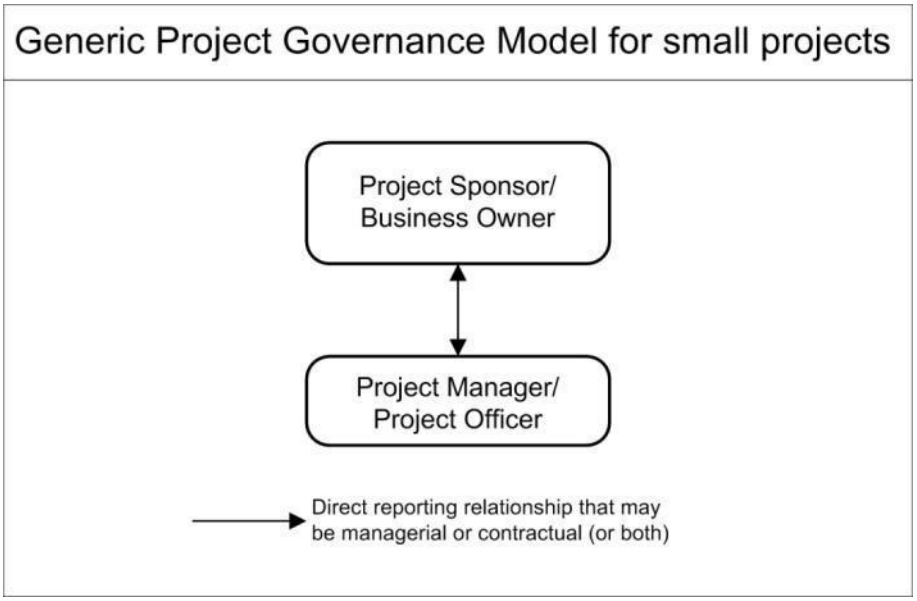

Figure 8 – An example project governance model for a small project

Although the Project Sponsor may also be the line manager, their project responsibilities and accountabilities should relate to the project management, not to line management, ie they should wear a different 'hat' depending on the decision-making that is required.

2.5.2 Small to medium-sized projects

For a small to medium-sized project, with stakeholders primarily within a single business unit, an appropriate governance structure might be:

- Project Sponsor – divisional director responsible for business unit
- Business Owner – manager of business unit
- Project Manager and Project Team – nominated staff from business unit
- Independent Quality Reviewer – employee from a related business unit

2.5.3 Large projects

For larger, more complex projects the governance model will be more intricate and include responsibility and accountability requirements and a range of stakeholders. In the case of a program of projects, a cascading model is sometimes used to show the complex governance arrangements. Figure 9 below presents a generic project governance model as an example. It includes most entities and indicates some of the ways they would be most likely to interact.

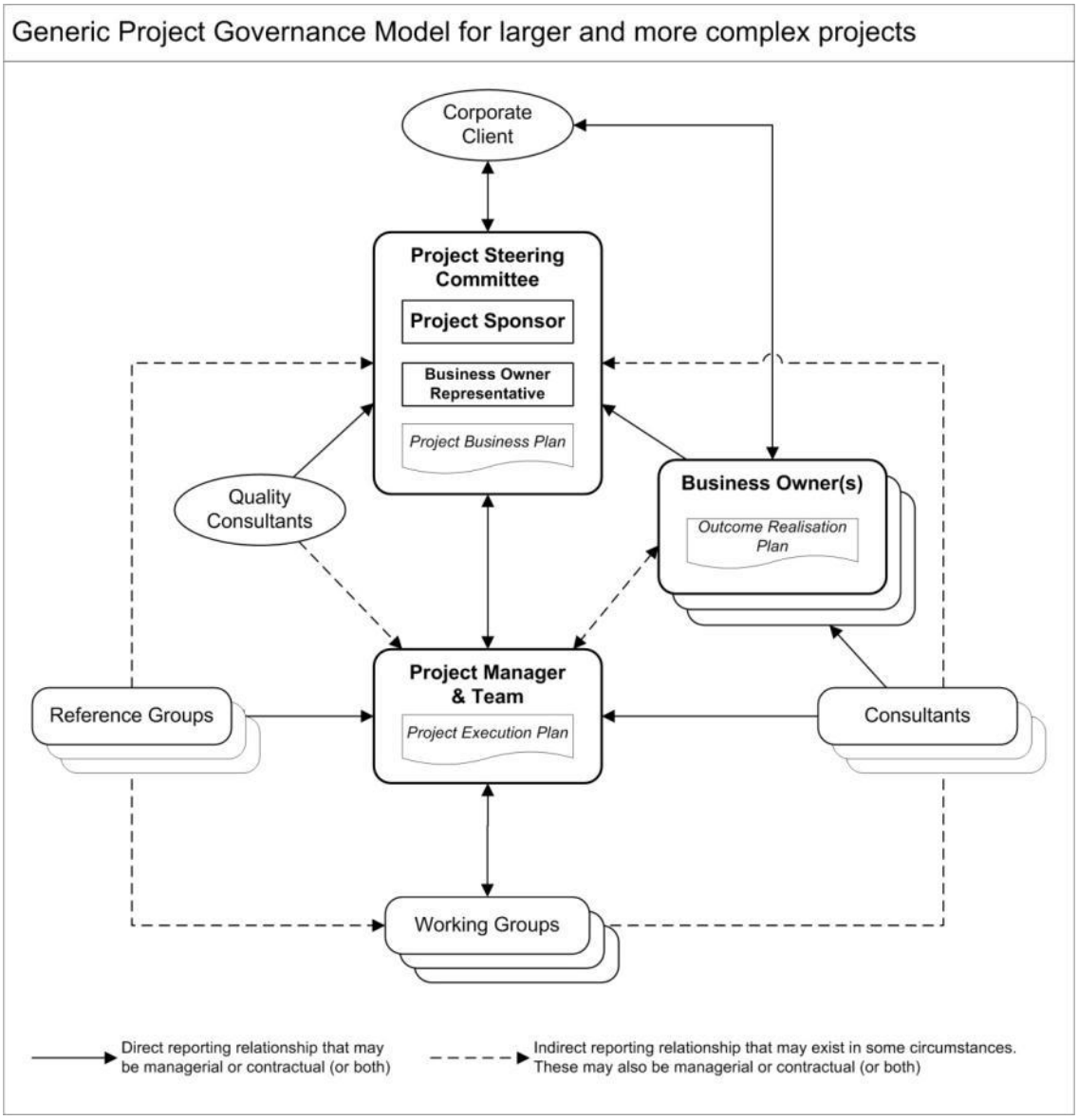

Figure 9 – A generic project governance model for larger, more complex projects

As projects evolve, their governance models may change. For example, Project Team members, working groups and/or reference groups may move in and out of the immediate governance sphere of the project as the nature of the project tasks change.

2.6 Governance of interlinked projects (program management)

Program management is the term used to describe a group of related projects that are managed in a coordinated way, usually with an activity that is ongoing, and has an overall *Program/Project Business Plan*. To maximise the use of available resources, effective program management requires projects to be selected based on their alignment with the program strategic agenda. In this context, projects are often critical interdependent components of an organisation's business strategy or relate directly to policies and initiatives of government. Managing projects in a coordinated way, as a program, enables additional benefits to be delivered to the organisation that would not be possible if the projects were managed independently.

A single governance structure may be used for multiple related projects or a program of projects. A core Program Sponsor and Project Steering Committee responsible for overall outcomes is recommended. The governance structure may largely be stable for all of these projects (for example, the same Project Sponsor, Project Steering Committee members, single reference group, the same Quality Review Consultant across all sub-projects) or be quite different for each sub-project. In these cases, the set-up will be largely dependent on stakeholder diversity among sub-projects, project size, and the differences or similarities in the nature of the sub-projects.

When drawing a project governance model, it is tempting to try to include project relationships as well (for example, sub-project breakdown). While it is useful to document these relationships diagrammatically, they should be recorded in a separate diagram, or using a cascading model.

The main requirement is to ensure that the governance models for programs of projects, and the projects within them, are clearly defined in the high-level *Project/Program Business Plan,* including clear delineation of the roles, responsibilities, accountabilities and reporting requirements.

2.6.1 Understanding project/program integration

When there are programs of related projects, or large and/or complex projects divided into integrated sub-projects, it is important to define:

- the type and nature of the relationship between the projects. Questions that could be posed include :
  - Is a related project dependent on this project?
  - Is this project dependent on another project?
  - Are this project and another interdependent (ie dependent on each other)?
- the nature of the dependency (ie may include a shared relationship with data, functionality, staff, technology/infrastructure, funding, policy and/or legislation)
- the interdependency management processes to be applied In other words, how will representatives of related projects be involved in project planning, and how will critically related activities be monitored and managed?

According to AS ISO 10006-2003 Quality Management Systems Guidelines for Quality Management in Projects, interdependency management processes may include:

- project initiation and project planning – evaluating customer and other stakeholder requirements, preparing a *Project Business Plan* and initiating other processes;
- interaction management – managing the interaction during the project;
- project change management and control – anticipating change and managing it across all project processes; and/or
- closure – closing processes and obtaining feedback.

The management of related and/or dependent projects can be demonstrated in the *Program/Project Business Plan* by including appropriate cross-referencing to relevant sections such as assumptions and constraints, stakeholder management, quality management and risk management.

2.6.2 Understanding interlinked projects

A series of interlinked projects is less risky than one larger one, for several reasons:

- Dividing the change initiatives into smaller areas of action reduces complexity.
- It is easier to produce identifiable outputs and outcomes from small projects, which can be used to feed into later projects, ie even if the full objectives of the change initiative are not met, identifiable achievements are met.
- It can be easier to respond to changing or unanticipated circumstances, as individual projects have a much shorter life and new or emerging issues can be pursued through the planning stages of future projects.
- It allows for substantial learning, which is integral to many change initiatives, but is not always well supported.

One possible risk of this approach is that those people involved with a series of projects may lose sight of the broader objectives of the change, or simply not achieve them. Sometimes major change initiatives are translated into single projects; however, structuring as one large project has a very poor record of success. Large, ongoing projects commonly do not achieve their intended objectives.[30] Project Managers should be aware that this approach is likely to involve substantial problems, and projects are extremely unlikely to be delivered on time and within budget.

Carefully coordinating a series of projects – either by linking them through an overarching project or program, or carefully coordinating them with strategic planning processes – can mitigate this risk. Related projects may be coordinated by organising them as sub-projects in a larger project. This linking is suitable when the objectives and tasks involved with each sub-project are relatively well understood, but it is less suitable with projects involving substantial innovation, negotiation or complex issues that are not clearly understood.

Alternatively, the projects may be viewed as products of a continued strategic planning process, which is recognised as an emergent process. This approach is more suitable for projects involving innovation, negotiation and complexity that cannot be adequately anticipated up-front. The strategic planning process should include key stakeholders involved with the project, and be a carefully managed, ongoing activity that reviews past progress as well as future directions. If strategic planning is viewed as a one-off or periodic exercise for senior managers, or focuses only on longer term time horizons, there can be little relationship between strategic planning and project management processes.

The latter approach, focusing on the close relationship between strategic planning processes and projects, can result in a more effective implementation of planned change initiatives. However, strategic planning processes are outside the scope of project management. If these processes are non-existent, or not effectively in place, those project participants involved in planning the change initiatives might find it easier to obtain commitment (ie funding and resources) if they can define set deliverables, timeframes and activities. In this case, carefully coordinating a series of projects or sub-projects would be more appropriate for managing emergent or unanticipated issues. As with many project management decisions an adequate appreciation of the project context is crucial.

[30] Orr, Ken (2004) *Pushing the envelope: managing very large projects*. Arlington, MA: Cutter Consortium, 2004

2.7 Project Portfolio Management

Project Portfolio Management is the management of prioritised projects or programs of projects within an agency, business unit, across government or organisation. It is a dynamic process requiring reprioritisation, as necessary, to meet changing business requirements and/or emerging opportunities. Project Portfolio Management usually refers to the management of a portfolio of projects with a large investment in IT. The focus is on effective planning processes to achieve value from alignment with business investment strategies. While the discipline of project management remains focused on delivering individual projects successfully, Project Portfolio Management focuses on delivering programs of projects successfully.

In the government context, the strategic agenda of a department is usually represented in the portfolio of corporate, business and operational activities. Strategic initiatives are often clustered into portfolios of programs and projects for implementation. An individual portfolio area, for example, may include various 'major' projects, ongoing operational programs and programs of projects. The program level could include several programs, each comprised of a number of major projects (small and large). At the project level, large and complex projects are often 'chunked up' into sub-projects to achieve the broader project objectives.

At each level in the hierarchy, achievement of the respective Project Objectives and Project Outcomes individually and/or collectively contributes to the achievement of the higher order agenda(s) and ultimately to the realisation of the departmental strategic vision and/or mission. This structure is presented visually in Figure 10 – below.

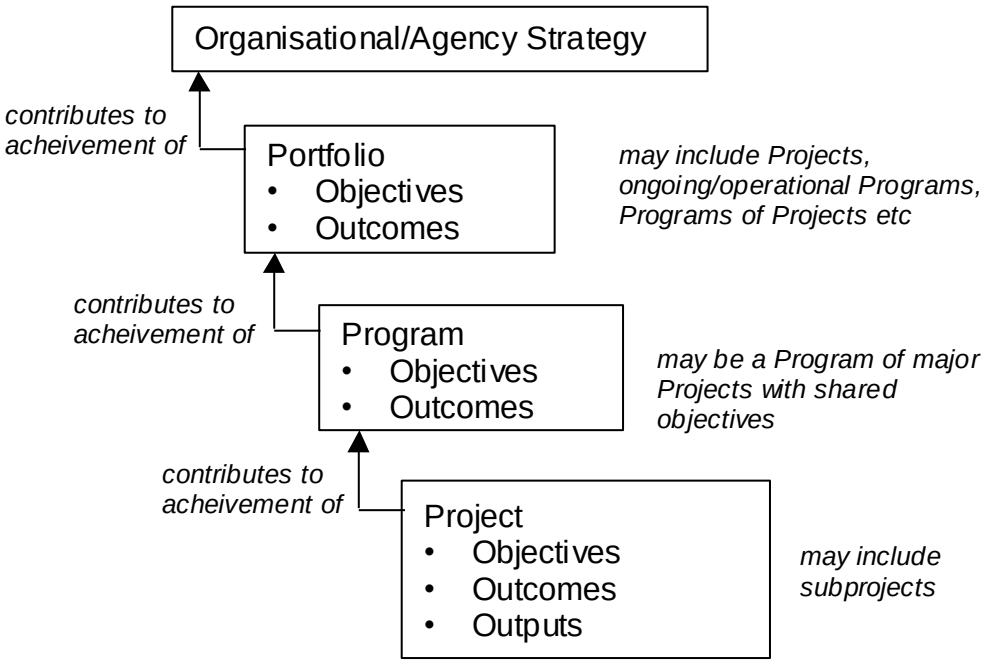

Figure 10 – Relationship between departmental strategic agenda and portfolio, Program and Project Objectives and Outcomes

Gantthead.com[31] suggests that best practice in this area involves the agency/organisation establishing mechanisms to manage both the approval/prioritisation of projects and the coordination of project delivery. The agency/organisation adopts a formal process for tracking project processes from inception to completion or cancellation. Several Tasmanian Government agencies are moving towards this model, particularly with regard to projects with a major ICT component. Project Portfolio Management tools are available to support this process; however, the governance processes that the agency/organisation employs to manage its projects must be examined, and potentially reengineered, before any tools are investigated. The key to effective Project Portfolio Management is governance and the maturity of an organisation as demonstrated by its ability to close down poorly performing or redundant projects.

2.8 Post-project governance

Post-project governance arrangements should be detailed in the *Outcome Realisation Plan* for the project. While this will include identifying the Business Owners and roles and responsibilities, it will also reflect the operational management structures of the business unit or agency/organisation to which the project is delivering its outputs.

Post-project governance arrangements will be more complex if the project delivers to more than one agency and/or is a whole-of-government project. It may be determined that a governing body will need to be established to reflect this complexity if an existing body is not appropriate. This governing body will not be the Project Steering Committee, but should be a governing body that reflects the new post-project environment with new terms of reference. It may be appropriate for some former Project Steering Committee members to become members of this new governing body, but their roles and responsibilities will be different to those reflected within the project's governance structure.

In textbook examples, the realisation of Project Outcomes occurs shortly after the Project Outputs have been handed over to the Business Owner, meaning the Project Sponsor and/or Project Steering Committee can formally close the project. This situation rarely occurs in reality.

In some cases, once Project Outputs have been delivered to, and accepted by the Business Owner(s), early measurement can confirm whether the agreed Target Outcomes are 'on track' to being wholly or substantially achieved within a reasonable period of time (eg six months). In this instance the role of the Project Sponsor and/or Project Steering Committee is extended six to nine months until the data confirms achievement of the Target Outcomes and the project is formally closed.

In many cases, however, realisation of Project Outcomes will be incremental and not wholly achieved for months or even years (delayed Outcome Realisation). This notionally extends the Project Sponsor and/or Project Steering Committee's responsibility for the project long after the Project Outputs have been handed over. In practical terms, this extension is not realistic or sensible, and a two stage approach to project closure should be adopted:

- Closure Stage 1 – when the Project Team disbands after the Project Outputs have been delivered to, and accepted by, the Business Owners, and
- Closure Stage 2 – when the Target Outcomes have been achieved.

[31] Benchmarking and Best Practices primer
www.gantthead.com/Gantthead/content/whitePapers/Benchmarking_and_Best_Practices_Primer.doc(Accessed April 2008)

In the first stage of closure, the Project Team is disbanded, which means the role of the Project Manager is fulfilled. The Business Owner(s) is now accountable to the Project Sponsor(s) or their delegates, who may be an existing senior management committee in the agency, for reporting progress towards achievement of the project's Target Outcomes.

It is advisable to revise the business unit's relevant performance measures at this time as these were used to provide baseline information for quantification of the project's Target Outcomes. Given the business improvement delivered by the project, these measures will need to be revised to ensure the longer term business benefits are confirmed and tracked on an ongoing basis. Agency or divisional corporate or annual business plans will also require updating, reporting lines may require clarification and forward budget planning may need to be reassessed to accommodate any ongoing maintenance costs and staffing issues

This situation requires an **alternative governance model** where the Project Sponsor nominates appropriate persons – such as an existing senior or executive management committee – to take responsibility for receiving Outcome Realisation progress reports from the Business Owner(s) until output maintenance is operationalised and reporting is subsumed into the standard business or corporate reporting procedures for the unit/agency. In this case, the designated Business Owner(s) must formally accept responsibility for the ongoing monitoring and reporting of progress against the realisation of the Project Outcomes to the delegated person/committee (see Figure 11 below).

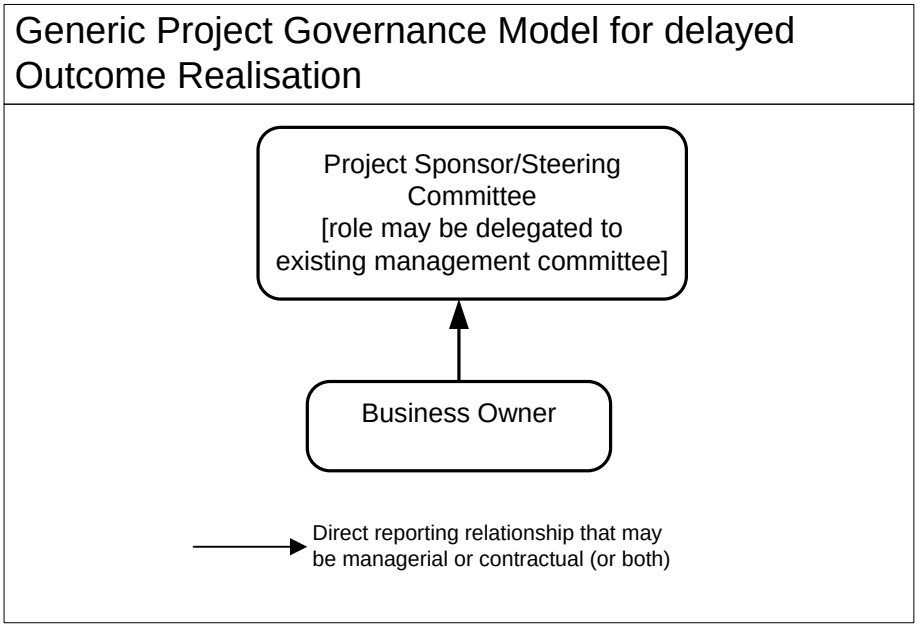

Figure 11 – Generic project governance model for delayed Outcome Realisation

2.9 Tips from project managers:

Practising Tasmanian State Service project managers and others have made the following observations:

- A high-level Project Sponsor may initially imply that the project has high priority within the agency/organisation, but it may be difficult to engage them as they are very busy. The result may be that the project will not receive adequate support and advocacy in the long term.
- Don't always rely on the same pool of people for Project Steering Committee membership – many equally skilled and capable staff would thrive given the opportunity.
- Different governance structures may be required for the project at different points.
- Involve the Business Owner(s) early in the project planning. Gaining their early commitment to the project will assist in defining and refining target measures that are meaningful in the operational environment. It will also go a long way to ensuring they understand what level of organisational change is required to ensure appropriate output utilisation and that it is their responsibility to achieve such change.
- An effective Project Team will 'work hard' and 'play hard', including the Project Manager.
- What each role is called is not as important as the who, what, when, why and how of the decisions.

Element 3 Outcome Realisation (including organisational change management)

This includes:

Terms used in this Guide can be found in the Appendix 1 Project Management Glossary.

3.1 What is Outcome Realisation?

Once a project delivers its outputs to the Business Owner(s), these outputs must be utilised by the project customers in the intended way to enable the Project Outcomes to be realised. This stage of the project is referred to as 'Outcome Realisation' and specific planning and management is required for this to occur successfully.

In the context of a project, planning for the achievement or realisation of the Project Outcomes also relates to planning for organisational change. Projects are all about change and almost always involve people and relationships. Information in this section is closely related to stakeholder engagement planning, which is detailed in *Element 4 – Stakeholder engagement*.

While organisational change management is a substantial discipline in its own right, it is closely linked to the discipline of project management. In order for a project's Target Outcomes to be achieved, Project Outcomes to be realised and longer term business benefits secured, organisational change is often required.

3.2 Planning for Outcome Realisation

John Smyrk, Sigma Management Science Pty Ltd[32] refers to three factors that determine outcomes. These factors are:

- the quality (fitness-for-purpose) of the Project Outputs,
- the predisposition of the project customers, and
- the external influences.

This means planning within the project for Outcome Realisation should consider:

- output quality management – how the project can exert control to ensure Project Outputs are fit-for-purpose and meet the defined business needs;

[32] John Smyrk, Sigma Management Science http://sigmafield.com.au/sigma/

- management of change during the project – how the project can influence the predisposition of the project customers (eg to encourage stakeholder output utilisation); and
- risk management planning – how the project can implement mitigation actions to minimise the negative effects of any external influences.

As described in *Element 10 – Project review and evaluation*, some time after the Project Outputs have been delivered the project will be evaluated to assess the extent to which Target Outcomes were achieved. Planning for Outcome Realisation should commence early in the project and the related documentation should ensure that:

- the links between the Project Objectives, Project Outcomes, Target Outcomes, Project Outputs and stakeholders are confirmed;
- the final phases of the project are managed in a satisfactory manner including output handover and acceptance by the Business Owners;
- the success of the Project Outputs are assessed and corrective action performed if required;
- the level of organisational change required for successful transition (ie to ensure appropriate utilisation of the Project Outputs in order to realise the Project Outcomes) is correctly planned and implemented;
- the Business Owner(s) commit to managing and maintaining the outputs in a quality manner;
- the long term output maintenance processes, responsibilities and costs are understood and accepted by the Business Owners; and
- the project's Target Outcomes are wholly achieved or achieved to a significant extent, prior to the Project Sponsor and/or Project Steering Committee formally closing the project.

Depending on the scale and complexity of the project, this information may be captured in an *Outcome Realisation Plan, Benefits Realisation Plan* or presented separately in a combination of some or all of the following documents:

- Handover Plan
- Output Management Plan
- Organisational Change Management (or Transition) Plan
- Training Plan

The development of these documents is explored more in *Section 1, Part 8 – Project management documentation*.

Business Owner(s) for each of the high-level Project Outputs must be identified as part of the INITIATE phase of a project and included within the project governance structures. This information should be confirmed in the *Project Business Plan* and endorsed by the Project Sponsor and/or Project Steering Committee as soon as practicable. The Business Owner(s) are responsible for ongoing management of the Project Outputs once delivered, the realisation of the outcomes from the use of these Project Outputs and subsequent flow of longer term benefits to the organisation. Their ongoing responsibilities are detailed in the *Outcome Realisation Plan.*

It is important that the project provides the Business Owner(s) with information relating to any ongoing cost implications associated with output maintenance (including service requirements, warranties, licence renewals, annual contract fees or service level agreements) so forward budget planning estimates can be adjusted. When planning for Outcome Realisation begins, there may need to be some negotiations to clarify which costs will be covered by the project and which are the responsibility of the business or agency into which the project is delivering its outputs.

3.2.1 Measuring Outcome Realisation

Measuring Outcome Realisation involves using agreed indicators (ie Project Outcomes and Target Outcomes) to confirm the achievement of the Project Objective. Project Outcomes are the benefits or disbenefits that will be realised from the utilisation of the Project Outputs delivered by the project. They should be plausibly connected to utilisation of the Project Outputs and where possible defined in measurable terms (eg improved, reduced, increased, maintained). The Project Objective should be conceptually represented by the Project Outcomes and quantified by the measures proposed in the Target Outcomes; if the Target Outcomes are achieved then the Project Outcomes have been realised and the Project Objective(s) have been met.

Each Project Outcome should have one specific Target Outcome as its quantifiable measure that can be used as evidence that the Project Objective has been achieved. Larger projects will have more but it is not recommended to target more than about five for measurement. Target Outcomes are usually developed during the initial scoping of the project, but can be specified during Outcome Realisation planning activities. The Project Outcomes and Target Outcomes will require review during the project to ensure they remain relevant to the business area's strategic agenda. The measures must not be significantly subject to events beyond the control of the project and the data must be available in the short and long term.

This information is captured in the approved *Project Business Plan* along with relevant performance indicators, measures to be used, baseline data, target levels, target dates and accountabilities. Specification using SMART goals (specific, measurable, achievable, realistic and timeframed) is recommended. This is demonstrated in Table 4 below.

Target Outcome	Performance Indicator	Measure	Baseline	Target Level	Target Date	Accountability
The measurable benefits that are sought from undertaking a project (ie what we want to achieve)	A description of the type of change that will indicate performance towards the achievement of the Target Outcomes	The actual mechanism for measuring the level of the performance indicator	The current level of the performance indicator as at [date]	The targeted level of performance (ie how success is defined	The date by when the target levels are to be achieved	Who is accountable for the achievement of the targeted outcomes and reports on the progress towards the target?

Table 4 – Sample Outcome Realisation data for the *Project Business Plan*

The project should not be formally closed unless there is sufficient evidence for the Project Sponsor and/or Project Steering Committee to agree that the Target Outcomes have been achieved, or progress is evident. For many projects, evidence that the Target Outcomes have been achieved is available before formal project closure and an assessment of Outcome Realisation is possible.

For many larger projects, where the realisation of outcomes is an iterative process that occurs over time, a two-stage approach to closure is recommended. Where formal closure is deferred until evidence of Outcome Realisation is available, it is strongly recommended that the Project Sponsor and/or Project Steering Committee reconvene at an agreed appropriate time after the first stage of project closure to sign-off on evidence indicating progress towards Outcome Realisation and securing of the business benefits. This recommendation assumes that the high-level Business Owner is represented on the Project Steering Committee.

3.2.2 Defining Roles and Responsibilities for Outcome Realisation

Business Owners

At least one Business Owner must be identified for every project no matter what the size of the project. In smaller projects this will often be the same person as the Project Sponsor.

Depending on the nature of the Project Outputs, a collaborative model of ownership may be required that separates responsibility for the infrastructure component of the output (ie the 'Operational' Business Owner) from responsibility for the policy component of the output (ie the 'Substantive' Business Owner of specific expertise and/or authoritative content or processes). The two levels of ownership are interdependent as both are required to ensure the operation of the Project Output reflects relevant policy and practice and its longer term management is sustainable.

The Business Owner(s) has ultimate accountability for ensuring that the *Outcome Realisation Plan* is developed and implemented. Often, in reality, the initial draft will be prepared by the Project Manager in consultation with the Business Owner and Project Sponsor. The Business Owner also monitors the progress and effectiveness of the plan, as they will ultimately reap the rewards of a successful project once the Project Outcomes are realised.

The Business Owner is responsible for reporting progress against Outcome Realisation after formal project closure. Formal project closure occurs when the Project Sponsor and/or Project Steering Committee can be satisfied that the Target Outcomes have been achieved. The Business Owner is also responsible for budgeting for both the organisational changes required to ensure the outputs are appropriately utilised and the ongoing maintenance once the Project Outputs are delivered.

At times Project Sponsors and/or Project Steering Committees might request ongoing status reporting during the project implementation phase, not only from the Project Manager but also the Business Owner in relation to progress against outcome realisation.

Project Sponsor and/or Project Steering Committee

The Project Sponsor and/or Project Steering Committee is responsible for ensuring an *Outcome Realisation Plan* is developed and for subsequently endorsing it. They are also responsible for ensuring an effective *Project Business Plan* – that will form the benchmark for the development of the *Outcome Realisation Plan* – is in place throughout the life of the project. Without a fully developed *Project Business Plan* which clearly specifies the Project Objective(s), Project Outcomes, Target Outcomes and measures, it becomes very difficult to develop a meaningful *Outcome Realisation Plan*. In the absence of an endorsed robust *Project Business Plan*, the development of a detailed *Outcome Realisation Plan* for endorsement can be seen as a remedial measure.

Project Manager

The Project Manager is responsible for:

- ensuring the project scope adequately details the planned Project Outcomes, Target Outcomes and performance measures;
- ensuring the customers who will use the outputs are identified and that it is clear how the Project Outputs will be used to generate the Project Outcomes;
- ensuring there are fitness-for-purpose criteria for the planned Project Outputs in relation to achievement of the Target Outcomes;
- continual monitoring of the project to identify any changes to the scope that will affect the final Project Outputs delivered and to quantify any likely impact on the proposed Project Outcomes, Target Outcomes and Project Objective; and
- ensuring that the Business Owner(s) has assistance to develop the initial *Outcome Realisation Plan.*

While the Project Manager's responsibilities are completed after the Project Outputs are delivered and accepted, it is advisable to make sure that planning for how the Project Outputs are managed (and who will be responsible for coordinating the transition and operationalisation process) is carried out much earlier than when output delivery occurs.

Project Team members

The other Project Team members can assist with the development of the *Outcome Realisation Plan*, particularly if they are the people who will be involved in the management of the Project Outputs once the project closes.

Project Stakeholders

Project Stakeholders must have input into the *Outcome Realisation Plan,* especially if they are members of the business unit/agency that will be affected by the changes.

3.3 Organisational change management

Organisational change management is about managing the realignment of an agency/organisation to meet the changing demands of its business environment as the Project Outcomes are realised. It is a continuous process – a program, not a single event – and includes managing changes to the organisational culture including people, business processes, physical environment, job design/responsibilities, staff skills and knowledge, as well as policies and procedures.

3.3.1 Clarification of terms

It is easy to confuse organisational change management with the term 'change management'. Management of organisational change is sometimes referred to as change management, a term that can cause confusion in project management circles because it has other possible interpretations, for example:

- In projects, it can refer to the formal method of managing requests for change that may affect the scope of the project.
- In projects with an IT systems component, 'change management' refers to specialised procedures for managing technical change.

- In re-engineering projects, 'change management' can imply replacement of the current managers.

3.3.2 Planning for organisational change

Successful organisational change is essential for Outcome Realisation; change of some kind must occur in order for Project Outcomes to be realised by the agency/organisation. In this context, planning to achieve Project Outcomes relates to planning for organisational change to prepare the business areas for the new operational environment that will exist when the Project Team has handed over the Project Outputs, the team has been disbanded and/or the project is closed.

While changes are often monitored during project implementation, in the past not enough attention has been paid to managing organisational change once the project is closed. For changes to be effective and the full benefits achieved on an ongoing basis, it is important to plan for and manage organisational change – both before, during and after the project.

Very few projects are carried out in isolation in an agency, organisation or business unit. Overall strategic direction for the management of change within the agency/organisation may have been established already and articulated in relevant corporate/strategic plans or similar documents. These documents should be consulted to align the Project Objective with the organisational strategic agenda. For Tasmanian Government projects the relationship to government strategies must also be considered.

Organisational change management associated with the project should be considered in the light of the overall approach to organisational change within the agency/organisation and the extent to which the project is involved in bringing about change. It is the responsibility of the Business Owner(s) to make sure these linkages are made. Additional resources with specific knowledge and skills may be required to ensure this phase of the project is successful (eg communication officer, training and development officer).

The main elements of organisational change that the project will need to plan for are:

- transition planning,
- communication planning, and
- training planning.

These elements are supported by key activities, such as:

- identifying change agents from within the organisation to support the change,
- building and maintaining effective project sponsorship,
- acknowledging and managing resistance,
- using collaborative approaches,
- executing a staged implementation, and
- monitoring and evaluating.

3.3.3 Transition planning

When projects involve business process changes, there should be a plan to move from existing business processes to adopting new business processes. This is known as 'transition planning'.

Transition planning involves planning for the new, post-project environment in consultation with the Business Owner(s). It can be achieved by seeking the answers to the following questions:

- What is the current situation?
- How will the project change it?
- How will the business unit/agency move from the current situation to the new situation (transition arrangements)?
- What are the costs and resource requirements of the transitional arrangements (if any)?

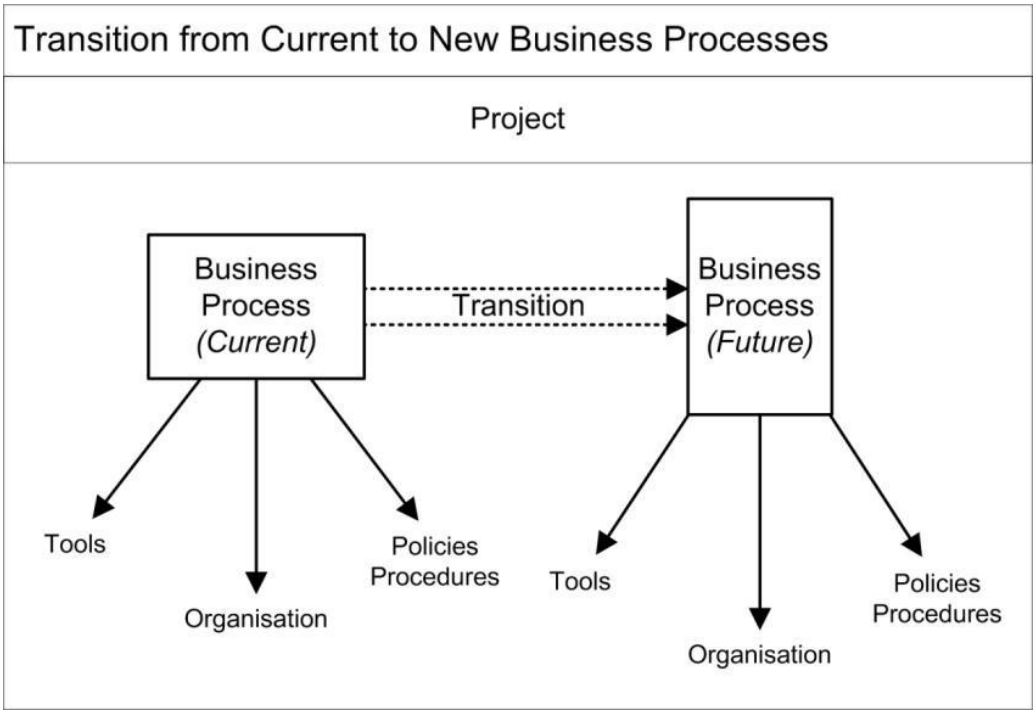

Figure 12 – Transition from current to new business processes

To assist in identifying the effect that projects will have on people and business processes, it is necessary to examine these processes (pre-project) within the agency/organisation, in relation to the areas outlined in Figure 12 above. This activity often reveals useful information that can be quantified in the project's Target Outcomes (eg baseline data and/or performance indicators). Planning describes how the transition to the new business process will occur.

Transition is achieved by comparing the current business process with a basic understanding of what will change in the new business process. For example, does the project deliver a new tool (eg an IT application) or a restructured organisation or modified policies/procedures? An option is for the project to get involved in the planning processes of the agency/organisations that will be impacted by the project. This should ensure that execution of the project, utilisation of the Project Outputs and realisation of outcomes from the project is incorporated in the receiving agency/organisation's forward plans.

Transition planning should consider the following:

- organisational culture, including most importantly, people;
- physical environment;
- organisational structure;
- job design/responsibilities;
- required skills and knowledge;
- policies and procedures, which need revising or developing; and
- workflow/processes.

The current situation should be described, the new situation predicted and transition activities related to each of the above areas identified. The most important aspect of transition planning is planning for the effect on people and how they will be positively engaged with the change. This planning can be captured in the *Outcome Realisation Plan* or documented separately as an *Organisational Change Management* (or *Transition*) *Plan*. Transition is the most complex aspect of organisational change as it impacts upon changing how people do their jobs.

The extent of the changes will become clearer as the project progresses. Project INITIATE activities aimed at implementing significant business changes – particularly in the case of large and/or complex projects or programs of projects – increasingly involve the use of business analysis and business process mapping techniques and tools to capture the existing business processes before determining what has to change. Processes and rules should be linked to stated government policy or legislation to ensure they have a sound basis.

3.3.4 Communication planning

During the process of organisational change, people may experience high levels of confusion and uncertainty as they move through a transition stage before the change is fully implemented. To minimise this confusion and uncertainty, the most important aspect in successfully managing any organisational change is communication.

For projects, good communication requires thorough planning, ongoing monitoring, regular fine-tuning and evaluation. The first challenges are to determine who to communicate with and what the messages are to be. A thorough stakeholder engagement analysis should identify and classify the Project Stakeholders, analyse their influence on the project, and define the approach to managing their influence and impact (positive and negative), including winning their support where possible. Once the stakeholders are identified, it is possible to define the target audiences, key messages, communication mechanisms and tools, responsibilities and how feedback will be provided by the stakeholders and dealt with by the project.

The depth and breadth of the information required will vary depending on the size and complexity of the project. For smaller projects the approach to stakeholder engagement and project communications would be detailed in the *Project Business Plan*. For larger projects the approach could be detailed in a combination of some or all the following documents:

- Stakeholder Engagement Plan
- Project Communication Strategy and Action Plan
- *Marketing Plan* (to promote or market specific Project Outputs)

Communication is explored more in *Element 4 – Stakeholder engagement.*

Change management strategies that overlap with project communication strategies include:

- identifying change agents as leaders for the change (ie project champions), and
- identifying people who may be unwilling to accept or support the changes (ie project opponents) and undertaking analysis to understand their motivations.

For projects involving change that impacts the community, widely promoted support from community leaders or influential members will lend the project authority and build wider support. The value of a consistent and clear message delivered 'from the top' on a regular basis should not be underestimated. This is especially the case for larger, more complex or cross-government projects.

In managing organisational change, it is as important to communicate internally as it is externally.

Regardless of whether a project is 'public facing' or 'government facing' (or both), it is absolutely crucial that all Project Stakeholders sense the project has the open support of senior management. Research cites high-level executive leadership and championship for the change before, during and after the project as the key factor in determining success.

A project's key messages should correlate with and reinforce the agency and whole-of-government messages. Consistency with national program messages may also be relevant.

The *Project Communication Strategy and Action Plan* developed for the project can form the basis for the ongoing communications used by the agency/organisation after project closure. While a *Project Communication Strategy and Action Plan* for larger projects should be developed separately, the decision to utilise it for ongoing communications should be documented in the *Outcome Realisation Plan*.

In larger projects, one of the roles of the Project Manager is to plan the *Project Communication Strategy and Action Plan*, as well as a *Marketing Strategy* intended to promote specific Project Outputs, within the context of the overall agency communication strategy. These documents should be developed in collaboration with the agency communications manager.

The Tasmanian Government has developed a *Whole-of-Government Communications Policy and Tool Kit*, which can be found www.communications.tas.gov.au. This provides detailed information, templates and tools in this area.

3.3.5 Training planning

To ensure that planned changes affecting business processes are successful, a *Training Strategy* should be developed. This should identify:

- which groups or individuals require training;
- what the training requirements are;
- how, where and when the training will be delivered; and
- who will deliver the training.

While a conscious decision may have been made for the project budget to cover the initial training activities, the Business Owner(s) should plan to include the ongoing training requirements for new staff within their annual operational budgets and as part of the organisational change management activities. The Business Owner(s) also may be prepared to fund training that falls outside of the scope of the project but is related to the change initiative.

A Training Plan template is available as an appendix to the *Outcome Realisation Plan* template and guide available at www.egovernment.tas.gov.au.

3.4 Outcome Realisation planning documents

An *Outcome Realisation Plan* captures the results of planning for the organisational change that arises from a project. This plan should become the management document for the Business Owner(s) of the project, in the same way that the *Project Business Plan* is the management document for the Project Sponsor and/or Project Steering Committee. In larger projects relevant sections of the *Outcome Realisation Plan* may be incorporated into the agency/organisation's ongoing corporate or operational business plan after project closure.

The work involved in initial planning and ongoing review is often seriously underestimated or allocated insufficient time due to political or organisational pressures. Sufficient resources must be allocated to ensure appropriate and effective Outcome Realisation planning linked with organisational change management in terms of budget, staffing, time and skills. This should be considered in the INITIATE phase as well as at frequent intervals throughout the life of the project and maintained for a period after project closure (especially where the realisation of Target Outcomes will occur over time).

The *Outcome Realisation Plan* is developed iteratively as the project progresses to provide the link between the Project Outputs delivered by the Project Team and the realisation of the Project Outcomes. The document captures:

- planning for monitoring Outcome Realisation, and
- agreed plans for managing organisational change brought about by project implementation.

The *Outcome Realisation Plan* should be formally signed off by the Project Sponsor and Business Owner(s), and should be updated on a regular basis to reflect any changes agreed to either during the project or after project implementation. The document should include plans for the budget and expected expenditure for the implementation phase of the project and where additional resources are required. Detailed negotiation between the Project Sponsor and Business Owner(s) may be required to reach agreement.

An *Outcome Realisation Plan* is not necessary for many smaller projects. Instead, an agreed implementation and management plan can be included in the *Project Business Plan* or the *Project Review and Closure Report.* Procedures should be in place for the ongoing management of the Project Outputs and there should be confirmation that the agreed Project Outcomes have been realised before the project closes.

When a project involves new business systems and procedures, it is important to identify the maintenance requirements for the Project Outputs (for example, the service requirements of equipment, applications, infrastructure or buildings, the administration and support for a system) and confirm them with the responsible Business Owner(s). Issues that need to be resolved include determining who will be responsible for maintenance and upgrades (which may require the development and negotiation of specific maintenance contracts or service level agreements), the processes that will need to be put in place to ensure that maintenance occurs on a regular basis and appropriate records management procedures. Depending on the nature of the Project Outputs, this detail can be captured in the *Outcome Realisation Plan* or separately in a *Handover Plan* and an *Output Management Plan*.

The Business Owner(s) should ensure that the impact of the project on ongoing services and budget requirements is identified so that any maintenance costs, licence renewals or annual contract fees are included in their annual operational budgets.

Element 4 Stakeholder engagement

This includes:

Terms used in this Guide can be found in the Appendix 1 Project Management Glossary.

4.1 What is stakeholder engagement?

Project Stakeholders are those who have a 'stake' (investment, involvement, concern, interest) in the success of the project. They are individuals or organisations who have interests that are positively or negatively impacted by the project, or who can positively or negatively impact the interests of the project processes, outputs or outcomes.

Project success depends in part on:

- maintaining the commitment and confidence of those providing resources;
- gaining the agreement of those who will utilise the Project Outputs; and/or
- responding appropriately to the people and groups who are impacted by (or who can impact the interests of) the project.

The potential stakeholder community surrounding a project can be difficult to identify because:

- they may be large, diffuse and amorphous; and/or
- the interests of stakeholders are usually varied.

Stakeholder engagement is the process of identifying key stakeholders, analysing their influence on the project, and managing their influence and impact – including winning their support where possible. Stakeholders can be defined as key or non-key for the purpose of planning engagement strategies:

- **Key stakeholders** are those individuals or groups whose interest in the project must be recognised if the project is to be successful – in particular those stakeholders who will be positively or negatively affected during the project or on successful completion of the project.
- **Non-key stakeholders** are those individuals or groups identified as having a stake in the project but who don't necessarily influence its outcome.

To keep everyone engaged for the duration of the project, it is important to develop an understanding of the values and issues that stakeholders have and address them.

Figure 13 below summarises the stakeholder engagement process.

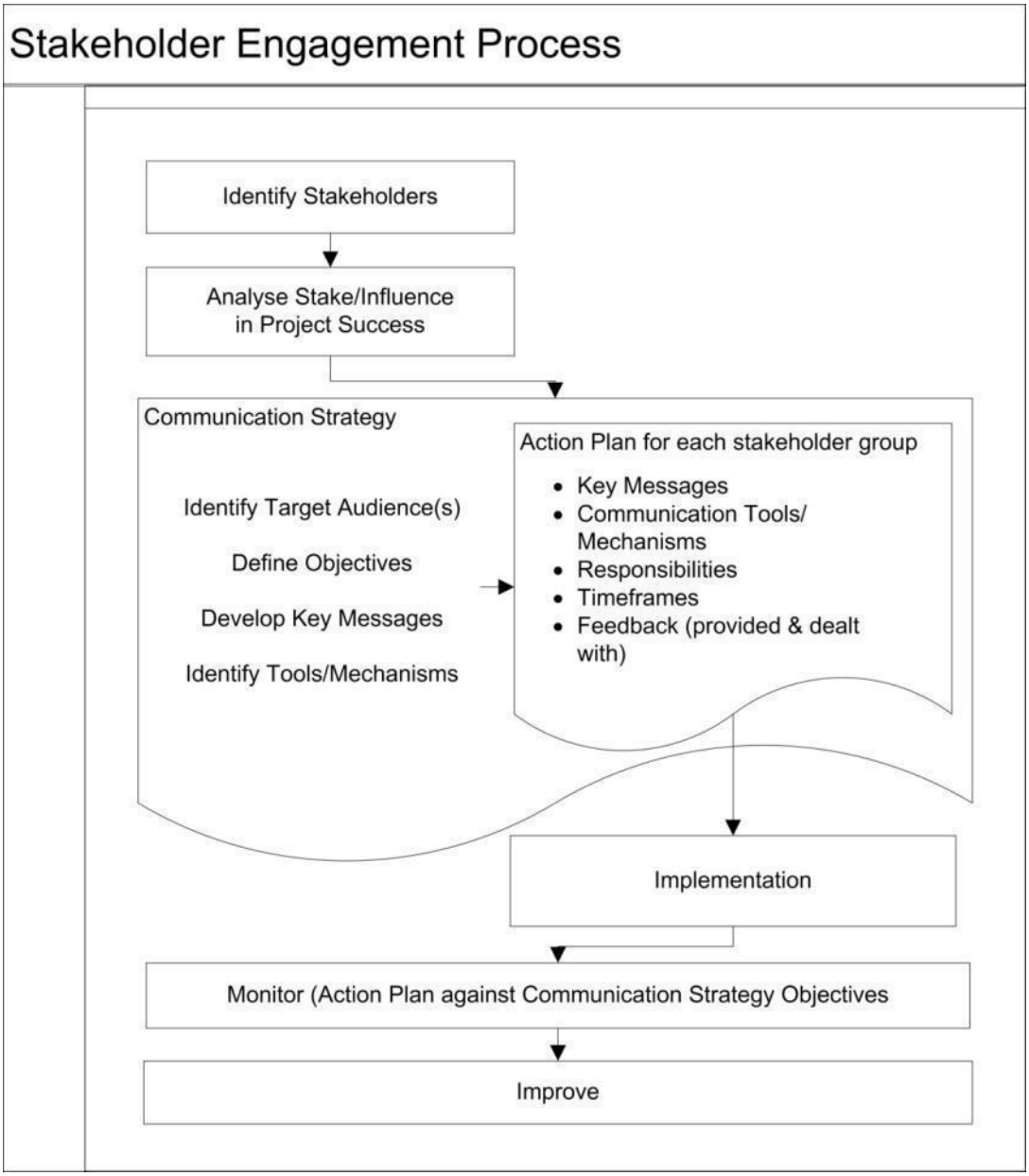

Figure 13 – Stakeholder engagement process

4.2 Classifying stakeholders

Classifying key stakeholders into groups according to their interest in or influence on a project is a useful tool and allows engagement strategies for like groups to be developed and implemented.

There are generic stakeholder classes within government projects that are a useful starting point for analysis. This is a useful way to broaden the thinking from the immediately obvious stakeholders and gain a wider picture of the project's impact.

Table 5 below provides a list of classifications that may be adopted by a project to categorise groups of Project Stakeholders. In this classification method the specific roles within the project governance structure are not included as stakeholders because they have been deliberately engaged to fulfil a requirement (eg Project Manager, Project Team, consultants, contractors) and would likely have no particular interest in the project if not appointed to that role.[33]

The classification list is not definitive, nor will every project utilise every classification. It may be necessary to break some groups down into sub-categories, for example breaking the outcome-impacted group into **beneficiaries** (those stakeholders that receive a benefit) and **impactees** (those stakeholders that may experience some form of penalty, be harmed by the project or bear a cost – this is sometimes referred to as a 'disbenefit').

[33] Adapted from John Smyrk, Sigma Management Science http://sigmafield.com.au/sigma/

Group Classification	Group Description (why is it important to engage them and maintain their commitment?)	Stakeholders
Review	What groups/organisations need to review (or audit) the project and its outputs or outcomes?	Quality Review Consultant (to review project and quality management processes) Business Owner (to review output quality) Auditor/budget committee (to review financial management processes) Project funder (to review output quality, timeframes etc – eg Commonwealth agency)
Related projects	What projects and change activities will impact on the project? How? What projects and change activities will the project impact? How?	These can be internal or external to the organisation, eg other government projects, national projects. Identify Project Sponsors and Business Owner(s) of each
Outcome Impacted	What individuals/ groups/ organisations/ related projects will be impacted (positively or negatively) by the achievement of the Project Outcomes?	Beneficiaries are those persons to whom target benefits are expected to flow, eg project benefits for the general public include reduced waiting times or improved service delivery. Impactees are those who may experience some form of penalty, be harmed or bear a cost (disbenefit) because of the project, eg a new highway may redirect traffic so local businesses lose custom and residents experience increased traffic noise levels.
Output utilisation	What groups/organisations will be required to implement and utilise the Project Outputs to enable the realisation of the Project Outcomes?	Business Owner(s), project customer[34]
Outcome accountable	Who is responsible for the project's success? Who supports the delivery of Project Outputs and is accountable for realisation of the Project Outcomes?	Corporate Client, Project Sponsor, Project Steering Committee

Table 5 – An example of how to identify and classify stakeholders

[34] A Project Customer is defined as 'the person or entities that will utilise the project outputs to generate the outcomes.' For government projects with outputs that are both 'public facing' and 'government facing', there may be two distinct types of project customers (ie agencies and the public) and their requirements will be different. Ongoing responsibility for output management rests with the Business Owner.

While it is a useful tool to initially classify stakeholders into generic groups for the purposes of identification, the individuals or groups within each category should then be identified specifically and targeted in the Stakeholder Analysis process. *Element 1 – Planning and scoping* (particularly John Smyrk's [35] Customer/Utilisation Map at Figure 7) and the *Project Business Plan Template and Guide for Large Projects* provide further support in this area by ensuring the correct customers/stakeholders have been identified to utilise any of the identified Project Outputs in order to contribute to achievement of the Project Outcomes.

4.3 Stakeholder Analysis

Those entities that have an interest in a project must be identified and the nature of their interests analysed. Stakeholder analysis has a variety of purposes, including:

- facilitation of organisational change – the process of stakeholder analysis helps with identifying what the project requires from each group and what actions should be undertaken to achieve the change required;
- management of risk – threats are often uncovered (directly or indirectly) by analysing and examining Project Stakeholders. Particular stakeholders may hold different perceptions of risk in relation to output utilisation, realisation of Project Outcomes and achievement of longer term business benefits. They should be involved in the risk identification, analysis and management process on an ongoing basis, where appropriate. See *Element 5 – Risk management* for more information;
- management of issues - analysis of and input from stakeholders is one of the most fruitful sources to identify project issues ; and
- project promotion and marketing – knowledge of stakeholders helps focus marketing and promotional activities in support of the project.

Three forms of stakeholder analysis should be carried out during a project:

1. a session to elaborate the initial stakeholder classification performed during project initiation (see Table 5);
2. regularly scheduled updates of the stakeholder analysis to confirm it accurately reflects the project's stakeholders; and
3. ad hoc updates carried out whenever events suggest that there has been a change to/in the stakeholder environment.

Analysis is best carried out by the Project Team in consultation with potential stakeholders or representatives of potential stakeholder groups. It includes:

1. identifying/reviewing all stakeholders. Beware of stakeholder creep where the list of stakeholders seems to be endless or groups are defined too broadly (eg 'the community');
2. analysing/reviewing the nature of the stakeholding for each (are they likely to be for or against the project or are they neutral? Can they influence the success of the project in a positive or negative way? What is their current level of knowledge about the project? What would we like this to be? Should they hear from us first?[36]
3. categorising/confirming as key and non-key, and prioritising based on judgements about the relative importance of the stakeholder;

[35] John Smyrk, Sigma Management Science http://sigmafield.com.au/sigma/

[36] Professor J Rodney Turner, 'People in Project Management', Australian Institute of Project Management presentation July 2009 (unpublished)

4. performing/reviewing buy-in analysis for key stakeholders, ie what is required to engage them in the project and gain their commitment (eg reference group membership); and
5. revisiting the analysis as the project progresses to:

   – review how/if each stakeholder group's relationship and attitude to the project has changed and evolved; and
   – identify new stakeholders and their relationship to the project.

All communication tasks should be added to the *Project Execution Plan* (or *Project Work Plan* or *Work Breakdown Structure*), add relevant information to other key planning documents (eg *Project Risk Register*) and allocate task responsibility. Any costs should be added to the project budget – the Project Sponsor and/or Project Steering Committee may need to approve significant additional costs.

It is important to determine how issues raised by project opponents will be addressed – their concerns must be addressed quickly in order to prevent misunderstandings about the project spreading misinformation. This is explored further in *Element 4, 4.8 – Communicating with project opponents*.

Table 6 below is an example of a stakeholder analysis:

ID	Stake-holder	Key or Non Key	Nature of stakeholding	Key issues for project	Engagement and commitment process	Planned action detailed in?	Who?
			a) What potential impact does the stakeholder have on the project? b) What potential impact does the project have on the stakeholder?		How will we engage this stakeholder and gain their commitment?	• Communication Plan • Project Risk Register • Project Issues Register • Change Mgt Plan • Work plans • Budget • Resources • Action List	
1.0 **(For Example)** Building a community hall	Unhappy neighbour	Key	a) Lobby Council against building, can rally discontent in local residents b) Disturbs their quality of life (eg noise levels and reduced on street parking when community hall is in use)	Project can be disrupted or delayed	• Set-up Neighbourhood Consultative Committee • One-on-one • Involve champion in consultation • Protect site	• WBS • Action List • Communication Plan • Project Risk Register	• Project Manager • Marketing Consultant • Contractor

Table 6 – Example stakeholder analysis[37]

[37] Smyrk, John (2004) *Primer example - Managing Projects for Outcomes*, Course material

4.4 Communication strategies

Once the stakeholder classification and analysis have been completed, a *Project Communication Strategy* can be developed. Effective communication is commonly understood as message given, message received and understood as it was intended, feedback delivered and accepted. Without effective communication, key stakeholders could miss out on vital information and may not understand why change is needed, and the project loses an opportunity to provide information and respond to any questions or issues. As a consequence, misinformation may fuel misunderstandings.

The depth and breadth of a *Project Communication Strategy* will depend on the scale and complexity of the project. For small projects the 'strategy' for communicating with stakeholders (eg staff) may only involve an initial announcement by management about the Project Objective and anticipated progress, regular emails to staff as the project progresses (including encouraging feedback via email), and a follow up announcement by management once the transition to operational mode is successfully completed.

In large and/or complex projects, all communication should take place in the context of an overall *Project Communication Strategy and Action Plan* that reflects the complexity of the project. Development of the *Project Communication Strategy and Action Plan* should involve the agency communications manager or a communication and marketing professional, depending on the nature of the key stakeholders identified and the focus of the project or program of projects.

The Tasmanian Government has developed a whole-of-government *Communications Policy and Tool Kit*, which can be found at www.communications.tas.gov.au, along with detailed information, templates and tools.

It is imperative that any *Project Communication Strategy* that is developed defines:

Situation analysis

Provide a brief background to the project and any history that needs to be considered. Restate the agreed Project Objective(s)s to provide context for the communication strategy objectives.

Communication strategy objectives

Why is communication required? While the communication objectives must be relevant and appropriate to the project, specific Project Outcomes and/or Target Outcomes may be directly relevant here (eg when they relate to increasing awareness, educating, informing or consulting, which can only be achieved via communication with stakeholders). The complexity of the objectives will vary according to the scale and complexity of the project. Each communication strategy objective should be clear and include realistic measures that enable accurate and valuable evaluation of the effectiveness of the overall strategy.

Target audiences

Communication activities can consume project resources and time, so it is important to decide which stakeholders to focus on. Think about the target audience(s) within each stakeholder group, when they are to be targeted (immediately, in the short term or later), and why they will be targeted. Determine the purpose of the communication and each stakeholder group's communication needs – this will influence the formality/informality of the messages. For example:

- mandatory reporting to project decision makers (eg *Project Status Reports*, Project Steering Committee and reference group meetings);
- to provide information (eg forums, project information on website);
- for marketing purposes (eg newsletter, one-on-one meetings, presentations on outcomes/benefits); or
- requests for feedback (eg surveys, forums).

The *Project Risk Register* should be reviewed and updated following this analysis (eg are there likely critics? Should particular people/groups be consulted before communication activities begin?)

Research requirements

The need for research will vary with the complexity, cost and nature of the project. Determine what type of research is required – for example background reading, desktop research to find out what previous projects have done, or input from the Project Sponsor and/or Business Owner(s). More complex projects may require formal market research and external expertise.

Key messages

Crafting a project's key messages depends on what the message is intended to achieve (such as educating, informing or consulting) and each stakeholder or stakeholder group's perspective of the project. All stakeholders have a different perspective of the project and their information needs and expectations are different, so key messages need to be tailored appropriately. This means viewing the project from their perspective (not the project's or Project Manager's perspective) in order to craft messages that articulate, in language they will understand, the specific benefits of the changes and if/how the project will affect them directly (what is 'in it' for them, how does the project fit with their personal agenda(s), and are there any 'negatives'?)

Keller and Aiken[38] note that research confirms there are at least five sources of meaning for humans at work:

1. impact on society (eg making a better society, building the community, wisely expending resources),
2. the customer (eg improving service delivery, better quality product),
3. the company/shareholder (eg beating the competition, industry leadership),
4. the working team (eg sense of belonging, working effectively together), and
5. 'me' personally (my development, empowerment to act, remuneration/bonus).

For each target audience, consider which of these sources of meaning may be relevant, then identify three or four key points they need to understand and act on. There may need to be five differently tailored messages on the one issue to increase the chances of appealing to different stakeholders/groups. A single key message may be relevant to more than one stakeholder/group and may address more than one 'for' and/or 'against' issue.

Whether the project is internal to government or involves external stakeholders, direct communication with stakeholders can build awareness about:

[38] Keller, Scott and Carolyn Aiken (May 2008) *The Inconvenient Truth About Change Management*, McKinsey and Company http://www.mckinsey.com/clientservice/organizationleadership/The_Inconvenient_Truth_About_Change_Management.pdf

- why the project is needed,
- the risks or costs (to the unit/division/agency or community) if no change is made, and
- how this project's objective(s) align with and advance the overall strategic direction of the agency/government.

Consider how the project's key messages correlate with the agency and whole-of-government messages: are they consistent and compatible? Consistency with national program messages may also be relevant.

Communicating complex issues simply and quickly can be a challenge. While the key messages must be project-specific, take care with the language that is used and avoid jargon, particularly when communicating with non-specialists or the community. Any information should be accurate, complete, timely, relevant and understood by the audience.

Involving key stakeholders (eg the Project Sponsor, project champions, identified supporters) in developing and refining the key messages as the project progresses increases their commitment to the project and improves the quality of the messages.[39]

Communication tools and actions

What will be done to get key messages across? Depending on the needs, size and complexity of the project the approach adopted may be formal, informal, detailed or broad. For a large, complex project a major marketing campaign may be required, but for a small project a presentation to staff that will be affected by the change is sufficient.

Which tools would be most appropriate to get key messages across? Cost must also be considered. Individuals and groups exposed to the same method of communication will respond differently. Determine which tools will best suit each target audience (this may not necessarily be what is easiest for the project or what is preferred by the Project Manager). Is two-way communication required?

Gartner has identified that simple mechanisms for project communications, preferably face-to-face, are essential for project success.[40] In the government context, practising project managers identified three effective means of communication: email, internet/intranet and face-to-face meetings. However, not every agency/organisation has the same communication mechanisms, the same 'corporate culture' or even universal staff access to email and/or the internet, which needs to be taken into account.

Types of communication to be considered can be categorised as **verbal**, **electronic, written** or **visual** based on the purpose of the tool. Mode (formal or informal), timeliness (slow, moderate or fast) and reach (limited, moderate or broad) of each type must also be considered. Table 7 below provides some examples of the types of communication.

[39] Keller, Scott and Carolyn Aiken (May 2008) *The Inconvenient Truth About Change Management*, McKinsey and Company http://www.mckinsey.com/clientservice/organizationleadership/The_Inconvenient_Truth_About_Change_Management.pdf

[40] Mack, R & Furlonger, J (1998) 'IT Projects Don't Have to Fail'. *Gartner [ID No. DF-05-3821]:* p2

Verbal	Electronic	Written	Visual
• Presentations/briefing sessions (one-to-one, one-to-many) • Telephone (one-to-one)/Teleconferences (one-to-many) • Forums • Networking facilitation • Staff meetings • Seminars/workshops • Community meetings • Launches • Specific events • Social gatherings • Visitation programs • Radio/television	• Personal email to identified stakeholders (one to one, one to many) • Broadcast email (one to many) • Internet/intranet including online forums, fact sheets, newsletter, Sharepoint – web sharing of ongoing project planning with internal and/or external stakeholders • SMS messaging • Weblog • Facebook, MySpace, YouTube • Twitter • RSS Feed • CD-ROM/DVDs • Fax stream, faxback	• Mailouts of important documentation (letter, memorandum, factsheet, FAQs) • Newsletter • Advertising – newspaper, magazine, web • Pamphlets and brochures (consider shelf life issues) • Information in agency newsletters etc • Media release • Ministerial • Request for Tender (RFT) • Contract • Project planning documentation	• Display – workplace, conference • Transport advertising • 'Roadshow' • 'Parody' presentation – play, puppet show • 3D presentation

Table 7 – Types of communication

Websites are now considered mainstream tools for providing information 24 hours a day, and for facilitating interactive, two-way communication and feedback both within government and with external audiences. For projects, some factors to consider in relation to websites include:

- Will project success require information that has to be updated quickly?
- Are the communication systems that are currently in place sufficiently robust if large volumes of information are to be made available and/or accessed by a large audience simultaneously? Could the website crash if too many people try to access it or download the same document all at the same time?
- New communication technologies may emerge during the life of the project – what impact would this have on planned communication activities?
- Are proposed communication technologies compatible with project staff skills and experience or is training required?

Regardless of the project, any information made available on a government website must comply with the Tasmanian Government Website Standards (available at www.egovernment.tas.gov.au), which include specific minimum requirements based on applicable legislation and Government policy. Agencies must ensure access to, and usability by, the widest possible target community appropriate to the service or resource. Depending on the project, special groups may have specific needs, such as the aged, Indigenous, hearing or sight impaired and those with dyslexia.

Message source

Who is the most appropriate source of the message that needs to be delivered? Sometimes it will be the Project Sponsor or Project Manager, or just 'the Project', but there are other key stakeholders who may be more appropriate conduits.

In government it is absolutely crucial that all Project Stakeholders sense the project has the support of their immediate senior management, specifically an individual's immediate up-line manager. A consistent and clear message delivered 'top down' on a regular basis will lend the project authority and should not be underestimated. This is especially the case for larger, more complex or cross-government projects.

For projects involving the broader community, local government, business and/or industry, the presentation of key messages by community/business leaders or influential members can enhance the project's credibility and be an important way to build wider support among stakeholders.

Responsibilities

Who will be responsible for implementing each action? Is it necessary for specific personnel to have key roles in relation to communications (eg who is the 'face' of the project? Who is the primary contact for handling queries from the public, media and/or private organisations?) All communication tasks and responsibilities should be added to the *Project Execution Plan* (or *Project Work Plan* or *Work Breakdown Structure*) or the task list within a *Project Business Plan.*

Priorities

What is the timeframe for each communication action and when does each have to be completed by? Is there a required sequence; is any action contingent on others happening beforehand? Are there any significant communication milestones [41] (eg newsletter releases, public launches) that should be included in the initial project development schedule defined in the *Project Business Plan* and the *Project Execution Plan* (or *Project Work Plan* or *Work Breakdown Structure*). Progress is reported through *Project Status Reports* to the Project Sponsor and/or Project Steering Committee.

Feedback

What mechanisms will be established to ensure two-way communication? Who will be responsible for responding to feedback? What are acceptable timeframes for providing a response? How will issues raised this way be dealt with? How will the project show that stakeholders are being listened to? How will the project deal with unexpected stakeholder demands or information requests? Who will answer the tough questions?

Budget requirements

What are the costs associated with each action, how much is required and appropriate? The Project Sponsor and/or Project Steering Committee may need to approve significant additional costs.

Developing the Project Communication Strategy and Action Plan

Aligning a stakeholder/group with a key message, the appropriate communication tool, message source, timeframe, feedback mechanism, potential costs and responsible officer forms the beginning of a *Project Communication Action Plan*. This is usually included as an appendix to the *Project Communication Strategy* and is maintained separately as a stand-alone document as it will evolve as the project progresses. See www.communications.tas.gov.au for detailed information and templates.

[41] Milestones reported in the Status Reports should include any relevant high-level milestones listed in the agreed *Project Business Plan* as well as major milestones and achievements from the Project Work Plan (or Project Execution Plan) including Communication Strategy milestones.

Monitoring and evaluating the communications strategy

Evaluating the communications strategy should be planned from the INITIATE phase, not left until the end, and must be properly budgeted for. Evaluating the effectiveness of the project communications strategy should be undertaken in a two-stage approach:

1. On a regular basis as the project progresses to confirm:

   – the initial stakeholder analysis is still appropriate and identify if any new stakeholders have emerged; and
   – the key messages are effective and can be further refined as necessary.

   Regular monitoring will provide some insight as to whether and to what extent the communications outcomes are being achieved. If not, the evaluation should indicate why not, so the approach can be further refined.

2. As part of project closure activities to assess:

   – whether the project stakeholder analysis was accurate;
   – the extent to which the communications outcomes were achieved, and if not, why not;
   – to ensure expenditure of project funds can be justified; and
   – to document any lessons learned and suggestions for improvements for future projects.

Clear, realistic and measurable objectives for the communications strategy (not just the project) will facilitate accurate and valuable evaluation of its effectiveness. The measures of effectiveness will be different depending on the scale/complexity of the project, for example:

- a market research company to do pre and post-research to determine what has been achieved;
- putting website addresses and phone numbers on advertisements or promotional material then measuring requests for information, where they came from and establishing a database of inquiries for later tracking; and
- measuring patterns of visits to Internet sites, including who is visiting the site and when.

4.5 Managing stakeholder expectations

For projects to deliver reasonable results they must start with reasonable expectations.[42] Early engagement with all stakeholders is essential to reveal their various expectations and assumptions, to manage their level of input and temper expectations about their level of influence. This is important for all projects but especially when the project is large, highly visible, political and/or business critical.

[42] Mullaly, M 2008 *Government Projects: Are They Really so Different?*, www.gantthead.com – last accessed 3 February 2010

Successful stakeholder expectation management includes:

- ensuring the project scope is agreed

  This means ensuring that the Project Sponsor and/or Project Steering Committee's agreement to the *Project Business Plan* is formalised. The *Project Business Plan* defines the project's strategic context, the Project Objective(s), Project Outcomes, Project Outputs, assumptions, constraints, governance, budget, timeline and the approach to be taken with respect to risk, quality, stakeholders, resources, Outcome Realisation, evaluation and so on.

  Clear agreement is also required from the Business Owner(s) in relation to the Project Outputs and the fitness-for-purpose criteria. This can be documented in the *Project Business Plan* or separately in output description statements or functional requirements.

- managing changes to the project scope carefully

  Any changes to the project scope should be formally managed through the iterative development of the *Project Business Plan*. Ensure clear approval for all changes is obtained from the Project Sponsor and/or Project Steering Committee.

  See *Element 1– Planning and scoping* for more discussion of managing project scope.

- regularly reminding stakeholders what is in it for them.
- communicating proactively

  Provide advance communication so stakeholders know what is going on and any changes to previous understandings and agreements. Make sure key stakeholders hear any major news (good or bad) from the project before they find out from some other source.

When it comes to managing stakeholder expectations, many experienced project managers 'under promise and over deliver'. When expectations are managed well, all stakeholders feel positive about the project, even if there are changes and challenges. When stakeholder expectations are not managed well, some stakeholders will see the project as unsuccessful regardless of any achievements and may become its most vocal critics.[43]

4.6 The role of the Project Sponsor and champions in engaging stakeholders

The Project Sponsor has ultimate responsibility and accountability for the project's success. Gartner says the involvement of the Project Sponsor, through informed and continuing interest, is a key factor in project success.[44] The public role of the Project Sponsor as a visible champion and effective leader means they should demonstrate courage and a willingness to support and defend the project publicly within the larger agency/organisation and in the face of opposition from senior colleagues, especially where project funding requires protection or a high level of organisational change is planned.[45]

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[43] Adapted from Tom Mochal, www.tenstep.com

[44] Mack, R & Furlonger, J (1998) 'IT Projects Don't Have to Fail'. *Gartner [ID No. DF-05-3821]:* p2

[45] Helm, J., Remington, K. (September 2005) *Effective Project Sponsorship: An evaluation of the role of the executive sponsor in complex infrastructure projects by Senior Project Managers*, Project Management Journal, 36 (3), pp.51-61

The Project Sponsor should use their power and influence to promote the project to all stakeholders and build a strong coalition of support among key stakeholders (eg senior management, key business leaders and leading Project Stakeholder representatives). This is especially true if the project is contentious.

Regardless of whether a project is 'public facing' or 'government facing' (or both), it is absolutely crucial that all Project Stakeholders sense the project has the open support of senior management. For projects that impact the community, it is essential that project support from community leaders or influential members is widely promoted.

While there should only be one Project Sponsor, there is no limit to the number of project champions or advocates who can use their influence for the benefit of the project.[46] When a project has support across the organisation or within a community, the recruitment of a **'coalition of champions'** (ie project supporters who can motivate others either by role/status or personality, or both) to openly promote and defend the project can be an important way to lend the project authority and build wider support among stakeholders. Consideration should be given to engaging project champions via roles within the project governance structure (eg membership of a reference group).

The role of the Project Sponsor and other key roles in a project's governance structure – including responsibilities, accountabilities and essential characteristics for effectiveness – are explored in more detail in *Element 2 – Governance*.

4.7 Maintaining stakeholder commitment

Maintaining stakeholder commitment requires ongoing effort throughout the life of the project. This includes regularly reviewing the stakeholder analysis to confirm the assessment is still appropriate and identifying if any new stakeholders have emerged, in order to refine the key messages.

Regular communication is required to maintain stakeholder commitment. This includes:

- maintaining the project's profile by broadly promoting what the project will do and deliver at every opportunity;
- promoting the progress made by the project (not just activity);
- reinforcing and reiterating the project's benefits to specific stakeholders;
- promoting the mechanism for stakeholders to provide feedback and responding constructively to issues they raise;
- challenging the views of the opponents by providing information that invalidates or addresses any threats the project poses from their perspective[47] – distribute this to all stakeholders;
- actively involving all who can affect, and/or be affected by, the project in the definition and planning stages;
- making others aware of the project even if their cooperation and involvement is not required until later;

[46] Crawford, L and C Brett, 'Exploring the Role of the Project Sponsor' , UTS Sydney - http://www.projects.uts.edu.au/resources/pdfs/PMINZ2001CrawfordBrett.pdf (last accessed 3 February 2010)

[47] Adapted from Professor J Rodney Turner, 'People in Project Management', Australian Institute of Project Management presentation July 2009 (unpublished)

- establishing good personal relationships with key stakeholders – the Project Manager's expertise alone does not inspire trust and credibility; and/or
- using the recommendations of external consultants, or established formal methodologies, to legitimise the project's approach.

Individual activities should be documented in the *Project Communication Strategy and Action Plan.*

4.8 Communicating with project opponents

Communicating with stakeholders who resist or oppose a project can be difficult and challenging. They may be unwilling to engage with the project and can effectively undermine the project by spreading misinformation that can influence the views of other stakeholders. While they are disqualified from Project Steering Committee membership due to the potential conflict of interest, they should be engaged via membership of reference groups.[48] It is important to try to understand their perspective (ie what they perceive the project's potential negative impacts to be) and identify any benefits/opportunities the project may deliver for/to them. Promoting information that challenges, invalidates or addresses any threats the project poses from their perspective can remove the source of their opposition.[49]

Analysing the motivations for resistance for highly influential opponents in a table format can be useful: fill out the 'benefits' and 'threats' columns first then tailor specific messages for each opponent. A single key message may address more than one 'for' and/or 'against' issue.

<table>
<tr><th colspan="3">Name of Key Stakeholder/Group</th></tr>
<tr><th>Project benefits ('what's in it for them')</th><th>Key messages</th><th>Potential Threats
('what's against it for them')</th></tr>
<tr><td>Contextualise and identify the direct personal benefits (eg self-interest)</td><td rowspan="3">This will help you by …
Even though it might mean more work for your group in …, in the long term it will reduce the following tasks so that the overall impact on your group will be positive [describe how].
By supporting this project, it means that you will gain …</td><td>The project will make it more difficult for this group to …
The project will add more work to my already heavy work schedule.</td></tr>
<tr><td>Opportunity to piggy-back on our work to make your work easier</td><td>Not their core business</td></tr>
<tr><td>Participating in the project (opportunity to 'have a say' in shaping the end results)</td><td>They perceive control being taken away</td></tr>
</table>

Table 8 – Development of key messages for project opponents

See *Tips from project managers* at the end of this section for some insights from practising Tasmanian Government project managers when dealing with project opponents.

[48] Smyrk, J., Sigma Management Science, Primers in Project Management: an integrated glossary of project management terms & definitions, p.32
Retrieved from: http://projectoutcomes.smscience.com/PO%20glossary%202a.pdf

[49] Adapted from Professor J Rodney Turner, 'People in Project Management', Australian Institute of Project Management presentation July 2009 (unpublished)

4.9 The difference between communication and marketing

A distinction can be made between communication and marketing strategies in that:

- The *Communication Strategy* is aimed at ensuring ongoing commitment and support by all key stakeholders for all aspects of the project.
- The *Marketing Strategy* is aimed at ensuring the outputs from the project are fully utilised by the appropriate groups.

While both have an element of 'selling', marketing is focused on 'selling' the outputs of the project to project customers. Communication strategies are focused on 'selling' the project to the key stakeholders. Depending on the nature of the project and its customers, the *Communication Strategy* and the *Marketing Strategy* may be combined.

4.10 Tips from project managers:

Practising Tasmanian State Service project managers and others have made the following observations:

- Analyse the nature of each person and group's stakeholding and their potential to influence the success of the project – classify as key and non-key.
- Define the target audience(s), key messages, communication mechanisms/tools, responsibilities and how feedback will be provided and dealt with.
- Ensure the project budget includes an allocation for communication activities if required.
- Regularly review the stakeholder analysis to ensure it remains accurate.
- Monitor and evaluate the effectiveness of all communication activities to inform the improvement processes.
- Communicate proactively and closely manage stakeholder expectations.
- Directly involve the Project Sponsor as a communication channel.
- Identify and utilise a coalition of project champions across the organisation/community.
- Manage project opponents separately.

In relation to dealing with project opponents:

- Consider if project opponents have a valid point of view.
- Preface the messages with the wider context of the organisational benefits the project is aiming to achieve.
- Take an education/ partnership approach by giving a 'big picture' view of why change is needed. This gives people a broader context to understand why the project is needed.
- For projects implementing changes to business processes, it's important to work with those who may be against the new processes. Understanding and identifying what they currently do is essential to demonstrate what will change for them and to help them to understand the new processes.
- Plan how issues raised by project opponents will be addressed – concerns must be addressed quickly to prevent misunderstandings about the project spreading as misinformation.
- Involve the Project Sponsor and project champions in planning to respond to resistance to change in their areas (eg brainstorm likely forms of resistance or opposition).
- Always deliver messages to resistors face-to-face.
- Utilise the influence of a project supporter higher up the operational hierarchy (ie above the project opponent) to reinforce the message from someone in authority and override the opponent's influence.
- Try to keep people involved even when there is no conflict so that they can learn more about the project and so their perspectives are understood as things progress.
- For some individual opponents it may be wise not to formalise a planned approach.
- Recognise that some stakeholders may never be won over and the best that can be done is to manage their influence and impact.

Element 5 Risk management

This includes:

Terms used in this Guide can be found in the Appendix 1 Project Management Glossary.

5.1 What is risk management?

Risk refers to any factor (or threat) that may adversely affect the success of a project in terms of realising the agreed Project Outcomes, delivery of Project Outputs, achievement of timeframes or meeting budgetary constraints. These factors/threats include risks to the project's business environment that may prevent the Project Outcomes from being fully realised.

There are always risks associated with a project. Successful project managers try to resolve risks before they occur, through a systematic risk management process. Risk management describes the processes to identify, analyse and respond to project risk. It includes risk identification, risk analysis, risk evaluation, allocation of responsibility and risk treatment. The purpose of risk management is to ensure levels of risk and uncertainty are identified and then managed in a structured way, so any potential threat to the delivery of outputs (level of resourcing, time, cost and quality) and the realisation of Project Outcomes by the Business Owner(s) is appropriately managed to ensure the project is completed successfully.

Issues management and risk management are closely linked, as some issues, if not managed, may become risks. Issues may reveal specific triggers that relate to major risks before they occur (eg if Project Steering Committee meetings keep being rescheduled, this could indicate that the members are disengaged. The impact of this on the project is serious, as decisions will be delayed and progress will stall). This linkage is the reason why it is recommended that major issues also are identified and managed. This is covered in more detail in *Element 6 – Issues management.*

5.2 Risk management through the life of a project

Risk management processes are iterative throughout the life of the project and should be built into the project management planning and activities. Structured, proactive risk management allows risks to be anticipated and the effects minimised rather than taking a reactive approach to events as or after they occur, which can be costly. The Australian Auditor-General has commented that 'effective risk management, as a cornerstone of good corporate governance, results in better service delivery, more efficient use of resources, and better project management, as well as helping to minimise waste, fraud and poor value-for-money decision-making.[50]

Risk management is initially conducted during the INITIATE phase when assessing the project's viability and is initially documented in the *Project Proposal* or *Project Business Case* (depending on the size of the project). The processes by which risks will be managed during the project should then be documented in the project *Risk Management Plan*, which can be included in the *Project Business Plan,* or developed as a separate document, depending on the size and/or complexity of the project.

The Project Sponsor and/or Project Steering Committee has ultimate responsibility for oversight of the *Risk Management Plan*, including ensuring mitigation strategies are implemented, and that mitigation actions are identified and allocated for all high-grade risks.

Risks should be reviewed regularly throughout the life of the project to ensure that changing circumstances are tracked and managed. For example, specific risks to the organisation may exist during output delivery, transition or once operational mode has been established. Risk management should also be used in Outcome Realisation and change management planning.

All projects require a degree of risk management, but the extent to which this is documented will depend on the complexity, size and scope, including Project Outcomes, customers, Project Outputs, work, resources and the level of risk the project faces. Large and/or complex projects involving significant investment and/or major business benefits require formal and detailed risk management activities on an ongoing basis.

5.3 The main elements of risk management

The main elements of the Tasmanian Government risk management process have been adapted from the *Australian Standard for Risk Management* AS/NZS ISO 31000:2009 (replacing AS/NZS 4360:2004).[51] They are shown in Figure 14 below:

[50] 'Risk and Risk Management in the Public Sector', Public Sector Governance and Risk Forum, Australian Institute of Company Directors, in conjunction with the Institute of Internal Auditors Australia, 1 September 2005. http://www.anao.gov.au/

[51] The Australian Standard for Risk Management (AS/NZS ISO 31000:2009) 'provides principles and generic guidelines on risk management. [It] can be used by any public, private or community enterprise, association, group or individual … and can be applied … to a wide range of activities, including strategies and decisions, operations, processes, functions, projects, products, services and assets.' (Section 1 Scope and application) The Australian Standard is based on the assumption that a risk management framework should be applied across the organisation. The approach to risk management described in the *Tasmanian Government Project Management Guidelines* complies with AS/NZS ISO 31000:2009 despite some minor differences in terminology, the specific assignment of responsibility for risk mitigation within the project's governance structure and a more detailed definition of the "forms of damage" that a project can suffer.

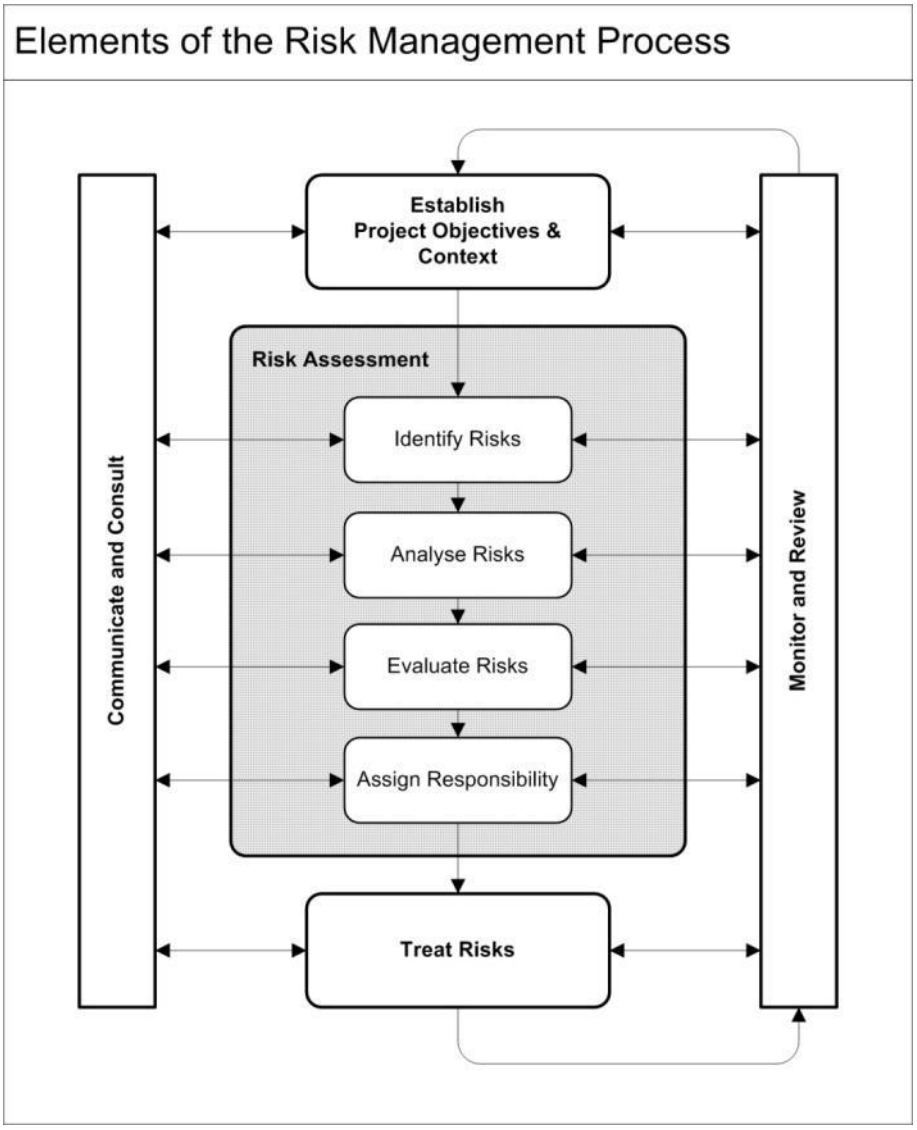


Figure 14 – Elements of the risk management process

5.3.1 Communicate and consult

Stakeholders can have a significant impact on decisions made, and can affect output utilisation, realisation of Project Outcomes and achievement of longer term business benefits. It is important that their perceptions of risk be identified and documented. Communication and consultation with all key stakeholders should be ongoing and not just part of the initial risk identification and analysis process. This should be tied in with the overall communication strategy for the project and should not be undertaken as a separate activity.

Before developing the *Risk Management Plan* for large and/or complex projects, the Project Steering Committee and other key stakeholders should meet to undertake an initial risk identification and analysis. This is a powerful process for confirming the Project Objective(s) and identifying different perspectives on the potential risks facing the project, it may also reveal different assumptions and understandings about the project.[52]

Generally only Extreme, A and B-grade risks (see *Table 13 – Risk matrix for grading risks for large/complex projects* on page 97) are reported to the Project Steering Committee on a regular basis through the Project Status Report. As the status of risks changes throughout the life of the project, these changes must be reported to the Project Sponsor and the Project Steering Committee. Depending on the nature of the change, this may be done as part of the Project Status Report or may require a stand-alone document for the Project Steering Committee to endorse. This should provide a more detailed analysis of the nature of the change in risk status (eg escalation from A-grade to Extreme) as well as the information usually provided on the *Project Risk Register* (eg potential impact, date of review, proposed mitigation, responsibility, potential cost of mitigation, timeframe for mitigation, and an evaluation of impact on the *Project Execution Plan*, *Project Work Plan* or *Work Breakdown Structure*).

5.3.2 Establish the context

The risk management process is done in the context of the business environment in which the project is being implemented. This context includes political, organisational and strategic sources of risk. The project scope, including Project Outcomes, customers, Project Outputs, work and resources, also forms part of the context and can help highlight potential sources of risk.

Identifying the context for the risk management processes must include identifying risks to the business environment where the project operates, particularly in the case of large and/or complex projects. Processes for escalating business risks to senior management should occur as part of the overall agency or whole-of-government risk management activities, including information and physical security risk management.

*The Tasmanian Government Information Security Framework - Risk Managemen*t *Guidelines* (available at www.egovernment.tas.gov.au) recommend adopting a consistent risk management framework for all risk management activities within an agency/organisation. There should be a single approach to determining and grading likelihood, seriousness/impact and risk levels for all risk assessments conducted by the agency/organisation.

5.3.3 Identify risks

Before risks can be properly managed, they must be identified. A very broad identification, analysis and evaluation of project risks should form part of the *Project Proposal* and/or *Project Business Case*. Once the project has received approval to proceed, risk identification initially involves key stakeholders including Project Steering Committee members. One way to undertake the identification process is to hold brainstorming sessions to identify and clarify the main risks that could prevent the project achieving the agreed Project Outcomes.

It is important to clearly define the scope of the project at this stage so that the identification of risks can remain focused on what potentially threatens:

- the delivery of Project Outputs (level of resourcing, time, cost and quality) and/or

[52] Thomsett, R 'Risk in Projects – the Total Tool Set', 2004 www.thomsettinternational.com

- the realisation of Project Outcomes.[53]

In this context, the level and nature of risks to a project may inform or influence the available options for developing and delivering Project Outputs.

Categorising risks is a useful way to ensure all relevant risks are identified. Risks can be categorised by cause or type (eg corporate risks, business risks, project risks and system risks), which can be broken down into other categories, such as economic, environmental, financial, human, information and physical security, natural hazards, occupational health and safety and public liability. Another way is to categorise by risks external to the project and those that are internal.

Another way of categorising risk is to take each of the key elements of project management, outlined in the introduction to these Guidelines, and identify which risks may impinge on the application of each key element. (See the *Project Management Risk Identification Tool* at www.egovernemnt.tas.gov.au for some useful prompts in identifying project risks that may relate to each key element).

A project 'pre-mortem' analysis[54] can also be useful. Conducted on the hypothetical basis that the project has already failed, stakeholders and team members apply 'prospective hindsight' by identifying all possible reasons for project failure. This can be a powerful way to reveal assumptions and identify constraints, as well as identify real risks facing the project early on.

There are usually risks to the business in undertaking the project, in that if the project fails the organisation is exposed. These should be documented in the *Project Risk Register* and may require high-level action (eg by the Sponsor and/or Business Owner) for effective mitigation.

Once the context of the risk has been identified, further questioning is required to identify the source, threat or 'trigger' for the risk, and the subsequent impact or consequence. The wording or articulation of each risk should follow a simple two-step approach:

1. Consider what might be a 'trigger' event or threat; then
2. Identify the risk by focusing on the impact – use a 'newspaper headline' style statement – short, sharp and snappy. Describe the nature of the risk and the impact on the project if the risk is not mitigated or managed.

The examples in Table 9 and Table 10 below show how interrogating the likelihood and seriousness of each risk allows much of the subjectivity can be removed. This helps to determine what pre-emptive or contingency action may be required to treat each risk. This level of rational justification is especially important if additional funding is required for the proposed mitigation.

[53] Risks to the realization of business benefits may be transferred to the Business Owner/s upon output handover.

[54] 'Performing a Project Premortem', Gary Klein, Harvard Business Review Online (http://harvardbusinessonline.hbsp.harvard.edu)

Component	Checklist question	Examples
Determining Likelihood		
Source (root cause)	What is the source of the risk?	Weather
Event and nature	What is the affecting nature of the source that might occur?	Unfavourable weather … for x days
Cause	Why is the risk likely to occur?	Weather is unpredictable
Frequency	How often could the event occur?	Using weather patterns – may be in four-day cycles, less frequent if other conditions
Determining Seriousness/Consequences		
Consequence	What is the effect of the risk being realised on the project's results?	Project activity cannot be conducted if unfavourable weather continues
Factors	When is the event likely to occur? What factors contribute to how often the event could occur?	Weather patterns – climate change effects, or less frequent if other conditions
Location	Where could the risk occur?	External building site
Effect	What of the project's work may be affected?	Construction delayed
Treatment Options		
Control	What are the organisation's existing control measures? What are the reasons why these measures may be ineffective? What new measures may need to be implemented for the project?	Prepare indoor activities Indoor activities may not be feasible Look for alternatives to relocate event eg marquee

Table 9 – Example 1: 'Bad weather' becomes 'Inability to undertake project work due to bad weather'

Component	Checklist question	Examples
Determining Likelihood		
Source (root cause)	What is the source of the risk?	Project funding redirected
Event and Nature	What is the affecting nature of the source that might occur?	Budget cuts
Cause	Why is the risk likely to occur?	Reassessment of strategic priorities
Frequency	How often could the event occur?	Indeterminate – depends on organisation and economic environment
Determining Seriousness/Consequences		
Consequence	What is the effect of the risk being realised on the project's results?	Expenditure to date wasted, Project Outcomes not realised, manager/agency and government embarrassed
Factors	When is the event likely to occur?	Forward planning for budget cycle, strategic planning reassessment of priorities
	What factors contribute to how often the event could occur?	Budget competition, competing priorities
Location	Where could the risk occur?	NA
Effect	What of the project's work may be affected?	Project is abandoned
Treatment Options		
Control	What are the organisation's existing control measures?	Pre-emptive – Avoidance: confirm the budget allocation at regular intervals at the appropriate decision-making level Mitigation: re-scope the project against revised parameters (ie reduced budget, reduced output quality, extended timeframes); or apply for additional funding
	What are the reasons why these measures may be ineffective?	No extra funding available, reduced output quality makes outputs unfit-for-purpose, immovable milestones No extra funding available
	What new measures may need to be implemented for the project?	Consideration may be needed to terminate the project until additional funding is available.

Table 10 – Example 2: 'Insufficient funding' becomes 'Insufficient funding to complete the project due to funding being redirected'

5.3.4 Analyse risks

Once all risks have been identified, a filtering process should be used to determine if and how the identified risks will be managed. For example, some risks:

- are best left, as the likelihood and seriousness would be so low that mitigation strategies are not required;
- need monitoring, but no proactive mitigation strategies are required at this stage;
- are avoided by changing aspects of the scope of the work of the project – this should be documented for approval by the Project Sponsor and/or Project Steering Committee and include an analysis of the potential impact on the Project Outcomes;
- have to be escalated for the attention of senior management within the agency as a risk to the overall agency or whole-of-government business; and/or
- need planned mitigation strategies that may need to be integrated into the project schedule and work plan.

The results of this exercise should be documented in a *Project Risk Register* for the project.

Risks can be analysed according to a subjective assessment of the likelihood they will be realised and the level of seriousness/impact they will have if they do occur.

Likelihood is a qualitative measure of probability to express the strength of our belief that the threat will emerge (generally ranked as Low (L), Medium (M) or High (H)).

Seriousness is a qualitative measure of negative impact to convey the overall loss of value from a project if the threat emerges, based on the extent of the damage (generally ranked as Low (L), Medium (M), High (H) or Extreme (E)).

Risks are classified and ranked according to whether there is a low, medium or high likelihood they will occur, and according to whether their level of seriousness/impact will be low, medium or high if they happen. Assessing the likelihood and seriousness of risks to a project provides a good indication of the project risk exposure.

From this classification, a priority ranking for evaluation and action can be developed, separating the acceptable risks from the unacceptable ones. This approach is just a suggested starting point.

Examples of possible risks might include inadequate funding to complete the project (one effect of which is a lack of resources), an influenza epidemic (the effect of which is that crucial Project Team members become sick) or that key stakeholders are not interested in the project (the effect of which is they do not provide important input into the project or take responsibility for it). Table 11 below illustrates, at a simple level, how this analysis can be done using these examples.

Risk	Likelihood		Seriousness			
	Low	Med	High	Low	Med	High
Inadequate funding to complete project Impact: lack of resources		X		X		
Influenza epidemic Impact: crucial Project Team members become sick and progress stalls			X			X
Lack of stakeholder commitment Impact: Input delayed, progress stalls			X			X

Table 11 – Example of risk analysis

In practice, it is often difficult to analyse the likelihood/seriousness of risks quantifiably and that is why a qualitative word scale often is used.

Risks can be then graded to provide a score using the matrix at Table 12. It is important to note the relative difference in likelihood/seriousness that make up each risk grading: a C-grade risk that is comprised of 'high' seriousness and 'low' likelihood requires a very different management response to a C-grade risk that is comprised of 'low' seriousness and 'high' likelihood.

		Seriousness		
		Low (Insignificant adverse impact, note only)	**Medium** (Reasonable adverse impact, needs monitoring)	**High** (Will have significant adverse impact)
Likelihood	Low (Unlikely to occur during project)	N	D	C
	Medium (May occur at some stage in project)	D	C	B
	High (Probably will occur during project)	C	B	A

Table 12 – Risk matrix for grading risks

For example, a risk that has been classified as low likelihood/low seriousness equates to an N grading for overall risk exposure. A risk that is high likelihood/medium seriousness equates to a B grading for the risk exposure.

In the case of the example at Table 11, the risk of inadequate funding to complete project is graded as D (medium likelihood/ low seriousness); the risk of influenza epidemic is graded as A (high likelihood/ high seriousness). Lack of stakeholder engagement is also graded as A.

For large and/or complex projects, the matrix should be expanded to ensure an Extreme grading as illustrated in Table 13. This grading is automatically assigned to any risks defined as extremely high seriousness; that is, any risk which, if realised, will cause the project to fail or result in a major adverse impact on business operations. An example of an Extreme-grade risk to the project might be unexpected legislative changes, a major financial impact or serious political consequences.

		Seriousness			
		Low	Medium	High	Extreme
Likelihood	Low	N	D	C	Extreme
	Medium	D	C	B	Extreme
	High	C	B	A	Extreme

Table 13 – Risk matrix for grading risks for large/complex projects

The resulting grades of risk help the Project Steering Committee and Project Team to focus on treating the most important risks and to mitigate them before the project progresses into the MANAGE phase. Risks may re-emerge after treatment, which is why risk management is an iterative process throughout the life of the project.

There are more sophisticated tools available to assist with risk analysis and many include extensive numeric scales and algorithms. These tools could be considered for very large and/or complex projects, although the approach above is a good place to start and is easily explained to non-specialists. Levels in the risk matrix, for example, can be expanded to four or five depending on the nature and size of the project.

5.3.5 Evaluate risks

Once risks have been analysed and graded in terms of likelihood and seriousness, they have to be evaluated according to agreed criteria to determine what an acceptable or unacceptable risk is. This will allow the Project Team to prioritise those risks that should be addressed by treatment or mitigation plans.

The impact or consequences of the risk being realised should be described in as much detail as possible in order to fully understand how the project's success could potentially be affected.[55] This will directly influence what actions may need to be applied to minimise damage (or maximise a potential gain) and allow the Project Team to monitor and understand the factors that can reduce project success.

John Smyrk, Sigma Management Science, notes that a project's 'equation of worth' should involve only three variables – benefits, disbenefits and costs – each of which can show damage in either of two ways – magnitude or timing. When this potential for 'damage' (or risk) is unmanaged, six types of consequences or forms of damage can result:

1. Benefits are delayed (because project timeframes are extended)
2. Benefits are reduced
3. Disbenefits[56] are increased
4. Disbenefits are advanced
5. Costs are advanced
6. Costs are increased

In most cases, reduction in output quality (fitness-for-purpose) is usually a consequence of a particular risk being realised, and will therefore be a cause of damage that results in one or more of the consequences identified (ie reduced or delayed benefits, increased or advanced costs).

Even the occurrence of a single risk can cause multiple ripples or have a compounding effect throughout the project, and this is difficult to predict and evaluate.

Once an evaluation of risks has been undertaken, decisions can be made. For example, it may be decided that a risk is acceptable in terms of extended timeframes because the project is not tied strictly to set deadlines, but is not acceptable if it reduces the planned benefits or affects Project Output quality. If, however, a project has fixed deadlines then it may be decided that the level of risk is acceptable in terms of reducing the quality of the Project Outputs, with a view to enhancing quality after the initial deadline has been achieved. Similarly, one risk could have short-term negative consequences for one stakeholder (eg reduced profits) but represent a long-term opportunity for another (eg cost reductions).

Once priorities are agreed, mitigation strategies must be developed and implemented for all unacceptable risks. Depending on the stage of the project, the impact or consequences will have different levels of severity and must be regularly reviewed.

[55] Hartley, Ch 4 Managing Risk – from concept to outcome p62.

[56] 'Dis-benefits' arise from undesirable outcomes that impact adversely on particular stakeholders (eg reduced profits for a business unit).

5.3.6 Assign responsibility

In order to ensure risks are appropriately monitored, managed and treated, ownership must be allocated appropriately. For lower level risks, responsibility is usually allocated to the Project Manager and/or Project Team, but at various stages in the project it may be appropriate to allocate responsibility for mitigating high-level specific risks to the Project Sponsor and/or particular members of the Project Steering Committee (eg Business Owners) depending on their operational role and influence within the organisations. This can apply to:

- major or extreme risks at any point in the project's life;
- risks with a political element or involving key stakeholders;
- risks relating to organisational change management and transition to the new operational environment (usually the responsibility of the Project Manager and Business Owner);
- risks relating to successful realisation of the project's outcomes (the responsibility of the Sponsor and Project Manager); and/or
- risks relating to successful realisation of the project's longer term business benefits (the responsibility of the Project Sponsor and Business Owner).

Table 14 below recommends the type of actions that should be used in relation to each grade of risk and identifies who has responsibility and accountability for the recommended mitigation actions.

Grade	Risk Mitigation Actions	Who
A & Extreme	Mitigation actions to reduce the likelihood and seriousness to be identified, costed and prioritised for implementation **before** the project commences or **immediately** as they arise during project execution.	Project Steering Committee and/or Project Sponsor
B	Mitigation actions to reduce the likelihood and seriousness to be identified costed and prioritised. Appropriate actions implemented during project execution,	Project Steering Committee and/or Project Manager
C	Mitigation actions to reduce the likelihood and seriousness to be identified and costed for possible action if funds permit.	Project Manager
D & N	To be noted; no action is needed unless grading increases over time.	Project Manager

Table 14 – Recommended actions for grades of risk

The management process by which specific risks are allocated and formally accepted by relevant individuals will depend on the stage of the project. It may be appropriate to clarify accountability by:

- submitting an Issues Paper detailing relevant risks and nominating responsibility for Project Steering Committee endorsement;
- noting the responsible individual on the *Project Risk Register* for endorsement by the Project Steering Committee; and/or
- formally documenting risks relating to output handover in the *Outcome Realisation Plan* for endorsement by the Project Steering Committee.

Involving key players allows closer scrutiny of risks and provides increased accountability. For large/complex projects that are undertaken over many months or years, periodic review of the risk accountabilities is recommended given that the influence and roles of stakeholders may change as organisations are restructured over time.

5.3.7 Treat risks

Risk mitigation actions or treatment reduce the chance that a risk will be realised and/or reduce the seriousness of a risk that is realised. The costs of these actions should be identified as part of the risk evaluation activities.

Risk mitigation or treatment actions should be cost efficient but effective in that they help reduce the risk exposure of the project. Beware that many treatment plans are labour intensive, not cost-effective and will never get done. A cost-benefit analysis of proposed mitigation[57] may be required to calculate financial cost and time/effort required. Conscious decisions need to be made regarding the wearing of certain risks as opposed to the costs of mitigation. Where possible, estimating the costs (ie people, dollars, time lost etc) of inaction or ineffective mitigation (whether preventative or contingency) can provide the Project Steering Committee with a better appreciation of the value of appropriate mitigation actions which can sometimes be considered expensive and time-consuming. For serious risks, an extremely effective risk mitigation strategy can be justified more easily in terms of its cost.

Any costs for risk mitigation may require a reassessment of the agreed project budget. This can sometimes lead to risks being misrepresented or downplayed because revealing the possible additional cost of containing or managing the potential impact may mean the project does not go ahead.

There are two classes of action for risk mitigation activities:

1. Pre-emptives that lower the likelihood (in other words, what can be done now to reduce the likelihood of the risk) These include:

   - Avoidance – re-scope the project to remove the potential risk (eg if the schedule is problematic, extending the timeframe can avoid this source of risk; if the scope is overly ambitious, reducing the scope or clarifying requirements can eliminate potential risks).
   - Transfer – transfer the risk to a third party more capable of dealing with the problem or opportunity (eg a specialist contractor, purchasing insurance, contracts to transfer liability). This does not eliminate the potential risk, but simply transfers responsibility for its management and can involve payment of a premium to the party accepting this responsibility.
   - Acceptance – accept the risk without planning any prepared response to counter the risk.

57 Investment Lifecycle Guidelines #2 Project Risk Management Guideline, Victorian Department of Treasury and Finance http://www.lifecycleguidance.dtf.vic.gov.au/subsection.php?section_ID=1&subsection_ID=3

– **Preventative** - plan actions intended to reduce the possibility a risk will occur. For example, if a risk were identified that the project's major clients will not have the technical expertise to adequately utilise the technology the project is implementing, an appropriate preventative action would be to provide technical training. Preventative actions for A and B-grade risks should be implemented before the project progresses very far into the MANAGE phase, and should therefore appear in the *Project Work Plan (Project Execution Plan, Work Breakdown Structure).*

Note that risk treatment itself can introduce new risks, including the risk that the treatment measures prove ineffective.

2. Contingencies to lower the seriousness (in other words, what can be done after the risk has occurred). These include:

– **Mitigation** - plan actions to reduce the seriousness. In other words, 'What should be done if?' For example, a possible contingency action in response to the identified risk of 'lack of technical expertise' might be that ongoing technical support and advice is provided to the client agency/organisation once the technology is implemented.
– **Recovery** actions are those subsequent actions that allow a project to move on after a risk has occurred. They include management of residual risks. Hopefully, the seriousness of a risk's impact on the project will have been reduced due to the planned contingencies being implemented. These recovery actions should be built into the *Project Execution Plan* (or *Project Work Plan* or *Work Breakdown Structure*), ie what should be done and when. A good example is disaster recovery planning in the case of a new IT system or, in the case of the previous example, the client organisation hired people with technical expertise as the ongoing IT support did not provide a final solution.

5.3.8 Monitor and review

Risk management is not a one-off activity. Risks should be monitored throughout the project, as likelihood or impact ratings may change or new sources of risk and previously treated risks may emerge (or re-emerge). Issues Management (see Element 6 of these Guidelines) may reveal triggers that should also be closely monitored to ensure action can be taken before a risk is realised. Risks can evolve during the life of a project and, depending on the project phase or stage, the impact and consequences can vary and therefore require different mitigation action.

As a guide, the Project Manager should assess risks and the effectiveness of the mitigation strategies approximately every two weeks. Over a long, significant project there should also be regular formal monthly reviews that should be included in the *Project Execution Plan* (or *Project Work Plan* or Work *Breakdown Structure*) and project schedule; the whole process is iterative throughout the life of the project. The Project Manager should report on risk status regularly at agreed intervals, and these reports should be sought by the Project Sponsor and/or Project Steering Committee. Reporting should include an assessment of the impact of any mitigation actions implemented to treat risk, as the Project Steering Committee require confirmation that the actions are effective in treating the risk.

At some point, particular risks that have been successfully mitigated may no longer be relevant or may have evolved sufficiently to require 'closure' of the original risk or identification of a new risk. Major reviews of the *Project Risk Register* can provide an opportunity to reassess risks and assign a lower grade or retire the risk altogether. This does not mean that the 'closed' risk is deleted, as the *Project Risk Register* and other planning documentation for the life of the project provide an important source of learning for future projects. Good management of the *Project Risk Register* includes using version control to maintain a record of how the risks have evolved and been managed. By documenting identified risks, assessment and mitigation methods, the project contributes to the organisation's knowledge base to guide future projects.

5.4 Roles and responsibilities

The Project Sponsor and Project Steering Committee have ultimate responsibility for ensuring appropriate risk management processes are applied. There should be processes for escalating business risks to senior management as part of the overall agency or whole-of-government risk management processes, including information and physical security risk management plans. Project risk management activities should also be conducted using agency risk management processes where they exist.

The **Project Sponsor** has ultimate accountability for risk management. They ensure there are adequate resources for managing the project's risks and that there is adequate active participation in the risk management process by a wide cross-section of stakeholders. They also ensure that any corporate or agency/organisation risks identified during the project are escalated for the attention of those responsible for managing them. They also monitor the progress and effectiveness of the *Risk Management Plan* and may be directly responsible for mitigating specific major or extreme risks at particular stages in the project, as appropriate.

The **Project Steering Committee** oversees the *Risk Management Plan* and its periodic review. It is accountable for ensuring an effective *Risk Management Plan* is in place throughout the life of the project, and that appropriate mitigation strategies are being implemented for all high-level risks. This includes responsibility for mitigating specific major or extreme risks at particular stages in the project, as appropriate.

The **Project Manager** is responsible for monitoring and managing all aspects of the risk management process under the direction of the Project Sponsor and/or Project Steering Committee, including:

- developing the Project Risk Register and Risk Management Plan,
- continual monitoring of the project to identify any new or changed risks,
- implementing the planned mitigation strategies,
- continual monitoring of the effectiveness of the *Risk Management Plan,* and
- regular reporting on the status of risks to the Project Sponsor and the Project Steering Committee.

Good risk reporting relies on clear descriptions of all risks, their impact or consequences on the project, and potential costs for mitigation and inaction. This will ensure senior management are aware of the potential impact a risk may have on the project's success and are prepared to agree to actions to minimise any negative consequences.

In large projects, the Project Manager may choose to assign risk management activities to a separate Risk Manager, but the Project Manager should still retain responsibility. Large projects are a risk in themselves, so the need for the Project Manager to reassign this integral aspect of project management may indicate that the project should be re-scoped or divided into several sub-projects, overseen by an overall Project Manager or Project Director.

It is important to remember that the person directly responsible for risk management does not generally conduct all risk management assessments themselves, but facilitates the analysis by involving relevant people, particularly key stakeholders, and by providing appropriate mechanisms for discussion and documentation.

Other Project Team members can assist with the identification, analysis and evaluation of risks, and can assist in the development of the *Risk Management Plan*. They can also be responsible for risk mitigation actions.

Project Stakeholders, Project Steering Committee, Reference Groups, external consultants, and importantly, the Business Owner(s) should have input into the *Risk Management Plan,* especially assessing potential risks and risk mitigation actions. They may also be allocated responsibility for some risk mitigation actions.

It is important to remember risk management cannot be the responsibility of one person entirely, and that it should involve a range of people associated with the project.

5.5 Risk management documentation

5.5.1 Risk Management Plan

A *Risk Management Plan* should be included as a section in the *Project Business Plan* or, depending on the size of the project, as a separate document, and should cover, at a minimum, the following:

- the process for identifying, analysing, evaluating and treating risks, both initially and throughout the life of the project, including estimated costings;
- the process for transferring approved risk costings into the project budget;
- the process for transferring risk mitigation activities into the *Project Execution Plan* (or *Project Work Plan* or *Work Breakdown Structure*);
- how often the *Project Risk Register* will be reviewed, the process for review and who will be involved;
- how risk status will be reported and to whom;
- who will be responsible for which aspects of risk management;
- an appendix showing a snapshot of the major risks, current gradings, planned mitigation strategies and costings and who will be responsible for implementing any mitigation strategies (the snapshot may be a copy of the *Project Risk Register*); and
- how recovery actions will be managed.

5.5.2 Project Risk Register

A *Risk Register* is a useful tool for outlining all the risks identified before and during the project, for keeping a record of their grading in terms of likelihood and seriousness and a record of the proposed mitigation strategies, costings and responsibilities. The *Project Risk Register* forms the basis for the *Risk Management Plan*. In small projects, the *Project Risk Register* is the *Risk Management Plan*. In large and/or more complex projects, a more detailed *Risk Management Plan* should be developed for approval by the Project Steering Committee.

As the project progresses, the *Project Risk Register* may evolve as a stand-alone document during the life of the project. Ensuring this is version-controlled allows the Project Manager to maintain a record of how the risks have developed and managed.

The Project Risk Register should cover:

- a unique identifier for each risk;
- a description of each risk and how it would affect the project (identification of consequences);
- an assessment of the likelihood it will occur (low, medium, high) and the possible seriousness if it does occur (low, medium, high, extreme);
- a grading of each risk according to a risk assessment table (see Table 12 – Risk matrix for grading risks and Table 13 – Risk matrix for grading risks for large/complex projects);
- recording of any change in the risk grading (ie increase or decrease) and date of last review;
- a description of the mitigation strategies selected/developed, which can include preventative (to reduce the likelihood) and contingency actions (to reduce the seriousness);
- who is allocated responsibility for undertaking the mitigation strategies;
- in large and/or more complex projects, costs for each mitigation strategy;
- timeframe for implementation of the mitigation actions; and
- whether the mitigation actions have been included in the *Project Execution Plan* (or *Project Work Plan* or *Work Breakdown Structure*).

6.5 Tips from project managers:

Practising Tasmanian State Service project managers and others have made the following observations:

- The key is to document issues and to bring them to the attention of relevant stakeholders and the Project Team.
- Be sure to thoroughly analyse the issue to identify the root cause (not just the obvious symptoms).
- When a group of issues arises, their relationship to each other needs to be examined in order to identify and resolve the root cause.
- Assign the responsibility of follow-up to the right people and review the status of issues at regular Project Team meetings (or more often when necessary).
- Involve the Business Owner. Be sure that they are always aware of issues and risks as they arise and make the Business Owner an active player in issue resolution and risk mitigation.
- Where possible, try to gain a quick resolution so that the project can move forward.
- When the issue cannot be resolved by the Project Team – or if decisions are required with proposed changes to the project scope, budget, output quality or time – actively consult with the Project Sponsor and/or Project Steering Committee.
- An unresolved issue may become a risk and should be added to the *Project Risk Register* where applicable.
- Include issues as regular items on all status reports to the Project Sponsor and/or Project Steering Committee.
- Anyone involved with the project can identify issues. Encourage people to identify solutions as well.
- In many cases items that are classified as issues are really action items. Action items are areas that must be followed up on at some time, but generally are not a concern that may impede the progress of the project if not resolved. Maintain a separate list of action items that arise as part of Project Team, Project Steering Committee, reference and working group meetings. The important thing is to record them somewhere and ensure the appropriate action is taken to resolve them.

Element 7 Resource management

This includes:

7.1 What is resource management?

7.2 Managing human resources (including contract management and managing consultants and contractors)

7.3 Managing financial resources (including probity)

7.4 Managing physical resources

7.5 Managing information resources

7.6 Tips from Project Managers

Terms used in this Guide can be found in the Appendix 1 Project Management Glossary.

7.1 What is resource management?

In projects, resource management relates to the financial, human, physical and information resources that are required to deliver a project, regardless of project size or complexity. Planning how to manage these resources is vital. The planning might not be documented for small projects, but for large and/or more complex projects detailed documentation will ensure resources are better managed and provide transparency for key stakeholders.

7.2 Managing human resources

During the SET-UP phase of a project, there should be a detailed analysis to determine who will be on the Project Team. This analysis should include a study of the mix of skills required and the number of staff needed for the life of the project. The costs for these staff should include any training requirements and be reflected in the project budget. This is especially important, as in government it is not unusual for a Project Team to be appointed on the basis of availability rather than the specific skills required to execute the project scope.

It is important to adequately estimate recruitment timeframes and the associated budget in the *Project Business Plan*. It is also important during the SET-UP phase to allocate sufficient time to establishing realistic project start and finish dates. It is also advisable to establish the project's critical path in order to predict realistic project end dates to allow for leave periods before project closure.

The Project Team may include personnel from another agency or organisation in the form of a notional contribution or to facilitate the spirit of co-operation between organisations. Any such resourcing requirements should be known and documented in the *Project Business Plan*.

When employing people from another agency, it is important to manage recreation leave requirements so that the project does not end up having to pay out considerable amounts of leave when staff exit the project, which can have considerable impact on a project's budget. Project managers should consider recreational leave balances on recruitment so that these can be reconciled with recreational leave balances at the end of an employee's work period on the project.

It should be remembered that staff are entitled to, and should expect to take, their normal annual leave entitlements and this should be managed as part of the project planning. While the nature of project work can mean it is difficult to manage recreation leave issues during the project, some large and/or complex projects have previously addressed this issue by agreeing to close down project activities for a period (eg over the early January or around Easter periods). However, it is acknowledged this shutdown time is not always practical or feasible.

Taking regular recreation leave is an important part of maintaining the health and wellbeing of employees and is an important consideration in providing a safe working environment for projects. The accrual of large amounts of leave by Project Team members also has occupational health and safety implications (eg key person dependencies, increased rates of illness and stress). People are a Project Manager's most valuable resource and they must ensure the OHS requirements of the Project Team are addressed within the *Project Business Plan*. This information may include the fact that weekend work is required in some instances, which will have leave accumulation and OHS issues that must be addressed.

Excess leave also has to be managed so the agency meets its obligations under the *State Service Act 2000,* the *State Service Regulations*, the *Long Service Leave (State Employees) Act 1994* and any relevant Ministerial Directions and government policies regarding excess leave credits (both long service leave and recreational leave).[61]

If Project Team members are carrying large amounts of leave, it is advisable to report these leave entitlements to each Project Steering Committee meeting as part of the Project Manager's *Project Status Report*, so that this issue can be monitored and addressed.

It is important to plan how and when project personnel will be engaged and the type of employment conditions. Additional information on the recruitment of personnel can be obtained through an agency's human resources branch, or equivalent, and through the Office of the State Service Commissioner at www.ossc.tas.gov.au.

Consideration should also be given to the development requirements for the Project Team through formal training or team building activities. An agency's human resources branch should be able to assist in determining the method to use for conducting performance review and development sessions and handling staff issues that may arise.

Any approved changes to the initially approved Project Team should be documented, and any issues that arise as a result of the skills mix or Project Team structure can be recorded for reference during the project evaluation.

61 Department of Premier and Cabinet Recreation Leave and Long Service Leave Management Strategy and Policy (undated) available on http://intranet.dpac.tas.gov.au/human_resources/remunerations_and_entitlements/leave_entitlements

As identified in *Element 11 – Project closure*, there should be plans for releasing resources before the project is finalised, and Project Teams should gradually be wound down. The movement of project staff from the project to other roles, including the timing of their move and the capture of their project knowledge, should be planned.

7.3 Managing financial resources

During the SET-UP stage of a project, a detailed project budget should be developed that reflects the resources required to complete the activities and tasks of the project. The budget should include the costs required for:

- all project staff salaries and on-costs including any training costs required to ensure the team can meet the project's initial and ongoing skills requirements;
- Project Team accommodation costs;
- physical resources (refer to *Element 7, 7.5 – Managing physical resources*);
- services or consultancies necessary to undertake the project; and/or
- project management costs, ie any costs associated with risk mitigation strategies and quality assurance.

The project budget also may include an estimate of the financial contribution (real or notional eg staff or equipment) made by another agency to provide an accurate cumulative total cost for the project. At this stage the funding arrangements (source) for the project should be known and documented in the *Project Business Plan*.

It is important to plan purchases during the project. This can be achieved by developing a procurement plan that can be detailed within the *Project Business Plan* or *Project Execution Plan* or be included as an appendix to either of these documents. A procurement plan enables you to:

- provide a framework against which the Project Manager can monitor progress and achievement of Target Outcomes, and evaluate these to facilitate corrective action;
- record the procurement methods, the proposed contractual arrangement and the related performance measures;
- record the accountabilities and responsibilities of key project roles (such as Project Sponsor, Project Manager, Procurement Manager and Technical Adviser) in relation to the procurement activities. The accountabilities and responsibilities should reflect those detailed in the Governance section of the *Project Business Plan*;
- establish a realistic timescale and sequence for the procurement activity. This activity is particularly important if an open tender process is to be followed, as the tender process has the potential to be time consuming; and
- identify important issues arising through the procurement cycle, and document how they are to be dealt with and by whom.

Information on financial management within individual agencies can be obtained from agency finance branches. For additional information on purchasing on behalf of the Tasmanian Government, go to www.purchasing.tas.gov.au. This website provides an excellent range of resources that will assist in purchasing both goods and services for projects.

Once individual costs has been estimated and linked to project activities or milestones, an overall project budget can be developed. This linking enables monitoring and reporting on a regular basis of actual expenditure against the planned expenditure. Depending on the size and complexity of the project, information on actual project expenditure can be maintained by the Project Team (for small projects), or by using the agency/organisation's financial management information system, where cost coding can be used to uniquely identify project expenditure (for large and/or more complex projects).

There are a number of tools that can assist with reporting actual project expenditure against planned expenditure on a regular basis.

Any changes to the initial project budget that are approved by the Project Sponsor and/or Project Steering Committee should be documented, and any issues that arise as a result of the budget or the funding arrangements can be recorded for later reference during an evaluation of the project.

As identified in *Element 11 – Project* closure, at the end of the project it may be necessary to consider what should happen to any excess funds or how any deficit will be funded.

Probity

Probity is essentially about ethical issues relating to procurement. In practise, it entails not only doing the right thing, but also having sufficient evidence that the right processes were applied that will stand up to scrutiny and formal audit. Some general principles include:

- Ensure best value to the public in monetary terms.
- Ensure fairness and impartiality (determine evaluation criteria in advance).
- Deal with conflicts of interest that could influence realisation of the project's outcomes.
- Ensure accountability (maintain detailed records and support material).

It is essential that probity considerations be built into project planning, as they cannot be adequately resolved once problems occur. Information security provisions cannot adequately address conflicts of interest. A Probity Adviser aims to ensure processes are consistent with government procurement policies and guidelines, and must be independent. Appointment of a Probity Adviser is recommended when a purchase is of high value or is likely to be contentious.

There are a range of approaches that can be taken on probity issues. A useful resource on this topic is *Probity Guidelines for Procurement (Version 5.0, December 2008)* at www.purchasing.tas.gov.au.

7.4 Contract management

The main purpose of contract management is to ensure that both parties meet their obligations and agencies obtain value for money through satisfactory performance under the contract.

The head of agency or deputy secretary (or equivalent) must approve any decision to engage a consultant prior to the agency undertaking the appropriate procurement process. *Treasurer's Instruction 1113* (22 December 2006) details the protocol that agencies must use for the engagement and use of contractors (including consultants). For more information see www.treasury.tas.gov.au.

A formal *Contract Management Plan* is not required for all contracts, but is strongly recommended where the contract involves large budgets, includes complex technical requirements, or when the Contract Manager is responsible for managing a large number of contracts simultaneously. More information about *Contract Management Plans* along with a template can be found at www.purchasing.tas.gov.au.

The *Contract Management Plan* is a living document. Its development should commence during the procurement planning stage, and it should be reviewed and updated throughout the procurement process and the life of the contract.

At the procurement planning stage, consideration needs to be given to:

- who will manage the contract;
- how the contractor's performance will be monitored and what penalties will be applied for unsatisfactory performance;
- when remuneration will occur and what agency procedures apply (including approvals required and how long processes may take);
- the risks associated with the contract, and how they will be managed during the course of the contract;
- reporting requirements for the contractor;
- ownership of the intellectual property once the contract is fulfilled;
- capturing the required tasks in the *Project Execution Plan/Project Work Plan/Work Breakdown Structure* and allocation of responsibility for task completion; and/or
- reviewing the project budget to ensure there is sufficient funding to undertake the required procurement management actions that have been allocated.

Further information, including templates and guides related to managing contracts can be found at www.purchasing.tas.gov.au.

Tips from practising project managers in relation to managing consultants and contractors can be found at the end of this section.

7.5 Managing physical resources

During the SET-UP phase of a project, a detailed analysis should be undertaken to identify the physical resources required to complete the project's activities and tasks. This analysis may include accommodation, which may require modifications and/or fit-out to accommodate the team, vehicles, computers and infrastructure, phones and any other equipment or assets. The costs for these resources should be reflected in the project budget.

As identified in *Element 11 – Project closure,* there should be plans for disposal of any assets that were acquired for the project and formal confirmation of who will manage them on completion of the project.

7.6 Managing information resources

During the SET-UP phase of a project, a detailed analysis is required to identify and document internal and external sources of information. Records management arrangements for the project must take into consideration the needs of the project and agencies/organisations providing information to the project. For example:

- the document control procedures,

- information storage,
- backup of hard copy and soft (electronic) copy records and documents, and
- the level of documentation to be maintained.

If there are costs associated with obtaining and storing any information, they should be reflected in the project budget.

In addition, appropriate security and confidentiality is important. Additional guidelines on privacy and security can be obtained from individual agencies and through the Office of eGovernment, Department of Premier and Cabinet at www.egovernment.tas.gov.au.

As identified in *Element 11 – Project closure*, at the end of the project the handling, disposal and retention periods of information supplied to the project should be considered. Records management processes should be in place from the beginning of the project using the agency's records management system.

The *Archives Act 1983* at www.thelaw.tas.gov.au provides additional information. A number of guides to the legislative and legal framework are available at www.archives.tas.gov.au/guides.

Any issues that arise as a result of the information management arrangements can be recorded during an evaluation of the project, for later reference.

Part 1.

M&E concepts and considerations

What you will find in Part 1:

Part 1 provides an overview of key M&E concepts and considerations to inform planning and implementing effective monitoring and evaluation. This is supplemented by a *Glossary of Key Terms* in Annex 1.

1.1 Results-based management (RBM)

RBM is an approach to project/programme management based on clearly defined results, and the methodologies and tools to measure and achieve them. RBM supports better performance and greater accountability by applying a clear, logical framework to plan, manage and measure an intervention with a focus on the results you want to achieve. By identifying in advance the intended results of a project/programme and how we can measure their progress, we can better manage a project/programme and determine whether a difference has genuinely been made for the people concerned.[4]

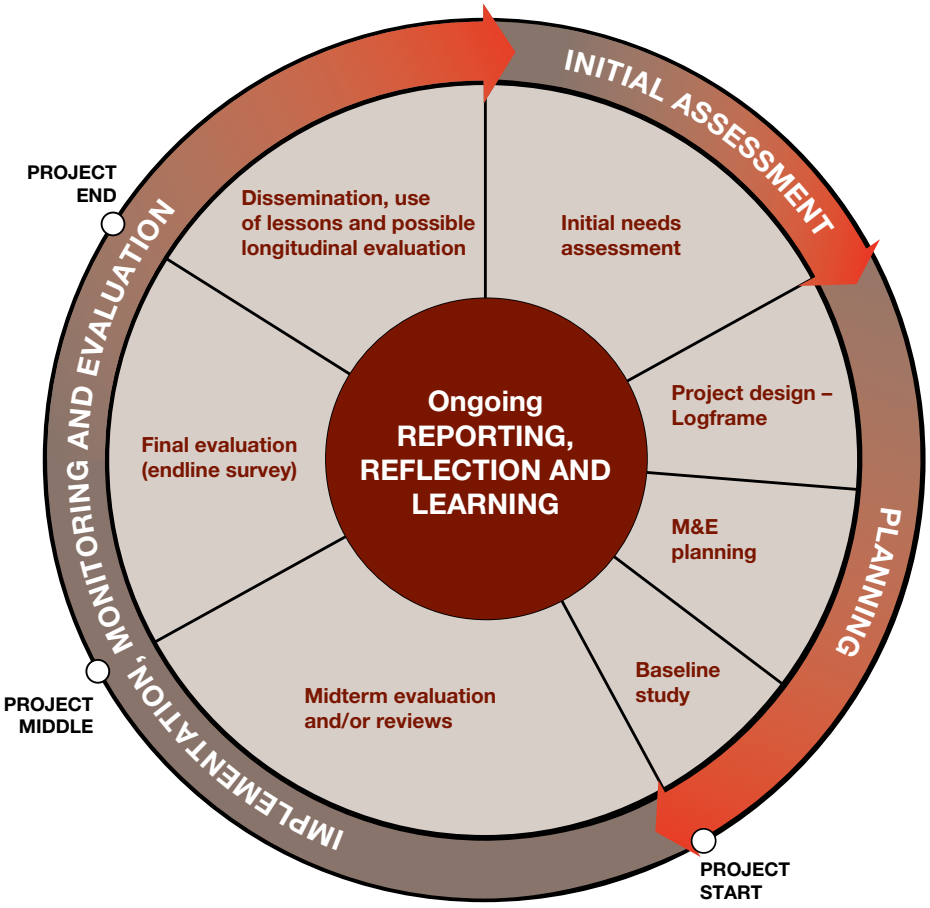
Monitoring and evaluation (M&E) is a critical part of RBM. It forms the basis for clear and accurate reporting on the results achieved by an intervention (project or programme). In this way, information reporting is no longer a headache, but becomes an opportunity for critical analysis and organizational learning, informing decision-making and impact assessment.

4 *Results-based management (RBM) is an approach that has been adopted by many international organizations. RBM is explained in more detail in the IFRC Project/Programme Planning Guidance Manual (IFRC PPP, 2010).*

1.2 M&E and the project/ programme cycle

Diagram 1 provides an overview of the usual stages and key activities in project/programme planning, monitoring, evaluation and reporting (PMER). We write "usual" stages because there is no one generic project/programme cycle, as each project/programme ultimately varies according to the local context and need. This is especially true of emergency operations for which project/programme implementation may begin immediately, before typical assessment and planning in a longer-term development initiative.

DIAGRAM 1: Key M&E activities in the project/programme cycle*



* *There is no one generic project/programme cycle and associated M&E activities. This figure is only a representation meant to convey the relationships of generic M&E activities within a project/programme cycle.*

The listed PMER activities will be discussed in more detail later in this guide. For now, the following provides a brief summary of the PMER activities, and Annex 2 provides additional resources for each stage:

1. ***Initial needs assessment.*** This is done to determine whether a project/programme is needed and, if so, to inform its planning.
2. ***Logframe and indicators.*** This involves the operational design of the project/programme and its objectives, indicators, means of verification and assumptions.

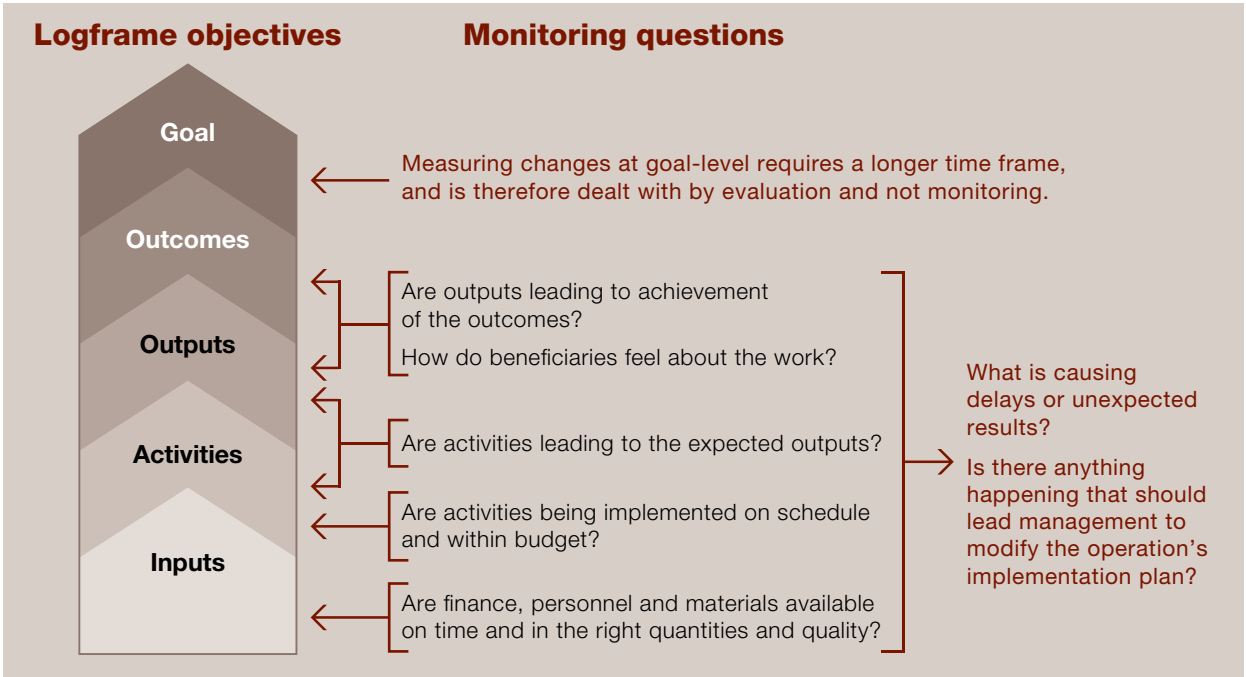
3. ***M&E planning.*** This is the practical planning for the project/programme to monitor and evaluate the logframe's objectives and indicators.
4. ***Baseline study.*** This is the measurement of the initial conditions (appropriate indicators) before the start of a project/programme.
5. ***Midterm evaluation and/or reviews.*** These are important reflection events to assess and inform ongoing project/programme implementation.
6. ***Final evaluation.*** This occurs after project/programme completion to assess how well the project/programme achieved its intended objectives and what difference this has made.
7. ***Dissemination and use of lessons.*** This informs ongoing programming. However, reporting, reflection and learning should occur throughout the whole project/programme cycle, which is why these have been placed in the centre of the diagram.

1.3 What is monitoring?

Monitoring is the routine collection and analysis of information to track progress against set plans and check compliance to established standards. It helps identify trends and patterns, adapt strategies and inform decisions for project/programme management.

Diagram 2 summarizes key monitoring questions as they relate to the logframe's objectives. Note that they focus more on the lower-level objectives – inputs, activities and (to a certain extent) outcomes. This is because the outcomes and goal are usually more challenging changes (typically in knowledge, attitudes and practice/behaviours) to measure, and require a longer time frame and a more focused assessment provided by evaluations.

DIAGRAM 2: Monitoring questions and the logframe



A project/programme usually monitors a variety of things according to its specific informational needs. Table 1 provides a summary of the different types of monitoring commonly found in a project/programme monitoring system. It is important to remember that these monitoring types often occur simultaneously as part of an overall monitoring system.

TABLE 1: Common types of monitoring

Results monitoring tracks effects and impacts. This is where monitoring merges with evaluation to determine if the project/programme is on target towards its intended results (outputs, outcomes, impact) and whether there may be any unintended impact (positive or negative). **For example,** a psychosocial project may monitor that its community activities achieve the outputs that contribute to community resilience and ability to recover from a disaster.
Process (activity) monitoring tracks the use of inputs and resources, the progress of activities and the delivery of outputs. It examines how activities are delivered – the efficiency in time and resources. It is often conducted in conjunction with compliance monitoring and feeds into the evaluation of impact. **For example,** a water and sanitation project may monitor that targeted households receive septic systems according to schedule.
Compliance monitoring ensures compliance with donor regulations and expected results, grant and contract requirements, local governmental regulations and laws, and ethical standards. **For example,** a shelter project may monitor that shelters adhere to agreed national and international safety standards in construction.
Context (situation) monitoring tracks the setting in which the project/programme operates, especially as it affects identified risks and assumptions, but also any unexpected considerations that may arise. It includes the field as well as the larger political, institutional, funding, and policy context that affect the project/programme. **For example,** a project in a conflict-prone area may monitor potential fighting that could not only affect project success but endanger project staff and volunteers.
Beneficiary monitoring tracks beneficiary perceptions of a project/programme. It includes beneficiary satisfaction or complaints with the project/programme, including their participation, treatment, access to resources and their overall experience of change. Sometimes referred to as beneficiary contact monitoring (BCM), it often includes a stakeholder complaints and feedback mechanism (see Section 2.2.8). It should take account of different population groups (see Section 1.9), as well as the perceptions of indirect beneficiaries (e.g. community members not directly receiving a good or service). **For example,** a cash-for-work programme assisting community members after a natural disaster may monitor how they feel about the selection of programme participants, the payment of participants and the contribution the programme is making to the community (e.g. are these equitable?).
Financial monitoring accounts for costs by input and activity within predefined categories of expenditure. It is often conducted in conjunction with compliance and process monitoring. **For example,** a livelihoods project implementing a series of micro-enterprises may monitor the money awarded and repaid, and ensure implementation is according to the budget and time frame.
Organizational monitoring tracks the sustainability, institutional development and capacity building in the project/programme and with its partners. It is often done in conjunction with the monitoring processes of the larger, implementing organization. **For example,** a National Society's headquarters may use organizational monitoring to track communication and collaboration in project implementation among its branches and chapters.

As we will discuss later in this guide (Part 2), there are various processes and tools to assist with the different types of monitoring, which generally involve obtaining, analysing and reporting on monitoring data. Specific processes and tools may vary according to monitoring need, but there are some overall best practices, which are summarized in **Box 2** below.

BOX 2: Monitoring best practices

- Monitoring data should be well-focused to specific audiences and uses (only what is necessary and sufficient).
- Monitoring should be systematic, based upon predetermined indicators and assumptions.
- Monitoring should also look for unanticipated changes with the project/programme and its context, including any changes in project/programme assumptions/risks; this information should be used to adjust project/programme implementation plans.
- Monitoring needs to be timely, so information can be readily used to inform project/programme implementation.
- Whenever possible, monitoring should be participatory, involving key stakeholders – this can not only reduce costs but can build understanding and ownership.
- Monitoring information is not only for project/programme management but should be shared when possible with beneficiaries, donors and any other relevant stakeholders.

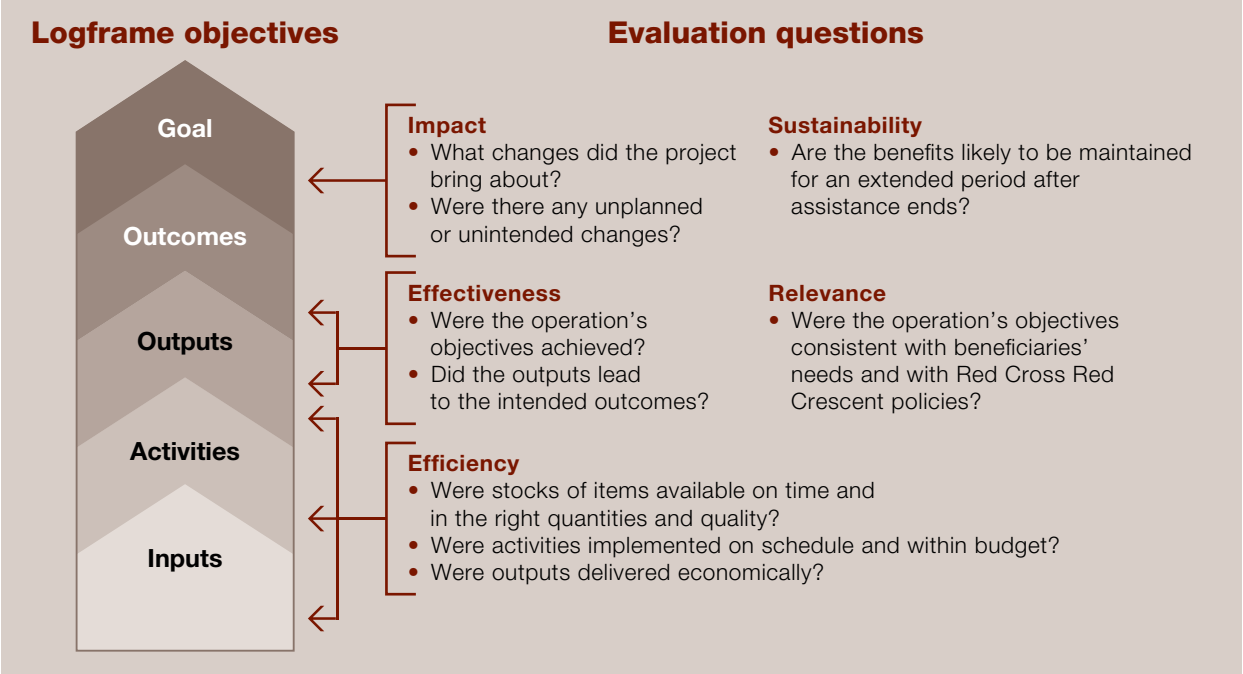
1.4 What is evaluation?

The IFRC's secretariat adopts the OECD/DAC definition of evaluation as "an assessment, as systematic and objective as possible, of an ongoing or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors."[5]

Evaluations involve identifying and reflecting upon the effects of what has been done, and judging their worth. Their findings allow project/programme managers, beneficiaries, partners, donors and other project/programme stakeholders to learn from the experience and improve future interventions. **Diagram 3** (below) summarizes key evaluation questions as they relate to the logframe's objectives, which tend to focus more on how things have been performed and what difference has been made.

5 *The Organization for Economic Co-operation and Development (OECD) is an inter-governmental international organization that brings together the most industrialized countries of the market economy with the objective to coordinate economic and development policies of the member nations. The Development Assistance Committee (DAC) is the principal body through which the OECD deals with issues related to cooperation with developing countries.*

DIAGRAM 3: Evaluation questions and the logframe



It is best to involve key stakeholders as much as possible in the evaluation process. This includes National Society staff and volunteers, community members, local authorities, partners, donors, etc. Participation helps to ensure different perspectives are taken into account, and it reinforces learning from and ownership of the evaluation findings.

There is a range of evaluation types, which can be categorized in a variety of ways. Ultimately, the approach and method used in an evaluation is determined by the audience and purpose of the evaluation. **Table 2** (next page) summarizes key evaluation types according to three general categories. ***It is important to remember that the categories and types of evaluation are not mutually exclusive and are often used in combination.*** For instance, a final external evaluation is a type of summative evaluation and may use participatory approaches.

TABLE 2: Summary of major evaluation types[6]

According to evaluation timing	According to who conducts the evaluation	According to evaluation technicality or methodology
Formative evaluations occur during project/programme implementation to improve performance and assess compliance. **Summative evaluations** occur at the end of project/programme implementation to assess effectiveness and impact. **Midterm evaluations** are formative in purpose and occur midway through implementation. For secretariat-funded projects/programmes that run for longer than 24 months, some type of midterm assessment, evaluation or review is required. Typically, this does not need to be independent or external, but may be according to specific assessment needs. **Final evaluations** are summative in purpose and are conducted (often externally) at the completion of project/programme implementation to assess how well the project/programme achieved its intended objectives. All secretariat-funded projects/programmes should have some form of final assessment, whether it is internal or external.	**Internal or self-evaluations** are conducted by those responsible for implementing a project/programme. They can be less expensive than external evaluations and help build staff capacity and ownership. However, they may lack credibility with certain stakeholders, such as donors, as they are perceived as more subjective (biased or one-sided). These tend to be focused on learning lessons rather than demonstrating accountability. **External or independent evaluations** are conducted by evaluator(s) outside of the implementing team, lending it a degree of objectivity and often technical expertise. These tend to focus on accountability. Secretariat-funded interventions exceeding 1,000,000 Swiss francs require an independent final evaluation; if undertaken by the project/programme management, it should be reviewed by the secretariat's planning and evaluation department (PED), or by some other independent quality assurance mechanism approved by the PED.	**Real-time evaluations (RTEs)** are undertaken during project/programme implementation to provide immediate feedback for modifications to improve ongoing implementation. Emphasis is on immediate lesson learning over impact evaluation or accountability. RTEs are particularly useful during emergency operations, and are required in the first three months of secretariat emergency operations that meet any of the following criteria: more than nine months in length; plan to reach 100,000 people or more; the emergency appeal is greater than 10,000,000 Swiss francs; more than ten National Societies are operational with staff in the field. **Meta-evaluations** are used to assess the evaluation process itself. Some key uses of meta-evaluations include: take inventory of evaluations to inform the selection of future evaluations; combine evaluation results; check compliance with evaluation policy and good practices; assess how well evaluations are disseminated and utilized for organizational learning and change, etc.

6 *All IFRC evaluation requirements summarized in the table are from the IFRC Framework for Evaluation, 2010. Practice 5.4, p. 9.*

TABLE 2: Summary of major evaluation types (continued)

According to evaluation timing	According to who conducts the evaluation	According to evaluation technicality or methodology
Ex-post evaluations are conducted some time after implementation to assess long-term impact and sustainability.	**Participatory evaluations** are conducted with the beneficiaries and other key stakeholders, and can be empowering, building their capacity, ownership and support. (Section 2.5.2 discusses further the use of participation in M&E.) **Joint evaluations** are conducted collaboratively by more than one implementing partner, and can help build consensus at different levels, credibility and joint support.	**Thematic evaluations** focus on one theme, such as gender or environment, typically across a number of projects, programmes or the whole organization. **Cluster/sector evaluations** focus on a set of related activities, projects or programmes, typically across sites and implemented by multiple organizations (e.g. National Societies, the United Nations and NGOs). **Impact evaluations** focus on the effect of a project/programme, rather than on its management and delivery. Therefore, they typically occur after project/programme completion during a final evaluation or an ex-post evaluation. However, impact may be measured during project/programme implementation during longer projects/programmes and when feasible. Box 3 (see Section 1.5) highlights some of the challenges in measuring impact.

IFRC Framework for Evaluation

Proper management of an evaluation is a critical element for its success. There are multiple resources to support evaluation management. Most important is the IFRC Framework for Evaluation, which identifies the key criteria and standards that guide how we plan, commission, conduct, report on and utilize evaluations. The framework is to be applied to all evaluation activities by and for the secretariat and to guide evaluations throughout the IFRC. It draws upon the best practices from the international community to ensure accurate and reliable evaluations that are credible with stakeholders. **Table 3**, page 17, summarizes the criteria and standards from the *IFRC Framework for Evaluation*.[7]

7 *The framework and additional M&E resources for conducting and managing an evaluation are listed in Annex 2, M&E Resources, and guidance for managing an evaluation will be available from the IFRC's secretariat.*

TABLE 3: The IFRC's framework for evaluation – criteria and standards[8]

Evaluation criteria guide to what we evaluate in our work	Evaluation standards guide to how we evaluate our work
→ **IFRC's standards and policies.** The extent that the IFRC's work upholds the policies and guidelines of the International Red Cross and Red Crescent Movement. → **Relevance and appropriateness.** The extent that the IFRC's work is suited to the needs and priorities of the target group and complements work from other actors. → **Efficiency.** The extent that the IFRC's work is cost-effective and timely. → **Effectiveness.** The extent that the IFRC's work has or is likely to achieve its intended, immediate results. → **Coverage.** The extent that the IFRC's work includes (or excludes) population groups and the differential impact on these groups. → **Impact.** The extent that the IFRC's work affects positive and negative changes on stakeholders, directly or indirectly, intended or unintended. → **Coherence.** The extent that the IFRC's work is consistent with relevant policies (e.g. humanitarian, security, trade, military and development), and takes adequate account of humanitarian and human-rights considerations. → **Sustainability and connectedness.** The extent the benefits of the IFRC's work are likely to continue once the IFRC's role is completed.	1. **Utility.** Evaluations must be useful and used. 2. **Feasibility.** Evaluations must be realistic, diplomatic and managed in a sensible, cost-effective manner. 3. **Ethics and legality.** Evaluations must be conducted in an ethical and legal manner, with particular regard for the welfare of those involved in and affected by the evaluation. 4. **Impartiality and independence.** Evaluations should provide a comprehensive and unbiased assessment that takes into account the views of all stakeholders. With external evaluations, evaluators should not be involved or have a vested interest in the intervention being evaluated. 5. **Transparency.** Evaluation activities should reflect an attitude of openness and transparency. 6. **Accuracy.** Evaluations should be technically accurate, providing sufficient information about the data collection, analysis and interpretation methods so that its worth or merit can be determined. 7. **Participation.** Stakeholders should be consulted and meaningfully involved in the evaluation process when feasible and appropriate. 8. **Collaboration.** Collaboration between key operating partners in the evaluation process improves the legitimacy and utility of the evaluation.

1.5 Baseline and endline studies

A baseline study (sometimes just called "baseline") is an analysis describing the initial conditions (appropriate indicators) before the start of a project/programme, against which progress can be assessed or comparisons made. An endline study is a measure made at the completion of a project/programme (usually as part of its final evaluation), to compare with baseline conditions and assess change. We discuss baseline and endline studies together because if a baseline study is conducted, it is usually followed by another similar study later in the project/programme (e.g. an endline study) for comparison of data to determine impact.

Baseline and endline studies are not evaluations themselves, but an important part of assessing change. They usually contribute to project/programme evaluation (e.g. a final or impact evaluation), but can also contribute to monitoring changes on longer-term projects/programmes. The benchmark data from a baseline is used for comparison later in the project/programme and/or at its end (endline study) to help determine what difference the project/programme has made towards its objectives. This is helpful for measuring impact, which can be challenging, as **Box 3** highlights on next page.

8 *The criteria and standards are largely based on internationally recognized practices, including the OECD's DAC criteria for evaluating development assistance (2000) and ALNAP's Evaluation humanitarian action using OECD/DAC criteria (2006).*

BOX 3: The challenge of measuring impact

The measurement of impact is challenging, can be costly and is widely debated. This does not mean we should not try to measure impact; it is an important part of being accountable to what we set out to achieve. However, we should be cautious and understand some of the challenges in measuring impact. Typically, impact involves longer-term changes, and it may take months or years for such changes to become apparent. Furthermore, it can be difficult to attribute observed changes to an intervention versus other factors (called "attribution"). For example, if we measure changes (or no changes) in psychological well-being following a psychosocial project, is this due to the project/programme, or other factors such as an outbreak of dengue fever or an economic recession? Despite these challenges, there is increasing demand for accountability among organizations working in humanitarian relief and development. Therefore, careful consideration should be given to its measurement, including the required time period, resources and specialized skills.

All secretariat-funded projects/programmes are required to have some form of baseline study.[9] Often a survey is used during a baseline, but a baseline does not always have to be quantitative, especially when it is not practical for the project/programme budget and time frame. Sometimes it may be more appropriate to use qualitative methods such as interviews and focus groups, or a combination of both quantitative and qualitative methods (see Section 2.2.3). Occasionally the information from a needs assessment or vulnerability capacity assessment (VCA) can be used in a baseline study. Whatever method is used, it is critical that both the baseline and endline studies use the same indicators and measurement methodologies so that they can be consistently and reliably measured at different points in time for comparison.[10]

9 *IFRC Framework for Evaluation, 2010. Practice 5.4, p. 9.*

10 *For some specific baseline resources refer to Annex 2, M&E Resources.*

1.6 Comparing monitoring, evaluation, reviews and audits

The main difference between monitoring and evaluation is their timing and focus of assessment. Monitoring is ongoing and tends to focus on what is happening. On the other hand, evaluations are conducted at specific points in time to assess how well it happened and what difference it made. Monitoring data is typically used by managers for ongoing project/programme implementation, tracking outputs, budgets, compliance with procedures, etc. Evaluations may also inform implementation (e.g. a midterm evaluation), but they are less frequent and examine larger changes (outcomes) that require more methodological rigour in analysis, such as the impact and relevance of an intervention.

Recognizing their differences, it is also important to remember that both monitoring and evaluation are integrally linked; monitoring typically provides data for evaluation, and elements of evaluation (assessment) occur when monitoring. For example, monitoring may tell us that 200 community facilitators were trained (what happened), but it may also include post-training tests (assessments) on how well they were trained. Evaluation may use this monitoring information to assess any difference the training made towards the overall objective or change the training was trying to produce, e.g. increase condom use, and whether this was relevant in the reduction of HIV transmission.

A review is a structured opportunity for reflection to identify key issues and concerns, and make informed decisions for effective project/programme implementation. While monitoring is ongoing, reviews are less frequent but not as involved as evaluations. Also, IFRC typically uses reviews as an internal exercise, based on monitoring data and reports. They are useful to share information and collectively involve stakeholders in decision-making. They may be conducted at different levels within the project/programme structure (e.g. at the community level and at headquarters) and at different times and frequencies. Reviews can also be conducted across projects or sectors. It is best to plan and structure regular reviews throughout the project/programme implementation.

An audit is an assessment to verify compliance with established rules, regulations, procedures or mandates. Audits can be distinguished from an evaluation in that emphasis is on assurance and compliance with requirements, rather than a judgement of worth. Financial audits provide assurance on financial records and practices, whereas performance audits focus on the three E's – efficiency, economy and effectiveness of project/programme activities. Audits can be internal or external.

Table 4 (next page) summarizes the key differences between monitoring, evaluation and audits.

TABLE 4: Comparing key features of monitoring/review, evaluation and audit*

	Monitoring & Reviews	Evaluations	Audits
Why?	Check progress, inform decisions and remedial action, update project plans, support accountability	Assess progress and worth, identify lessons and recommendations for longer-term planning and organizational learning; provide accountability	Ensure compliance and provide assurance and accountability
When?	Ongoing during project/ programme	Periodic and after project/ programme	According to (donor) requirement
Who?	Internal, involving project/ programme implementers	Can be internal or external to organization	Typically external to project/programme, but internal or external to organization
Link to logical hierarchy	Focus on inputs, activities, outputs and shorter-term outcomes	Focus on outcomes and overall goal	Focus on inputs, activities and outputs

* *Adopted from White, Graham and Wiles, Peter. 2008. Monitoring Templates for Humanitarian Organizations. Commissioned by the European Commission Director-General for Humanitarian AID (DG ECHO); p. 40.*

1.7 M&E standards and ethics

M&E involves collecting, analysing and communicating information about people – therefore, ***it is especially important that M&E is conducted in an ethical and legal manner, with particular regard for the welfare of those involved in and affected by it.***

International standards and best practices help to protect stakeholders and to ensure that M&E is accountable to and credible with them. The following is a list of key standards and practices for ethical and accountable M&E:

- ***M&E should uphold the principles and standards of the International Red Cross and Red Crescent Movement.*** The most important are the Fundamental Principles of the International Red Cross and Red Crescent Movement (see inside back cover) and the Code of Conduct for International Red Cross and Red Crescent Movement and NGOs in Disaster Relief (see inside back cover). But this also includes other key Red Cross Red Crescent policies and procedures, such as the ***IFRC Framework for Evaluation*** (discussed above).
- ***M&E should respect the customs, culture and dignity of human subjects*** – this is consistent with the fifth Code of Conduct (see Box 4 on page 21), as well as the United Nations' Universal Declaration of Human Rights. This includes differences due to religion, gender, disability, age, sexual orientation and ethnicity (discussed below). Cultural sensitivity is especially important when collecting data on sensitive topics (e.g. domestic violence or contraceptive usage), from vulnerable and marginalized groups (e.g. internally displaced people or minorities), and following psychosocial trauma (e.g. natural disaster or conflict). Section 1.8 provides further discussion on marginalized groups.

BOX 4: Principle Five of the Code of Conduct for International Red Cross and Red Crescent Movement and NGOs in Disaster Relief

We shall respect culture and custom. We will endeavour to respect the culture, structures and customs of the communities and countries we are working in.

- ***M&E practices should uphold the principle of "do no harm".*** Data collectors and those disseminating M&E reports should be respectful that certain information can endanger or embarrass respondents. "Under this circumstance, evaluators should seek to maximize the benefits and reduce any unnecessary harm that might occur, provided this will not compromise the integrity of the evaluation findings" (American Evaluation Association 2004). Participants in data collection have the legal and ethical responsibility to report any evidence of criminal activity or wrongdoing that may harm others (e.g. alleged sexual abuse).
- ***When feasible and appropriate, M&E should be participatory.*** Local involvement supports the sixth and seventh Principles of Conduct to find ways to involve beneficiaries and build local capacities. Stakeholder consultation and involvement in M&E increases the legitimacy and utility of M&E information, as well as overall cooperation and support for and ownership of the process. (Section 2.5.2 in Part 2 discusses participation in the M&E system.)
- ***An M&E system should ensure that stakeholders can provide comment and voice any complaints about the IFRC's work.*** This also includes a process for reviewing and responding concerns/grievances. (Section 2.2.8 in Part 2 discusses building stakeholder complaints and feedback mechanisms into the overall M&E system.)

1.8 Attention to gender and vulnerable groups

Data collection, analysis and reporting should strive for a balanced representation of any potentially vulnerable or marginalized groups. This includes attention to differences and inequalities in society related to gender, race, age, sexual orientation, physical or intellectual ability, religion or socioeconomic status. This is especially important for Red Cross Red Crescent services, which are provided on the basis of need alone.[11] Therefore, it is important to collect and analyse data so that it can be disaggregated by sex, age and any other social distinctions that inform programme decision-making and implementation.

Particular attention should be given to a gender-balanced representation. The example of health care, an important programme area for IFRC illustrates this. Gender refers to economic, social, political and cultural differences (including opportunities) with being male or female. Due to social (gender) and biological (sex) differences, women and men can have different health behaviours and risks, as well as different experiences from health services. In most societies, women have less access to and control over health resources and service for themselves and their children. Gender norms can also affect men by assigning them roles that encourage risk-taking behaviour and neglect of their and their family's health. Furthermore, gender interacts with other social differences, such as race, age and class.

11 *Principle 2 of the Code of Conduct for International Red Cross and Red Crescent Movement and NGOs in Disaster Relief.*

Resource tip

Annex 2 has additional resources on M&E and vulnerable and marginalized people, as well as quality control and minimizing bias/error in the M&E system.

Gender inequalities especially affect sexually transmitted infections among women and men. A gender-sensitive approach in health care recognizes both sex and gender differences and seeks to provide equal access to treatment and services for both women and men. Therefore, data collection and analysis should focus on how differences between women and men may affect equal access to health services. This can involve attention during data collection to access to health services among women versus men; such disaggregation of data by sex (and age) is a good starting point for such analysis (Global Fund 2009).

1.9 Minimize bias and error

M&E helps uphold accountability, and should therefore be accountable in itself. This means that the M&E process should be accurate, reliable and credible with stakeholders. Consequently, an important consideration when doing M&E is that of bias. ***Bias occurs when the accuracy and precision of a measurement is threatened by the experience, perceptions and assumptions of the researcher, or by the tools and approaches used for measurement and analysis.***

Minimizing bias helps to increase accuracy and precision. ***Accuracy means that the data measures what it is intended to measure.*** For example, if you are trying to measure knowledge change following a training session, you would not just measure how many people were trained but also include some type of test of any knowledge change.

Similarly, ***precision means that data measurement can be repeated accurately and consistently over time and by different people.*** For instance, if we use a survey to measures people's attitudes for a baseline study, two years later the same survey should be administered during an endline study in the same way for precision.

As much as we would like to eliminate bias and error in our measurements and information reporting, no research is completely without bias. Nevertheless, there are precautions that can be taken, and the first is to be familiar with the major types of bias we encounter in our work:

a. **Selection bias** results from poor selection of the sample population to measure/study. Also called *design bias* or *sample error*, it occurs when the people, place or time period measured is not representative of the larger population or condition being studied. It is a very important concept to understand because there is a tendency to study the most successful and/or convenient sites or populations to reach (which are often the same). For example, if data collection is done during a convenient time of the day, during the dry season or targets communities easily accessible near paved roads, it may not accurately represent the conditions being studied for the whole population. Such "selection bias" can exclude those people in greatest need – which goes against IFRC's commitment to provide aid on the basis of need alone.[12]
b. **Measurement bias** results from poor data measurement – either due to a fault in the data measurement instrument or the data collector. Sometimes the direct measurement may be done incorrectly, or the attitudes of the interviewer may influence how questions are asked and responses are recorded. For instance, household occupancy in a disaster response operation may be calculated incorrectly, or survey questions may be written in a way that biases the response, e.g. "Why do you like this project?" (rather than "What do you think of this project?").
c. **Processing error** results from the poor management of data – miscoded data, incorrect data entry, incorrect computer programming and inadequate checking. This source of error is particularly common with the entry of quantitative (statistical) data, for which specific practices and checks have been developed.
d. **Analytical bias** results from the poor analysis of collected data. Different approaches to data analysis generate varying results e.g. the statistical methods employed, or how the data is separated and interpreted. A good practice to help reduce analytical bias is to carefully identify the rationale for the data analysis methods.

It is beyond the scope of this guide to fully cover the topic of bias and error and how to minimize them.[13] However, many of the precautions for bias and error are topics in the next section of this guide. For instance, triangulating (combining) sources and methods in data collection can help reduce error due to selection and measurement bias. Data management systems can be designed to verify data accuracy and completeness, such as cross-checking figures with other data sources or computer double-entry and post-data entry verification when possible. A participatory approach to data analysis can help to include different perspectives and reduce analytical bias. Also, stakeholders should have the opportunity to review data products for accuracy.

Resource tip

Annex 3 provides a list of real examples from the field of factors affecting the quality of M&E information.

12 *Principle 2 of the Code of Conduct for International Red Cross and Red Crescent Movement and NGOs in Disaster Relief.*

13 *Additional resources for reducing bias and error and improving data quality in M&E can be found in Annex 2, M&E Resources.*


IFRC

Part 2. Six key steps for project/programme M&E

The six key M&E steps discussed in Part 2 are:

1. Identify the purpose and scope of the M&E system
2. Plan for data collection and management
3. Plan for data analysis
4. Plan for information reporting and utilization
5. Plan for M&E human resources and capacity building
6. Prepare the M&E budget

Part 2 builds upon the key M&E concepts presented in Part 1, outlining six key steps for project/programme M&E. Taken together, these steps are to guide planning for and implementing an M&E system for the systematic, timely and effective collection, analysis and use of project/programme information.

Key reminders for all M&E steps:

- ***The M&E steps are interconnected and should be viewed as part of a mutually supportive M&E system.*** We identify separate steps to help organize and guide the discussion. In reality, these steps are not necessarily separate, but interrelated, often happening simultaneously. For example, what data is collected will largely depend on the data needed to be reported – one step is integral to the other step and would be planned at the same time.
- ***M&E planning should be done by those who use the information.*** Involvement of project/programme staff and key stakeholders ensures feasibility, understanding and ownership of the M&E system. M&E planning should not be limited to a headquarters' office, but informed by the realities and practicalities of the field. The leadership of an experienced project/programme manager, ideally experienced in M&E, is very helpful to ensure M&E activities are well adapted and within the project/programme's time frame and capacity.
- ***Begin planning for your M&E system immediately after the project/programme design stage*** (see Diagram 1). Early M&E planning allows for preparation of adequate time, resources and personnel before project/programme implementation. ***It also informs the project/programme design process itself as it requires people to realistically consider how practical it is to do everything they intend to measure.*** Sometimes, the timing of the M&E planning is determined

Advice for the reader

The **Checklist – six key steps for project and programme M&E** (Annex 4) – provides a useful overview of the key steps and related resources.

2.1 STEP 1 – Identify the purpose and scope of the M&E system

What you will find in Step 1:

The purpose and scope of the M&E system answers, *"Why do we need M&E and how comprehensive should it be?"* It serves as a reference point for the M&E system, guiding key decisions such as informational needs, methodological approaches, capacity building and allocation of resources. The following outlines some key considerations when determining an M&E system's purpose and scope.

2.1.1 Review the project/programme's operational design (logframe)

For IFRC's projects/programmes, the logframe is the foundation on which the M&E system is built. The logframe is a summary of the project/programme's operational design, based on the situation and problem analysis conducted during the project/programme's design stage. It summarizes the logical sequence of objectives to achieve the project/programme's intended results (activities, outputs, outcomes and goal), the indicators and means of verification to measure these objectives, and any key assumptions. For IFRC's projects, the project/programme design is typically summarized in a standard logframe table (see **Annex 5**).[14]

A well-developed logframe reflects the informational needs of the project/programme. For example, the objectives and informational needs of a project/programme during an emergency operation will have very different logframe and related M&E requirements than a longer-term development project/programme (see **Box 5**).

BOX 5: M&E in emergency settings

Much of the IFRC's work is assisting people in need in emergency settings. Planning M&E for an emergency operation presents operational objectives and contexts that typically differ from longer-term development projects/programmes. Emergency settings are often dangerous and dynamic, with rapidly changing, complex situations. Therefore, acute and immediate needs often take priority over longer-term objectives in a project/programme's operational design. Also, high media coverage and pressure from donors demand timely M&E evidence for results. Other key challenges include increased insecurity and uncertainty for both affected populations and field workers, damaged or absent infrastructure, restricted access to areas and populations, absence of baseline data, and rapid changes in personnel. In such settings, it may not be possible to implement complex M&E systems. Instead, it is best to plan for simple and efficient systems, stressing regular and timely monitoring and rapid evaluations, such as real-time evaluations (RTEs – see Table 2, Section 1.4). Timely information is essential to determine priorities and inform decision-making, identifying emerging problems as well as developing trends to guide intervention revision that best meets emergency needs. The **IFRC plan of action for disaster response operations** (see Annex 2, M&E Resources) provides templates and guidance for collecting and summarizing key information during an IFRC response to a disaster.

14 *In addition to the example logframe format presented in Annex 5, these logframe components are defined in more detail in the IFRC's Project/Programme Planning Guidance Manual (IFRC PPP 2010).*

When reviewing the logframe, it is important to check it for logic and relevance. Often, in the rush to start a project/programme, there may be oversights in the development of a logframe. Sometimes it is prepared in an office or by people far removed from the project/programme setting. The logframe is not a static "blueprint", but should be reassessed and revised according to the realities and changing circumstances in the field. This is particularly true in humanitarian responses, where populations and needs can rapidly change in a short time frame. However, changes should only be made after careful consideration and consultation with key stakeholders and in compliance with any donor requirements.

An important consideration in the logframe is the use of industry-recognized, standard indicators – see Box 6 below. These can make a big difference in the subsequent M&E. Standard indicators may not only save time in designing indicators but an important advantage is that they typically come with accepted, standard definitions to ensure they are measured reliably and consistently, and measurement methods are usually well developed and tested. Another key advantage is that standard indicators can be compared over time, place and projects/programmes. Finally, industry-recognized indicators contribute to credibility and legitimacy across stakeholders.

However, there are limitations to how much indicators can be standardized, and they can be inflexible and unrepresentative of the local context. Also, consideration should be given to the project/programme's capacity (financial or human) to measure certain standard indicators according to international methods and best practices. Nevertheless, industry-recognized, standard indicators can be very useful, and ***often it is best to use a combination of standardized indicators and those designed specifically for the local context.***

BOX 6: Types of industry (standard) indicators

Industry-recognized, standard indicators vary from sector or project/programme area. The following is a summary of key types of industry-recognized indicators:

- **Industry indicators** developed for use across the humanitarian industry. Examples include the Sphere Project and the Humanitarian Accountability Partnership. (While many industry codes and standards exist, they do not all necessarily include standard indicators, but may be left to interpretation by individual organizations.)
- **Sector-specific or thematic indicators** developed for use in specific thematic sectors. Examples include the sectors covered by the Sphere Project, progress indicators for the United Nations Millennium Development Goals and thematic groupings such as the IFRC HIV Global Alliance indicators.
- **Cluster indicators** developed by some of the UN Clusters to assess achievements of the overall focus area of the cluster. These are particularly useful where outcomes and impact achieved cannot be attributed to the work of one organization, but rather to the collective efforts of multiple organizations in a cluster or across clusters.
- **Organization-specific indicators** which have been developed for use in specific operations or for organizational reporting against its strategy. The seven key proxy indicators detailed for the Federation-Wide Reporting System (FWRS)[15] are an example of this, as are the ICRC's standard indicators on beneficiary counting.

15 *Refer to the IFRC's FWRS Indicator Guidelines, listed in Annex 2, M&E Resources.*

2.1.2 Identify key stakeholder informational needs and expectations

Planning an M&E system based on stakeholder needs and expectations helps to ensure understanding, ownership and use of M&E information. It is essential to have a clear understanding of the priorities and information needs of people interested in or affected by the project/programme. This includes stakeholder motivations, experience and commitment, as well as the political and other constraints under which various stakeholders operate. It is especially important that local knowledge is sought when planning M&E functions to ensure that they are relevant to and feasible in the local context, and that M&E information is credible, accepted and more likely to be supported.

Typically, the IFRC's projects/programmes involve multiple stakeholders at different levels. **Box 7** summarizes some key stakeholders and some of their common informational needs.

BOX 7: Examples of the IFRC's key stakeholders and informational needs

- **Communities (beneficiaries)** provided with information are able to better understand, participate in and own a project/programme.
- **Donors**, which include those within the IFRC (e.g. donor National Societies and the secretariat) and individuals and agencies outside the IFRC, typically require information to ensure compliance and accountability.
- **Project/programme management** use information for decision-making, strategic planning, and accountability.
- **Project/programme staff** can use information for project/programme implementation and to understand management decisions.
- **The IFRC's secretariat and National Societies** may require information for donor accountability, long-term strategic planning, knowledge sharing, organizational learning and advocacy.
- **Partners (bilateral or local)** can use information for coordination and collaboration, as well as for knowledge and resource sharing. The ICRC is an important multilateral actor with which the IFRC often works closely.
- **Government and local authorities** may require information to ensure that legal and regulatory requirements are met, and it can help build political understanding and support.

Typically, a **stakeholder assessment** is conducted during the planning stage of a project/programme.[16] This initial assessment can inform M&E planning, but for planning the M&E system it is recommended to focus more specifically on the informational needs and expectations of the key stakeholders.

An **M&E stakeholder assessment table** is provided in Annex 6. It is a useful tool to refer to throughout the project/programme cycle, summarizing: ***who*** are the key stakeholders, ***what*** information they require, ***why, when, how*** (in what format) and any ***role or function*** they expect or are required to have in the M&E system.

Practical tip

Sometimes there is a combination of M&E requirements from multiple donors and partners. It is best early in the project/programme design stage to coordinate these expectations and requirements as much as possible to reduce the burden on project/programme implementation. Agreement on common indicators, methods, tools and formats not only reduces the M&E overload, but it can conserve human and financial resources.

16 *Refer to IFRC PPP, 2010: p. 16.*

2.1.3 Identify any M&E requirements

Important informational needs worth specific attention are those that arise from any donor guidelines and requirements, governmental laws and regulations, and internationally-agreed-upon standards. These requirements can include very detailed procedures, formats and resources, and are often non-negotiable. Therefore, it is best to identify and plan for them early in the M&E planning process.

Internationally-agreed-upon standards and criteria are particularly relevant to the IFRC's work. IFRC interventions are often implemented through various partnerships within the Movement, with bilateral donors and between international, national and civil society organizations. It is important that we conduct our work according to agreed-upon standards and criteria – which need to be monitored and evaluated.

The most important of these standards are those of the International Red Cross and Red Crescent Movement. These include the Fundamental Principles of the International Red Cross and Red Crescent Movement, the Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief, and the IFRC Strategy 2020 (see inside front cover). The IFRC's management policy for evaluations identifies evaluation standards and criteria (discussed in Box 3, Section 1.4), and Box 8 (below) notes specific requirements for the IFRC's secretariat-funded projects/programmes. Other key principles include the internationally recognized DAC Criteria for Evaluating Development Assistance, which identify key focus areas for evaluating international work, and the Sphere Standards, which identify a set of universal minimum standards in core areas of humanitarian response. [17]

BOX 8: Specific evaluation requirements for the IFRC's secretariat-funded projects/programmes.

The IFRC's management policy for evaluations identifies specific requirements for secretariat-funded projects/programmes:[18]

- ***Baseline studies*** prior to project/programme implementation.
- ***Final evaluations,*** or some form of final assessment, after project/programme completion.
- ***Independent final evaluations*** for projects/programmes exceeding 1,000,000 Swiss francs.
- ***Midterm evaluations or reviews*** for projects/programmes lasting more than 24 months.
- ***Real-time evaluations*** for emergency operations initiated within the first three months of an emergency operation under one or a combination of the following conditions: the emergency operation will run for more than nine months; more than 100,000 people are planned to be reached by the emergency operation; the emergency appeal seeks more than 10,000,000 Swiss francs; more than ten National Societies are operational with staff in the field.

2.1.4 Scope of major M&E events and functions

The scope of the M&E system refers to its scale and complexity. It can be highly complex with a variety of activities and requiring considerable expertise and resources, or it can be relatively simple, relying on internal resources and capacities.

17 *The DAC criteria were compiled by the Development Assistance Committee of the Organization for Economic Co-operation and Development; The Sphere Standards were developed by a group of NGOs and the International Red Cross and Red Crescent Movement.*

18 *More detail about these and other evaluation practices for the IFRC's secretariat can be found in the IFRC's management policy for evaluations (see Annex 2, M&E Resources).*

Each of the topics discussed above plays a key role in determining the scope of the M&E system. For example, the complexity of a project/programme's design (e.g. how many and the type of outcomes it seeks to achieve) can have a significant impact on the scale and complexity of the M&E system. Likewise, donor requirements can largely determine the precision and methodological rigour needed in the M&E system. Some other important considerations for the scope (size) of the M&E system include:

- ***The geographic scale*** of the project/programme area, including accessibility to programme areas
- ***The demographic scale*** of the project/programme, including specific target populations and their accessibility
- ***The time frame*** or duration of the project/programme, including any pre- and post-project M&E needs
- ***The available human resources and budget*** (discussed in Sections 2.5 and 2.6).

Scoping the M&E system helps to identify major M&E activities and events – the overall scope (size) of the M&E system. While specific M&E functions should be addressed in more detail later in the planning process, an initial inventory of key activities at this stage provides an important overview or "map" to build upon for planning for funding, technical expertise, capacity building, etc.

An ***M&E activity planning table*** is provided in **Annex 7**. Such a table can be useful to scope major M&E activities, their timing/frequency, responsibilities and budgets.

It is also useful to refer to **Diagram 1** (see Section 1.2) for an overview of key M&E activities during the project/programme cycle. **Box 9** (below) provides some examples of key M&E activities planned for three different types of projects according to intervention type and time frame.

Reminder

Do not forget to plan for a baseline study! All projects/programmes should have some form of measurement of the initial status of appropriate indicators prior to implementation for later comparison to help assess trends and impact, (see Section 1.5).

BOX 9: Examples of key M&E activities*

Emergency relief project	One-year recovery project	Four-year development project
➔ Baseline study (from FACT before implementation)	➔ Baseline study from initial assessment	➔ Baseline survey
➔ Project (results, activity, financial) monitoring	➔ Project monitoring	➔ Project monitoring
➔ Context monitoring	➔ Context monitoring	➔ Context monitoring
➔ Beneficiary monitoring	➔ Beneficiary monitoring	➔ Beneficiary monitoring
➔ Real-time evaluation (month 4)	➔ Six-month project review	➔ Mid-year report, programme update, annual report
➔ Regular operations updates	➔ Regular operations updates	➔ Mid-year and/or annual reviews
➔ Final evaluation	➔ Final evaluation	➔ Two-year midterm evaluation
		➔ Independent final evaluation (with endline survey)
		➔ Ex-post evaluation

* *Note that these are only examples and actual activities will depend on specific project/programme context.*

2.2 STEP 2 – Plan for data collection and management

What you will find in Step 2:

Note

Data is a term given to raw facts or figures before they have been processed and analysed. ***Information*** refers to data that has been processed and analysed for reporting and use.

Once you have defined the project/programme's informational needs, the next step is to plan for the reliable collection and management of the data so it can be efficiently analysed and used as information. Both data collection and management are firmly linked as data management begins the moment it is collected.

2.2.1 Develop an M&E plan table

An M&E plan is a table that builds upon a project/programme's logframe to detail key M&E requirements for each indicator and assumption. It summarizes key indicator (measurement) information in a single table: a detailed definition of the data, its sources, the methods and timing of its collection, the people responsible and the intended audience and use of the data. Box 10 (next page) summarizes the benefits of using an M&E plan.

Note

M&E plans are sometimes called different names by various users, such as an "indicator planning matrix" and a "data collection plan". While the names (and formats) may vary, the overall function remains the same – to detail the M&E requirements for each indicator and assumption.

Annex 8 provides the M&E plan table template adopted by the IFRC, with specific instructions and examples. The M&E plan can be formatted differently, according to the planning requirements for project/programme management. For instance, additional columns can be added, such as a budget column, a separate column to focus on data sources, or two columns to distinguish people responsible for data collection versus data analysis. Often the project/programme donor will require a specific M&E plan format.

The M&E plan should be completed during the planning stage of a project/programme (before implementation). This allows the project/programme team to cross-check the logframe and ensure that the indicators and scope of work they represent in both project/programme implementation and data collection, analysis and reporting are realistic to field realities and team capacities.

It is best that the M&E plan is developed by those who will be using it. Completing the table requires detailed knowledge of the project/programme and context provided by the local project/programme team and partners. Their involvement also contributes to data quality because it reinforces their understanding of what data they are to collect and how it will be collected.

BOX 10: Is an M&E plan worth all the time and effort?

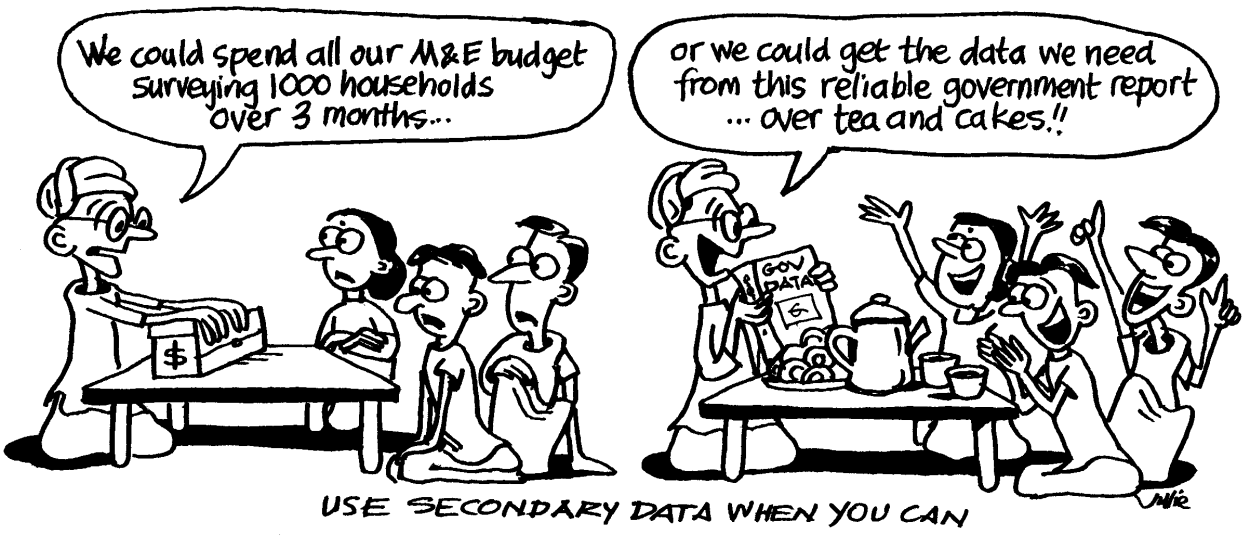
M&E plans are becoming standard practice – and with good reason. The IFRC's experience with projects and programmes responding to the 2004 tsunami in South Asia found that the time and effort spent in developing M&E plans had multiple benefits. They not only made data collection and reporting more efficient and reliable but also helped project/programme managers plan and implement their projects/programmes through carefully consideration of what was being implemented and measured. M&E plans also served as critical cross-checks of the logframes, ensuring that they were realistic to field realities. Another benefit was that they helped to transfer critical knowledge to new staff and senior management, which was particularly important with projects/programmes lasting longer than two years. A final point to remember is that ***it can be much more timely and costly to address poor-quality data than to plan for its reliable collection and use.***

2.2.2 Assess the availability of secondary data

An important consideration for data sources is the availability of reliable secondary data. ***Secondary data refers to data that is not directly collected by and for the project/programme, but which can nevertheless meet project/programme informational needs.*** (In contrast, primary data is collected directly by the project/programme team.)

Examples of secondary data include:

- A vulnerability capacity assessment (VCA) conducted by a partner Red Cross Red Crescent programme working in the project/programme area
- Demographic statistics from the government census bureau, central statistics bureau, Ministry of Health, etc.
- Maps and aerial photographs of degraded land from the Ministry of Soil Conservation
- Information on health, food security and nutritional level from UNICEF and the United Nations' Food and Agriculture Organization and the World Food Programme
- School attendance and performance records available from the Ministry of Education.



Secondary data is important to consider because it ***can save considerable time and expense.*** It can also be used to ***help triangulate (see below) data sources and verify (prove) primary data and analysis*** collected directly as part of the project/programme.

However, it is critical to ensure that secondary data is relevant and reliable. As secondary data is not designed specifically for project/programme needs, it is important to avoid the trap of using irrelevant secondary data just because it is available. Check the relevance of secondary data for:

- **Population –** does it cover the population about which you need data?
- **Time period –** does it cover the same time period during which you need data?
- **Data variables –** are the characteristics measured relevant for what you are researching? For example, just because the data may be on road safety, if your project/programme focuses on the use of motorcycle helmets, a road safety study on deaths due to drunken driving may not be relevant (unless they separate deaths for those cases in which it involved a motorcyclist with or without a helmet).

Even if the data measures what you need, it is important to ensure that the source is credible and reliable. As Section 1.9 discusses, it is important to check that ***any*** data source (primary or secondary) is accurate (measures what it is intended to measure) and precise (the data measurement can be repeated accurately and consistently over time and by different people.) Two key considerations for secondary data include:

- **Reputation –** how credible and respected are the people (organization) that commissioned the data and the authors who conducted the research and reported the data? Identify why the secondary data was initially collected and whether there may have been any motive or reason (e.g. political or economic) that it could bias the data. It can be helpful to check with other organizations and stakeholders to assess this. If possible, it can also help to check the credentials of the researchers/authors of the data and report – e.g. their educational background, related reports and systematic assessments, whether they are accredited or belong to industry associations, etc.
- **Rigour –** were the methods used to collect, analyse and report on the data technically accurate? Check that there is a description of the research methods that provides sufficient information about the data collection, management and quality control, analysis, and interpretation so that its worth or merit can be determined. (If you do not feel capable to do this, then seek out the expertise of someone competent in research methods to assist you.)

2.2.3 Determine the balance of quantitative and qualitative data

When planning for data collection, it is important to plan for the extent quantitative and qualitative data will be used. **Box 11** defines and compares both types of data.

BOX 11: Comparing quantitative versus qualitative data

Quantitative data	Qualitative data
Quantitative data measures and explains what is being studied with numbers (e.g. counts, ratios, percentages, proportions, average scores, etc). Quantitative methods tend to use structured approaches (e.g. coded responses to surveys) which provide precise data that can be statistically analysed and replicated (copied) for comparison. **Examples** • 64 communities are served by an early warning system. • 40 per cent of the households spend more than two hours gathering water for household needs.	**Qualitative data** explains what is being studied with words (documented observations, representative case descriptions, perceptions, opinions of value, etc). Qualitative methods use semi-structured techniques (e.g. observations and interviews) to provide in-depth understanding of attitudes, beliefs, motives and behaviours. They tend to be more participatory and reflective in practice. **Examples** • According to community focus groups, the early warning system sounded during the emergency simulation, but in some instances it was not loud enough. • During community meetings, women explained that they spend a considerable amount of their day collecting drinking water, and so have limited water available for personal and household hygiene.

Quantitative data is often considered more objective and less biased than qualitative data – especially with donors and policy-makers. Because qualitative data is not an exact measurement of what is being studied, generalizations or comparisons are limited, as is the credibility of observations and judgements. However, quantitative methods can be very costly, and may exclude explanations and human voices about *why* something has occurred and how people feel about it.

Recent debates have concluded that both quantitative and qualitative methods have subjective (biased) and objective (unbiased) characteristics. Therefore, ***a mixed-methods approach is often recommended that can utilize the advantages of both, measuring what happened with quantitative data*** and examining how and why it happened with qualitative data. When used together, qualitative methods can uncover issues during the early stages of a project/programme that can then be further explored using quantitative methods, or quantitative methods can highlight particular issues to be examined in-depth with qualitative methods. For example, interviews (a qualitative method) may reveal that people in a community are concerned about hunger, and a sample of infants' weights (a quantitative method) may substantiate that mass-wasting and malnutrition are indeed prevalent in the community.

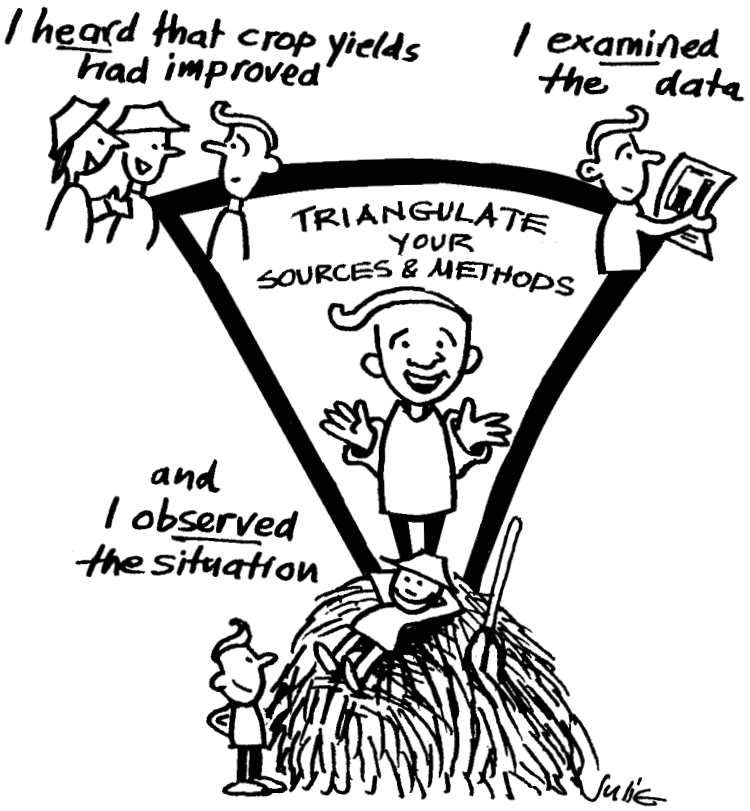
2.2.4 Triangulate data collection sources and methods

Triangulation is the process of using different sources and/or methods for data collection.[19] Combining different sources and methods (mixed methods) helps to cross-check data and reduce bias to better ensure the data is valid, reliable and complete. The process also lends to credibility if any of the resulting information is questioned. Triangulation can include a combination of primary and secondary sources, quantitative and qualitative methods, or participatory and non-participatory techniques, as follows:

Note

Many people do not realize they are sampling when they are; unless you measure all members of a population, you are sampling and it should be carefully planned – whether quantitative or qualitative.

- **Example of triangulating data sources:** When determining community perception of a cash-for-work project, do not just include participants selected for the project, but also some who did not take part as they may have a different perspective (e.g. on the selection process for participating in the project). Also, include the views of the project staff, partners and other local groups working in the project/programme area.
- **Example of triangulating data collection methods:** A household survey is conducted to determine beneficiary perception of a cash-for-work project, and it is complemented by focus group discussion and key informant interviews with cash-for-work participants as well as other community members.



2.2.5 Determine sampling requirements

A sample is a subset of a whole population selected to study and draw conclusions about the population as a whole. Sampling (the process of selecting a sample) is a critical aspect of planning the collection of primary data. Most projects/programmes do not have sufficient resources to measure a whole population (a census), nor is it usually necessary. ***Sampling is used to save time and money by collecting data from a subgroup to make generalizations about the larger population.***

19 *Triangulation does not literally have to be three sources or methods, but the idea is to rely on more than one or two sources/methods.*

The process of sampling includes the following steps:

1. ***Define the specific issues that you will be measuring –*** this will inform what methodology will be used to address the selected issues. For example, in determining a survey on sanitation knowledge, attitude and practice/behaviour could be used to assess the extent to which behaviour has been changed by activities that raise awareness of sanitation.

2. ***Determine the appropriate sampling method –*** unless primary data collection includes the total population studied, one of two broad types of samples will be used, depending on the degree of accuracy and precision required:
   - ***Random (probability) samples*** are quantitatively determined and use statistics to make more precise generalizations about the larger population.
   - ***Purposeful (non-random) samples*** are qualitatively determined, often based on convenience or some other factor; they typically involve smaller, targeted samples of the population, but because they do not use statistics they are less reliable for generalizations about the larger population.

   Random samples are more complex, laborious and costly than purposeful samples, and are not necessary for qualitative methods such as focus group discussions. However, random samples are often expected in larger projects/programmes because they are more precise and can minimize bias – donors frequently require random sampling when using baseline and endline surveys. As discussed above, a ***mixed-methods approach*** may be best, combining both sample methods for quantitative and qualitative data collection.

   In addition to these two broad types of sampling methods, there is a variety of specific sampling designs, such as simple random sampling, stratified random sampling, cluster sampling, multi-stage sampling, convenience sampling, purposeful sampling, and respondent-driven sampling. While we are unable to go into detail about the different sampling designs now, ***it is important to understand that the design choice impacts the overall sample size.*** In summary, certain sample designs are selected over others because they provide a sample size and composition that is best suited for what is being studied.

3. ***Define the sample frame –*** a list of every member of the population from which a sample is to be taken (e.g. the communities or categories of people – women, children, refugees, etc).

4. ***Determine the sample size –*** the sample size is calculated using equations specific to the type of survey (whether descriptive/one-off or comparative/baseline-endline surveys – both discussed below) and to the indicator type used as a basis for the calculation (whether a mean/integer or proportion/percentage).

   There are several key design variables for each of these equations that need to be determined, each of which affects sample size. While there are no "right" values for these design variables, there are accepted standards and "rules of thumb". For example, for descriptive/one-off surveys, the key design variables include significance (also known as confidence level) and the margin of sampling error.[20] The accepted standard varies between 90 and 95 per cent for the confidence level and between 5 and 10 per cent for the margin of sampling error.

   While calculating sample sizes is a scientific exercise (understanding which equations to use and what values to assign the key design variables), shaping the sample size to "fit" a given project/programme contains a fair amount of art, as manipulating the values of the key design variables involves trade-offs that affect both survey implementation and analysis. It is strongly recommended that an experienced sampling technician is consulted.

20 *The **margin of error** is where your results have an error of no more than X per cent, while the **confidence level** is the percentage confidence in the reliability of the estimate to produce similar results over time. These two determine how accurate your sample and survey results are - e.g. to achieve 95 per cent confidence with an error of 5 per cent, if the same survey were done 100 times, results would be within +/- 5 per cent the same as the first time, 95 times out of 100. There is a variety of simple sample size calculators on the internet – see Annex 2, M&E Resources, for some links.*

21 *Some key resources for the use of statistics in project/programme M&E, including online sample calculators, can be found in Annex 2, M&E Resources.*

Sounds complicated?

The use of random sampling and statistics can be confusing, and it is often best to seek out the expertise of someone competent in statistics.[21]

2.2.6 Prepare for any surveys

Surveys are a common method of gathering data for project/programme M&E. Surveys can be classified in a number of ways, such as according to the specific method used – e.g. in person, by mail, telephone, etc. They generally use interview techniques (questions or statements that people respond to), measurement techniques (e.g. infant's weight to determine nutritional status), or a combination of both. Unless a complete population is to be surveyed, some form of sampling (discussed above) is used with surveys.

One important distinction for surveys can be made by the manner in which the survey questions are asked:

- ***Semi-structured surveys*** use *open-ended* questions that are not limited to defined answers but allow respondents to answer and express opinions at length – e.g. "How useful is the first-aid kit to your family?" Semi-structured surveys allow more flexibility in response, but take more skill and cost in administering – interviewers must be experienced in probing and extracting information.
- ***Structured surveys*** use a standardized approach to asking fixed *(closed-ended)* questions that limit respondents' answers to a predefined set of answers, such as yes/no, true/false, or multiple choice – e.g. "Did you receive the first-aid kit?" While pre-coded questions can be efficient in time and useful for statistical analysis, they must be carefully designed to ensure that questions are understood by all respondents and are not misleading. Designing a questionnaire may seem commonsense, but it involves a subtlety that requires experience. See **Annex 9** for examples of closed-ended questions used in structured surveys.

Another important distinction for surveys can be made based on the timing and function of the survey:

- A ***descriptive survey*** seeks to obtain representative data about a population at a single point of time, without making comparisons between groups (such as a one-off needs assessment).
- A ***comparative survey*** seeks to compare the results between groups – either the same population at two points in time (e.g. baseline-endline design), or two distinct groups at the same point in time (e.g. treatment control groups).

Whatever survey method is used, it is critical to understand how it affects the way in which sample sizes are calculated. For example, descriptive surveys need to account for a margin of error when calculating the sample size, while comparative surveys require a power calculation to determine the best sample size.

It is beyond the scope of this guide to adequately cover the topic of surveys, and interested readers are encouraged to refer to other resources.[22] In addition to survey design, implementation and analysis, it is useful to also have an understanding of sampling (discussed above) and statistical analysis (see Data analysis, Section 2.3). In short, it may be advisable to seek expert advice/assistance if a survey is to be used.

2.2.7 Prepare specific data collection methods/tools

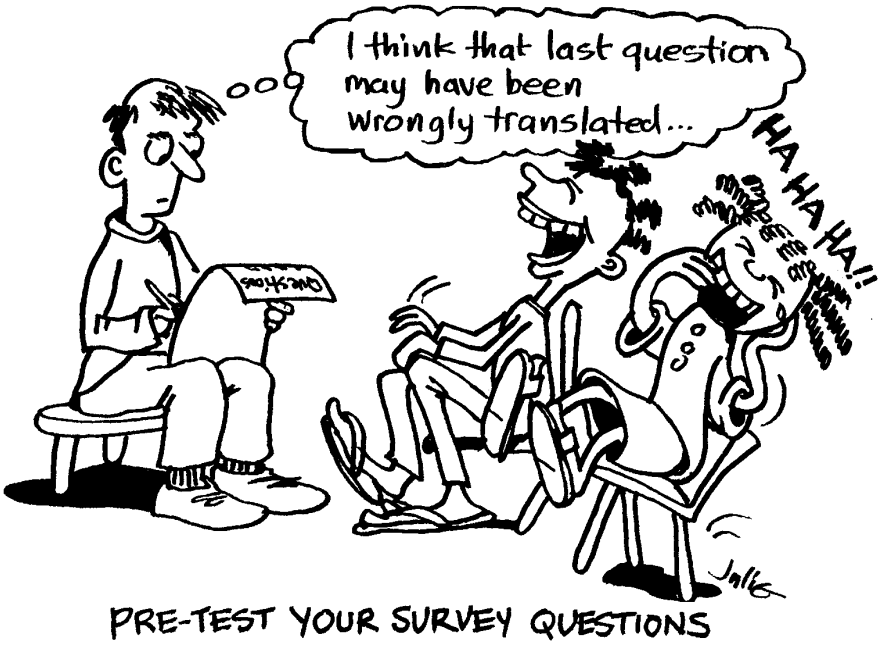
The M&E plan summarizes data collection methods and tools, but these still need to be prepared and ready for use. Sometimes methods/tools will need to be newly developed but, more often, they can be adapted from elsewhere. **Annex 10** provides a summary of **key data collection methods and tools.**

The best practices for preparing data collection methods/tools will ultimately depend on the specific method/tool. However, there are some important overall

22 *Some key resources are listed in Annex 2, M&E Resources, but there are a large number of other resources available online.*

recommendations. **Box 12** (on page 40) highlights ways to minimize data collection costs. Some additional practical considerations in planning for data collection include:

- ***Prepare data collection guidelines.*** This helps to ensure standardization, consistency and reliability over time and among different people in the data collection process. Double-check that all the data required for indicators is being captured through at least one data source.
- ***Pre-test data collection tools.*** This helps to detect problematic questions or techniques, verify collection time, identify potential ethical issues and build the competence of data collectors.



- ***Translate and back-translate*** data collection tools. This ensures that the tools are linguistically accurate, culturally compatible and operate smoothly.
- ***Train data collectors.*** This includes an overview of the data collection system, data collection techniques, tools, ethics, culturally appropriate interpersonal communication skills and practical experience in collecting data.
- ***Address ethical concerns.*** Identify and respond to any concerns expressed by the target population. Ensure that the necessary permission or authorization has been obtained from local authorities, that local customs and attire (clothing) are respected, and that confidentiality and voluntary participation are maintained.

BOX 12: Minimizing data collection costs

Data collection is typically one of the most expensive aspects of the M&E system. One of the best ways to lessen data collection costs is to reduce the amount of data collected (Bamberger et al. 2006). The following questions can help simplify data collection and reduce costs:

- **Is the information necessary and sufficient?** Collect only what is necessary for project/programme management and evaluation. Limit information needs to the stated objectives, indicators and assumptions in the logframe.
- **Are there reliable secondary sources of data?** As discussed above, secondary data can save considerable time and costs – as long as it is reliable.
- **Is the sample size adequate but not excessive?** Determine the sample size that is necessary to estimate or detect change. Consider using stratified and cluster samples.
- **Can the data collection instruments be simplified?** Eliminate unnecessary questions from questionnaires and checklists. In addition to saving time and cost, this has the added benefit of reducing survey fatigue among respondents.
- **Is it possible to use competent local people for the collection of survey data?** This can include university students, health workers, teachers, government officials and community workers. There may be associated training costs, but considerable savings can be made by hiring a team of external data collectors, and there is the advantage that local helpers will be familiar with the population, language, etc.
- **Are there alternative, cost-saving methods?** Sometimes targeted qualitative approaches (e.g. participatory rapid appraisal – PRA) can reduce the costs of the data collection, data management and statistical analysis required by a survey – when such statistical accuracy is not necessary. Self-administered questionnaires can also reduce costs.

2.2.8 Establish stakeholder complaints and feedback mechanisms

A complaints and feedback mechanism provides a means for stakeholders to provide comment and voice complaints about the IFRC's work. It is a particularly important data collection topic worth special mention. Complaints and feedback mechanisms provide valuable insights and data for the ongoing monitoring and periodical evaluation of a project/programme. They can help to anticipate and address potential problems, increase accountability and credibility, and reinforce morale and ownership.

It is important to recognize that stakeholder complaints and feedback can be internal or external – (from those involved in project/programme management and implementation versus those affected by project implementation). Most importantly, beneficiaries (the target population) should have the opportunity to express their perceptions and file any grievances about the services they receive. However, it is also important for other stakeholders, such as project/programme staff, volunteers and partners, to have the opportunity to file complaints and provide feedback.

It is also important to understand that stakeholder feedback can be positive or negative. It can be just as useful and empowering for stakeholders to express positive feedback, lessons learned, and reflections, as it is grievances. However, at a minimum, projects/programmes should have a formal complaints mechanism for stakeholders to legally file grievances.

A complaints mechanism is an established set of procedures for stakeholders to safely voice grievances or concerns that are addressed objectively against a standard set of rules and principles. It models accountability and commitment to the IFRC's stakeholders – especially our moral and legal responsibility to respond to any wrongdoing or misconduct, e.g. issues of sexual exploitation, abuse of power, and corruption.

There is no one approach (method) for stakeholder complaints and feedback – approaches should be adapted to specific stakeholders. Communicating and dealing with complaints and feedback differ across community and organizational cultures. Complaints and feedback can be written or oral, function directly or through intermediaries (third parties), individually or through groups, personally or anonymously. Specific examples range from a comment box and posted mail feedback to community meetings and online (feedback) forums.

Annex 11 provides an example of a complaints form to record and respond to specific complaints, and **Annex 12** provides an example of a complaints log to track multiple complaints. Stakeholder complaints and feedback can also be tracked in a regular project/programme management report – discussed in Section 2.4 and as illustrated in **Annex 19.**

It is beyond the scope (and space) of this guide to adequately cover this important topic and we encourage you to refer to the IFRC Guide for Stakeholder Complaints and Feedback – see **Box 13** on next page.

BOX 13: The IFRC's guide for stakeholder feedback

The IFRC Guide for Stakeholder Complaints and Feedback provides guidance on how we solicit, process and respond to feedback from our stakeholders. It identifies six main steps for establishing a stakeholder complaints and feedback mechanism:

1. **Agree on the purpose of the complaints and feedback mechanism –** this helps to build understanding and ownership among those who will use it.
2. **Agree on what constitutes valid feedback, especially a complaint –** this helps to give stakeholders a sense of where and what kind of action is likely to be required in future.
3. **Agree on the stakeholders targeted by the complaints and feedback mechanism –** this helps to tailor that mechanism to its audience.
4. **Agree on the most appropriate channel for communicating complaints and feedback –** this checks that the mechanism is culturally compatible and appropriate, so it is more likely to get used if needed.
5. **Agree on a standard process to handle complaints and feedback –** in addition to stakeholders providing complaints and feedback, it is important that those expected to review and respond also understand and uphold the process.
6. **Sensitize stakeholders about the complaints and feedback mechanism –** this is a critical step because how the mechanism is presented to intended users will largely shape how receptive and likely they are to use it.

2.2.9 Establish project/programme staff/volunteers review mechanisms

While monitoring and assessing the project/programme context and implementation is critical, ***project/programme staff and volunteer performance information is an important source of data for ongoing project/programme monitoring and management.***

Staff/volunteer time management and performance reviews are typically part of the human resources department of the implementing organization (e.g. National Society). As such, it is important to ensure that any project/programme-specific monitoring systems are organizationally consistent and in accordance with human resources processes and procedures. Therefore, we limit the following discussion to a few key considerations:

- ***Individual staff and volunteers' objectives should be based on the relevant objectives from the project/programme's logframe,*** reflecting a clear link between the objectives of an individual and those of the project/programme.
- ***Utilize regular tools and forums to track and review time management and performance.*** **Annex 13** provides an example of a template for **staff/volunteer performance management.** Such tools should be used in combination with periodic performance reviews, which can be on a one-to-one basis with the project/programme manager or involve input from multiple sources, including subordinates, peers, supervisors and community members (clients) themselves.
- ***A useful tool for monitoring and managing individual staff/volunteer time is a time sheet of their key activities and/or deliverables.*** **Annex 14** provides an example of an **individual time resourcing sheet** that can be used to plan and

monitor the time required for each individual to engage in different activities. Against this, each individual can then record how much time they actually spent on each activity. As such, this tool helps with planning an individual's time as well as subsequent monitoring, and, when actual time is very different to that planned, plans should be revised accordingly.

- ***A useful tool for monitoring and managing human resources is a project/programme team time sheet of key activities and/or deliverables.*** **Annex 15** provides an example of **project/programme team time resourcing sheet.** This provides an overview of the full team, highlighting which people should be engaged in which activities, when, and how much of their time is required.

2.2.10 Plan for data management

Data management refers to the processes and systems for how a project/programme will systematically and reliably store, manage and access M&E data. It is a critical part of the M&E system, linking data collection with its analysis and use. ***Poorly managed data wastes time, money and resources;*** lost or incorrectly recorded data affects not only the quality and reliability of the data but also all the time and resources invested in its analysis and use.

Data management should be timely and secure, and in a format that is practical and user-friendly. It should be designed according to the project/programme needs, size and complexity. Typically, project/programme data management is part of an organization's or project/programme's larger data management system and should adhere to any established policies and requirements.

The following are seven key considerations for planning a project/programme's data management system: [23]

1. **Data format.** The format in which data is recorded, stored and eventually reported is an important aspect of overall data management. Standardized formats and templates (as provided in this guide) improve the organization and storage of data. Generated data comes in many forms, but are primarily:
   a. Numerical (e.g. spreadsheets, database sets)
   b. Descriptive (narrative reports, checklists, forms)
   c. Visual (e.g. pictures, video, graphs, maps, diagrams)
   d. Audio (recordings of interviews, etc).

   Data formats can be physical, such as written forms stored in an office filing cabinet, or electronic, such as a spreadsheet stored in a computer database (discussed below). Sometimes, donors or key partners, such as government ministries, may define how the data should be recorded and stored. Whatever format, it is important that it is user-friendly, whether its user is a community member, field staff member or project manager.

23 *Adopted from Rodolfo Siles, 2004, "Project Management Information Systems", which provides a more comprehensive discussion on the topic.*

BOX 14: Formats can reinforce critical analysis and use

How data reporting is formatted can have a considerable influence on how it is used. For example, an indicator tracking table (see Section 2.2.11 below) can be designed to record not only the actual indicator performance but also the planned target for the indicator, as well the percentage of target achieved. This reinforces critical analysis of ***variance*** (the difference between identified targets and actual results). Similarly, indicator formats can be disaggregated (separated) by important groups or differences essential for project/programme implementation and assessment, such as by gender, age, ethnicity, location, socioeconomic status, etc.

2. **Data organization.** A project/programme needs to organize its information into logical, easily understood categories to increase its access and use. Data organization can depend on a variety of factors and should be tailored to the users' needs. Data is typically organized by one or a combination of the following classification logic:
   a. Chronologically (e.g. month, quarter, year)
   b. By location
   c. By content or focus area (e.g. different objectives of a project/programme)
   d. By format (e.g. project reports, donor reports, technical documents).

3. **Data availability.** Data should be available to its intended users and secure from unauthorized use (discussed below). Key considerations for data availability include:
   a. ***Access.*** How permission is granted and controlled to access data (e.g. shared computer drives, folders, intranets). This includes the classification of data for security purposes (e.g. confidential, public, internal, departmental).
   b. ***Searches.*** How data can be searched and found (e.g. according to keywords).
   c. ***Archival.*** How data is stored and retrieved for future use.
   d. ***Dissemination.*** How data is shared with others (see Section 2.4.2).

4. **Data security and legalities.** Projects/programmes need to identify any security considerations for confidential data, as well as any legal requirements with governments, donors and other partners. Data should be protected from non-authorized users. This can range from a lock on a filing cabinet to computer virus and firewall software programs. Data storage and retrieval should also conform with any privacy clauses and regulations for auditing purposes.

5. **Information technology (IT).** The use of computer technology to systematize the recording, storage and use of data is especially useful for projects/programmes with considerable volumes of data, or as part of a larger programme for which data needs to be collected and analysed from multiple smaller projects/programmes. Some examples of IT for data management in M&E include:
   - Handheld personal digital assistants (PDAs) to record survey findings
   - Excel spreadsheets for storing, organizing and analysing data
   - Microsoft Access to create user-friendly databases to enter and analyse data

Control version chaos

When archiving documents, it is good practice to save the document with an identifying name and date. For example, rather than an ambiguous, unclear "Final evaluation.doc", it is more effective to title it "IFRC Haiti WatSan final evaluation 20May2010.doc." Sure, it may take a bit more time to write, but it can save much time and effort in the long run.

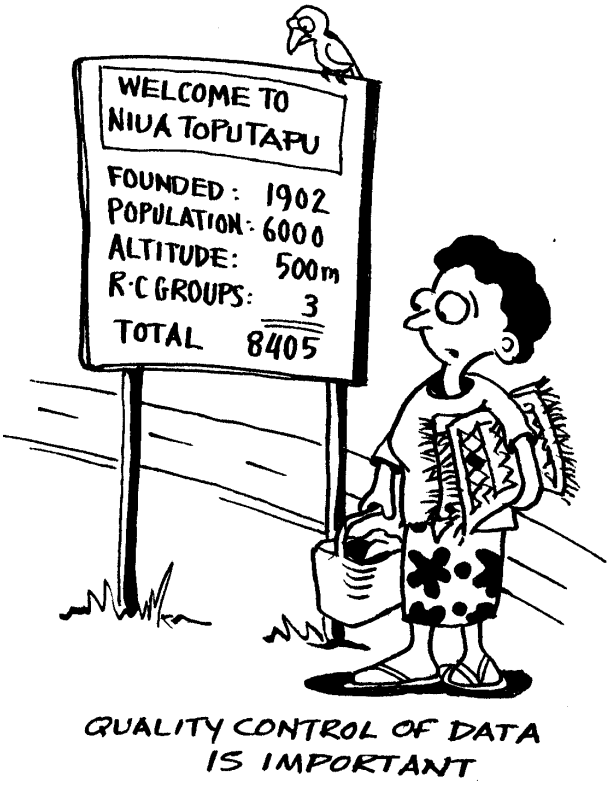
- Sharepoint, a web-based intranet to store, share and discuss M&E data
- An integrated planning management system with an internet platform for inputting, organizing, analysing and sharing information.

IT can help to reorganize and combine data from various sources, highlighting patterns and trends for analysis and to guide decision-making. It is also very effective for data and information sharing with multiple stakeholders in different locations. However, the use of IT should be balanced with the associated costs for the computers and software, resources to maintain and safeguard the system, and the capacity among intended users.

6. **Data quality control.** It is important to identify procedures for checking and cleaning data, and how to treat missing data. In data management, unreliable data can result from poor typing of data, duplication of data entries, inconsistent data, and accidental deletion and loss of data. These problems are particularly common with quantitative data collection for statistical analysis (also discussed in Section 1.9).

   Another important aspect of data quality is ***version control***. This is how documents can be tracked for changes over time. Naming a document as "final" does not help if it gets revised afterwards. Versions (e.g. 1.0, 1, 2.0, 2.1, etc.) can help, but it is also recommended to use dates as well.

7. **Responsibility and accountability of data management.** It is important to identify the individuals or team responsible for developing and/or maintaining the data management system, assisting team members in its use and enforcing any policies and regulations. Also, for confidential data, it is important to identify who authorizes the release/access of this data.



2.2.11 Use an indicator tracking table (ITT)

An ITT is an important data management tool for recording and monitoring indicator performance to inform project/programme implementation and management. It differs from an M&E plan because while the M&E plan prepares the project/programme for data collection on the indicators, the ITT is where the ongoing measurement of the indicators is recorded. The project/programme management report (discussed in Step 4, Section 2.4) then explains the performance of the indicators reflected in the ITT.

Annex 16 provides the **ITT template adopted by IFRC, with specific instructions and examples.**[24] Note that the ITT has been formatted on a quarterly reporting basis; however, for shorter projects/programmes, it can be reformatted to a monthly basis.

The ITT has three primary sections:

1. **Project/programme background information,** such as name, location, dates, etc.
2. **Overall project/programme indicators** are indicators that may not specifically be in the project/programme's logframe but are important to report for strategic management and as part of the Federation-Wide Reporting System (FWRS).[25]

24 *ITTs can be prepared in Microsoft Excel or another spreadsheet program.*

25 *The Federation-Wide Reporting System (FWRS) is a mechanism for monitoring and reporting on key data from National Societies and the secretariat on a regular basis. Data for the FWRS is based on seven key proxy indicators, complemented by ongoing reports prepared and assessments conducted by the IFRC. The seven proxy indicators are: 1) number of people volunteering time, 2) number of paid staff, 3) number of people donating blood, 4) number of local units (i.e. chapters, branches), 5) number of people reached, 6) number of total income received, and 7) number of total expenditure. Detailed indicator definitions and guidance are provided in the FWRS indicator guidelines. For further information, see https://fednet.ifrc.org/sw194270.asp.*

3. **Logframe indicators** are aligned with their respective objectives from the logframe, and are the greater part of the ITT. **Table 5** (below) illustrates a section (one calendar quarter) of the ITT for logframe indicators.

TABLE 5: Example of indicator tracking table – for one quarter only*

Indicator	Project baseline		Life of project target	Life of project to date	% of annual target to date	Annual project target	Year to date	% of annual target to date	Q1 reporting period		
	Date	Value							Target	Actual	% target
1a: Number of participating communities conducting a vulnerability and capacity assessment (VCA) quarterly.	May 2011	0	50	5	25%	20	5	25%	10	5	50%

** This is an example section from the indicator tracking table – go to Annex 16 for a more complete template and instructions on using it.*

An important function of the ITT is that it helps to determine ***variance***, a key measure of indicator performance. ***Variance is the difference between identified targets and actual results – the percentage of target reached.*** For instance, in the example above, ten communities were targeted to conduct a VCA during the first reporting quarter. However, the ***actual*** communities conducting a VCA were only five. Therefore, the percentage of target, ***variance***, was 50 per cent.

Paying attention to variance encourages critical analysis of and reporting on project/programme performance. It also entails setting targets, a good practice in programme management (see **Box 15**). Knowing whether your indicator exceeds or underperforms its target helps to determine if your project/programme is progressing according to plans, or whether there may need to be adjustments to the implementation or time frame. ***Generally, a good rule of thumb is that variance greater than 10 per cent should be explained in project/programme reports.***

In our example above, the variance of 50 per cent is well above the 10 per cent rule and therefore needs an explanation in the project/programme report – which can prove useful for future programming. For instance, the explanation may be that low community participation in the VCAs was because they were planned in these communities at times that coincided with a religious holiday (e.g. Ramadan), or that the regional monsoon season limited travel to participate in the VCA exercise. Such information provides valuable lessons for community participation in the ongoing project/programme or future ones.

BOX 15: The importance of target setting

Target setting is a critical part of M&E planning and responsible project/programme management. In order to determine variance (the percentage of target reached), it is necessary to not only measure the indicator but identify beforehand a target for that indicator. Project/programme teams may hesitate to set targets, afraid that they may not accomplish them, or sometimes it is just difficult to predict targets. However, target setting helps to keep the project/programme's expected results realistic, to plan resources, track and report progress (variance) against these targets, and to inform decision-making and uphold accountability.

Do targets change? Absolutely. Data collected during project/programme M&E often leads to reassessing and adjusting targets accordingly. Certainly, such changes should follow any proper procedures and approval.

2.2.12 Use a risk log (table)

While the ITT tracks planned indicator performance, ***it is also important to track any risks that threaten project/programme implementation.*** Such risks can include those identified and expressed as assumptions in the project/programme logframe,[26] as well as any unexpected risks that may arise.

Annex 17 provides an example of a **risk log** (table) to record and rate risks, as well as how they will be handled. Risks can also be tracked in a regular project/programme management report – discussed in Section 2.4 and illustrated in Annex 19. When monitoring a risk, in addition to the risk itself, it is important to identify the date it was first reported, rate its potential impact and likelihood (e.g. high, medium or low), explain the recommended action to be taken and by whom, and note when the risk is "closed" (no longer a risk).

26 *Remember, an assumption in a logframe describes a risk as a positive statement of the conditions that need to be met if the project/programme is to achieve its objectives.*

2.3 STEP 3 – Plan for data analysis

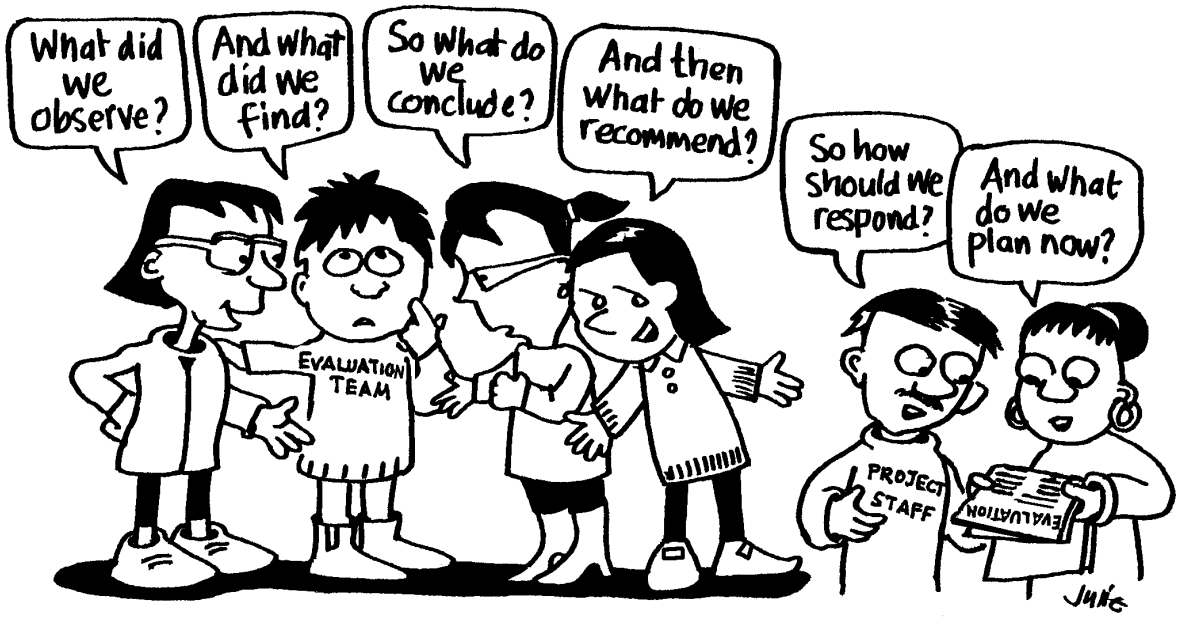
What you will find in Step 3:

2.3.1 Develop a data analysis plan, identifying the:
- A. *Purpose of data analysis*
- B. *Frequency of data analysis*
- C. *Responsibility for data analysis*
- D. *Process for data analysis.*

2.3.2 Follow the key data analysis stages:
1) *Data preparation*
2) *Data analysis (findings and conclusions)*
3) *Data validation*
4) *Data presentation*
5) *Recommendations and action planning.*

Data analysis is the process of converting collected (raw) data into usable information. This is a critical step of the M&E planning process because it shapes the information that is reported and its potential use. It is really a continuous process throughout the project/programme cycle to make sense of gathered data to inform ongoing and future programming. Such analysis can occur when data is initially collected, and certainly when data is explained in data reporting (discussed in the next step).

Data analysis involves looking for trends, clusters or other relationships between different types of data, assessing performance against plans and targets, forming conclusions, anticipating problems and identifying solutions and best practices for decision-making and organizational learning. Reliable and timely analysis is essential for data credibility and utilization.



2.3.1 Develop a data analysis plan

There should be a clear plan for data analysis. It should account for the time frame, methods, relevant tools/templates, people responsible for, and purpose of the data analysis. A data analysis plan may take the form of a separate, detailed written document, or it can be included as part of the overall project/programme management and M&E system – for instance, it can be captured in the M&E plan (see Section 2.2.1). In whatever way it is stated, ***the following summarizes key considerations when planning for data analysis.***

A. Purpose of data analysis

What and how data is analysed is largely determined by the project/programme objectives and indicators and ultimately the audience and their information needs (see Section 2.1.1). Therefore, data analysis should be appropriate to the objectives that are being analysed, as set out in the project/programme logframe and M&E plan. For example:

- ***Analysis of output indicators*** is typically used for project/programme monitoring to determine whether activities are occurring according to schedule and budget. Therefore, analysis should occur on a regular basis (e.g. weekly, monthly and quarterly) to identify any variances or deviations from targets. This will allow project/programme managers to look for alternative solutions, address any delays or challenges, reallocate resources, etc.
- ***Analysis of outcome indicators*** is typically used to determine intermediate and long-term impacts or changes – e.g. in people's knowledge, attitudes and practices (behaviours). For instance, an outcome indicator, such as HIV prevalence, will require more complicated analysis than an output indicator such as the number of condoms distributed. Outcome indicators are usually measured and analysed less frequently. When analysing this data, it is important to bear in mind that it is typically used for a wider audience, including project/programme managers, senior managers, donors, partners and people reached.

B. Frequency of data analysis

Data analysis has to be given sufficient time. The time frame for data analysis and reporting should be realistic for its intended use (discussed above). Accurate information is of little value if it is too late or infrequent to inform project/programme management; a compromise between speed, frequency and accuracy may be necessary. An important reminder is to avoid allocating excessive time for data collection (which can lead to data overload), while leaving insufficient time for analysis.

The frequency of data analysis will largely depend on the frequency of data collection and the informational needs of users – typically reflected by the reporting schedule (discussed in Step 4, Section 2.4). A schedule for data analysis can coincide with key reporting events, or be done separately according to project/programme needs. Whenever data analysis is scheduled, it is important to remember that it is not an isolated event at the end of data collection, but is ongoing from project/programme start and during ongoing monitoring and then evaluation events.

Avoid over-analysis

Over-analysing data can be costly and may complicate decision-making. Therefore, do not waste time and resources analysing unimportant points. Instead, focus on what is necessary and sufficient to inform project/programme management. Therefore, it is useful to refer to project/programme objectives and indicators from the logframe to guide relevant analysis and specific lessons, recommendations and action points that have been identified and reported.

C. Responsibility for data analysis

Roles and responsibilities for data analysis will depend on the type and timing of analysis. Analysis of monitoring data can be undertaken by those who collect the data, e.g. field monitoring officers or other project/programme staff. Ideally there would also be an opportunity to discuss and analyse data in a wider

forum, including other project/programme staff and management, partner organizations, beneficiaries and other stakeholders.

For evaluation data, analysis will depend on the purpose and type of evaluation. For instance, if it is an independent, accountability-focused evaluation required by donors, analysis may be led by external consultants. If it is an internal, learning-oriented evaluation, the analysis will be undertaken by the IFRC's implementing project/programme or organization(s). However, whenever possible, it is advisable to involve multiple stakeholders in data analysis – refer to **Box 16** below. Evaluations may also use independent consultants to initially analyse statistical data, which is then discussed and analysed in a wider forum of stakeholders.

BOX 16: Benefits of involving multiple stakeholders in data analysis

Data analysis is not something that happens behind closed doors among statisticians, nor should it be done by one person, e.g. the project/programme manager, the night before a reporting deadline. Much data analysis does not require complicated techniques and when multiple perspectives are included, greater participation can help cross-check data accuracy and improve critical reflection, learning and utilization of information. A problem, or solution, can look different from the perspective of a headquarters' office versus project/programme staff in the field versus community members. Stakeholder involvement in analysis at all levels helps ensure M&E will be accepted and regarded as credible. It can also help build ownership for the follow-up and utilization of findings, conclusions and recommendations.

D. Process for data analysis

Data analysis can employ a variety of forums tailored to the project/programme needs and context, including meetings, e-mail correspondence, dialogue through internet platforms (e.g. Sharepoint) and conference calls. As **Box 16** highlights above, it is best to try to involve as many stakeholders as practical in such forums, which may require multiple sessions. However it occurs, ***it is important that data analysis is structured and planned for and not conducted as an afterthought or simply to meet a reporting deadline.***

Another important consideration is the need for any specialized equipment (e.g. calculators or computers) or software (e.g. Excel, SPSS, Access, Visio) for data analysis. Also, if the project/programme team is to be involved in any data entry or analysis that requires specific technical skills, determine whether such experience exists among the staff or if training is necessary. These factors can then be itemized for the M&E budget and human resource development (Steps 5 and 6, discussed later).

2.3.2 Follow the key data analysis stages

There is no one recipe for data analysis, but five key stages can be identified: 1) Data preparation; 2) Data analysis; 3) Data presentation; 4) Data verification; and 5) Recommendations and action planning. The remainder of this section discusses these five stages. One common consideration throughout all stages of data analysis is to identify any limitations, biases and threats to the accuracy of the data and its analysis. Data distortion can occur due to limitations or errors in design, sampling, field interviews and data recording and analysis (see Section 1.9). Therefore, it is best to monitor the research process carefully and seek expert advice when needed.

1. Data preparation

Data preparation, often called data "reduction" or "organization", involves getting the data into a more usable form for analysis. Data should be prepared according to its intended use, usually informed by the logframe's indicators. Typically, this involves cleaning, editing, coding and organizing "raw" quantitative and qualitative data (see Section 2.2.3), as well as cross-checking the data for accuracy and consistency.[27]

As quantitative data is numerical, it will need to be prepared for statistical analysis. It is also at this stage that quantitative data is checked, "cleaned" and corrected for analysis. A number of tools and guidelines are available to assist with data processing, and are best planned for with technical expertise. The United Nations' World Food Programme has identified six useful steps for preparing quantitative data for analysis:[28]

1. Nominating a person and setting a procedure to ensure the quality of data entry
2. Entering numerical variables in spreadsheet or database
3. Entering continuous variable data on spreadsheets
4. Coding and labelling variables
5. Dealing with missing values
6. Data cleaning methods.

For qualitative data (descriptive text, questionnaire responses, pictures, maps, videos, etc.), it is important to first identify and summarize key points. This may involve circling important text, summarizing long descriptions into main ideas (writing summaries in the paper's margin), or highlighting critical statements, pictures or other visuals. Key points can then be coded and organized into categories and subcategories that represent observed trends for further analysis.

A final point worth noting is that data organization can actually begin during the data collection phase (see Box 14, Section 2.2.10). ***The format by which data is recorded and reported can play an important role in organizing data and reinforcing critical analysis.*** For example, an indicator tracking table (ITT) can be designed to report not only the actual indicator performance but also its planned target and the percentage of target achieved (see Box 15, Section 2.2.11). This reinforces critical reflection on variance (the difference between identified targets and actual results). For narrative reporting formats, sections can be structured highlighting priority areas that encourage critical analysis – such as best practices, challenges and constraints, lessons, future action, etc. (see the discussion on the IFRC's project/programme management report template in Section 2.4.1).

2. Data analysis (findings and conclusions)

Data analysis can be descriptive or interpretive. Descriptive analysis involves describing key findings – conditions, states and circumstances uncovered from the data – while interpretive analysis helps to provide meaning, explanation or causal relationship from the findings. ***Descriptive analysis focuses on what happened, while interpretive analysis seeks to explain why it occurred – what might be the cause(s).*** Both are interrelated and useful in information reporting as descriptive analysis informs interpretive analysis. **Box 17** (page 52) illustrates key questions to guide descriptive analysis, with data interpretation questions highlighted in italic red.

27 *Data cleaning is the process by which data is cleaned and corrected for analysis. A number of tools and guidelines are available to assist with data processing, and are best planned for with technical expertise.*

28 *For a detailed discussion of these and other data analysis considerations, refer to UN-WFP, 2011, "How to consolidate, process and analyse qualitative and quantitative data," in Monitoring & Evaluation Guidelines (Annex 2, M&E Resources).*

BOX 17: Data analysis questions to help describe the data

- Are there any emerging trends/clusters in the data? *If so, why?*
- Are there any similarities in trends from different sets of data? *If so, why?*
- Is the information showing us what we expected to see (the logframe's intended results)? If not, why not? *Is there anything surprising and if so, why?*
- In monitoring progress against plans, is there any variance to objective targets? *If so, why? How can this be rectified or do plans need to be updated?*
- Are any changes in assumptions/risks being monitored and identified? If so, why? *Does the project/programme need to adapt to these?*
- Is it sufficient to know the prevalence of a specific condition among a target population (descriptive statistics), or *should generalizations from a sample group be made about the larger population (inferential statistics)?*
- Is any additional information or analysis required to help clarify an issue?

It is important when describing data to focus on the objective findings, rather than interpreting it with opinion or conclusion. However, it is also important to acknowledge that how the data is described, e.g. what comparisons or statistical analysis are selected to describe the data, will inevitably have its implied assumptions and affect its interpretation. Therefore, ***it is best to acknowledge any assumptions (hypotheses/limitations) as best as possible during the analysis process.***

It is also important when analysing data to ***relate analysis to the project/programme's objectives and respective indicators.*** At the same time, ***analysis should be flexible and examine other trends, whether intended or not.*** Some common types of analysis include the following comparisons:

- **Planned versus actual (temporal) comparison:** As discussed in Section 2.2.11, ***variance*** is the difference between identified targets and actual results, such as data organized to compare the number of people (households) targeted in a disaster preparedness programme, versus how many were actually reached. When doing such analysis it is important to explain **why** any variance occurred.
- **Demographic comparison,** such as data separated by gender, age or ethnicity to compare the delivery of services to specific vulnerable groups, e.g. in a poverty-lessening/livelihoods project.
- **Geographical comparison,** such as data described by neighbourhood, or urban versus rural, e.g. to compare food delivery during an emergency operation. This is particularly important if certain areas have been more affected than others.
- **Thematic comparison,** such as data described by donor-driven versus owner-driven housing interventions to compare approaches for a shelter reconstruction programme.

In data description, it is often helpful to use summary tables/matrices, graphs, diagrams and other visual aids to help organize and describe key trends/findings – this can also be used later for data presentation. While this will require different types of analysis for quantitative versus qualitative data, it is important to take into consideration both quantitative and qualitative data together. Relating and comparing both data types helps to best summarize findings and interpret what is being studied, rather than using separate sets of data.

As quantitative data is numerical, its description and analysis involves statistical techniques. Therefore, it is useful to briefly discuss the use of statistics in data analysis.[29] Simple statistical analysis (such as percentages) can be done using a calculator, while more complex statistical analysis, such as survey data, can be carried out using Excel or statistical software such as SPSS (Statistical Package for Social Sciences) – often it may be advisable to seek expert statistical advice.

A basic distinction to understand in statistics is the difference between descriptive and inferential statistics:

- ***Descriptive statistics:*** Descriptive statistics are used to summarize a single set of numerical results or scores (e.g. test result patterns) or a sample group; this method helps to set the context. As the name implies, these statistics are descriptive and include total numbers, frequency, averages, proportions and distribution. Two other descriptive concepts important to understand are prevalence and incidence. Prevalence shows how many people have a specific condition (e.g. percentage prevalence of HIV/AIDS) or demonstrate a certain behaviour at a specific point in time. Incidence can show how many new cases of people with this illness occur in a given period of time (e.g. rate of occurrence of a disease in a population).
- ***Inferential statistics:*** Inferential statistics are more complicated, but allow for generalizations (inferences) to be made about the larger population from a sample. Two main catgories of inferential statics are: 1) examining differences between groups (e.g. differences in outcome indicators between groups that participated in the same project/programme activities and control groups outside the project/programme area); 2) examining relationships between variables, such as cause and effect relationships (e.g. differences in the number of people with changes in sanitation practices after receiving sanitation messaging).

29 *It is beyond the scope of this guide to provide detailed statistical guidelines, but there are numerous resources available, some of which are listed in Annex 2, M&E Resources.*

An important part of inferential analysis is establishing the representativeness of the sample population from which generalizations (conclusions) are based (see Section 2.2.5). Random sampling is often used with quantitative data to allow for more precise statistical analysis and generalizations than purposeful sampling. Surveys are a common method used with random sampling – see Section 2.2.6. ***However, even with the statistical precision of quantitative data, conclusions such as causality and attribution may be limited.***

For instance, when comparing baseline conditions prior to the intervention of a livelihoods project with those measured three years later during a final evaluation, can you be sure that the measured change in living standards is due to the project or some other intervening factors (variable), such as an unforeseen natural disaster, outbreak of disease or global economic recession? Similar challenges emerge also with the use of comparison groups – comparing conditions of populations that have received services with those that have not. Such challenges contribute to make the measurement of impact a difficult and widely debated effort among evaluators (see Box 3, Section 1.5).

Triangulation is an important practice to help strengthen conclusions made during the data interpretation stage (see Section 2.2.4). Data collected should be validated by different sources and/or methods before being deemed a "fact". These separate facts do not in themselves add much value in project planning or decision-making unless put in context and assessed relative to each other and the project objectives. Interpretation is the process of extracting and presenting meaning for these separate facts.

3. Data validation

It is important at this point to determine if and how subsequent analysis will occur. This may be necessary to verify findings, especially with high-profile or controversial findings and conclusions. This may involve identifying additional primary and/or secondary sources to further triangulate analysis, or comparisons can be made with other related research studies. For instance, there may need to be some additional interviews or focus group discussions to further clarify (validate) a particular finding. Subsequent research can also be used in follow-up to identified research topics emerging from analysis for project/programme extension, additional funding or to inform the larger development community.

4. Data presentation

Data presentation seeks to effectively present data so that it highlights key findings and conclusions. A useful question to answer when presenting data is, "so what?". What does all this data mean or tell us – why is it important? Try to narrow down your answer to the key conclusions that explain the story the data presents and why it is significant. Some other key reminders in data presentation include:

- Make sure that the analysis or finding you are trying to highlight is sufficiently demonstrated.
- Ensure that data presentation is as clear and simple as accuracy allows for users to easily understand.
- Keep your audience in mind, so that data presentation can be tailored to the appropriate level/format (e.g. summary form, verbal or written).
- Avoid using excessively technical jargon or detail.

There are numerous examples/formats of how data can be presented. Some examples include written descriptions (narratives), matrices/tables, graphs (e.g. illustrating trends), calendars (e.g. representing seasonal performance), pie and bar charts (e.g. illustrating distribution or ranking, such as from a proportional

piling exercise); mapping (e.g. wealth, hazard, mobility, social, resource, risk, network, influence and relationships); asset wheels (a variation of pie charts representing allocation of assets); Venn diagrams (usually made up of circular areas intersecting where they have elements in common); timelines/histories; and causal flow diagrams. Whatever format is used, be sure that what you are trying to show is highlighted clearly.

Box 18 describes the use of a "traffic light" approach to highlight data and performance levels.

BOX 18: Using traffic lights to highlight data

One way to highlight key data in its presentation is through a "traffic light" approach that rates data by either: 1) green for on track against target, 2) orange/amber for slightly off track but likely to meet target, and 3) red for off target and unlikely to meet target. As shown below, information can be highlighted in the indicator tracking table (Section 2.2.11) so it can be easily identified and explained in the project/programme management report (discussed in Section 2.4.1). This can be a useful method in reporting and has been adopted by some international donors (e.g. Department for International Development - DfID).

Examples indicators	Target	Actual	% of target	Explanation of variance discussed in project/ programme management report.
Number of project/ programme beneficiaries	2000	2100	**5%**	
Number of bed nets distributed	100	0	**-100%**	Delivery of bed nets hindered due to road access in rainy season. Lesson learned – distribute before rainy season.
Number of people trained to maintain bed nets	500	400	**-20%**	Absence of some trainees due harvesting season. Lesson learned – undertake training earlier in year.

5. Recommendations and action planning

Recommendations and action planning are where data is put to use as evidence or justification for proposed actions. It is closely interrelated with the utilization of reported information (discussed in Step 4, Section 2.4), but it is presented here because the process of identifying recommendations usually coincides with analysing findings and conclusions.

It is important that there is a clear causality or rationale for the proposed actions, linking evidence to recommendations. It is also important to ensure that recommendations are specific, which will help in data reporting and utilization (discussed below). Therefore, it is useful to express recommendations as specific action points that uphold the SMART criteria (specific, measurable, achievable, relevant and time-bound) and are targeted to the specific stakeholders who will take them forward. It is also useful to appoint one stakeholder who will follow up with all others to ensure that actions have been taken.

An essential condition for well-formulated recommendations and action planning is to have a clear understanding and use of them in relation to other data analysis outputs, findings and conclusions. Therefore, **Table 6** provides a summary differentiating these key learning outputs.

TABLE 6: Comparing data analysis terms: findings, conclusions, recommendation and actions

Term	Definition	Examples
Finding	A factual statement based on primary and secondary data	→ Community members reported daily income is below 1 US dollar per day → Participants in community focus group discussions expressed that they want jobs
Conclusion	A synthesized (combined) interpretation of findings	→ Community members are materially poor due to lack of income-generating opportunities
Recommendation	A prescription based on conclusions	→ Introduce micro-finance and micro-enterprise opportunities for community members to start up culturally appropriate and economically viable income-generating business
Action	A specific prescription of action to address a recommendation	→ By December 2011, form six pilot solidarity groups to identify potential micro-enterprise ideas and loan recipients → By January 2011, conduct a market study to determine the economic viability of potential micro-enterprise options → Etc.

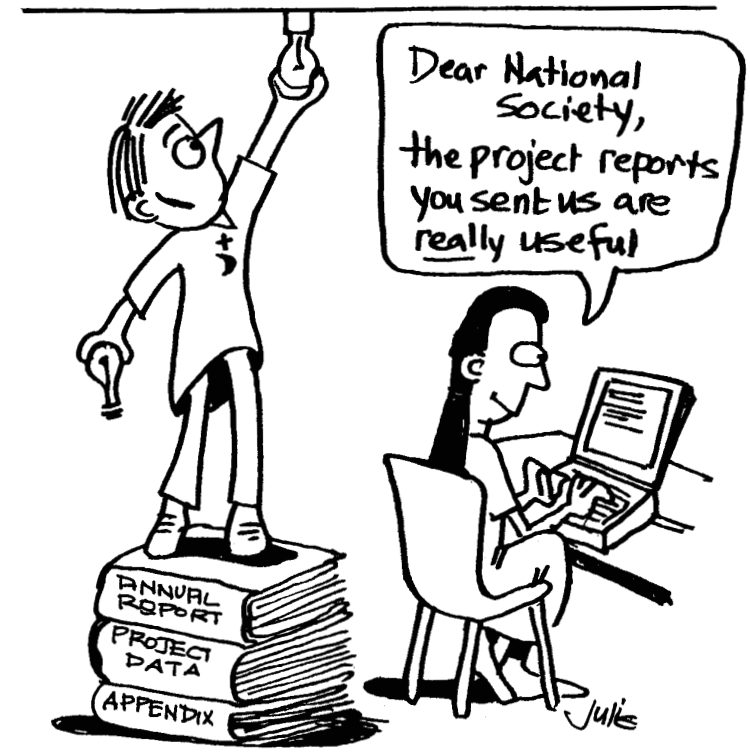
2.4 STEP 4 – Plan for information reporting and utilization

What you will find in Step 4:

2.4.1 Anticipate and plan for reporting:
- A. *Needs/audience*
- B. *Frequency*
- C. *Formats*
- D. *People responsible.*

2.4.2 Plan for information utilization:
- A. *Information dissemination*
- B. *Decision-making and planning.*

Having defined the project/programme's informational needs and how data will be collected, managed and analysed, the next step is to plan how the data will be reported as information and put to good use. ***Reporting is the most visible part of the M&E system, where collected and analysed data is presented as information for key stakeholders to use.*** Reporting is a critical part of M&E because ***no matter how well data may be collected and analysed, if it is not well presented it cannot be well used – which can be a considerable waste of valuable time, resources and personnel.*** Sadly, there are numerous examples where valuable data has proved valueless because it has been poorly reported on.



2.4.1 Anticipate and plan for reporting

Reporting can be costly in both time and resources and should not become an end in itself, but serve a well-planned purpose. Therefore, it is critical to anticipate and carefully plan for reporting. **Box 19** summarizes key reporting criteria to help ensure its usability.

BOX 19: Criteria of good reporting

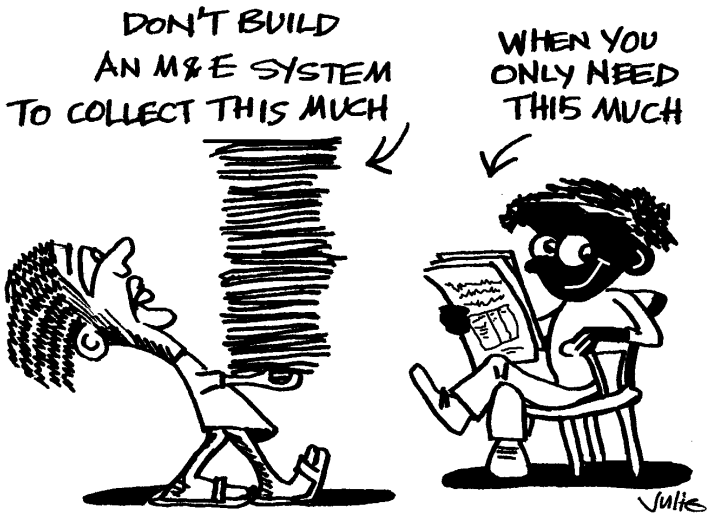
- **Relevant and useful.** Reporting should serve a specific purpose/use. Avoid excessive, unnecessary reporting – information overload is costly and can burden information flow and the potential of using other more relevant information.
- **Timely.** Reporting should be timely for its intended use. Information is of little value if it is too late or infrequent for its intended purpose.
- **Complete.** Reporting should provide a sufficient amount of information for its intended use. It is especially important that reporting content includes any specific reporting requirements.
- **Reliable.** Reporting should provide an accurate representation of the facts.
- **Simple and user-friendly.** Reporting should be appropriate for its intended audience. The language and reporting format used should be clear, concise and easy to understand.
- **Consistent.** Reporting should adopt units and formats that allow comparison over time, enabling progress to be tracked against indicators, targets and other agreed-upon milestones.
- **Cost-effective.** Reporting should warrant the time and resources devoted to it, balanced against its relevance and use (above).

A valuable tool when planning for reporting is a reporting schedule, matching each reporting requirement with its frequency, audience/purpose, format/outlet and person(s) responsible. **Annex 18** provides an example **reporting schedule template.** The remainder of this section will discuss key aspects of reporting summarized in this schedule.

A. Identify the specific reporting needs/audience

Reports should be prepared for a specific purpose/audience. This informs the appropriate content, format and timing for the report. For example, do users need information for ongoing project/programme implementation, strategic planning, compliance with donor requirements, evaluation of impact and/or organizational learning for future project/programmes?

As already noted, ***it is best to identify reporting and other informational needs early in the M&E planning process,*** especially any reporting requirements (see Step 1, Section 2.1). Therefore, a completed M&E stakeholder assessment table (Annex 6) is a valuable tool for report planning, as well as the "informational use/audience" column in the M&E plan table (Annex 8).



A particularly important consideration in planning for reporting is the distinction between internal and external reporting (see **Box 20** on page 60). ***Internal reporting*** is conducted to enable actual project/programme implementation; it plays a more crucial role in lesson learning to facilitate decision-making – and, ultimately, what can be extracted and reported externally. ***External reporting*** is conducted to inform stakeholders outside the project/programme team and implementing organization; this is important for accountability.

Day-to-day operations depend upon a regular and reliable flow of information. Therefore, special attention should be given to the informational needs of the project/programme managers. They will need timely information to analyse project/programme progress and critical issues, make planning decisions and prepare progress reports for multiple audiences, e.g. superiors and donors. In turn, project-level reports provide essential information for programme managers and country directors to compare planned actions with actual performance and budget.

Warning

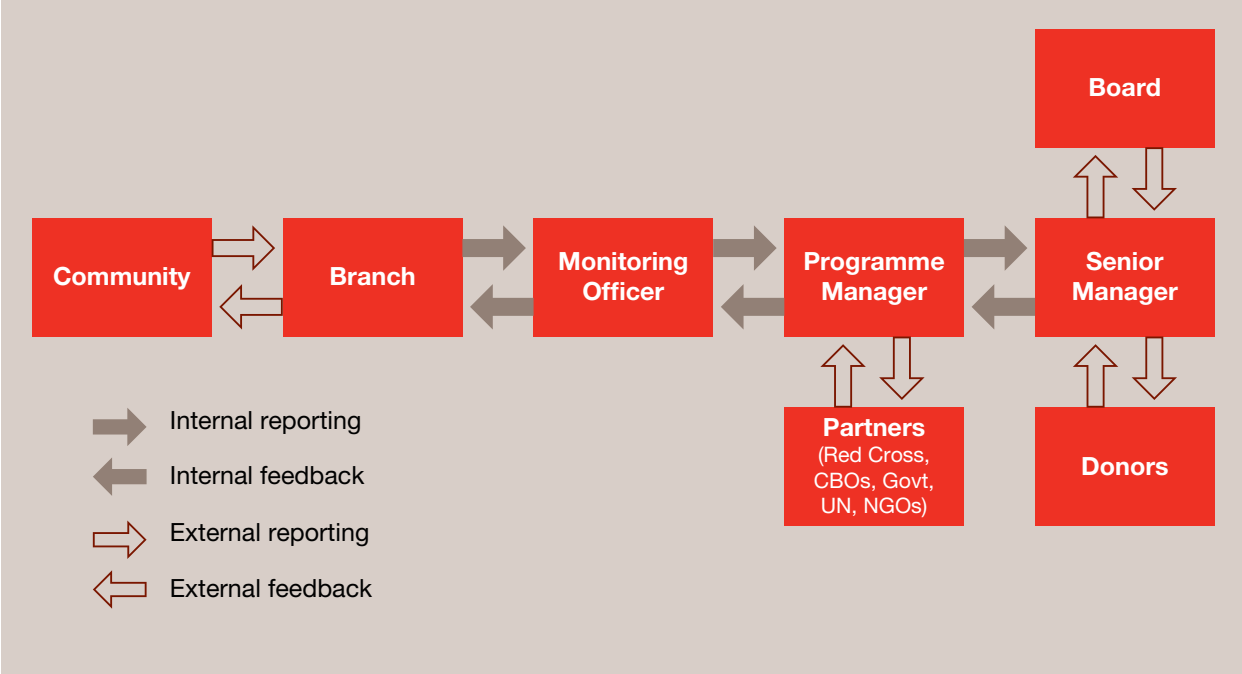
Reporting should limit itself only to what is necessary and sufficient for its intended purpose. The decisions made about what to report on will have an "exponential" effect that can increase the workload on the whole M&E system and the overall project/programme capacity because it determines time, people and resources needed to collect, manage and analyse data for reporting. Information overload strains the project/programme team's capacity and can actually burden the flow (effectiveness) of information. This distracts not only resources but also attention away from the more relevant and useful information. Extra information is more often a burden than a luxury.

BOX 20: Internal versus external reporting

Internal reporting	External reporting
• ***Primary audience*** is the project/programme team and the organization in which it operates. • ***Primary purpose*** is to inform ongoing project management and decision-making (monitoring reporting). • ***Frequency*** is on a regular basis according to project monitoring needs. • ***Content*** is comprehensive in content, providing information that can be extracted for various external reporting needs. • ***Format*** is typically determined by the project team according to what will best serve the project/programme needs and its organizational culture.	• ***Primary audience*** is stakeholders outside of the immediate team/organization (e.g. donors, beneficiaries, partner organizations, international bodies, and governments). • ***Primary purpose*** is typically for accountability, credibility, to solicit funds, celebrate accomplishments and highlight any challenges and how they are being addressed. • ***Frequency*** is less often in the form of periodic assessments (evaluations). • ***Content*** is concise, typically abstracted from internal reports and focused on communication points (requirements) specific to the targeted audience. • ***Format*** is often determined by external requirements or preferences of intended audience.

Diagram 4 (page 61) provides an example of programme reporting that can be useful in understanding the flow of information to key stakeholders. The blue arrows show which reporting lines are internal to the project/programme team (branch, monitoring officer, manager, senior management), while the red arrows represent reporting to stakeholders outside the project/programme team (community, partners, donors, Board of Directors).

DIAGRAM 4: An example of information flows in project/programme reporting



B. Determine the reporting frequency

It is critical to identify realistic reporting deadlines. They should be feasible in relation to the time, resources and capacity necessary to produce and distribute reports including data collection, analysis and feedback. Some key points to keep in mind in planning the reporting frequency:

1. ***Reporting frequency should be based upon the informational needs of the intended audience,*** timed so that it can inform key project/programme planning, decision-making and accountability events.
2. ***Reporting frequency will also be influenced by the complexity and cost of data collection.*** For instance, it is much easier and affordable to report on a process indicator for the number of workshop participants than an outcome indicator that measures behavioural change in a random sample, household survey (which entails more time and resources).
3. ***Data may be collected regularly, but not everything needs to be reported to everyone all the time.*** For example:
   - A security officer might want monitoring situational reports on a ***daily*** basis in a conflict setting
   - A field officer may need ***weekly*** reports on process indicators around activities to monitor project/programme implementation
   - A project/programme manager may want ***monthly*** reports on outputs/services delivered to check if they are on track
   - Project/programme management may want ***quarterly*** reports on outcome indicators of longer-term change
   - An evaluation team may want baseline and endline reports on impact indicators during the ***project start*** and ***end***.

C. Determine specific reporting formats

Once the reporting audience (who), purpose (why) and timing (when) have been identified, it is then important to determine the key reporting formats that are most appropriate for the intended user(s). This can vary from written documents to video presentations posted on the internet. Sometimes the reporting format must adhere to strict requirements, while at other times there can be more flexibility.

Resources

Refer to the IFRC's programme/sector areas section in Annex 2 for resources specific to technical focus.

The IFRC has defined reporting templates for many technical areas, as well as for many donor reports and communications, with related links to the donor reporting web pages. **Box 21** summarizes different types of reports (and formats) that may be used for reporting, and below we specifically discuss a recommended IFRC format for a project/programme management report.

BOX 21: Example reporting formats

- *Project management reports* (Annex 19)
- *Evaluation reports*
- *Programme updates, mid-year and annual reports*
- *Operational updates*
- *Donor-specific reports (e.g. ECHO)*
- *Situation reports, e.g. FACT reports, information bulletin, security updates, etc.*
- *Activity/event reports*
- *Memos*
- *Pictures/videos*
- *Brochure, pamphlets, handouts, posters*
- *Newsletters, bulletins*
- *Professional performance reports (of an individual staff member or volunteer, etc.)*
- *Press releases*
- *Public presentations – conferences or community meetings*
- *Success stories, case studies*
- *Popular publications, e.g. magazine, newspaper, or web site*
- *Scientific publications in a referred article, paper or book*

It is important that report formats and content are appropriate for their intended users. How information is presented during the reporting stage can play a key role in how well it is understood and put to use. For example, reports with graphs and charts may work well with project/programme management, participatory discussion meetings with field staff, community (visual) mapping for beneficiaries and a glossy report or web site for donors. Reporting should be translated in the appropriate language and in a culturally appropriate format (e.g. summary form, verbal or written). Building on the criteria of good reporting introduced at the beginning of this section (**Box 19**, see 2.4.1), **Box 22** summarizes some practical tips to help make your written reports more effective.

BOX 22: Report writing tips

- ➔ *Be timely – this means planning the report-writing beforehand and allowing sufficient time.*
- ➔ *Involve others in the writing process, but ensure one focal person is ultimately responsible.*
- ➔ *Translate reports to the appropriate language.*
- ➔ *Use an executive summary or project overview to summarize the overall project status and highlight any key issues/actions to be addressed.*
- ➔ *Devote a section in the report to identify specific actions to be taken in response to the report findings and recommendations and the respective people responsible and time frame.*
- ➔ *Be clear, concise, avoiding long sentences – avoid jargon, excessive statistics and technical terms.*
- ➔ *Use formatting, such as* ***bold*** *or* <u>underline</u>*, to highlight key points.*
- ➔ *Use graphics, photos, quotations and examples to highlight or explain information.*
- ➔ *Be accurate, balanced and impartial.*
- ➔ *Use logical sections to structure and organize the report.*
- ➔ *Avoid unnecessary information and words.*
- ➔ *Adhere to any IFRC/corporate formats, writing usage/style guidelines and appropriate use of the IFRC's emblem.*
- ➔ *Check spelling and grammar.*

The project/programme management report

Particular attention should be given the project/programme management report because it typically forms the basis for internal information that will, in turn, provide information for external reporting. Other reporting formats may occur more frequently, e.g. for specific activities, or less frequently, such as evaluation reports, but the project/programme management report is usually the primary reporting mechanism for compiling information from various reports for project/programme management and providing information for other reports for accountability.

Project/programme management reports should be undertaken at a frequency regular enough to monitor project/programme progress and identify any challenges or delays with sufficient time to adequately respond. Most organizations undertake management reporting on a monthly or quarterly basis; there are pros and cons to both.

Monthly reporting allows for a more regular overview of activities which can be useful, particularly in a fast-changing context, such as during an emergency operation. However, more frequent data collection and analysis can be challenging if monitoring resources are limited. Quarterly reports allow for more time between reports, with less focus on activities and more on change in the form of outputs and even outcomes.

Box 23 summarizes the key components of the recommended **IFRC project/programme management report,** while **Annex 19** provides the full template with detailed instructions for completing it.

BOX 23: IFRC project/programme management report outline (refer to Annex 19 for full template)

1. ***Project/programme information.*** Summary of key project/programme information, e.g. name, dates, manager, codes, etc.
2. ***Executive summary.*** Overall summary of the report, capturing the project status and highlighting key accomplishments, challenges, and planned actions. Also includes the Federation-Wide Reporting System (FWRS) indicators for people reached and volunteers.
3. ***Financial status.*** Concise overview of the project/programme's financial status based on the project/programme's monthly finance reports for the reporting quarter.
4. ***Situation/context analysis (positive and negative factors).*** Identify and discuss any factors that affect the project/programme's operating context and implementation (e.g. change in security or a government policy, etc), as well as related actions to be taken.
5. ***Analysis of implementation.*** Critical section of analysis based on the objectives as stated in the project/programme's logframe and data recorded in the project/programme indicator tracking table (ITT).
6. ***Stakeholder participation and complaints.*** Summary of key stakeholders' participation and any complaints that have been filed.
7. ***Partnership agreements and other key actors.*** Lists any project/programme partners and agreements (e.g. project/programme agreement, MoU), and any related comments.
8. ***Cross-cutting issues.*** Summary of activities undertaken or results achieved that relate to any cross-cutting issues (gender equality, environmental sustainability, etc).
9. ***Project/programme staffing – human resources.*** Lists any new personnel or other changes in project/programme staffing. Also should include whether any management support is needed to resolve any issues.
10. ***Exit/sustainability strategy summary.*** Update on the progress of the sustainability strategy to ensure the project/programme objectives will be able to continue after handover to local stakeholders.
11. ***PMER status.*** Concise update of the project/programme's key planning, monitoring, evaluation and reporting activities.
12. ***Key lessons.*** Highlights key lessons and how they can be applied to this or other similar projects/programmes in future.
13. ***Report annex.*** Project/programme's ITT and any other supplementary information.

D. Identify people responsible for reporting products

It is important to specifically identify the people who will be responsible for each type of report. This can be the same person identified in the M&E plan who collects indicator data (see Section 2.2.1), or it may be another person who specifically prepares the data to communicate to others, e.g. the person(s) who prepares a monthly project report, donor progress report or press releases. It also includes people who present and share M&E data at forums such as community meetings, conference calls with headquarters, partnership presentations, etc. It does not need to include everyone involved in the reporting process, but the key person with overall responsibility for each reporting product/type.

It is worth remembering that whoever is reporting, it is important that they do so according to requirements, and that reported information is timely and reliable. This may seem obvious but, as **Box 24** highlights below, there are often complex difficulties or "roadblocks" that need to be addressed to achieve timely and reliable reporting.

BOX 24: Reporting roadblocks and solutions

Project/programme progress and problems need to be reported to identify solutions and lessons to inform current and future programming. However, sometimes there can be some complex barriers to timely and effective data analysis and reporting.

- **"We do not have the time."** This attitude can occur when the project team focuses on the goal and a perceived shortage of time rather than on assessing the processes needed to attain the goal. **A solution** is to help people understand how timely analysis and reporting can help save time, improve processes, uphold accountability and better reach goals.
- **"It doesn't make a difference anyhow."** There can be a sense that reporting is a bureaucratic exercise and the reporting data is not fully put to use. **A solution** is to help people understand how the reporting information is worthwhile and used, and to involve the team members more actively in the data analysis and reporting so they contribute to and have more ownership in the process.
- **"Data analysis is for experts, not us."** This misperception occurs because people perceive they lack the technical skills to do the data analysis. **A solution** is to help people better understand data analysis and that it does not necessarily require complex statistical methods, and to provide them with appropriate tools, guidelines and training (as discussed in this section) to better analyse data.
- **Fear of variance.** This can occur when people do not want to be perceived as doing a poor job if variance reflects underperformance. **A solution** is to help them understand that it is rare for a project to meet all of its targets, all of the time. Model openness to feedback and demonstrate a partnership attitude that does not frame underperformance as bad news but an opportunity to learn. Remind them that it is only a failure if they fail to learn.

2.4.2 Plan for information utilization

The overall purpose of the M&E system is to provide useful information. Therefore, **information utilization should not be an afterthought, but a central planning consideration.** For this reason, identifying stakeholder informational needs (initially discussed in M&E planning Step 1, Section 2.1) has been a recurring topic throughout all M&E planning steps.

Box 25 summarizes four primary ways in which M&E information is used. There are many factors that determine the use of information. First are the actual selection, collection and transformation of data into usable information, which has been the topic of this guide so far. Ideally, this process produces information that is relevant, timely, complete, consistent, reliable and user-friendly (see Box 19, Section 2.4.1). The remainder of this section will briefly look at key considerations for information distribution, decision-making and planning.

BOX 25: Key categories of information use

- ***Project/programme management*** – inform decisions to guide and improve ongoing project/programme implementation.
- ***Learning and knowledge-sharing*** – advance organizational learning and knowledge-sharing for future programming, both within and external to the project/programme's implementing organization.
- ***Accountability and compliance*** – demonstrating how and what work has been completed, and whether it was according to any specific donor or legal requirements, as well as to the IFRC and others' international standards.
- ***Celebration and advocacy*** – highlight and promote accomplishments and achievements, building morale and contributing to resource mobilization.

A. Information dissemination

Information dissemination refers to how information (reports) is distributed to users. This can be seen as part of reporting, but we use dissemination here to mean the distribution of the information (reports) rather than the actual preparation of the information into a report.

There is a variety of mediums to share information, and as with the reporting formats themselves, how reporting information is disseminated will largely depend on the user and purpose of information. Box 26 summarizes some different mediums for sharing information.

BOX 26: Key mediums of information dissemination

1. **Print materials** distributed through mail or in person.
2. **Internet communication,** e.g. e-mail (and attachments), web sites, blogs, etc
3. **Radio communication** includes direct person-to-person radio (ham radio), as well as broadcasting radio.
4. **Telephone communication** includes voice calls, text-messaging, as well as other functions enabled on a mobile phone.
5. **Television and filmed presentations.**
6. **Live presentations,** such as project/programme team meetings and public meetings.

Selection of the reporting medium should be guided by what is most efficient in time and resources, and suitable for the audience – a process that should ideally be completed with a reporting schedule (see Annex 18). For instance:

- An internet-based reporting system may be best for communication between a project/programme management team and its headquarters.
- Community meetings may be appropriate to report on data to beneficiaries who lack access to computers or are illiterate.
- Mobile phone texting may be most timely and efficient for volunteers to report on safety conditions from the field.

It is also important to remember that ***information dissemination should be multi-directional.*** This means that in addition to distributing information upwards to management, senior management and donors, information flows should also be directed to field staff, partners and the beneficiaries themselves.

Another important consideration when distributing information is the security of internal or confidential information. As discussed with data management (see Section 2.2.10), precautions should be taken to protect assess to confidential information.

B. Decision-making and planning

Decision-making and planning really form the heart of data utilization. But no matter how well the information is prepared or disseminated, it will ultimately be up to the user to decide when and how to put it to use. This is where M&E planning merges with project/programme management, and the manner in which decisions are made and information is used will vary according to project/programme, context and organizational culture. However, while information use is largely in the area of project/programme and organizational management, there are two key considerations that can aid the use of information in decision-making and planning:

1. ***Stakeholder dialogue.*** Stakeholder discussion and feedback on information is critical for building understanding and ownership, and informing the appropriate response. This process can begin during the analysis, review and revision of reporting information, and can correspond with information dissemination outlets, such as meetings, seminars and workshops, web-based forums, teleconferences and/or organizational reporting and follow-up procedures.

   For instance, the findings of an evaluation report are more likely to be understood and used if they are not limited to a printed report, but presented to key stakeholders in a face-to-face forum that allows them to reflect and give feedback. Ideally, this can be done before the final draft of the report to confirm key lessons and inform realistic recommendations.

2. ***Management response.*** Specific procedures for documenting and responding to information findings and recommendations (often called "management response") should be built into the project/programme management system. At the project/programme level, this can be a management action plan with clear responses to key issues identified in a management or evaluation report. This should specifically explain what actions will be taken, including their time frame and responsibilities; it should also explain why any recommendation or identified issue may not be addressed. Follow-up should be systematic and monitored and reported on in a reliable, timely and public manner.

   There is a variety of tools to support action planning and follow-up. **Annex 20** presents three examples of tables (also called "logs") for recording key items

in a management response. A **decision log** can be used to keep a record of key project/programme decisions. This can allow staff to check that decisions are acted upon, and are recorded for institutional memory. This can be referred to if any disagreement arises over why a decision was made and who was responsible for following it up, something which can also be useful for audit purposes. Similarly, an **action log** can be used by project/programme managers to ensure that follow-up action is taken.

Both decision and action logs can serve as useful records of specific responses to project/programme issues and related actions identified in a management or evaluation report. As already noted, this can be supported by well-designed project/programme reporting formats that include a section on future action planning (e.g. the IFRC's project/programme management report, see Annex 19).

Another useful tool is a **lessons learned log** (see Annex 20), which is used to catalogue and prioritize key lessons. This can then be used to inform ongoing project/programme decision-making, as well as the strategic planning for future project/programmes, contributing to overall organizational learning and knowledge-sharing.

2.5 STEP 5 – Plan for M&E human resources and capacity building

An effective M&E system requires capable people to support it. While the M&E plan identifies responsibilities for the data collection on each indicator, it is also important to plan for the people responsible for M&E processes, including data management, analysis, reporting and M&E training. This section summarizes key considerations in planning for the human resources and capacity building for a project/programme's M&E system.

2.5.1 Assess the projects/programme's human resources capacity for M&E

A first step in planning for M&E human resources is to determine the available M&E experience within the project/programme team, partner organizations, target communities and any other potential participants in the M&E system. It is important to identify any gaps between the project/programme's M&E needs (see Step 1, Section 2.1) and available personnel, which will inform the need for capacity building or outside expertise.

Key questions to guide this process include:

- Is there existing M&E expertise among the project/programme team? How does this match with the M&E needs of the project/programme?
- Is there M&E support from the organization implementing the project/programme? For instance, is there a technical unit or individuals assigned with M&E responsibilities to advise and support staff, and if so, what is their availability for the specific project/programme?
- Do the target communities (or certain members) and other project/programme partners have any experience in M&E?

It can be useful to refer to the discussions about the M&E stakeholder assessment (Section 2.1.2) and the M&E activity planning (Section 2.1.4) to guide this process. When available, any larger organizational assessment that has included M&E should be referred to for projects/programmes belonging to the organization. For example, the IFRC's secretariat offers a planning, monitoring, evaluation and reporting assessment tool for National Societies and project/programme teams, which can help assess the institutional understanding and practice of M&E for an implementing National Society or for the project/programme team itself.[30]

2.5.2 Determine the extent of local participation

Ideally, data collection and analysis is undertaken with the very people to whom these processes and decisions most relate. This is an important principle for the Movement (see Box 27 next page), which prioritizes the involvement of local volunteers and communities. Often, local participation in M&E is expected or required, and building local capacity to sustain the project/programme is identified as a key objective of the project/programme itself.

30 *Refer to the IFRC-PAD M&E Capacity Assessment Tool.*

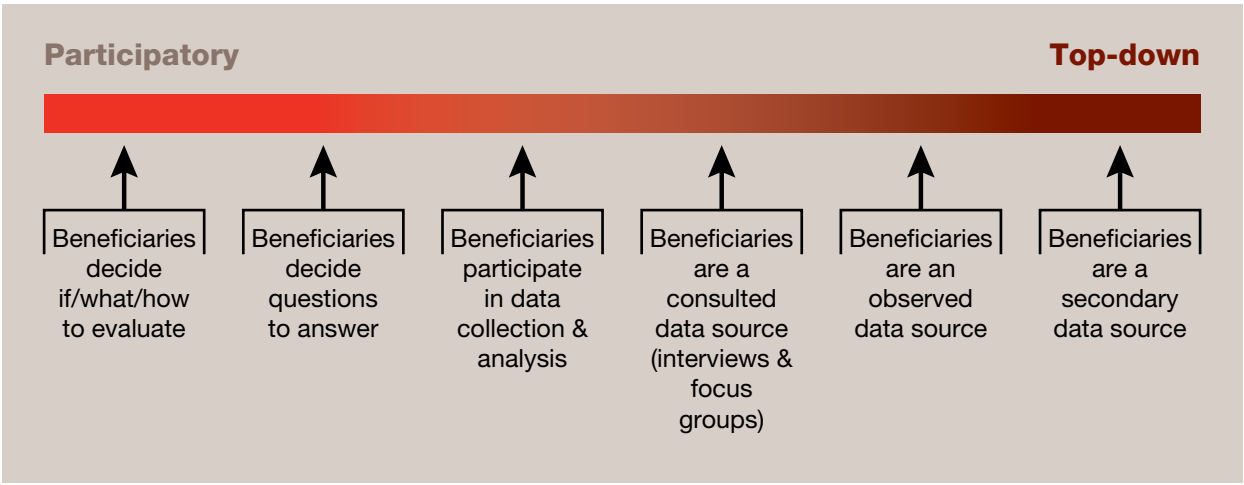
BOX 27: Principle Seven of the Conduct for International Red Cross and Red Crescent Movement and NGOs in Disaster Relief

Ways shall be found to involve programme beneficiaries in the management of relief aid. Disaster response assistance should never be imposed upon the beneficiaries. Effective relief and lasting rehabilitation can best be achieved where the intended beneficiaries are involved in the design, management and implementation of the assistance programme. We will strive to achieve full community participation in our relief and rehabilitation.

Participation can happen at multiple levels in the M&E system. As **Diagram 5** illustrates below, participation happens on a continuum: at one end of the spectrum the M&E system can be completely participatory, where local stakeholders actively participate in all processes and decision-making, while at the other end it can be top-down, in which local stakeholders are restricted to subjects of observation or study. Ultimately, the degree of participation will vary according to the project/programme and context. Some examples of M&E participation include:

- The use of participatory assessments, e.g. vulnerability capacity assessments (VCAs) or community SWOT (strength-weakness-opportunity-threats) analysis
- Involvement of local representatives in the project/programme design (log-frame) and identification of indicators
- Participatory monitoring where elected community representatives reporting on key monitoring indicators
- Self-evaluations using simple methods adapted to the local context, e.g. most significant change and participatory project reviews (refer to Annex 2, M&E Resources)
- Sharing monitoring and evaluation findings with community members for participatory analysis and identification or recommendations
- Utilization of feedback mechanisms for beneficiaries, volunteers and staff (see Section 2.2.8).

DIAGRAM 5: The participatory continuum



There are many benefits to local participation in M&E, but it is also important to recognize some of the potential drawbacks – see **Box 27** page 70. It is important to note that participatory approaches should not exclude or "sideline" outsiders and the technical expertise, insights and perspectives they can provide. ***The IFRC recommends the use of a balance of participatory and non-participatory M&E according to the project/programme needs and context.***

BOX 28: Considering participatory M&E

Potential advantages	Potential disadvantages
➔ Empowers beneficiaries to analyse and act on their own situation (as "active participants" rather than "passive recipients") ➔ Builds local capacity and ownership to manage and sustain the project. People are likely to accept and internalize findings and recommendations that they provide ➔ Develops collaboration and consensus at different levels – between beneficiaries, local staff and partners, and senior management ➔ Reinforces beneficiary accountability, preventing one perspective from dominating the M&E process ➔ Can save money and time in data collection compared with the cost of using project/programme staff or hiring outside support ➔ Provides timely and relevant information directly from the field for management decision-making to execute corrective actions	➔ Requires more time and cost to train and manage local staff and community members ➔ Requires skilled facilitators to ensure that everyone understands the process and is equally involved ➔ Can jeopardize the quality of collected data due to local politics. Data analysis and decision-making can be dominated by the more powerful voices in the community (related to gender, ethnic, or religious factors) ➔ Demands the genuine commitment of local people and the support of donors, since the project/programme may not use the traditional indicators or formats for reporting findings

Source: Adopted from Chaplowe, Scott G. 2008. Monitoring and Evaluation Planning. American Red Cross/CRS M&E Module Series. American Red Cross and Catholic Relief Services (CRS), Washington, DC, and Baltimore, MD.

2.5.3 Determine the extent of outside expertise

Outside specialists (consultants) are usually employed for technical expertise, objectivity and credibility, to save time and/or as a donor requirement. Clearly, and especially for external evaluators, experience, reliability and credibility are essential when considering whether or not to use outside expertise.

Examples of when outside expertise is used include:

- For the independent, final evaluation of all secretariat-funded projects/programmes exceeding 1,000,000 Swiss francs (in accordance with the IFRC's management policy for evaluations)
- As part of a joint, real-time evaluation for a disaster response operation involving the IFRC, OCHA (United Nations' Office for the Coordination of Humanitarian Affairs) and other participating partners, such as CARE International
- To administer random samples for household surveys during a baseline or endline study
- For project/programme data entry and statistical analysis
- For the translation of project/programme documents.

Sometimes, a project/programme or implementing organization may need to hire a specific person to oversee M&E processes – e.g. an M&E officer or advisor. **Annex 20** provides an example of an M&E job description and the following summarizes key steps in the hiring process:[31]

1. Identify M&E needs for the staff position
2. Create a job description
3. Establish a hiring committee and outline the hiring process
4. Advertise for the position
5. Sort, short-list, and pre-screen applicants
6. Interview the candidates
7. Hire and train new staff.

2.5.4 Define the roles and responsibilities for M&E

It is important to have well-defined roles and responsibilities at each level of the M&E system. The M&E plan (Step 2, Section 2.2) identifies people responsible for the specific collection of data on each indicator, but there are other responsibilities throughout the M&E system, from data management and analysis to reporting and feedback. This will ultimately depend on the scope of the project/programme and what systems are already in place within the project/programme and/or the implementing organization (see Section 2.1.4).

Typically, there is a wide range of people with some kind of monitoring responsibilities within their job descriptions – including not only project/programme staff but maybe volunteers, community members and other partners. When identifying roles and responsibilities for M&E it is worth considering using the M&E stakeholder assessment table (Annex 6 and discussed in Step 1 – Section 2.1), or an organizational diagram for the project/programme (with accompanying text). Specific consideration should be given to the M&E qualifications and expectations, including the approximate percentage of time each person is expected to allocate to M&E. This will help with practical work planning, as well as in the preparation of project/programme job descriptions and terms of reference (ToR).

One key planning consideration is who will have overall management responsibility for the M&E system. It is important to clearly identify who will be the primary resource person that others, internal and external to the project/programme, will turn to for M&E guidance and accountability. This person

31 *Source: Hagens, Clara, 2008. Hiring M&E Staff. American Red Cross/CRS M&E Module Series. American Red Cross and Catholic Relief Services (CRS), Washington, DC, and Baltimore, MD.*

(or their team) should oversee the coordination and supervision of M&E functions, and "backstop" (screen) any problems that arise. They need to have a clear understanding of the overall M&E system, and will likely be the person(s) leading the M&E planning process.

2.5.5 Plan to manage project/programme team's M&E activities

Whether project/programme staff, volunteers, community members, or other partners involved in the M&E system, it is important to develop tools and mechanisms to manage their time and performance. As discussed in Step 2 (Section 2.2), the M&E plan helps define these roles and the time frames. It is also important to include this planning as part of the overall performance monitoring system for staff/volunteers, as discussed in Section 2.2.9. Other tools, such as time sheets, are usually available from an organization's human resources (HR) department/unit. Finally, as with beneficiaries themselves, it is critical to uphold sound, ethical HR practices in the management of staff and volunteers – see **Box 28**, Section 2.5.2.

BOX 29: Adhering to human resources codes and standards – People in Aid

Managing human resources effectively has been identified as a considerable challenge in the humanitarian sector, where deployments of the right people with the right skills, to the right place at the right time is critical for successful operations. To facilitate this, the organization People in Aid's Code of Good Practice seeks to "improve agencies' support and management of their staff and volunteers," which is critical to the success of delivering our work. The code has seven principles, around HR strategy, policies and practice; monitoring progress against its application seeks to, "enable employers to become clearer about their responsibilities and accountabilities, and help them become better managers of people, and therefore better providers of quality assistance."

2.5.6 Identify M&E capacity-building requirements and opportunities

Once roles and responsibilities have been determined, it is important to specify any M&E training requirements. For longer-term projects/programmes, or those with significant training needs, it may be useful to create an **M&E training schedule** (planning table), identifying key training sessions, their schedule, location, participants and allocated budget – see **Annex 22**.

M&E training can be formal or informal. ***Informal training*** includes on-the-job guidance and feedback, such as mentorship in completing checklists, commenting on a report or guidance on how to use data management tools.

Formal training can include courses and workshops on project/programme design (logframes), M&E planning, data collection, management, analysis and reporting, etc. Formal training should be tailored towards the project/programme's specific needs and audience. This can involve an outside trainer coming to the project/programme team/site, sending participants to training/workshops, online training or academic courses.

Resources

The IFRC secretariat's planning and accountability department (PAD) and zone PMER offices offer a range training and resources for capacity building in project/programme planning, monitoring, evaluation, and reporting. Key resources are listed in Annex 2, M&E Resources.

2.6 STEP 6 – Prepare the M&E budget

It is best to begin systematically planning the M&E budget early in the project/programme design process so that adequate funds are allocated and available for M&E activities. The following section summarizes key considerations for planning the project/programme's M&E budget.

2.6.1 Itemize M&E budget needs

If the M&E planning has been approached systematically, identifying key steps and people involved, detailing budget items should be straightforward. Start by listing M&E tasks and associated costs. If a planning table for key M&E activities (see Section 2.1.4 and Annex 7) has been prepared, this can be used to guide the process. If there is a required format for itemizing budget items – e.g. within the implementing organization or from the donor – adhere to the format or an agreed-upon variation. Otherwise, prepare a spreadsheet clearly itemizing M&E expenses. It is particularly important to budget for any "big-ticket items", such as baseline surveys and evaluations.

Examples of budget items include:

- ***Human resources.*** Budget for staffing, including full-time staff, external consultants, capacity building/training and other related expenses, e.g. translation, data entry for baseline surveys, etc.
- ***Capital expenses.*** Budget for facility costs, office equipment and supplies, any travel and accommodation, computer hardware and software, printing, publishing and distributing M&E documents, etc.

In addition to itemizing expenses in a spreadsheet, ***a narrative (description) justifying each line item*** can help guard against unexpected budget cuts. It may be necessary to clarify or justify M&E expenses, such as wage rates not normally paid to comparable positions, fees for consultants and external experts, or the various steps in a survey that add up in cost (e.g. development and testing of a questionnaire, translation and back-translation, training in data collection, data collectors' and field supervisors' daily rates, travel/accommodation costs for administering the survey, data analysis and write-up, etc).

2.6.2 Incorporate M&E costs into the project/programme budget

Costs associated with regular project/programme monitoring and undertaking evaluations should be included in the project/programme budget, rather than as part of the organization's overhead (organizational development or administrative costs). Therefore, the true cost of a project/programme will be reflected in the budget. Otherwise, including M&E costs as an administrative or organizational development cost may incorrectly suggest inefficiencies in the project/programme and the implementing organization, with donors reluctant to cover such costs when in reality they are project-related costs. Ideally, financial systems should allow for activity-based costing where monitoring costs are linked to project/programme activities being monitored.

If the budget has already been completed with the project/programme proposal, determine whether there is a separate/appropriated budget for M&E purposes. Ongoing monitoring expenses may already be built into staff time and expenditure budgets for the overall project/programme operation, such as support for an information management system, field transportation and vehicle maintenance, translation, and printing and publishing of M&E documents/tools. Certain M&E events, such as a baseline study or external evaluation, may not have been included in the overall project/programme budget because the budget was planned during the proposal preparation period, before the M&E system had been developed. In such instances it is critical to ensure that these M&E costs are added to the project/programme budget.

2.6.3 Review any donor budget requirements and contributions

Identify any specific budgeting requirements or guidance from the funding agency or implementing organization. If multiple funding sources are utilized, ensure that the budget is broken down by donor source. Determine if there are any additional costs the donor(s) will or will not cover, such as required evaluations, baseline studies, etc. Check with the finance unit or officer to ensure the budget is prepared in the appropriate format.

2.6.4 Plan for cost contingency

Contingency costs refer to unexpected costs that may arise during project/programme implementation – in this case the M&E system. It is important to plan for unexpected contingencies such as inflation, currency devaluation, equipment theft or the need for additional data collection/analysis to verify findings. Although budget planning seeks to avoid these risks, unexpected expenses do arise.

BOX 30: How much money should be allocated for M&E?

There is no set formula for determining the budget for a project/programme's M&E system. During initial planning, it can be difficult to determine this until more careful attention is given to specific M&E functions described in the following steps. However, an industry standard is that between 3 and 10 per cent of a project/programme's budget be allocated to M&E. ***A general rule of thumb is that the M&E budget should not be so small as to compromise the accuracy and credibility of results, but neither should it divert project/programme resources to the extent that programming is impaired.*** Sometimes certain M&E functions, especially monitoring, are included as part of the project/programme's activities. Other functions, such as independent evaluations, should be specifically budgeted. The IFRC's management policy for evaluations states that a dedicated budget line between 3 and 5 per cent should be included for all evaluations of interventions above 200,000 Swiss francs.[32]

32 *Frankel, Nina and Gage, Anastasia for USAID (2007) M&E Fundamentals: A Self-Guided Minicourse: p. 11; The Global Fund (2009), Monitoring and Evaluation Toolkit: p. 42; UNICEF (2007), UNICEF Evaluation Policy: p. 8.*

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Annexes

ANNEX 1: Glossary of key terms for M&E[33]

This glossary is not comprehensive, but only defines key terms as they are typically used in the context of IFRC project/programme management and related monitoring and evaluation (M&E). References to "OECD/DAC 2002" refer to the Glossary of Key Terms in Evaluation and Results-Based Management (2002) from the Organization for Economic Co-operation and Development, Development Assistance Committee.

- **Accountability.** The obligation to demonstrate to stakeholders to what extent results have been achieved according to established plans. This definition guides our accountability principles as set out in Strategy 2020: explicit standard setting; pen monitoring and reporting; transparent information sharing; meaningful beneficiary participation; effective and efficient use of resources; systems for learning and responding to concerns and complaints.
- **Accuracy.** The extent that collected data measures what they are intended to measure.
- **Activities.** As a term used in the hierarchy of objectives for the IFRC logframe, activities refers to the collection of tasks to be carried out in order to achieve an output.
- **Actual.** As a term used in IFRC indicator performance measurement, it is the actual measurement of an indicator for the period reporting on indicator performance.
- **Appraisal.** An overall assessment of the relevance, feasibility and potential sustainability of a development intervention prior to a decision of funding (OECD/DAC 2002).
- **Appropriateness.** The extent to which an intervention is tailored to local needs and context, and complements other interventions from other actors. It includes how well the intervention takes into account the economic, social, political and environmental context, therefore contributing to ownership, accountability and cost-effectiveness.
- **Assessment.** The systematic collection, review and use of information about projects/programmes undertaken for the purpose of improving learning and implementation. "Assessment" is a broad term, and can include initial assessments, evaluations, reviews, etc.
- **Assumption.** As a term used in the IFRC logframe, it refers to a condition that needs to be met for the successful achievement of objectives. Assumptions describe risks that need to be avoided by restating them as positive conditions that need to hold. For instance, the risk, "The political and security situation gets worse," can be restated as an assumption: "The political and security situation remains stable." An assumption should restate a risk that is possible, but not certain to happen, and therefore should be identified and monitored.
- **Attribution.** The degree an observed or measured change can be ascribed (attributed) to a specific intervention versus other factors (causes).
- **Audit.** An assessment to verify compliance with established rules, regulations, procedures or mandates. An audit can be distinguished from an evaluation in that emphasis is on assurance and compliance with requirements, rather than a judgement of worth.
- **Baseline.** A point of reference prior an intervention against which progress can later be measured and compared. A ***baseline study*** is an analysis or study describing the initial conditions (appropriate indicators) before the start of a project/programme for comparison at a later date.

33 *Note that this Glossary is also separately available at the IFRC's M&E web page – www.ifrc.org/MandE.*