Training Manual

on

MONITORING POLICY IMPACTS

(DRAFT VERSION, 16-10-02)

prepared by

Manfred Metz
Andreas Groetschel

with contributions by

Norbert Jost

for FAO-TCAS & GTZ, Unit 4555
Rome & Eschborn
October 2002

This is a draft version, please quote as such

Please send comments or remarks directly to the authors

Manfred Metz: metz@codeplan.de
Andreas Groetschel: mail@groetschel.de

Training Manual

on

MONITORING POLICY IMPACTS

(Prototype draft, 16-10-02)

prepared by

Manfred Metz
Andreas Groetschel

with contributions by

Norbert Jost

for FAO-TCAS & GTZ, Unit 4555
Rome & Eschborn
October 2002

Contents:

Summary:

Structure and Contents of the Manual on Monitoring Policy Impacts (MPI)

The Training Manual on Monitoring Policy Impacts (MPI) is organised in four chapters with the following contents:

Chapter 1: Introduction and Overview shows the relevance and explains the role of MPI in the process of policy formulation and implementation, particularly referring to agricultural and rural development policies. It points out the role of MPI as a policy management instrument. By tracing and analysing the effects of policies, by identifying critical factors which determine policy impacts as well as crucial external and unintended side-effects of policies, and by providing prompt feed-back to policy makers, MPI allows early adjustment of policy design and implementation towards increasing the effectiveness of policies in reaching their objectives. Typical policy impact scenarios are developed, the eight methodological steps of MPI are outlined, and the scope and limitations of MPI are pointed out. This first chapter can also serve as an introduction of MPI to policy makers and other stakeholders, to make them acquainted with the role of MPI as a policy management instrument, and with its main features, applicability and utility.

Chapter 2: The Eight Steps of MPI illustrates the application of the concept of and approaches to policy impact monitoring. It presents the eight methodo-"logical" steps of monitoring policy impacts, starting from the initiation and preparation of MPI up to the feed back of monitoring results to policy makers and other stakeholders. The issues to be addressed, the tasks to be performed and the methods to be applied on the various steps are described and illustrated by practical examples of an application of MPI to concrete policy cases. Two policies in the specific contexts of two countries have been chosen as examples for illustration: Food Security Policies in Ethiopia and Agricultural Sector Reform Policies in Jordan.

Chapter 3: Methods and Tools for Monitoring Policy Impacts presents and describes selected methods and related tools to be employed for different tasks of the multi-step policy monitoring process. The main features of various methods are pointed out, and conditions of

their applicability, their relative advantages (strengths) and disadvantages (weakness) identified. The chapter describes selected methods and related tools which can generally be considered as options of choice in carrying out the specific tasks through the eight steps of the policy impact monitoring process. The choice of method(s) also depends on the nature of the policy /-ies to be monitored and respective policy measures adopted, as well as on the necessary degree of accuracy of observation, on available resources, and on cost considerations. The methods are grouped according to their main functions as required for relevant tasks at different stages of the impact monitoring process:

- Planning methods,
- Methods for data collection,
- Methods for data analysis,
- Communication and presentation methods.

Due to its paramount importance for policy analysis, planning and impact assessment, a detailed description of the **Logical Framework (LogFrame)** method is attached as Annex 1.

Chapter 4: How to Organise Policy Impact Monitoring discusses issues related to the organisation of policy impact monitoring, e.g. the setting up and operation of a policy impact monitoring unit. Practical solutions and possible institutional alternatives, their advantages and disadvantages, are pointed out, taking into consideration the tasks to be performed on various steps of MPI and the research methods to be applied. The chapter examines the roles and responsibilities of stakeholders involved in MPI, aspects of capacity, financial and material requirements, and the conditions for commencing the impact monitoring. One precondition for the effective operation of policy impact monitoring is particularly stressed: It must be ensured that the analysts mandated with the impact monitoring tasks can do their work free of political interference. This requires a sufficient degree of independence of the impact monitoring unit, and co-operation in an atmosphere of trust, respect and confidence among all stakeholders involved.

The manual has three **Annexes**:

- Annex 1: Presentation of the LogFrame method and its application to MPI.
- Annex 2: References and relevant Web-Links.
- Annex 3: Glossary of Key Terms.

Specific **key references** and web-links referring to the issues discussed in the various parts of the manual have been listed at the end of the respective chapters and sections.

Chapters 1, 2 and 4 include, at the end, proposed **Exercises.** Such exercises can be carried out in training courses for a familiarisation with the approaches and methods for planning and implementing of MPI.

Table of Content

List of Tables and Figures

FAO/GTZ Training Manual on MONITORING POLICY IMPACTS

Chapter 1:
Monitoring Policy Impacts (MPI) – Introduction and Overview

(prototype draft, 16-10-02, including exercises)

prepared by Manfred Metz
for FAO-TCAS & GTZ, Unit 4555

Chapter 1:
Monitoring Policy Impacts (MPI) – Introduction and Overview

Objectives: *Showing the relevance and explaining the role of MPI in the process of policy formulation and implementation, particularly in fields of agricultural and rural development policies. Readers will get an overview on the main issues concerning policy impact monitoring, being taken up in greater detail in the subsequent chapters of the manual. This first chapter also serves as an introduction for policy makers and other stakeholders, to make them acquainted with the role of MPI as a policy management instrument, and with its main features, applicability and utility.*

1.1 Introduction

1.1.1 What is MPI?

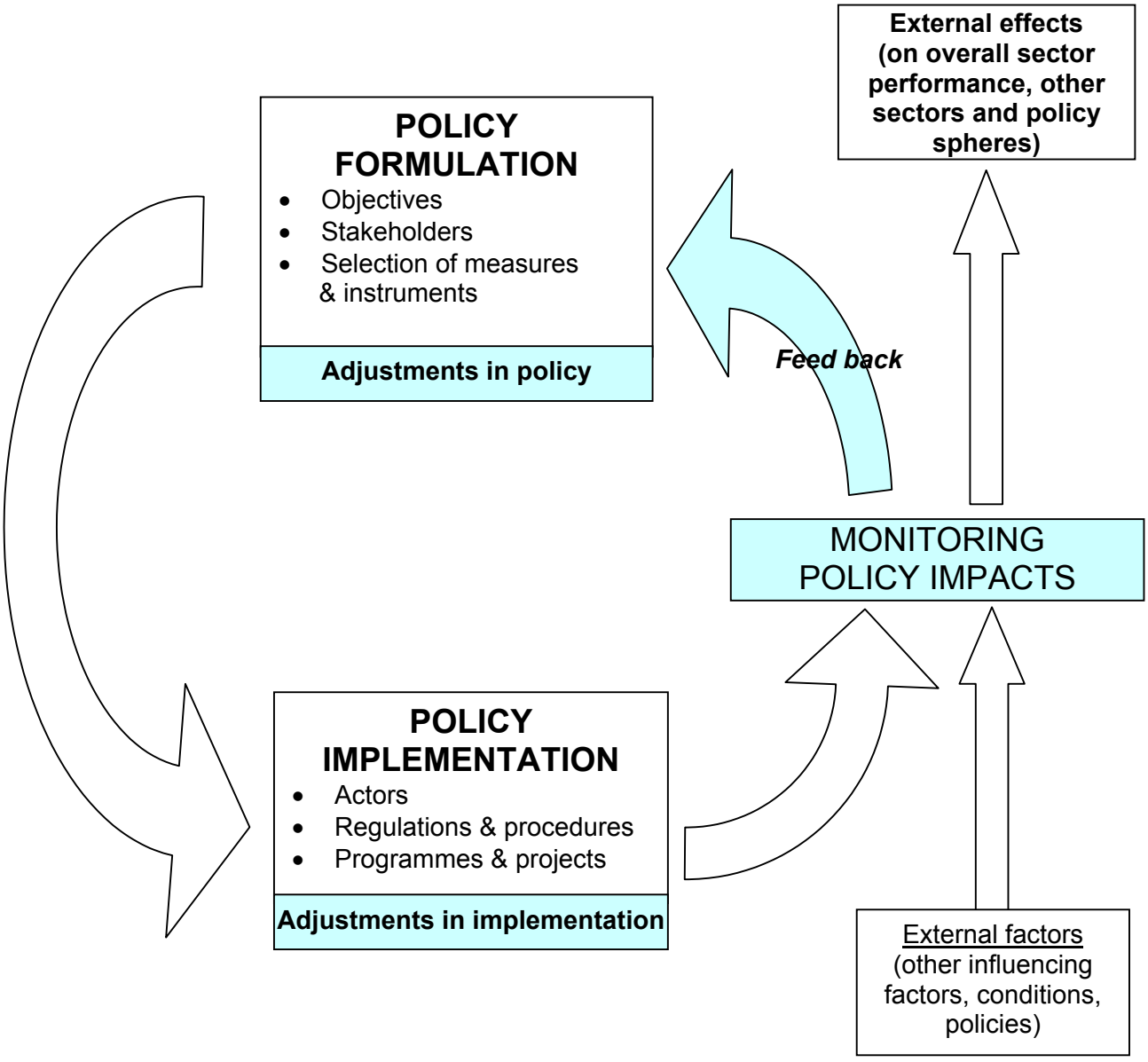
Policies are pursued in order to induce changes in a society and economy towards achieving desired objectives. Monitoring policy impacts (MPI) is a **policy management instrument**, to

- trace and analyse the **effects** of policies,
- assess the **effectiveness** of policies in reaching their objectives,
- identify **critical factors** in the process of policy formulation and implementation which affect the effectiveness of policies in reaching their objectives,
- identify **external factors** (other relevant factors and policies) determining policy impacts,
- identify crucial external and unintended **side-effects** of policies,
- and to provide prompt **feed-back on the results of MPI** to the policy makers

so as to allow **real-time adjustment in policy design and implementation** towards increasing the effectiveness of policies in reaching their objectives.

Figure 1-1 illustrates the role of MPI in the process of policy formulation and implementation.

Figure 1-1: The Role of Monitoring Policy Impacts (MPI) in the process of policy formulation and implementation



There exist many linkages between MPI and other monitoring and evaluation concepts and approaches, but also marked differences.
The main features are the following:

Level of aggregation: Monitoring policies vs. programmes and projects
Subject of MPI are policies. Policies encompass broad objectives, strategies for and means of implementation defined at high aggregate – usually: national – level, while programmes and projects are usually more specific and more narrowly defined in terms of objectives set, issues and target groups addressed and/or geographic areas covered. Ideally programmes and projects form part of the strategy for implementing policies.

A policy may address one particular issue of general importance (e.g. irrigation, land use, land reform, gender, migration etc.), one specific sector (e.g. agriculture sector adjustment, education, health, water, trade, etc.), or general development and cross cutting issues of the economy and society as a whole (e.g. macro-economic stabilisation, economic reform, food security, rural development).

Policies are implemented through respective laws and regulations, responsibilities and tasks assigned to institutions, as well as programmes and projects. Monitoring systems may be established for monitoring implementation and/or impacts of the overall policy and for monitoring programmes and projects. Policy monitoring is organised at high hierarchical / policy level, while monitoring of programmes and projects is done at the programme respectively project level and organised by the programme/project management itself, though the results of programme and project monitoring ideally feed into the overall policy monitoring system. This refers to implementation as well as impact monitoring.

Box 1-1: Example

Under its poverty eradication policy, the government of a country has launched various programmes, such as a Community Development Fund (CDF) programme, to promote income generation projects at community level, a public employment programme, and a social transfer scheme for particularly vulnerable population groups. The task of programme management is assigned to different government bodies at central level. Implementation of the CDF programme is done through community development projects by the communities themselves. A monitoring system is established at programme and project levels and run by the bodies in charge of programme respectively project management. The results of project monitoring are compiled and feed into programme monitoring, and the results of programme monitoring feed into the overall policy monitoring system. Policy monitoring is done by a policy monitoring unit established at the prime minister's office.

Monitoring of implementation vs. monitoring of impacts

Monitoring of the implementation process is a well known and widely applied management instrument, particularly at programme and project level. Subject of **implementation monitoring** are the costs, type and quantity of inputs used (input monitoring), the type and status of activities performed (activity monitoring), and the outputs achieved (output monitoring). Monitoring of these issues enables the management to keep track whether implementation – in terms of inputs used, activities and outputs - is according to the plan, and to take corrective measures if there are deviations from the plan. Furthermore, implementation monitoring serves the purpose to inform stakeholders (e.g. government/financing/donor organisations, target groups) about project / programme performance and the state of implementation. The results of implementation monitoring of relevant programmes and projects also feed into policy implementation monitoring at central level. Policy implementation monitoring covers further aspects, such as the state of release and implementation of new laws, regulations and procedures as well as relevant institutional changes related to a particular policy.

Box 1-2: Example

The implementation of the new education policy of a country is to be monitored. The policy aims at increasing literacy rates and the quality of education. To implement the policy, a law that each child should receive basic education and new regulations on teachers' qualification and educational standards are being prepared, and various programmes have been launched: A school construction programme, teachers' training programme, an adult literacy programme, and a curriculum development project. Monitoring of projects (including, for example, individual school construction sites, teacher training centres, etc.) covers:

- ***Input monitoring**, e.g. planning inputs, labour, construction material for each construction site and the programme (all schools) as a whole, trainers' input for teacher training and adult literacy programme, expert inputs for curriculum project; financial resource utilisation in each project and programme.*
- ***Activity monitoring**, e.g. the mode of construction at each site/all sites (self-help activities, contractors), teacher training and adult literacy courses conducted, steps of curriculum development, preparation of new education law and regulations on teachers' education and educational standards.*
- ***Output monitoring**, e.g. number of schools/new classrooms constructed, number of teachers trained, adults educated, curriculum for different levels completed, new law and regulations passed.*

While implementation monitoring is confined to issues related to the implementation process as such, **impact monitoring** concentrates on the outcomes of this process. These are the effects of policies, programmes and/or projects on specific population groups, on the society and economy in a certain area or as a whole, and/or on the environment. Apart from planned and desired impacts, as reflected in the policy/programme/project objectives, there are also possible unplanned and/or undesired impacts to be considered. Furthermore, there can be

impact chains of inter-linked primary and secondary up to final impacts, as well as short-, medium- and long-term impacts. Impact monitoring traces and assesses such phenomena as they occur during the implementation process. A special issue arising and to be addressed in this context is the problem of "attribution gap"[1], i.e. the question whether, and to what extent, certain observed changes (outcomes) can be attributed to a specific intervention (impacts).[2]

Box 1-3: Example

With reference to the example of the new education policy presented above, subjects of impact monitoring would be:

- *Increase of literacy rates,*
- *Increase in primary school enrolment rates, overall and with regard to specific areas and/or population groups (e.g. urban / rural, boys / girls),*
- *Increase in number or children completing primary education, in number of adults (men / women) completing adult literacy courses,*
- *Perception of teachers, pupils, participants of training courses, parents and other key persons regarding changes of the quality and utility of education.*

Possible unplanned, desired or undesired (by whom?) impacts to be considered would be, for example, the implications of increased school attendance for child labour contributions to the economies of households, particular population groups, regions and/or the economy as a whole (e.g. child labour inputs in agriculture, herding, home-economy, carpet knitting, etc.).

Monitoring vs. evaluation

A further important distinction has to be made between monitoring and evaluation. Monitoring is a continuous observation of phenomena related to the implementation and performance of projects, programmes or policies. Monitoring primarily serves as a management instrument and is usually carried out internally, i.e. organised by the institution which is responsible for implementation. It provides managers and other stakeholders with early and continuous feedback on implementation, by identifying actual or potential achievements and problems as early as possible, in order to facilitate timely adjustments in operations.[3] Evaluation, on the other hand, is a specific review of the performance of projects, programmes or policies done at certain points of time and covering certain time periods (e.g. ex-post, mid-term). Evaluations may be initiated and organised internally, by the management itself, or externally

[1] cf. Müller-Glodde /Vahlhaus / Kuby, GTZ, 2000. See also discussion under paragraph 1.5, f) at the end of this chapter.

[2] In the literature on monitoring and evaluation, sometimes a differentiation is made between 'outcomes' and 'impacts'. The term outcomes is used to describe the desired changes on individuals' wellbeing, to which an intervention is expected to contribute, while impacts refer to those outcomes which can be clearly attributed to a particular intervention. See, for example, Rubio et al, 2001.

by other stakeholders. While interim evaluations also serve as management instrument, the primary purpose of evaluations is usually to provide a basis for decisions by stakeholders on project / programme / policy continuation, expansion and adjustments, based on in-depth analysis of the efficiency, relevance, effectiveness and sustainability of the applied approaches.

One can summarise that monitoring and evaluation serve different primary purposes but are closely linked and highly complementary. The frequently used term **M & E** refers to monitoring with ongoing assessment of project / programme / policy performance **plus** specific evaluation reviews at certain points of time as a basic element of a management system of projects, programmes and/or policies.

The main features of the different monitoring and evaluation concepts presented above are summarised in the following **table**.

Table 1-1: Comparison of different monitoring and evaluation concepts

Criteria	**Monitoring and Evaluation Concepts, Main Features**	
Level of aggregation: Policies vs. programmes & projects	**Policies** set at aggregate, high hierarchical levels (macro, national), aim at wide-spread (country-wide) impacts; Subject of policy monitoring are policy objectives, strategies for and means of implementation and policy impacts, policy monitoring system organised at central level but based on programme and project monitoring.	**Programmes and projects** set at lower levels, are more narrowly defined in terms of objectives set, issues and target groups addressed and/or geographic areas covered. Ideally part of the strategy for implementing policies, monitoring organised by programme / project management, results feed into policy monitoring system.
Monitoring implementation vs. impacts	**Impact monitoring** traces and assesses outcomes of policy / programme / project interventions in regard of objectives set and possible unplanned side effects.	**Implementation monitoring** of policies / programmes / projects covers financial and other inputs used, activities performed, outputs achieved, comparison with plans.
Monitoring vs. evaluation	**Monitoring**: Continuous exercise, internally organised by management, to generate real-time data and information on policy / programme / project performance regarding implementation and/or impacts as basis for management control and adjustments in management as early as possible.	**Evaluation**: Specific reviews of policies / programmes / projects; singular or sequential exercise, often externally organised by stakeholders, to provide evidence on performance (efficiency, relevance, effectiveness, sustainability) as basis for decisions on extension, expansion, modification and/or replication of interventions.

[3] cf. World Bank, OED, 1996.

Subject of this manual is policy impact monitoring. This means that we will focus on:

- **policies** rather than on programmes and projects, but will consider monitoring of programmes and projects to the extent that they form part of a policy implementation strategy;
- **impacts** rather than on implementation, but take into account that monitoring of the implementation process is a prerequisite for tracing impacts, i.e. to attribute observed changes to the actual mode and state of policy intervention;
- **monitoring** rather than evaluation, but keep in mind that the approaches and methods applied in monitoring and evaluation are similar, complementary and only differ in emphasising different aspects. While evaluations usually emphasise in-depth, ex-post and quantitative analyses over certain time periods, impact monitoring is geared towards rapid assessment of current and emerging impacts. The need to generate real-time evidence on impacts calls for the frequent use of qualitative and semi-qualitative assessment methods, apart from quantitative approaches.

1.1.2 Relevance of MPI

Impact monitoring is a response to the concern of policy makers and other stakeholder to be continuously and up to date informed whether they are ‘on the right track’ toward achieving the desired objectives, and – if necessary - to be able to take corrective actions in policy, programme and project design and implementation in time. The earlier necessary adjustments are made, the less resources are wasted and the higher is the degree of efficiency and effectiveness of an intervention. Furthermore, impact assessment often requires continuous observation of phenomena, in order to become aware of the dynamics of changes which are happening, and to develop an understanding of their causes. Due to such reasons, policy makers and other stakeholders feel an increasing need for monitoring policy impacts, in addition and complementary to common M & E approaches which were confined to monitoring the implementation process and to evaluate impacts in larger time-intervals or ex-post only.

Impact monitoring has gained increasing importance in many fields of development policies and programmes, particularly in the context of economic reform and sector investment programmes as well as poverty alleviation, food security and environmental policies. In the past, economic reform policies have often come under criticism particularly for causing hardships to vulnerable groups of the society. Evidence of such effects has been revealed by ex-post evaluations but the possibility to adjust programmes along the findings of accompanying impact monitoring had been forgone. Probably the costs for mitigation measures would had been far less if timely adjustments had been made, compared to

belated corrections of policies. Policy makers and other stakeholders, such as international development and donor organisations, have, in the meantime, become increasingly aware of the need for obtaining real-time information on the performance of the policies pursued. While MPI aims at providing such information, it can, of course, only reach its ultimate objective of contributing to improved policy performance if the results of MPI - particularly also the possible unexpected and unpleasant results - are accepted and seriously considered by the policy makers and if there is the political will to prompt adjustments in policy design and implementation.

Apart from this major purpose, the results of MPI also serve as means of accountability vis-à-vis the cabinet, parliament, public and boards of organisations, and for drawing lessons for similar policies and respective types of interventions planned or implemented elsewhere.

In the field of **international development cooperation**, some general global tendencies can be observed which let MPI become increasingly relevant in the future:

- The increased understanding of problems being part of complex network and system-mechanisms, and the corresponding thinking in terms of integrated solutions - rather than an approach in terms of isolated micro-solutions;
- the tendency of donor governments, institutions and major lending agencies to support broad development goals like poverty reduction and ecological and financial sustainability of long-term oriented solutions – rather than small scale projects;
- the increased awareness of the necessity of consistency between policies (national and international);
- increased emancipation of governments in developing countries and increased steering and manpower capacities of the governments;
- increased sensibilities against petty, narrowly defined framework conditions of economic cooperation;
- increased tendency towards conditioning in general terms (broad framework conditioning), such as good governance principles, participation and anti-corruption standards;
- increased readiness of donor governments, aid consortia and major lending agencies to finance economic cooperation in form of budget support on the basis of agreed principles of policies – rather than project funding.

Major funding programmes of major development banks and the conditions of the debt relief programmes (HIPC-initiative) provide evidence for an increasing policy-based mode of international development assistance.

Practical examples for policy impact monitoring having been established or being planned in the context of **agricultural and rural development policies** are:

- The **"*Agricultural Policy Impact Monitoring (APIM)*"** project in Jordan, established in the context of an Agricultural Sector Adjustment Programme in the early 90s;
- the ***"Poverty Monitoring System (PMS)"*** in Malawi, established in 1996, to monitor the impacts of the "Poverty Alleviation Programme" and particularly using qualitative approaches (Qualitative Impact Monitoring – QUIM);
- the ***"Welfare Monitoring System"*** in Ethiopia, being established to monitor the impacts of development policies and programmes on the living conditions of the people. Of particular importance in this context are monitoring the impacts of national and regional "Food Security Programmes";
- Impact assessment of **poverty reduction strategies** and related **development assistance and cooperation programmes** of international and national development organisations (World Bank, UN-Organisations, bilateral donors, NGOs).

During the course of this manual, we will draw on such practical examples for illustrating the approaches and methods of policy impact monitoring.

1.2 The role of MPI in the cycle of policy formulation and implementation

The role of MPI in the cycle of policy formulation and implementation has been illustrated in Figure 1-1 above. In this section, we will briefly characterise the cycle, its typical steps and main elements. For details, reference is made to relevant literature on the subject.

There are many possible **reasons** for triggering the **formulation of a policy**:

- a problem of national dimensions arising and to be addressed by the government;
- a government expressing its political will on how to address and deal with key issues of social and economic development;
- a change of government;
- pressure from inside or outside the country to reinforce certain developments or to bring about certain changes;
- adjustment to changing internal or external conditions;
- to put into practice declarations made and obligations agreed upon in national or international conferences, etc.

Policy formulation is rarely done as a one-step ad-hoc decision by the government. It is usually an iterative process, involving different stakeholders and population groups (interest and lobby groups, experts, media, institutions, organisations, civil societies, etc.). The degree of stakeholder participation in the process of policy formulation depends on the government system (e.g. authoritarian vs. democratic rule) and the awareness, ability, possibility and willingness of (different sections of) the society to articulate their position and interests during the process of preparing a policy decision. Different sections of the population have different opinions on what policy should strive for, and will be concerned with and affected by a policy in a different way; thus policy formulation and implementation often is a bargaining process among government and different stakeholders. Therefore, the role of the stakeholders throughout the process of policy formulation and implementation needs to be carefully assessed.

The **cycle of policy formulation and implementation** comprises the following steps:

- Setting of **policy objectives;**
- Choice of **measures and instruments** for policy implementation**;**
- **Implementation** of the policy measures**;**
- **Monitoring** and **Evaluation (M&E).**

1.2.1 Setting of policy objectives

Overall policy objectives are an expression of what government strives for with a particular policy. They tend to be set in a relatively broad manner, such as: economic growth; agricultural or industrial sector growth; poverty alleviation; achievement of food security; sustainable natural resource use; improved education or health; etc. Generally there is a wide consent among the society on such broad policy objectives.

In order to become operational, the overall policy objective(s) need(s) to be broken down in sub-objectives, and measures will have to be defined how those are to be attained. As a result, one arrives at a hierarchy of objectives, sub-objectives and sub-sub-... objectives[4]. Ideally, each sub-...objective contributes to the attainment of the objective in the next higher hierarchical order, so that, at the end, all sub-...objectives contribute to reaching the ultimate overall policy objective(s).5 The objectives are, in this case, consistent.

[4] "Objective tree" in Logical Framework (Logframe) terminology. For more on the Logframe approach see Chapter 3.

[5] See Figure 1-2: Policy objectives

In reality, one finds that policy objectives are not always consistent but sometimes competing or even conflicting and contradictory.6 The phenomenon of competing or conflicting objectives is not (necessarily) caused by policy objectives not being properly defined, but due to the nature of the policy instruments which may help to achieve one but counteract another objective.

Box 1-4: Example

To increase agricultural production and income (policy objective), the price of irrigation water is kept low and subsidised (policy instrument). The low price of irrigation water encourages, however, excessive use and waste of the scarce water resources which is not sustainable, hence contradicts another policy objective of sustainable and effective resource use.[7]

Whether policy objectives are consistent, competing or conflicting can, therefore, only be judged in connection with the policy instruments being selected and applied to reach the objectives, and through an assessment of their planned results / anticipated effects. A useful tool in this context is the Logical Framework (LogFrame) approach, bringing the objectives of different hierarchical levels, the measures to be implemented and the planned results into a logical, concise and transparent order. The LogFrame approach is widely applied in project and programme design and management but can, in an aggregate form, be analogously used in policy design and management. This will also facilitate the task of policy impact monitoring.[8]

It will be subject of MPI to assess whether the effects of policy implementation are as anticipated and planned. If discrepancies between plan and reality are revealed, this should trigger adjustments in the policy design and/or management. It is the genuine task of MPI to point out such discrepancies, when they occur, as early as possible and as soon as they are perceived. MPI will, however, only be able to serve its purpose if the policy makers are ready to accept its - particularly if unpleasant - results and to use them to initiate adjustments in policy design and implementation (a fundamental **assumption** in LogFrame terminology).

[6] In economic policy, the term "magical triangle" or "magical square" is used to point out the fact that the macro-economic policy objectives of full employment, price stability and elimination of budgetary and/or balance of payment deficits cannot be reached at the same time.

[7] There may be conflicts with further policy objectives, such as reducing the budgetary deficit (water subsidies!) and to give equal access to all farmers to productive resources.

[8] The LogFrame approach is presented in Annex 1, its application in policy design and management is illustrated in chapter 2.

1.2.2 Choice of measures and instruments for policy implementation

The selection of measures and instruments to reach the policy objectives is an essential, and probably the most challenging step in policy formulation. There are regulatory means, such as new laws, rules and regulations, and operational means, such as programmes and projects.[9]

- The **regulatory means** set the conditions under which institutions, organisations and the individuals will have to operate. These may include, for example, new regulations on taxes, import or export duties and/or restrictions; subsidies; regulations for marketing or other services (e.g. abolishment of government monopolies, setting of rules for private operations) etc.
- The **operational means** refer to all activities which are planned and implemented with (some kind of) direct public intervention into the economy and society. Such public interventions (programmes, projects, activities) usually involve public funds[10] as well as activities and inputs by government organisations and staff.

Through the definition of the policy measures it becomes evident what exactly the policy means and implies. Expectations are raised among stakeholders and the whole society on how they may be affected by the policy, whether they anticipate new chances, benefits, or disadvantages. This will decide upon the degree of acceptance of a policy, and about the cooperation of stakeholders during the policy implementation process. It also implies a decision on how limited public funds and other resources are going to be invested and spent.

1.2.3 Defining the role of stakeholders

In order to ensure feasibility and effectiveness of a policy, it is essential to consult experts and to actively involve all relevant stakeholders in the process of policy formulation and implementation. When a policy is being designed, a common and suitable approach is to form a commission or committee of experts and stakeholder representatives to work out proposals for policy measures. Sharing of expertise and – though differing - opinions in such a forum, and searching for common solutions, help to ensure feasibility and acceptance of the planned policy measures.

During the process of policy formulation, and closely related to the planning of policy measures, also the role of stakeholders during the process of policy implementation will be defined. **Stakeholders** are all institutions, organisations, groups and individuals who are

[9] See examples of a new education policy above and of a food security in Figure 1-2 below.

concerned with or affected by a policy and/or will have role to play during policy implementation.

Figure 1-2 presents examples of possible stakeholders of a food security policy.

It has substantial bearing for the effectiveness of policy implementation whether the role of stakeholders is adequately assessed and defined, in regard of the functions to be performed on the one hand and stakeholders' interests and capacities on the other.

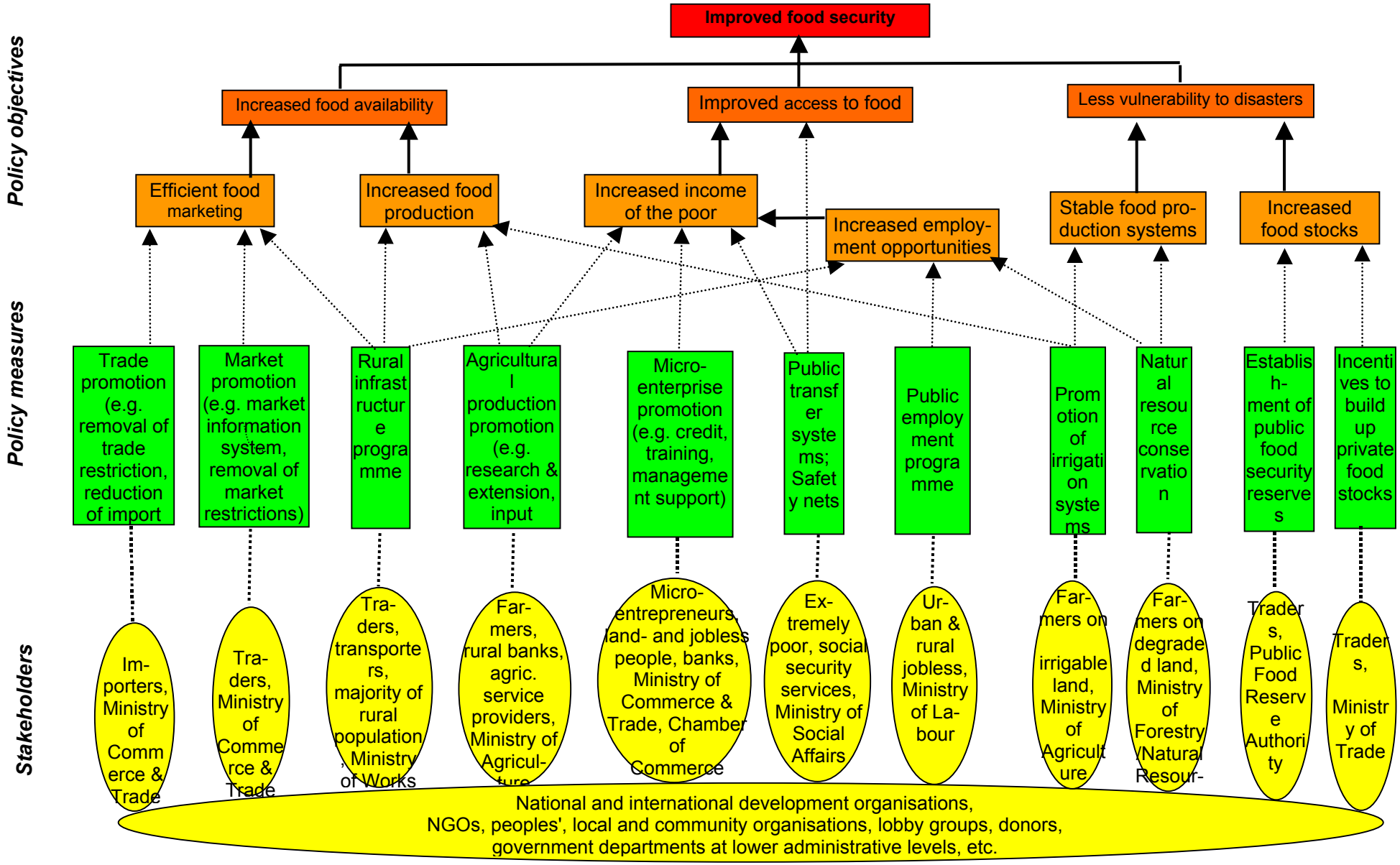
As to the role of stakeholders in policy implementation, the following distinctions can be made:

- **Supervisory and monitoring functions, and decisions on policy adjustments** if deemed necessary. This is the genuine role of the **policy makers**. The monitoring task may be assigned to a special monitoring unit established by and reporting to the policy makers. Some kind of policy monitoring is usually also done by international development and donor organisations which assist in policy implementation.
- **Initiation and coordination** of the policy measures. This is the genuine task of the responsible **government bodies (line ministries or special government agencies)**.
- **Implementation of policy measures**. Different concepts can applied for the implementation of policy measures, involving different categories of stakeholders:
  1) The **line ministries or government agencies** themselves may be mandated to implement, including their departments, sections or special units.
  2) Implementation of policy measures is done through **NGOs or other non-governmental agencies or institutions**, based on an agreement with the government/the responsible line ministry.
  3) Implementation through **private sector companies**, based on contracts with the responsible line ministry.
  4) Implementation through **the community, self-help groups, beneficiary groups**, etc.

Which of the possible stakeholders are selected for implementing the policy measures depends on the type of measures to be implemented, on the capacity of the different stakeholders, on their own objectives, and their readiness to be involved in the implementation process. Usually a mix of different implementation approaches is applied.

[10] Irrespectively of their sources; could be budgetary allocations, credits or donor funds.

Figure 1-2: Example of food security policies: Typical policy objectives, policy measures and stakeholders



- **Utilisation of results of policy measures by the target population**. The policy measures are implemented to bear certain results. Although the results may somehow affect the entire or the majority of the population, policy measures often target particular population groups, such as the urban and/or rural poor, farmers in general or small farmers in particular, pastoralists, population in a certain area, traders, mothers, children, female headed households, etc. Obviously a policy can only be effective if the policy measures are designed in a way that the results can and will likely be used by the target population. Therefore, in order to ensure that this is the case, the conditions, aspiration, potentials and constraints of the target population need to be duly taken into consideration when the policy measures are defined.

It will be part of impact monitoring during the implementation process to find out to what extent the results of the policy measures are actually utilised by the target population.

1.2.4 Implementation of the policy measures

Once the policy objectives, the policy measures and the role of stakeholders are defined, the implementation process can start. Usually the implementation of a package of different policy measures is not set out at once but in sequences, depending on prerequisites to be fulfilled and preparations required, such as:

- If the policy also encompasses new laws and regulations, these may have to be released first before operational measures can start;
- Funds need to be mobilised (budgetary allocations, credits, donor funds);
- Implementation capacities (e.g. number of qualified staff, capabilities) must possibly be expanded through new recruitments and/or upgraded through specific training measures.
- Implementation partners must be identified and agreements/contracts prepared and concluded;
- New organisational or management structures or institutions may have to be set up;
- Technical planning of the measures will be required.

Such activities often demand more time than expected, before actual operations can start.

Implementation of operational policy measures - programmes, projects, activities - is the responsibility of the programme/project management. If the policy measures have been properly planned, it largely depends on the performance of the programme/project management but also on other actors involved and conditions whether implementation proceeds as planned and the intended results are achieved. The state and progress of programme/project implementation, and the outputs/results attained, will be recorded by the

programme/project monitoring system established by programme/project management. The results of programme & project monitoring will have to be communicated to the MPI-system.

Monitoring of the implementation process is a prerequisite for MPI, in order to be able to relate the changes and effects observed to the type and state of policy measures implemented. Ideally, the MPI system is established when - or even before - policy implementation starts. This offers the possibility to conduct baseline surveys and collect baseline data which later, during the implementation process, can be compared with the changes induced by the policy measures.

1.3 Policy impact scenarios

From the outset of a policy, it is generally assumed that the policy makers' model is broadly correct and that the policy works as intended towards reaching the stated objectives. It will be the role of MPI to examine, by applying suitable assessment methods, whether this assumption holds true during the implementation process. If the observed impacts match with what was intended to be achieved, then obviously there is no need for policy adjustment and policy implementation may continue as before and planned. We define this case as

> **Impact scenario 1: Impacts are as intended and expected - type, quality and scope of impacts are fully in line with policy objectives.**

All other cases, when major deviations of reality from plan are recorded, are subsumed under

> **Impact scenario 2: Impacts do not materialise as expected or unintended impacts occur - impacts do not (fully) match policy objectives.**

If impacts do not materialise as planned or if there are unintended and undesired impacts, the cause(s) of such divergence will have to be traced. This is necessary, in order to know which critical factor(s) will have to be addressed and modified in policy adjustment.

It can depend on different factors whether a policy is effective or not in achieving the planned objectives: On the objectives themselves, the choice of measures and instruments, the performance in implementing the policy measures, or on changed conditions or other influencing factors which were not foreseen when the policy was designed. According to the

different factors which are responsible for the divergence between plan and reality, the following

Sub-scenarios of impact scenario 2 can be distinguished:

2a) Ambiguous impacts resulting from ambiguous policy objectives: If the objectives are not clearly defined they allow different interpretation among stakeholders. A lack of common understanding on the policy objectives will prevent to set the right priorities in selecting policy instruments, will impede effective policy implementation and eventually also lead to different judgements on the impacts achieved.
In order to become effective, adjustment in policy formulation is required in regard of a clarification of the objectives. Suitable policy measures and implementing agencies can only be identified on the basis of clear policy objectives.

Box 1-5: Example

If, in the case of a food policy, the objective of food security is not clearly defined in terms of access, availability, stability and utilisation, it may give rise to the opinion that food security is primarily a matter of sufficient food production and food self-sufficiency and that policy measures concentrate on increasing food production. Even if the policy measures are successful in this regard and lead to a substantial increase in food production, it may turn out that the surplus food production cannot be sold, is stored and wasted, and that the nutritional status of the poor and vulnerable population groups has not significantly improved.

2b) Impaired impacts due to a selection of inappropriate policy measures and instruments: The selected policy measures and instruments may be unapt to bring forth the desired results, or they may have effects which were not foreseen and not intended.
In order to ensure that the effects of the policy measures match with the objectives and that undesired side-effects are avoided, it is necessary to revise the policy instruments.

Box 1-6: Example

The example of low, subsidised water price, cited above in Box 1-4, applies to this case.

2c) Impaired impacts due to deficiencies in policy implementation: Incomplete, delayed or ineffective implementation of the policy measures often hampers the attainment of desired results. There are many possible reasons for deficiencies in implementation, such as staff and/or capacity constraints of implementing agencies, organisational or management weaknesses, lack of commitment of stakeholders, delayed or insufficient mobilisation of funds, cumbersome bureaucratic procedures, etc. The monitoring system of

programmes and projects should provide evidence on the causes of deficiencies in implementation.
Adjustments in the process of policy implementation will be required, depending on the constraints identified, for example: Modifying the implementation modalities, changing implementing agencies, speeding up funding, streamlining bureaucratic procedures, etc.

2d) Impaired impacts due to changing conditions or other influencing factors:
Whether a policy is effective in reaching the objectives does not only depend on the selection of suitable measures and instruments and an effective implementation, but also on the economic, social and political framework conditions and factors which are out of policy makers' control and influence. If the conditions change, it may have substantial implications for the feasibility and the effects of policy measures.
In LogFrame terminology, the conditions and external factors which are crucial for accomplishment but beyond management control are expressed as **assumptions & risks**, in order to make policy makers and managers aware of their importance and to closely monitor their changes. Changing framework conditions may require substantial changes in policy design and/or implementation. There can, of course, also be changed conditions which favour the achievement of policy objectives (e.g. an increase of world market prices would be supportive to an export promotion policy).

Box 1-7: Example

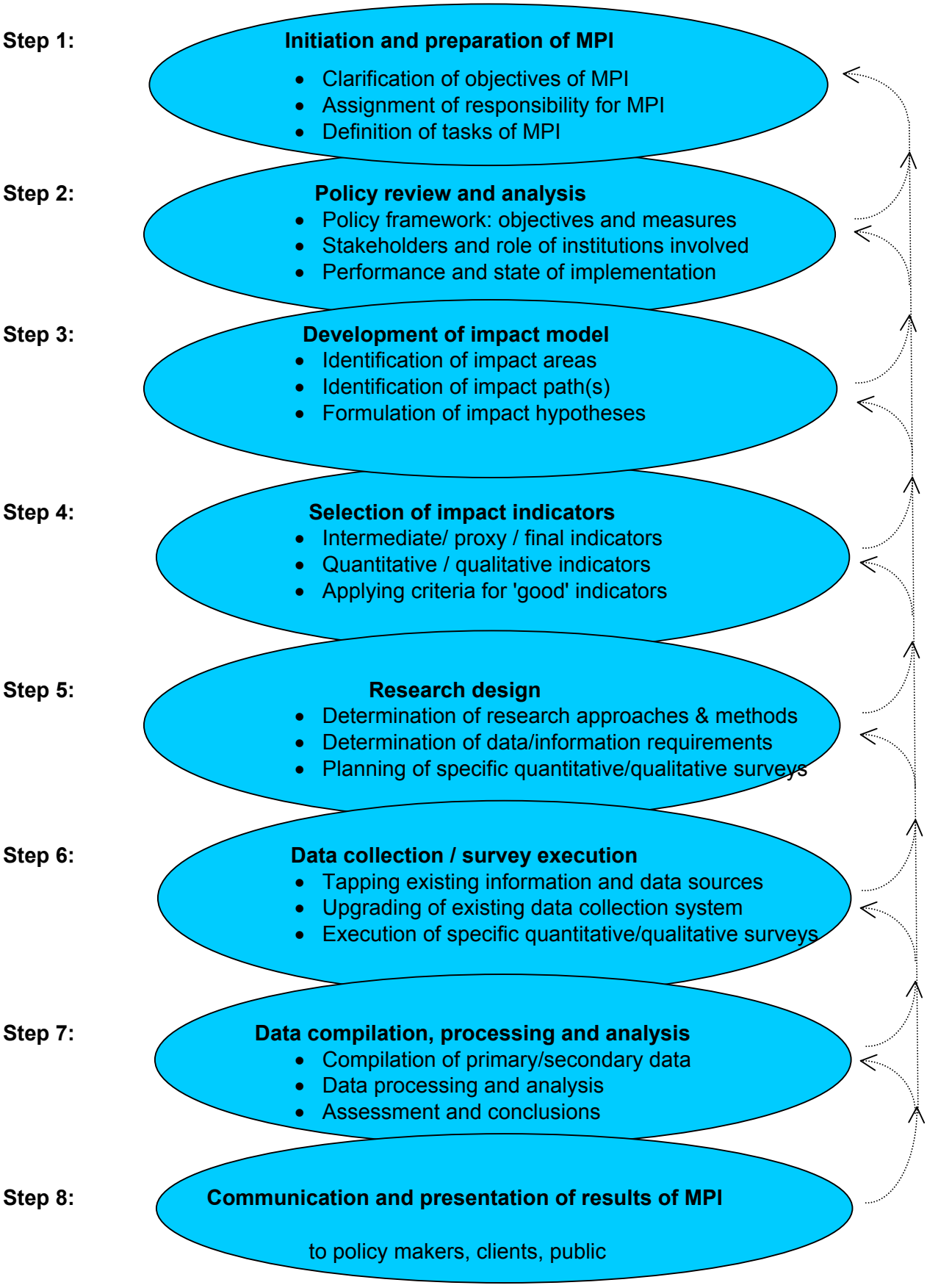
A policy of agricultural export promotion will only reach its objectives of increased export revenues for the state and income for agricultural producers if the world market price of the main export commodity, say coffee or cocoa, remains stable or increases. A major deterioration of the world market price will render the policy void.

Once MPI has come across discrepancies between expected policy outcomes and actual impacts, the reasons for the disparities will have to be identified. The impact scenarios presented above can serve as a guideline for this exercise. In practice, one may often find that different impact scenarios apply at the same time, calling for adjustments in several respects, in policy design as well as implementation.

1.4 Methodo-“logical” Steps for Monitoring Policy Impacts

MPI itself is a process, comprising a number of consecutive steps as presented in Figure 1-3. The eight steps of MPI are described in detail in chapter 2 below.

Figure 1-3: Eight steps for Monitoring Policy Impacts (MPI)



The sequence of steps11 as shown represents a methodo-'logical' order but should not be taken as absolute and binding. The steps are inter-linked (shown as overlapping fields) and there are **also circular relationships / feed back cycles** between progressing and preceding steps (indicated by dotted arrow lines). In passing through the process of MPI, it may be necessary to return to one of the preceding steps for further clarification and for adjustment of the approaches. Such need arises, for example, in the following cases:

- If the impact model developed in step 3 is too complex to be fully covered under MPI, it is necessary to concentrate and/or prioritise on certain impacts / impact chains to be monitored. In consultation with the client(s), the objectives and tasks of MPI will have to be redefined and specified (step 1).
- If resource, capacity and/or time constraints will not allow to carry-out MPI activities according to a comprehensive and optimal research design developed in steps 5, it will be necessary to redefine the scope and tasks of MPI (step 1), e.g. by agreeing with the client(s) on some compromise solution regarding aspects to be covered, research approaches to be applied and/or type/quantity/quality of data to be collected or generated. It is also possible to present alternative research proposals, with different implications as to costs, capacity -, resource and/or time requirements. The decision of client(s) to implement one of the alternative proposals would have to go hand in hand with the allocations of the respective resources and capacities required. Also in this case, the process of MPI would have to start from step 1 again, now based on the agreed proposal for MPI.
- The type and quality of available data to be collected in step 6 will determine the choice of indicators (step 4).
- Problems in data compilation and processing (step 7) may lead to amendments in data collection (step 6).
- If the results of MPI suggest policy adjustments (step 8), this may lead to modifications in policy design and/or implementation which need to be taken into account during the further impact monitoring process, starting from step 2.

In carrying out the specific tasks through the eight steps of the policy impact monitoring process, different methods and related tools for planning, data collection, data analysis and presentation will have to be applied. The appropriate method(s) have to be selected from a wide range of social research methods and tools. There are no new and special methods or tools which specifically serve the purpose of policy impact monitoring. The same tools as

[11] In the literature one finds different - though similar - concepts of steps for impact monitoring and evaluation, generally referring to project and programme impact assessment; see, for example: Vahlhaus, 1999; Müller-Glodde, GTZ, 2000; Lobb-Rabe, 2000; Baker, 2000.

applied for other planning, research and management purposes can be used, if appropriately adapted to the nature of policy implementation and the specific issues to be addressed by policy impact monitoring. The choice of method(s) also depends on the nature of the policy /-ies to be monitored and respective policy measures adopted, as well as on the desired degree of accuracy of observation, on available resources, and on cost considerations.

Table 1-2 indicates the most relevant methods at different stages. However, application of a specific method or tool is generally not limited to a single step but may be repeatedly applied at the different stages of the MPI process.

Table 1-2: Relevant methods to be applied at the various steps of MPI

Steps of MPI	Main relevant methods
Step 1: Clarification of objectives and task of MPI	• LogFrame Analysis • Workshops • Stakeholder interviews • Expert consultations • Metaplan
Step 2: Review of Policy	• LogFrame • Document review • Web-search • Stakeholder interviews and analysis
Step 3: Development of impact model **Step 4:** Selection of impact indicators	• Expert consultations • Stakeholder interviews • Stakeholder analysis • Metaplan • LogFrame • Participatory appraisal • Rapid appraisal

Step 5:
Research design
	• Experimental / quasi-experimental design:
	  • Reflexive comparison (before/after)
	  • Comparison with counterfactual
	  • Double difference
	• Qualitative approaches
	• Sampling methods / case study approach

Step 6: Data collection	• Tapping existing data sources • Piggybacking • Survey methods: Interviews, questionnaires, etc. • RRA, PRA
Step 7: Data compilation, processing, and analysis	• Data banks / spread-sheets • Statistical and econometric analysis • Reference to research design
Step 8: Presentation / feed back of results	• Communication and presentation methods (Reports, workshops, publications, etc.) • Web-based presentation and communication (web-page, net-meetings, etc.)

1.5 Scope and limitations of MPI

MPI offers decisive potential to make policies more effective but has also its limitations. Major relevant issues in this regard are:

(1) Applicability of MPI;
(2) Capacities for MPI;
(3) Costs and funding;
(4) Time frame for impacts to materialise and to be assessed;
(5) Quantitative and qualitative approaches to impact assessment;
(6) The attribution problem;
(7) Multiple outcomes

1.5.1 Applicability of MPI

MPI can be applied to assess the impacts of:

- **macro and sector policies**, e.g. macro-economic reform, stabilisation and/or adjustment policies; agricultural sector policies;
- **a particular policy**, e.g. sector investment -, market reform -, privatisation - , food security -, trade -, girls' education -, gender policy;
- policies particularly with respect to **specific effects** which are considered to be **of special importance**, such as the impact of policies on economic growth, on poverty, on food security, on the environment, etc. Assessment of the impacts of development programmes on **poverty** has become a particular concern of the World Bank, donor - and development organisations

There is also the possibility to apply MPI in a **reverse mode**. Instead of starting from the policy measures and tracing down their effects, MPI can be launched because certain - usually undesired and harmful - changes have been felt or noticed, in order to monitor such changes and track them back to their causes, thus to be able to address these factors in a way which helps to avoid or mitigate the harmful effects. Such an approach is frequently applied in the context of **environmental policies**: In encountering damaging environmental effects (erosion, depletion of natural resources, pollution, etc.), the causes are to be identified and then addressed by appropriate policy measures.

1.5.2 Capacities for MPI

MPI has specific capacity requirements, such as capacities for management and coordination, survey design and data collection, for data analysis and for preparing reports

and communicating the results of MPI to the policy makers and other stakeholders. Before establishing a MPI system, the required and available capacities must be carefully assessed, and special capacity building measures may have to be launched.

It is not necessary - and it would be neither effective nor efficient - that all the required capacities for MPI be available within the government body in charge of MPI. Many of the activities related to impact monitoring (e.g. survey design and execution; data collection, compilation, processing and analysis; presentation of results) can be outsourced to other agencies (research institutions, consultants, NGOs, government services, etc.). Nevertheless, there remain some core functions, particularly in regard of management, coordination, supervision and analysis, which have to be performed by a central MPI unit and for which capacities must be available there. If the necessary capacities have to built-up first, a gradual approach for setting up the MPI system may be applied, and the immediate tasks to be performed under MPI will have to be adapted to the limited existing capacities.

1.5.3 Costs and funding

There are costs for establishing and maintaining a MPI system which need to be budgeted for: staff, office and office equipment, computer hard - and software, vehicles, training costs, etc. In the case of programmes or projects, the costs for M & E are part of the programme or project budgets. In the case of a MPI system, special allocations will have to be made from the central budget, respectively the sectoral ministry's budget where the MPI system is based. Regular budget allocations for the MPI system are not only an expression of ownership but will also ensure its sustainability.

Monitoring systems are often under-funded and under-equipped, seriously hampering their performance. In taking into consideration the objective of MPI, to increase the effectiveness of policies in reaching their objectives, it turns out that the money is well invested if it enables the system to adequately fulfil its tasks. Nevertheless, cost saving possibilities should be fully explored and utilised. A major cost component in MPI are surveys and data collection. Making maximum use of existing data and data sources will, as already said before, help to minimise these costs.

1.5.4 Time frame for impacts to materialise and to be assessed

It is very important to be clear about the time frame within which impacts materialise and can be traced.[12] For some interventions, such as food assistance or public employment programmes, there are impacts in terms of consumption gains which are almost immediate. Other impacts need longer time to materialise, as, for example, a significant improvement of the nutritional status of children. Such medium-term effect may result from food assistance to vulnerable households or from special nutrition intervention programmes, both measures forming part of a food security policy. Some policies or programmes may have only longer-term impacts. This typically applies to capacity building and environmental programmes. In such instances, a few short-term, intermediate indicators will have to be identified, in order to allow a judgement on the direction and speed of change towards the desired objectives.[13]

The decision on time and frequency of impact monitoring also depends on a careful assessment of the trade-off between the desirability of recent data and the cost of data collection, respectively the availability of data which are routinely collected. So, for example, nationally representative household surveys of income and consumption are not conducted every year because they are time-consuming and costly. Thus, some indicators such as poverty incidence or malnutrition are only available in several years intervals, whereas others, such as food production, school enrolment rates, prevalence of diseases, etc. are available on an annual basis.[14]

If recent or frequent evidence on certain indicators is essential for assessing impacts but respective data are not routinely collected and available from elsewhere, special surveys may have to be launched for MPI.

1.5.5 Quantitative and qualitative approaches to impact assessment

Although there is a general preference for quantitative approaches to impact assessment, there are situations and conditions when the use of qualitative approaches is the matter of choice for monitoring impacts. This applies, for example, to cases when meaningful quantitative data on impacts are not (yet) available, or when participatory approaches to impact assessment are applied, with active involvement of stakeholders and target groups.[15]

---

[12] Prennushi et al. 2001

[13] See also discussion of intermediate impacts in 1.4, step 4, above.

[14] Prennushi et al. 2001

[15] This applies, for example, to MAPP (Method for Analysing Impacts of Projects and Programmes), an approach to participatory qualitative impact assessment which has been developed by Susanne

These groups are generally well aware of the type and quality of changes they expect and they actually experience as result of policy measures, and their perception of what 'makes a real change to them' can be highly relevant. Their indicators for assessing changes may not be expressible in quantitative terms but nevertheless allow a rough classification, such as (much or moderately) better or worse, more or less, important or insignificant, etc. Moreover, changing attitudes, fears, aspirations, behaviour and prospects among the target population cannot be measured in quantitative terms, nevertheless may exactly be an expression what a policy strives at. Due to such considerations, qualitative approaches to impact assessment, have been repeatedly applied in impact monitoring systems.[16] In order to get a comprehensive picture, a combination of quantitative and qualitative approaches to impact assessment will often be the most appropriate solution.[17] Such combination will provide evidence on the quantifiable impacts as well as an explanation of the processes and interventions that yielded these outcomes.[18]

The specific features of quantitative and qualitative approaches are compared in table 1-3.

Table 1-3: Main features of quantitative and qualitative approaches in impact assessment

	Quantitative Approach	**Qualitative Approach**
Main purpose	To assess causality and reach conclusions that can be generalised	To understand processes, behaviours and conditions as perceived by the groups or individuals being studied
Data collection instrument	Structured, formal, pre-designed questionnaires	In-depth, open-ended interviews Direct observation Written documents (e.g. open-ended written items on questionnaires, person 1 diaries, program records)
Sampling	Probability sampling	Purposive sampling
Methodology for analysis	Predominantly statistical analysis	Triangulation (i.e. simultaneous use of several different sources and means of gathering information) Systematic content analysis Gradual aggregation of data based on selected themes.

Source: adapted from Prennushi et al. 2000, based on Carvalho and White, 1997 and Baker, 1999.

Neubert of the German Development Institute (Neubert, 2001). MAPP is based on a systematic application of various participative instruments, using PRA methods, starting from an assessment of relevant changes, as experienced by stakeholders, and leading up to an evaluation of the factors causing such changes done by the community members.

[16] See, for example, Qualitative Impact Monitoring of Agricultural Structural Adjustment in Jordan (CATAD 1996), or Qualitative Impact Monitoring of Poverty Alleviation Policies and Programmes in Malawi (Mueller-Glodde, 1998, Lobb-Rabe, 2000).

[17] Cf. Baker, 2000, p. 8 and Prennushi et al. 2001, Technical Note 4: Combining quantitative and qualitative approaches for impact evaluation: Nicaragua's School Autonomy Reform.

[18] Cf. Baker, 2000, p. 15.

1.5.6 The attribution problem

MPI helps to answer two questions through what can be called 'forward tracking' and 'backward tracking'.[19]

- Which changes happen as result of a policy? (**forward tracking**), and
- Which are the causes of (intended or unintended) changes observed? (**backward tracking**).

Projects and programmes implemented within a policy framework often face the problem that they are expected to 'prove' what their impacts in terms of progress towards reaching the overall policy objectives are. However, since the achievement of the overall policy objectives depends on a multitude of factors and conditions, including other programmes and projects launched under the same policy framework, all of which are beyond control of the individual project or programme management, no valid assessment on overall aggregate impacts, apart from plausibility assumptions, can be given at this level.[20] Even if a project or programme induces significant changes in a certain area, these effects may be insignificant in aggregate terms,[21] and/or may be neutralised by other factors.

Projects and programmes can, with their own M&E system and sufficient conviction and validity, track their effects only up to a certain level. This level is generally given by the effects resulting from the direct uses of their outputs. Any effect beyond this level cannot be directly attributed to the specific project or programme. There is what has been called an ***'attribution gap'***, [22] as shown in Figure 1-4.

It is here where MPI links in and helps to bridge the attribution gap, namely by tracking the impacts further up to the more aggregate levels, and/or, if the impacts at aggregate level

[19] See also paragraph 1.5, a) above (applying MPI in the 'reverse mode').

[20] Cp. Mueller-Glodde, 2000.

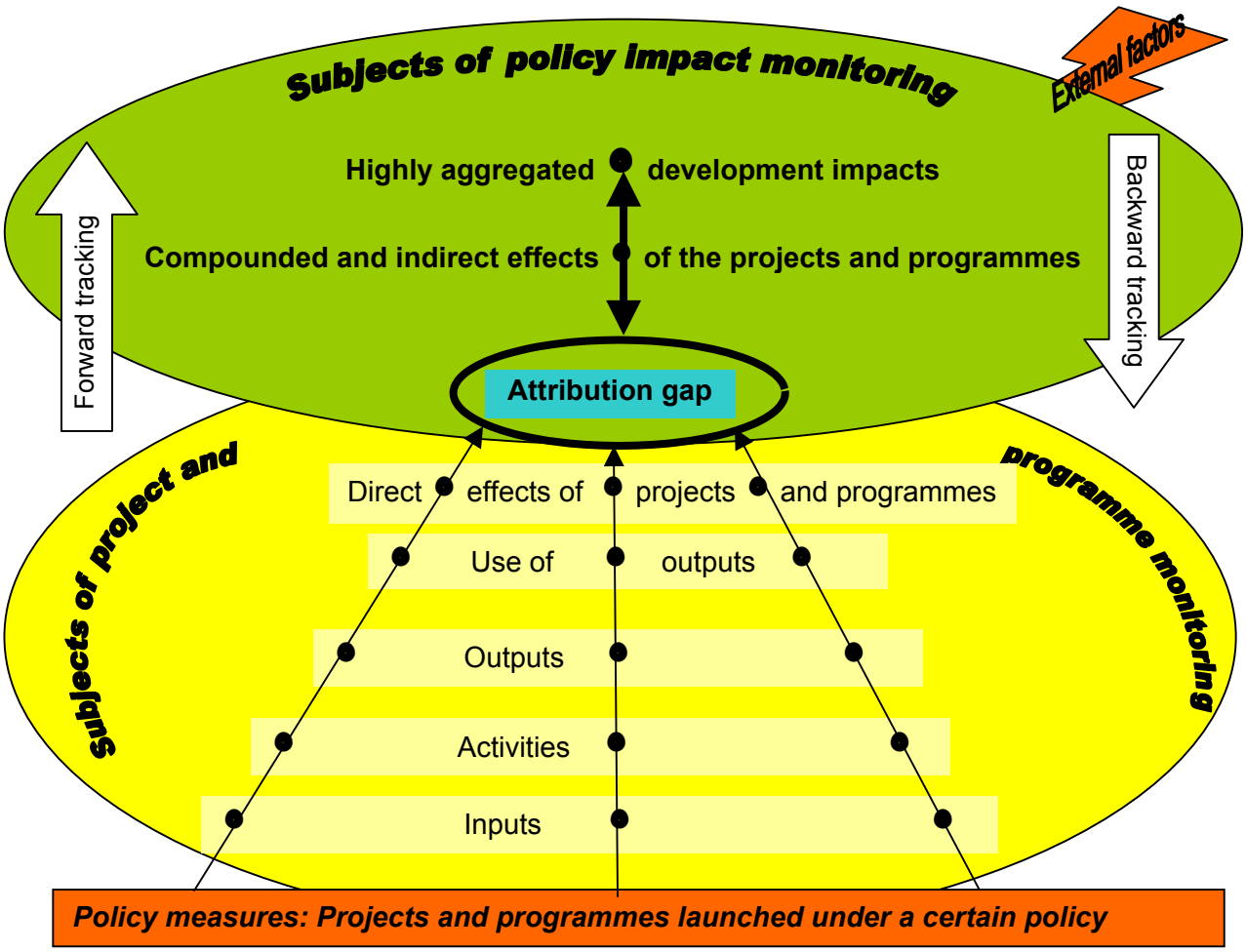
[21] It may be different in the case of country-wide programmes which are a major instrument to put a policy into practice.

[22] Cf. Kuby, 1999; Mueller-Glodde 2000.

divert from what has been planned and intended, by tracking them back to their causes. In identifying the causes for the deficiencies or unintended side effects - they may be rooted in deficiencies in policy design or implementation (including deficient programme and project design or implementation) or caused by external factors[23] - they can be effectively addressed by apt policy adjustments.

[23] See 'policy impact scenarios' presented in section 1.3 above.

Figure 1-4: MPI - Getting over the attribution gap of impact assessment at project and programme level



Adapted from Kuby (1999)

Box 1-8: Example

*related to the programmes launched under a **new education policy** cited in Box 1-2 and 1-3 above:*

The individual programmes launched under the education policy (school construction, teachers' training, adult literacy, curriculum development) are – if effectively implemented, if the planned outputs are achieved and utilised by the target groups (assessment thereof is subject of programme level monitoring) - likely to contribute to the overall policy objective, namely to increased literacy rates. However, an actual increase of literacy rates cannot be attributed to an individual programme component. Whether and to what extent the overall policy objective is achieved depends on the compounded effects of all policy measures, as well as on other factors and conditions, e.g. the cultural, economic and social conditions, such as attitudes of parents and the society regarding boys' and girls' education, child labour, economic status of households, etc. This can only be assessed at a higher aggregate level, taking the compounded effects of all policy measures and the other determining factors into consideration.

1.5.7 Multiple outcomes

Any project, programme and - even more so - policy is likely to have not just one outcome of interest but multiple impacts in different respects. There are five problems related to this issue of multiple-outcomes which need to be considered in MPI: 24 finding, limiting, assessing, common-scaling and weighting.

- **Finding**: It has to be figured out which outcome dimensions are affected by a policy.[25]
- **Limiting**: It might be that the number of potential impacts found is huge. If so, tracing all of the potential impacts would be ineffective and unrealistic. A decision must be made which impacts to pursue and which to ignore, based on common sense and consultation of stakeholders and experts.
- **Assessing impacts**: Those (potential) impacts considered as relevant are to be traced by means of research designs as outlined before and throughout this manual.
- **Common-scaling**: If there are many outcomes and one wants an answer to the effectiveness question for the policy as a whole, the estimates of impact for the various outcomes would have to be combined in some way. But they are probably in different measurement units, e.g. cost and price changes, income changes, production and supply changes, number of points improvement on some attitude scale, etc. An approach may have to be applied which puts all these things together so that the effectiveness of the whole policy can be appraised.
- **Weighing**: Even if the various impact scores can be combined, it is rare that they are all of equal importance. Qualitative approaches, particularly expert and stakeholder consultations, will have to be applied to arrive at a decision on how to weigh the importance of each impact relative to the others.

1.6 Concluding Remark

It lies within the nature of a manual that it deals with its subject in quite some detail. The reader might gather the impression that monitoring of policy impacts is cumbersome and complicated operations. Admittedly, policies are a somewhat complex proposition and – depending on their nature and type of policy measures – can produce many, and many types of impacts, all the more that they are generally carried out in a fairly complex reality environment, e.g. societies.

[24] Cf. Mohr, 1995, pp.274

[25] This is part of the impact model analysis, See step 3 in Chapter 2.

The suggestions made by the manual for a systematic, stepwise approach to MPI, and the methods to be applied, are meant to be a framework and guidance for policy impact monitoring, and thereby to contribute to increase the effectiveness of policies in reaching their objectives. They can, however, never replace common sense, good judgement, professional skills and experience.
Not all perceivable impacts need tracing by monitoring. Effectual monitoring of policy impacts even of complex policies not **necessarily** demands massive, costly and extremely labour- and time consuming inputs and efforts, neither a new specialised government agency causing tremendous costs for its establishment and maintenance. In most cases, the opposite holds true: simple and appropriate arrangements will quite suffice.

As a rule, policy makers and those mandated with the task of monitoring policy impacts should rather focus on few central, significant and judiciously selected indicators and try to keep the magnitude of special MPI operations within reasonable limits without faulty compromising on the quality of feedback for further policy improvements. This takes into account the common experience that **LESS** is mostly **MORE** and avoids costs, futile efforts and yet more garbage on the global data graveyard.

Exercises
related to Chapter 1

(1) Take an actual policy in a country of your choice (e.g. home country of participants of training courses or country where course is held) and work out:

- the hierarchy of objectives;
- the related policy measures;
- the stakeholders involved, their (assumed) role and interests.

Point out, how the information on the issues above has been obtained and should be obtained in a real case (using which information sources and methods), to arrive at valid results, and present the results in a structured manner (e.g. a table with analogous content of Figure 1-2).

(2) For the policy and country selected under (1), select possible impact indicators, give reasons for the choices made, and make proposals for suitable approaches and methods for data collection and analysis, taking into consideration existing data sources, quantitative and qualitative issues, quality (robustness) of results, timeliness, and existing capacities for data collection and analysis.

(3) For the policy and country selected under (1), present possible impact scenarios, indicate the possible reasons and most likely factors (considering factors related to the policy design and implementation as well as possible external factors) which may be responsible for a divergence of actual from planned impacts, and make proposals for adjustments in policy design and/or implementation which may bring about a better match of planned and effective impacts.

Key references and web-links*
related to Chapter 1

References

Baker, Judy L., 2000, Evaluating the Impact of Development Projects on Poverty, A Handbook for Practitioners, The World Bank, Washington D.C.
(This handbook seeks to provide project managers and policy analysts with the tools needed for evaluating the impact of interventions. It includes a discussion of evaluation methodologies and implementation issues and presents several case studies).

Prennushi, G., G. Rubio and K. Subbaro, 2001, Monitoring and Evaluation, in: World Bank, Poverty Reduction Strategy Sourcebook, Draft for comments, April
(This chapter of the Poverty Reduction Strategy Sourcebook aims to assist countries in developing an outcome monitoring and impact evaluation strategy).

World Bank, OED, 1996, Designing Project Monitoring and Evaluation, (htm-Internet file, see below)
(This document gives many useful hints on methods and approaches for designing and implementing monitoring and evaluation at project and programme level which are equally important for policy impact monitoring).

Web-links on issues and literature related to impact assessment

IAIA (International Association for Impact Assessment): http://www.iaia.org/

IFPRI (International Food Policy Research Institute): http://www.ifpri.org/

SAGE Publications offers a wide range of relevant publications:
http://www.sagepub.co.uk/shopping/catalogue.asp?catalogueid=231&domainid=5

* Note: For further references and web-links, see References in Annex 3.

World Bank, OED (Operations Evaluation Department): http://www.worldbank.org/oed/

World Bank, Impact Evaluation for Sustainable Poverty Reduction:
http://www.worldbank.org/poverty/impact/

USAID Center for Development Information and Evaluation:
http://www.dec.org/usaid_eval/#15

FAO/GTZ Training Manual on MONITORING POLICY IMPACTS

Chapter 2:
The Eight Steps of MPI

(prototype draft, 16-10-02, including exercise)

prepared by Manfred Metz
with additional case study material prepared by
Andreas Groetschel (Agric. Sector Reform - Jordan)
for FAO-TCAS & GTZ, Unit 4555

Chapter 2:
The Eight Steps of MPI

Objective: *Familiarisation with the application of the concept and approaches of policy impact monitoring, by getting acquainted with the eight methodo-logical steps to be taken, the issues to be addressed, the tasks to be performed and the methods to be applied on the various steps, and by an illustrative application of MPI to real policy examples.*

2.1 Introduction

The concept and approaches for monitoring policy impacts presented in this chapter are related to the eight steps for MPI presented in Figure 1-3, section 1.4 of chapter 1.[26] Here, the issues to be addressed and the tasks to be performed on the various steps will be described and illustrated by practical examples of an application of MPI to concrete policy cases. Two specific policies in the context of two countries were chosen as examples for illustrating the steps and approaches of MPI:

a) **Food security policies in Ethiopia***:* A comprehensive package of cross-sector policies, including economic growth, agricultural development, poverty alleviation as well as disaster mitigation policies, subsumed under the umbrella of food security policies in Ethiopia.
b) **Agricultural sector reform policies in Jordan**: A typical set of agricultural sector reform policies as introduced under Agricultural Sector Adjustment Lending (ASAL) in Jordan.

The illustrative examples refer to concrete policies and specific country cases where respective policies have been implemented and efforts to monitor policy impacts have been planned or made. For pedagogical reasons, the case study examples are somewhat idealised and do not take full account of all relevant aspects and particular conditions in the countries concerned.

[26] It should be recalled that the sequence of the eight steps represents a methodo-'logical' order but should not be taken as absolute and binding. The steps are inter-linked (shown as overlapping fields in Figure 1-3) and there are also circular relationships / feed back cycles between progressing and preceding steps (indicated by dotted arrow lines).

2.2 Background and principal framework conditions of case study examples

a) Case study example: Food security policies in Ethiopia

Ethiopia is a country with grave food insecurity problems, caused by a variety of factors which seriously and simultaneously affect access to food as well as availability and stability of food supplies. Such factors are:

- Extreme and widespread poverty. With a GNP per capita of 100 US$, Ethiopia is one of the poorest countries in the World. Around 60 percent of the population live below the absolute poverty line.
- Population growth exceeding growth in agricultural and food production over the past decades.
- Natural risk factors, such as recurrent droughts, occasional floods, untimely rains, frequent plant diseases and pests.
- Natural resource degradation, such as deforestation, soil erosion, overgrazing and desertification.
- Man-made disasters: Long periods of civil strife and wars.
- Very poor infrastructure.

Around half of the Ethiopian population is estimated to be undernourished; in 2000, up to 10 million people, i.e. 15 % of the population, were estimated to be in need of food assistance. Over the last decade, Ethiopia received 350,000 up to 1.2 million tons of food aid annually, i.e. 5 to 15 per cent of its total annual food grain production and consumption.

In order to address the problems of food insecurity, the Ethiopian Government has set out a national **Food Security Strategy (FSS)** and various related policies and programmes. The national FSS, issued in November 1996, outlines three major components for achieving food security:

- Economic growth and employment, with emphasis on agricultural and rural development;
- Entitlement/access and targeted programmes;
- Emergency capabilities.

The national FSS was updated in 2002. The updated Food Security Strategy27 particularly focuses on rural development in the chronically food insecure drought prone and pastoral areas.

[27] The Federal Democratic Republic of Ethiopia, *Food Security Strategy*, Addis Ababa, March 2002

Further policies and specific programmes have been launched which are directly or closely linked to the FSS and food security policy:

The **National Disaster Prevention and Management Policy (NDPMP)** of 1993 was developed to closely link relief and development efforts. It aims to ensure that disaster prevention activities receive due attention in the government's development efforts. Relief activities must be provided to the affected population in a manner that not only strengthens disaster prevention efforts, but also supports sustainable growth and development.

Since the mid-1990's, Ethiopia has been following a policy of **Agricultural Development Led Industrialisation (ADLI). To support ADLI**, several countrywide programmes and projects have been designed. The first and most prominent programme provides a 'package' of agricultural inputs on credit terms to farmers. The initial focus was on high potential areas with adequate and reliable rainfall, but the coverage of ADLI has gradually been broadened to the rural sector as a whole.

The national FSS has provided a framework for the formulation of **Regional Food Security Strategies and Programmes** (FSPs) for, up to now, four regional states28. However, the regional Food Security Programmes have a narrower focus than envisaged under the national FSS, such as targeting interventions exclusively in vulnerable (drought prone) districts (woredas). These regional FSPs have been compiled into a **National Food Security Programme** defined in 1998, with the following main features:

- the FSP is confined to targeting drought-prone and food deficit areas (woredas) within the four regions only;
- emphasis is put on the first component of the food security strategy, namely to increase agricultural and food production in those areas.

Food security objectives are also addressed in the **Economic Reform Program** aiming at economic stabilisation and growth, and particularly emphasising deregulation, market liberalisation and institutional reforms, the **Poverty Reduction Strategy (PRS)** process, and **sector strategies and programmes (roads, education, health, roads, water).**

The FSP document stipulates that periodical monitoring and evaluation will be made to assess the implementation of the food security programme. Frequent monitoring will be carried out to see whether the activities are heading according to the plan schedules, and evaluations will be

[28] For Amhara, Oromiya, SNNPR and Tigray.

made to assess whether the programme is achieving its intended objectives or needs modification in its course of activities. Apart from these planned M & E activities which directly relate to the implementation and impacts of the FSP, there is a plan for establishing an overall **Welfare Monitoring System,** to follow up on the impacts of the development policies and programs on the living conditions of the people.

Both, the M & E system for the FSP as well as the Welfare Monitoring System are yet to be fully established. It is recommendable to combine both. The proposed steps for MPI of the current food security policies and programmes, as outlined in the subsequent sections, can serve as contribution to establishing and running up such a system.

b) Case study example: Agricultural sector reform policies in Jordan

Jordan's natural resource base and agricultural production potential are limited, therefore the country heavily depends on agricultural imports. A mere 10% of its territory is suitable for agricultural production out of which a maximum of 15% can be irrigated. The agricultural sector employs only 7% of the active population but provides, in total, livelihood to 20% of the population. While, in 1991, the contribution of agriculture to GDP was about 7%, this share declined to 2.5% by 1999. Agriculture generates about 20% of total export, however, food imports exceed export by about three times. Forward and backward linkages between agriculture and the overall economy are strong. Including inputs, processing, producer services and marketing, agriculture contributes almost one third to GDP. Rapid growth during the 70’s and fluctuating per capita income thereafter were closely linked to developments in neighbouring countries that constituted the major market for its produce and for migrant labour.

Main objective of **agricultural policies** had, for a long time, been increasing food self-sufficiency, respectively a decreasing dependency on food imports. Protectionism, direct and indirect support to farmers, in particular through subsidies, were common policy measures. However, self-sufficiency rates could hardly been increased, while protective policies became a severe financial burden and have caused a highly inefficient allocation of resources, especially water.

Problem areas and reasons for unsustainable development in agriculture and the livestock sector can be summarised as follows:
In spite of the importance of the livestock sector, there was **no rangeland policy** consistently followed by the Government. **Input subsidies on animal feed** (concentrates) encouraged large herd sizes far above carrying capacities of rangelands. As a further reaction to this development, 75% of all feed had to be imported. For the constantly increasing number and

size of flocks, rangelands are limited as **subsidised cereal production** competed for land. Cereal production was expanding, partly supported through irrigation with fossil water, into unsuitable areas.

Within agricultural production, there was the additional problem of **subsidised irrigation water**, leading to subsequent misallocation of other agricultural inputs. **Trade barriers** further worsened the problem situation.

The increasing burden of subsidies aggravated **budgetary problems**. Extending deficits in the state budget called for a change in policies for the agricultural sector. In addition, the induced misallocation of resources caused severe environmental problems as well as marketing problems for the comparatively costly domestic production. Hence, the government eventually decided to embark on an agricultural sector adjustment programme.

Along with the decision to implement a comprehensive **sector adjustment programme** it was decided to establish an impact monitoring system. An Agricultural Sector Adjustment Loan (ASAL) was provided by the World Bank and the German Bank for Reconstruction (KfW), and both institutions advocated and promoted the establishment of a agricultural policy impact monitoring system. As an accompanying activity of the sector adjustment programme, an Agricultural Policy Impact Monitoring (APIM) project was launched and established within the Ministry of Agriculture. The APIM project had two objectives: In the short-term, the project was to provide evidence on the impacts of the ongoing agricultural sector adjustment programme. The long-term objective was to create the capacity for policy impact monitoring on a sustainable basis.

2.3 Passing through the Eight steps of MPI

2.3.1 Step 1: Initiation and preparation of MPI

As a first step, the objectives of MPI, the responsibility for carrying out MPI and the tasks to be performed have to be clarified. The policy makers have to make clear what they expect from MPI, and somebody must be mandated with the tasks to carry out MPI.

Under the **overall objective of MPI**, namely to ensure that a policy is effective in reaching its objectives, MPI may, for example, serve one of the following different **purposes (specific objectives)**:

- to trace all significant impacts of a set of macro and/or sector policies, such as the impacts of macro-economic reform -, stabilisation - or sector reform policies;
- to trace the impacts of one specific policy which is of particular importance, e.g. a sector investment -, market reform - , privatisation or land use policy;
- to concentrate on the assessment of one type/direction of policy impact which is considered to be of particular importance, such as policy outcomes on poverty, on the environment, or on food security.

Once clarification on the overall and specific objectives of MPI is achieved, the tasks to be performed need to be defined and the responsibilities for executing the tasks to be assigned. This is necessary, in order to arrive at an assessment of the capacity and resource requirements for MPI on the one hand, and of what can be realistically expected to be achieved with existing capacities and resources.

Although different parties will usually be involved in activities related to MPI[29], there must be an institutional or organisational body with the overall responsibility and coordinating function for MPI. Such an Impact Monitoring Unit (IMU) can be a government organisation, a research institution, a non-governmental organisation (NGO), or a private sector institution (e.g. consultancy firm).[30]

The overall mandate for MPI does not necessarily mean that all activities related to policy impact monitoring, as indicated in the following steps, will have to be performed by the respective unit. It rather means initiating, coordinating and supervising functions. Many tasks related to carrying out MPI can be subcontracted to other institutions and organisations.

The policy makers and all other relevant stakeholders should be involved in this first step. It should become clear to all parties concerned what is expected from MPI (who expects what), what is feasible, which institutions, capacities and resources are (made) available for performing the impact monitoring tasks, and which additional efforts have to be made to put the necessary

[29] See Chapter 4 "Establishing a Policy Impact Monitoring System".

[30] In the case of monitoring sector policies, the task to carry out MPI is often assigned to a unit or section within the responsible line ministry In the case of monitoring the impacts of policies which cut across various sectors, an IMU may be established under a committee of ministers, the planning ministry, or the prime minister's office.

capacities, resources and procedures in place (incl. institutional arrangements, capacity building measures, etc.).[31]

The Objectives and tasks of MPI should preferably be structured according to LogFrame format[32]. The following steps 2 to 8 provide a framework and can be used as an outline for the definition of the tasks.

Ultimately, Step 1 aims at a definition of specific MPI objectives and the development of a research design - agreed upon between the client and those assigned with the monitoring tasks - as its result. To this end, the monitors will have to undertake all analytical and planning work of steps 2 - 5, and develop an impact monitoring research proposal for discussion and eventual agreement between both parties. Depending on resource availability, manpower or capacity constraints, or any other considerations (e.g. deliberate limitation of impact monitoring to few selected priority aspects), the research proposal may require adjustment, or even repeated adjustments, along with concomitant repeated fine-tuning of step 2 to 5- activities - before a final research blue-print can be drawn up and until expectations have been harmonised with what can be achieved.

a) Case study example: Food security policies in Ethiopia

Subject of MPI in the context of food security policies in Ethiopia is to assess achievements and trace the impacts on the food security situation of the interventions launched under the framework of food security programmes and policies. As a policy management instrument, MPI shall serve the **primary purpose** to provide early and continuous feed-back to the policy makers and other stakeholders (donors, UN organisations, NGOs, public) on the outcomes of these interventions, to allow real-time response and adjustments in project, programme and policy design and implementation to increase their effectiveness. Other possible objectives of MPI are accountability to the government and donors, and to contribute to the learning process on effective food security and poverty alleviation programmes for all actors and stakeholders involved.

Table 2-1 provides a summary of a possible LogFrame format of objectives, outputs and activities for monitoring the impacts of food security policies.[33]

[31] See Chapter 4.

[32] For the LogFrame method, see Annex 1.

[33] For a description of the LogFrame approach, see Annex 1.

Once the objectives for MPI and the tasks to be performed are clearly defined, preferably by using the LogFrame format, the **institutional responsibility** for implementing the MPI system has to be defined. At project and programme levels, relevant data are to be collected and provided by the government and non-governmental organisations concerned with the implementation of the measures in the field, as part of their regular M & E activities. The results of these exercises directly serve project and programme management and, at the same time, would feed into the impact monitoring system at regional and national level where they are compiled, processed and analysed, and, whenever necessary, complemented by special surveys and studies to be conducted at aggregate level.

At the regional and national levels, impact monitoring units have to be established. These units coordinate the monitoring activities at the project and programme levels, provide support to the project and programme management on impact assessment, conduct or initiate specific and aggregate regional/country level assessments, and compile the results of the impact monitoring exercises from the various levels.

At the decentralised regional state level, the task of impact monitoring could be assigned to the Food Security Units/Desks established under the regional governments. At the national level, a specific unit for impact monitoring under the Steering Committee for Food Security Programmes appears to be a suitable institutional set-up for the performing MPI.

Table 2-1: Basic LogFrame Matrix for conducting policy monitoring impact research - Example: MPI of food security policies

Objectives, Outputs, Activities	Indicators	Major Assumption
Overall goal: Increased effectiveness of food security policies	Indicators for measuring overall food security objectives: Access, availability, stability, utilisation.	Policy makers and other stakeholders are ready to co-operate with Impact Monitoring Unit, and to adjust the policies and approaches, taking the results of MPI
Primary purpose: Real-time adjustments in policy design and/or implementation, if actual policy impacts divert from what was planned and intended. **Other purposes:** Accountability and learning process for stakeholders.	Adjustments in policy design or implementation made.	
Outputs: Provision of current evidence on impacts of food security policies at project, programme and policy levels.	Feed back of results of MPI to policy makers and other stakeholders (notes, reports, workshops)	

Activities: Performance of tasks according to the eight steps for MPI 1) Initiation and preparation of MPI process; 2) Review of food security policies; 3) Development of impact model; 4) Selection of impact indicators; 5) Determination of observation methods; 6) Data collection and survey execution; 7) Data compilation, processing and analysis; 8) Communication and presentation of results.	Indicators for tasks being performed on the various steps, e.g. • Objectives clarified, tasks defined and assigned. • Review done and documented (e.g. LogFrame); • Impact model elaborated and documented; • List of impact indicators; • Observation methods determined; • Data collected and surveys executed; • Data compiled, processed and analysed; • Reports presented, workshops conducted, etc.	into account.

b) Case study example: Agricultural sector reform policies in Jordan

It was considered very important and crucial for the success of the agricultural sector adjustment process to keep decision-makers constantly informed on the consequences of policy changes. Policy impact monitoring was supposed to become a policy management instrument, enabling decision makers to take corrective or mitigating measures in a timely manner. It was clear from the very beginning that the main purpose lies in the quick assessment of impacts. The main users of the system would be the Ministries and Departments involved, i.e. Ministry of Agriculture, Ministry of Planning and Ministry of Finance. In addition, the results should be used to inform the donor community as well as the Jordanian public about progress, results and impacts of the adjustment process.

As objectives of the impact monitoring system were defined "…to monitor the agricultural and socio-economic effect and impact of ASAL policy changes over time. This will include changes of crop budgets, cropping patterns, farm and household budgets. Of particular importance is the monitoring of poverty, since the rural and agricultural population of Jordan is at particular risk of poverty.".

To implement the impact monitoring system, a new Agricultural Policy Impact Monitoring (APIM) project was set up. An initial workshop to determine the planning framework for the APIM project was jointly organised and attended by representatives of the ministries and departments involved, the ASAL donor community and respective local and international policy experts. During the workshop, the initial Project Planning Matrix was set up, stating, as shown below (Table 2-2), the overall goal, the project purpose and the related activities, based on the LogFrame approach.

It was decided that the monitoring system will be run by and within the Ministry of Agriculture as the main institution related to ASAL.

The APIM project had two main aspects: In the short-term, the project was to provide evidence on the impacts of the ongoing agricultural sector adjustment programme. The long-term perspective was to create the capacity for policy impact monitoring on a sustainable basis. Both elements should form an integral part of MoA activities, performed at the Agricultural Economics and Policy Department (AEPD).

As to the organisational set-up of the agricultural impact monitoring system, the initial recommendation suggested a set up at three levels:

- A central unit within the Ministry of Agriculture;
- Four supervision units in strategically placed locations;
- Operational units in the 19 districts of Jordan.

The central unit was planned to be located in the Agricultural Economics and Policy Department (AEPD), whose Director directly reports to the Secretary General of Agriculture. A working group on policy impact monitoring was to be formed to jointly carry out the tasks required. Staff for the field operational units was drawn mainly from extension personnel.

Table 2-2: Initial Project Planning Matrix (PPM) for the Agricultural Policy Impact Monitoring Project (APIM), Jordan

Summary of objectives/activities	Indicators
Overall goal: Agriculture policy decision makers take appropriate decisions	
Project purpose: Agricultural policy decisions are made in due consideration of the results of the policy monitoring unit	APIM- results and proposals for recommendation are clearly visible in policy decisions
Results: Output 1: Institutional and organisational set- up is adapted to the needs of policy M & E	Management functions (including training) implemented according to work plan Meetings with relevant parties are held according to work plan
Output 2: Effective information flow system established according to users needs and relevant development principles	Agreements on needed data reached during meetings with users Feedback mechanisms, formats, procedures agreed upon between relevant parties
Output 3: Regular updating \ analysis of relevant existing data base is secured on a sustainable level	Reports are available according to work plan Results presented to relevant parties and discussed

Activities: **Related to Results 1:** 1.1 Secure efficient management of policy M&E functions 1.2 Train staff according to training plan 1.3 Strengthen and continue existing co-ordination within the Ministry of Agriculture 1.4 Strengthen and continue existing links \ co-operation outside the Ministry of Agriculture 1.5 Identify other relevant co-operation partners and define scope \ mechanisms of co-operation
Related to Results 2: 2.1 Develop \ run a mechanism for feed \ feedback with top management to focus work of the unit 2.2 Specify type of information needed by users 2.3 Identify new users 2.4 Design user friendly reporting formats(including review of existing formats) 2.5 Identify raw data requirements 2.6 Identify data sources 2.7 Establish and monitor information exchange procedures
Related to Results 3: 3.1 Analyse available data sets (secondary data and project data) 3.2 Design data collection exercises according to needs 3.3 Train working team according to needs 3.4 Conduct planned data collection exercises (field and institutions) 3.5 Process and analyse collected data 3.6 Report the results to relevant parties (decision oriented) 3.7 Present the results to relevant parties and discuss with them (information oriented)

The new task of policy impact monitoring could not be performed by solely drawing on existing expertise within the Ministry of Agriculture. Technical, financial and managerial constraints called for external technical assistance in implementing the impact monitoring system within the Ministry, particularly in the start-up phase. Furthermore, since the impact monitoring system was established simultaneously with the implementation of Agricultural Sector Adjustment Loan (ASAL) policies, there was an urgent need for immediate action. Technical assistance was provided to the APIM project by Germany through GTZ.

2.3.2 Step 2: Policy Review and Analysis

After the objectives and tasks for impact monitoring have been clarified, the policy under consideration needs to be reviewed in a following step. Impacts can only be attributed to a certain policy if the features the policy (objectives, measures, stakeholders) and the state of implementation are duly considered. Therefore, the policy needs to be reviewed and analysed before a valid assessment of their impacts can be done.

Such review includes stocktaking, clarification and analysis of

- **the policy objectives** (hierarchy of objectives, including links between policy and programme objectives, compatible / conflicting objectives, possible hidden objectives, time-frame of objectives),
- **the measures and instruments** applied for policy implementation (regulations, programmes & projects defined and implemented under the policy),

- **the actors, stakeholders** (Government institutions at different levels; donor and UN-organisations; international and local NGOs; parastatal, private and community organisations) **and target population**,
- the **human, financial and material resources** allocated and mobilised for policy implementation,
- the **state of policy implementation** (including discrepancies between plan and reality, and reasons thereof).

As to the issues to be considered at this stage, reference is made to section 1.2 of chapter 1.

The LogFrame format offers a suitable approach to set-out and structure the policy objectives, policy measures and related impact indicators, and for policy review and analysis.[34] Existing LogFrames set-up at policy and related programme levels should be used and scrutinised. If they do not exist, it is recommended to develop a policy LogFrame in retrospective.

a) Case study example: Food security policies in Ethiopia

Explicit overall **objective** of the national FSS in Ethiopia is to double the per capita incomes over 15 years, and to narrow substantially the "food gap" within five years. These overall objectives[35] shall be achieved by **interventions** in various fields: By stimulating economic growth and employment; by establishing additional entitlement/access and targeted programmes; and by strengthening emergency capabilities. Thus, the FSS addresses the three main aspects of food security: Availability, access and stability.

Various **programmes** have been launched which emphasise different aspects of the overall food security policy objectives:[36]

- **Agricultural development programmes implemented under ADLI** aim at increasing productivity and production in the agricultural sector, hence at increasing food availability as well as agricultural incomes. Increased agricultural incomes imply poverty reduction and improved access to food among the farming population. One programme is the Participatory, Demonstration and Training Extension System (PADETES) which began in 1994/95. The program is geared towards helping smallholder farmers to improve their productivity through demonstrating and disseminating research generated information and

[34] See Annex 1 for a detailed description of the LogFrame method and its application to policy analysis, planning and monitoring.

[35] These overall objectives are only broadly defined; neither the population groups that should primarily benefit from the planned per capita income growth are specified nor what food gap exactly means.

[36] See also section 2.2 a) above and table 2-3 below.

technology on major food crops (teff, wheat, maize and sorghum) as well as on high value crops to diversify the income base of the farmer. The package comprises improved practice, fertiliser, improved seed and credit provision. The primary government body in charge of implementing the agricultural development programmes is the **Ministry of Agriculture**.

- **The national and regional Food Security Programmes (FSPs)**. Their specific objective is to ensure access to food for the most vulnerable people in drought prone and food deficit areas of the country. The FSPs have several components, such as agriculture (crops, livestock), small-scale irrigation; rural infrastructure, natural resource conservation, market & credit services; water supply and capacity building. By concentrating on increased food production and natural resource conservation in drought prone and food deficit areas, the FSPs simultaneously address access, availability and stability issues there (156 "chronic food deficit woredas" out of 413 districts in four of the most populous regional states). Implementation of the FSPs is supervised by a **"Steering Committee" at federal level** and **"Food Security Coordinating Units"** at regional state levels.
- The **National Disaster Prevention and Mitigation Programmes (NDPMP)** with **Employment Generation Schemes (EGS)** as a major component. The EGS aim at providing employment and income for disaster affected and vulnerable population groups. At the same time, the labour input is to be used for creating assets (rural infrastructure, afforestation, land- and water conservation) which will help to improve the productive basis and contribute to long-term food security. This relief-development-link combines short-term and longer-term food security objectives. Other relevant components of the NDPMP are the establishment of an **"Emergency Food Security Reserve" (EFSR)**, to smooth relief supplies to the beneficiaries and to cater for the immediate food needs in the case of major disasters; the provision of gratuitous food relief to vulnerable populations groups who are unable to work; the management of an **"Early Warning System" (EWS)** and the promotion emergency response capabilities. The government agency primarily in charge of implementing the NDPMP is the **"Disaster Prevention and Preparedness Commission" (DPPC)**.

Table 2-3 provides a broad overview on the food security policy objectives, the related programme interventions and the time horizon until the programme effects are expected to materialise.

Table 2-3: Food security objectives and related programmes

Overall food security objectives	**Formulated in Policy Papers / related Programme Documents**	**Time horizon for programme effects expected to materialise:**
Poverty alleviation, including food poverty. Improved food security Agricultural production and income growth. Effective emergency capabilities and response, relief-development linkages.	Poverty Reduction Strategy Food Security Strategy (FSS) / Food Security Programmes (FSPs) ADLI NDPMP	
Aspects of overall food security objectives (sub-objectives) addressed by programmes	**Related programmes and major interventions**	
Improved ACCESS TO FOOD through: Increased agricultural production and farm income	ADLI-related programmes (e.g. PADETES) to promote agricultural production and income	medium-term
Farm and off-farm income growth of small and poor households in chronic food deficit areas	FSP-interventions particularly designed to promote agricultural production, farm and off-farm incomes in food deficit / drought prone areas.	medium-term
Ensured access to food through employment generation and free relief distribution to vulnerable population groups	NDPMD - Employment Generation Schemes (EGS) and free relief assistance to vulnerable population groups	short-term
Increased FOOD SUPPLIES through: Increasing overall domestic agricultural / food production	ADLI and related programmes: Set of agricultural promotion measures (input package, extension, credit, etc.)	medium-term
Natural resource conservation and promotion of agricultural / food production in food deficit / drought prone areas	FSP: Measures to promote natural resource conservation and agricultural and food production in food deficit / drought prone areas	medium-term
Improved infrastructure and natural resource conservation.	NPDMP-EGS: Investments in rural infrastructure and natural resource conservation through public works	long-term
Improved STABILITY in access and supply though: Smoothing relief distribution and catering for major emergencies.	NDPMP: Emergency Food Security Reserve (EFSR)	short-term
Reducing vulnerability to disasters	NDPMP: Early Warning System (EWS) and Disaster Management Capacities	short-term
Promotion of sustainable production systems.	FSP: Promotion of natural resource conservation in food deficit / drought prone areas (small scale irrigation, erosion control)	long-term
Better UTILISATION through: Improved health, education (particularly women), safe drinking water, sanitation	Sector programmes, and health, education, water supply, sanitation components included in NDPMP-EGS and FSP	medium / long-term

Obviously, there exists some overlap in the objectives and approaches of the various programmes. Whether such overlaps are complementary, compatible, mutually supportive or conflicting will have to detected by a detailed comparative analysis of the various programmes and their components, preferably by using the LogFrame format.

Once a broad the overview on overall and programme objectives and interventions, as presented in table 2-3**,** is achieved, the objectives and strategies will have to be further broken down for each programme component (policy measure), based on the **logical framework approach.**[37] An example for a LogFrame matrix for one programme component - FSP to improve access to food - is given in table 2-4.

[37] For LogFrame approach, see Annex 1.

Table 2-4: Basic LogFrame matrix for a Programme Component of Food Security Policy

Strategy	Indicators	Means of verification	Assumptions / Risks
Goal: Overall policy objective: • Food security achieved / improved	E.g.: • Nutritional status; • No. of households below (food) poverty line; no. of population depending on relief assistance; • Perception of stakeholders on changes in food situation	National statistics, quantitative and qualitative surveys	• Decent economic growth; • No war; • No major natural disaster (drought); • Good governance; • Consistency with other policies; • Donor contribution to promote FSP ensured.
Purpose: Programme objectives, e.g.: • FSP: Ensured / improved access to food in food deficit / food insecure areas.	• Agricultural production and income by different farm income groups, • income level by different income groups, • food availability / consumption by different population / income groups, • Perception of stakeholders concerning changes in income and food consumption	National statistics, surveys	
Outputs of programmes, e.g.: • Improved farm input packages utilised by farmers; • Income and employment generated by EGS; • Rural infrastructure improvements (to be specified, etc.).	• No. of participating farmers using improved techniques; • No. of jobs and amount of income generated • Type and amount of infrastructure works completed.	Programme records, programme M & E.	To be defined in programme related planning and log-frame
Programme **activities**, e.g.: • Distribution of improved farm input, linked extension and credit • Implementation of EGS; • Implementation of rural infrastructure works.	• Amount of input packages distributed, credit provided, extension staff trained, etc. • Participants selected and working teams organised; • E.g. km of feeder roads, irrigation channels etc. constructed.	Programme records, programme M & E.	To be defined in programme related planning and log-frame.

Notes:

Dark grey areas: Subject of policy impact monitoring (and evaluation)

Light grey areas: Subject to programme monitoring and evaluation

Analogous LogFrame matrices will have to be developed for each programme / programme component (programmes to increase food supplies, disaster prevention and response, improved food utilisation). If such LogFrames are not available as part of the policy and programme documents, they should be developed retrospectively.

Then, to complete the policy review, the analysis based on LogFrame matrices will have to be complemented by a review of the details for each programme component as to:

- **role of stakeholders / institutions involved** in programme design and implementation (government institutions, donors, NGOs, community organisations, private sector);[38]
- **target areas and population**, **time horizon** for implementation, and for objectives / expected impacts to materialise,
- **resources allocated and used** (financial - domestic, external; human capacities)
- **state of implementation** of the different programmes / programme components.

Ideally, such information can be retrieved from the programme documents and programme review/monitoring reports. In practice, it can be rarely expected that the complete set of relevant information is readily available. Therefore, additional efforts may have to be made to fill existing information gaps on programme objectives, content, state of implementation, and any divergence between plans and reality in regard of activities, achievements, resources allocation, unforeseen factors, etc.

A major unforeseen factor (assumption/risk in LogFrame terminology) which severely affected the implementation and performance of food security programmes in Ethiopia was the outbreak of the Eritrean-Ethiopian border conflict in May 1998. The war lasted for two years and was eventually settled by a peace agreement in December 2000 and the stationing of UN forces in the border area. Due to the war, less public attention was devoted to food security programmes and donors were reluctant to commit further development assistance which also affected funding and implementation of food security related programmes and projects. Implementation of the FSPs was delayed at least by two years.

b) Case study example: Agricultural sector reform policies in Jordan

The main general objectives of the adjustment programme were market-led modernisation, efficient resource use and minimum government intervention. Hence, policy changes were envisaged in all sectors of the Jordanian economy.

The comprehensive set of objectives and measures of the agricultural sector adjustment programme as a whole were laid down in the new “Agricultural Policy Charter”. The measures were about to cause comprehensive changes in the tasks and functions of the Government of Jordan. Anticipated changes were to occur across sectors, but particularly within the agricultural

[38] See section 1-2 and graph 1-2 in chapter 1.

sector. It was, however, recognised that even after reform the Government will still play an important role in the agricultural sector.

The APIM project established an information base on the policy objectives being pursued and the policy measures being introduced. Table 2-5 provides examples of objectives formulated and respective policy measures planned in the agricultural and livestock sub-sectors. The objectives and policy measures for the reform in other sub-sectors, agricultural production, irrigation, markets, trade, were tabulated in the same manner.

Table 2-5: Policy adjustments in agricultural and livestock sub-sector (examples)

Objectives	Policy Measures
• Reduce water use to sustainable (recharge) level • Improve allocation of scarce water supplies • Achieve cost recovery for irrigation water supply (first step to cover O&M costs	Increase water price three to six fold over a period of three years
• Reduce fiscal deficit • Reduce deterioration of rangelands by diminishing herd sizes • Support transition towards improved land use	Eliminate livestock feed subsidy immediately
• Support development of private sector trade in barley • Minimise use of subsidised imported feed and overstocking of government stores • Minimise market distortions	Eliminate public sector barley imports and gradually withdraw public sector from all barley trade
• Increase competition in domestic markets • Reduce deterioration of rangelands by reducing incentives for cereal production in marginal areas	Eliminate procurement subsidy on domestically produced cereals
• Limit uncontrolled expansion of cereal cultivation • Reduce grazing activities on open rangelands to sustainable level • Reduce deterioration of rangelands by supporting measures based on price incentives	Revise and enforce land use regulations

2.3.3 Step 3: Development of impact model

The review and analysis of the policy to be monitored leads to the recognition of the policy makers' model of planned achievements. This serves as a basis for the development of an 'impact model', i.e. a theory on the expected or likely changes induced by the policy.

An ***'impact model'*** comprises the following three elements:

- **identification of impact *areas***, i.e. the sectors/spheres which are likely to be affected by the policy interventions,
- **assessment of impact paths**, i.e. the ways and sequence of expected changes induced by the policy interventions (primary/secondary, intermediate/ultimate impacts), and
- **formulation of impact hypotheses** on type and significance of expected impacts.

Since the LogFrame format presents a clear pattern of the policy makers' model with the underlying conception of cause-effects-linkages, it is very appropriate to use it as the basis for developing an impact model.[39] A policy LogFrame also gives hints on relevant impact indicators to be considered in the following step 3.

However, this basic impact model derived from the policy LogFrame may have to be amended and complemented by incorporating further possible impacts / impact areas / impact paths which were not considered when the policy was designed. Indications on possible unplanned and/or unintended impacts can be obtained from experience with similar types of interventions elsewhere or in the past, and through consultation of experts, key informants and stakeholders, such as target -, lobby - or other populations groups who are affected by the policy in one or another way.[40]

Therefore, once the basic impact model is developed, it needs to be refined and complemented, taking into consideration the following aspects:

- further relevant (external) factors, not considered in policy formulation, but affecting the achievement of the policy objectives,
- possible unplanned / unexpected impacts and side-effects,
- time horizon of impacts to materialise,
- Distinction between factors and possible impacts or impact chains which are considered to be more or less relevant for achieving the respective policy objective(s).

An examination of these issues will help to prioritise possible impact chains according to their assumed relevance for reaching the policy objectives. This, in turn, will guide the decision whether or not specific impact chains shall become subject of research during the current round of the MPI exercise. Impact chains which appear to be less relevant under present conditions or impacts which are assumed to only manifest in the medium or long term may become subject of subsequent rounds of MPI.

a) Case study example: Food security policies in Ethiopia

Figure 2-1 depicts a basic impact model for a typical set of food security policy interventions. The likely impact paths, possible impact areas and relevant impact hypotheses are outlined in the subsequent Table 2-6. The basic model as presented here reflects the policy makers' model

[39] Under step 2 of MPI it has, therefore, been proposed to put the policy into the LogFrame format retrospectively, if a LogFrame was not developed when the policy was set out. The LogFrame method is presented in Annex 1.

[40] See planning methods described in Chapter 3.

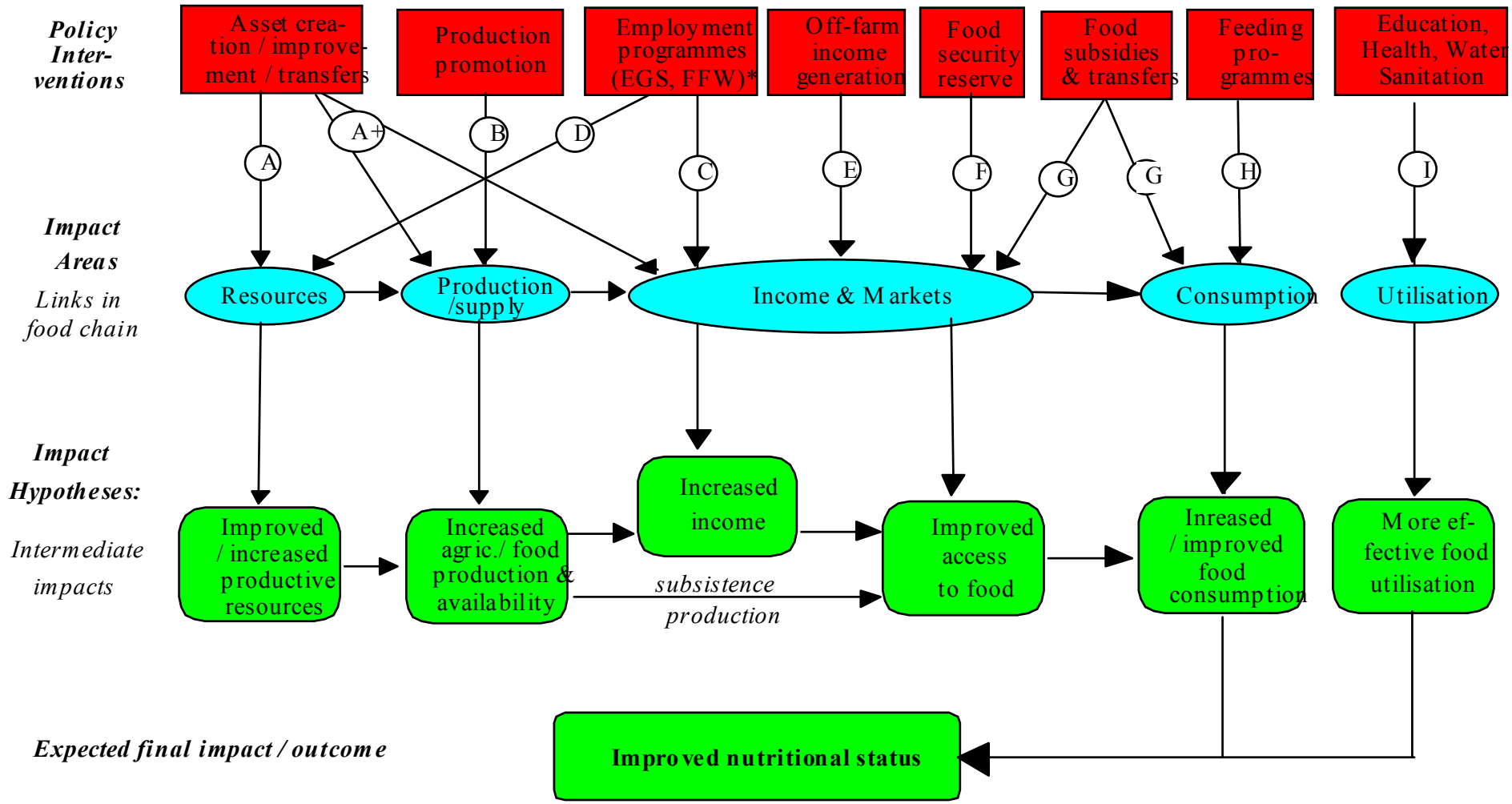
of expected impacts and particularly refers to targeted food security interventions as applied or foreseen in Ethiopia.

The various targeted food security policy interventions are listed in the upper boxes. They address different impact areas (stages in the food chain) which are relevant for food security, starting from the amount and quality of productive resources available to producers up to food consumption and utilisation. Depending on the situation, the livelihood, the major constraints which specific vulnerable population groups face in attaining food security, and the characteristics of the actual target group to be reached, different 'entry point' into the food chain have been chosen for the interventions. For example, if food security of small farmers is to be improved, interventions in fields of improvement / transfers of assets (e.g. irrigation development, soil and water conservation, land titles) or agricultural promotion (e.g. extension, input supply, credit) are considered to be most effective; employment programmes are aimed to particularly benefit the rural landless and the rural and urban un- and under-employed, while direct food assistance or cash transfers are targeted to those who are unable to work or can't be reached otherwise (children, mothers with young children, disaster affected people).

In assessing the impacts of policy interventions on food security, the impacts will have to traced through the subsequent steps of the respective impact path (intermediate impacts) up to reaching the desired final outcome and expected overall impact of the food security policies, namely an improved nutritional status of the hitherto food insecure and vulnerable population.

The intermediate and final impacts can be measured at **different levels of aggregation**. Impact monitoring at **project/programme level** can be confined to assess the immediate impacts (intermediate impacts in view of overall policy objectives) which are expected to directly result from the project/programme interventions. It can be assumed that the outcome achieved at this level contributes to the overall food security objectives along the impact paths shown (following the arrows). Such an approach will help to overcome the problem of 'attribution gap', arising when projects and programmes are expected to provide evidence on their definite contribution to reach overall policy objectives. Tracing the impacts of projects and programmes further down the line of the impact paths would then be the genuine task of policy impact monitoring at **aggregate regional/national level**, based on a compilation of the results from programme/project impact monitoring and the application of specific methods and approaches to assess the impacts at higher aggregate levels.

Figure 2-1: Impact model of food security policy interventions



** EGS: Employment Generation Scheme, FFW: Food-for-Work.*

Adapted from: Thomson, A. and M. Metz, Implications of Economic Policies for Food Security, FAO 1997, based on: P. Webb, J. von Braun, Yisehac Yohannes, Famine in Ethiopia: Policy Implications of Coping Failure at National and Household Levels, IFPRI, Washington 1992

Table 2-6: Impact paths, impact areas and impact hypotheses of food security policy interventions

Im-Pact path	Food security policy intervention	Impact area	Impact hypotheses	
			Intermediate impacts	Impact path continued until final impact
A	Examples: Natural resource (soil, water) conservation, land reform / land tenure in favour of small farmers / tenants.	Natural resource endowment, quantity and quality of productive resources available to small farmers.	Vulnerable groups of small farmers gain access to more / improved productive assets and utilise them.	Increased smallholder production →... → improved nutritional status
A+	Example: Improvement of rural road infrastructure	Economic infrastructure, with impacts on production, markets and income.	Improved rural roads network facilitates input and produce marketing (lower input prices, higher producer prices, lower consumer prices, availability of food over time and space).	Increased access to and availability of food →... → improved nutritional status
B	Promotion of agricultural extension, research, input supply, credit, etc.	Agricultural / food production, particularly smallholder sub-sector	Increased agricultural and food production by smallholders	Increased sales → increased income →... → improved nutritional status; Increased home consumption →... → improved nutritional status
C	Employment generation schemes (cash / food for work) for rural and urban un- or underemployed.	Income and Markets	Increased income (cash/kind) of poor and vulnerable population groups (market access)	Improved access →... → improved nutritional status
D	Productive assets created through public works	As under A: Natural resources and rural infrastructure	As under A: Productive assets improved / increased and utilised	As under A
E	Off-farm income generation, e.g. through training, credits.	Income and Markets	As under C: Increased employment and income	As under C
F	Food Security Reserve	Food market / consumption	Market supply and price stabilisation in times of disasters	Improved (ensured) access / avoiding shortfalls in consumption →... → improved (sustained) nutritional status
G	Targeted food subsidies / cash - / food transfers	Real / nominal income of target population	Increased real/cash income of target population	Improved access → increased food consumption → improved nutritional status
H	Feeding programmes	Food consumption of target population	Increased / ensured food consumption	→ improved nutritional status
I	Education, health, water, sanitation	Utilisation	Better knowledge, improved health, hygiene, clean water bring about better food utilisation	→ improved nutritional status

Issue of targeting:

A most important criteria which applies to the assessment of all possible impacts of targeted food security policy interventions on food security is the issue of **targeting efficiency**. How well are the (most) vulnerable and food insecure population groups reached by the interventions? Low targeting efficiency would imply a low degree of effectiveness in attaining the desired policy objectives. Assessing the targeting efficiency will require a stratification of the population into different population groups, based on appropriate criteria.

Unintended and/or unforeseen impacts and possible side-effects:

The impact model as outlined above is based on the assumption that the policies, through its related programmes, work in the direction as intended. Apart from the impact areas, paths and possible impacts shown, there might be impacts which were not intended or not foreseen when the policy was formulated and the programmes set-out. Possible unintended or unforeseen impacts can be supportive or contradictory to the policy objectives. Knowledge about such possible unintended impacts may be derived from experience with similar types of interventions in the past or, for example, through consultation of experts, lobby groups, affected population groups, etc.

Based on past experience with food security interventions, the following effects have been observed and need, therefore, to be monitored:

- Possible negative effects of massive food aid interventions (food-for-work and free relief distribution) on the food market (market distortion, erratic price and supply fluctuations), with negative implications for:
  - regular market supplies of food,
  - local/domestic food production, and
  - farmers' income,
- and further negative impacts on factors determining food security along the impact paths shown above.
- Food security interventions (e.g. production support, employment programmes, transfers) may discourage seasonal or permanent migration, encouraging people to remain in unsustaining environments and conditions, with possible negative implications for:
  - the natural resource endowment (continued and aggravated overutilisation of resources),
  - production (stagnating or even decreasing agricultural and food production), and
  - the sustainability of livelihoods (aggravation of poverty and continued dependency on public transfers).

Apart from such possible unintended side-effects, there may be further and external factors with - positive or negative - impacts on food security, such as

- overall economic growth,
- economic adjustment policies (e.g. reduction of public expenditures, market liberalisation),
- war and conflict,
- the world market situation of food, agricultural and other relevant export / import commodities (in Ethiopia particularly coffee which provides more than 60 per cent of the expert earnings),
- other sector policies and programmes (e.g. education, health, infrastructure).

Those factors which are relevant for the country under consideration would have to be included in the model. While, for example, overall economic growth or an increase in export prices is likely to have positive impacts on production, employment and income, the impacts of war and conflict, or a decrease in world market prices for export commodities, on food security are likely to be negative. Improvements in health and education, brought about by specific sector policies and programmes, will not only lead to improved food utilisation but will also have likely positive impacts on production and income.

Time horizon for impacts to materialise:

A further issue which need to be clarified is the time horizon when the expected impacts are likely to happen. Some of the impacts manifest early (such as targeting of vulnerable groups with food assistance and/or employment creation programmes and impacts on food consumption), others need a longer time to materialise (such as the impacts of asset creation or promotion of agricultural production on income and food consumption). Clarification of the time-frame of expected impacts is particularly relevant for the selection of appropriate impact indicators. In cases when expected impacts only materialise over longer time periods, intermediate or qualitative indicators will have to be applied, in order to get an early idea of the nature and direction of changes induced by the policy interventions.

Distinction between more and less important impacts:

In MPI, it is neither feasible nor necessary or useful to consider all relevant factors and all possible impacts. Furthermore, capacity constraints call for a concentration on tracing the most relevant impacts. Therefore, once a broad overview on possible impacts, impact areas and impact paths has been attained, impact monitoring should concentrate on tracing those (possible) impacts which appear to be crucial in regard of reaching the policy objectives and/or most significant for other policy spheres and overall development. Such ranking of

possible impacts according to importance and priorities, to be traced under the MPI system, should be made in close consultation with policy makers, experts and stakeholders

b) Case study example: Agricultural sector reform policies in Jordan

The focus of APIM in Jordan has been on poverty impacts, particularly on the impacts of the agricultural reform policies on the income of rural households. Impact areas to be considered are, among others, different types of farm households with different farming systems in different agro-ecological regions of the country. It must be assumed that they are affected by the agricultural sector reform policies in different ways. While, for example, an increase in water price will primarily affect irrigated agriculture, the removal of fodder subsidies will particularly affect the livestock and the barley producers.

Table 2-7 presents, as an example, a number of relevant impact areas which are particularly affected by agricultural sector reform policies, and related impact hypotheses.

Table 2-7: Agricultural sector reform policies, Jordan: Impact areas and hypotheses

	Impact areas	Impact hypotheses	Further impacts on farm household income, distinction between specific farm types, large and small farms
A	Irrigated agriculture	Rising water prices will • decrease the amount of water used in agriculture, • cause higher production costs, • lead to a shift to higher value crops.	
B	Rainfed agriculture	• Cereal production: Abolishment of input subsidies will make barley production less attractive for farmers, barley production will diminish, and market prices for barley will rise significantly. • General: There will be changes in production pattern / systems (cropland reduced, rangeland expanded, shift to livestock and fruit tree production). • Intensified extension efforts will promote appropriate changes in farming system.	
C	Low rainfall areas (Badia)	• Removal of subsidies for grain production will cause farmers to reconvert cropland into rangeland; • Possible unplanned short-term effect: Accentuated overstocking by farmers in search for alternative income, increasing pressure on rangeland resources; • Enforcement of rangeland regulation will curb overstocking and decrease number of animals to sustainable levels in medium/long term.	
D	Livestock sector	• In the medium-term, overall livestock numbers will decrease; • Number of animals in low rainfall areas will decrease (dependency on imported and subsidised supplements); • Number of animals in rainfed agriculture areas will increase (conversion to pasture); • Short term market/price effects: increase of livestock sales due to a reduction of large herd sizes, livestock prices will fall; • Long-term: Livestock prices will stabilise at a level slightly below the current (pre-reform) level, determined by international market prices.	
E	Afforestation and soil conservation	• Participatory planning, commonly agreed regulated use of forests and enforced land use planning will enhance soil conservation and limit illegal use of forests; • Privatisation of communal lands will increase its value and support multiple use and long-term conservation practices.	

2.3.4 Step 4: Selection of impact indicators

In order to be able to examine whether the impact model reflects reality, whether the changes induced by the policy go into the right direction and to what extent the objectives / planned impacts are actually achieved, suitable indicators for assessing the impacts are to be selected. Impact indicators are measurements of change which serve as sign posts, milestones and benchmarks, to measure progress and achievements towards the objectives. Through the use of suitable impact indicators it is possible to find out whether one is on the "right track", and to measure how far one has already got on the way towards reaching the policy objectives.

According to their properties and use, indicators can be classified as:

- **Intermediate and final indicators:**

  Intermediate indicators are used to measure changes which happen 'on the way' towards reaching the overall policy objectives, while final indicators provide a measurement for the expected final outcome. Final indicators generally change slowly over time and are the result of many factors, some outside the control of policy makers.[41] Monitoring intermediate indicators gives a more timely picture of what is happening. The intermediate indicators which are most useful in tracking progress towards achieving an impact are those which refer to key determinants of that impact.[42] In logical framework terminology, they relate to policy sub-objectives.[43] They may serve as suitable indicators for assessing the impacts of specific measures (programmes and projects) launched under a policy and their contribution to reaching the overall policy objectives: If the intermediate indicators show an improvement, it can be plausibly assumed that a programme or project contributes its part to the desired overall change. Whether this assumption holds true at aggregate level can, however, only be assessed through the use of final indicators. Such final indicators are measurements which reflect changes on aggregate level and directly relate to the overall policy objectives. It will be subject of MPI to also identify and use suitable final indicators for assessing overall policy impacts. If respective data are not available in time, proxy indicators may be used as a second best solution (see following paragraph).

Example:

Possible and commonly used final indicators for assessing the impacts of a poverty alleviation policy are the poverty line (number of people living below the poverty line) and the poverty gap (depth of poverty, distance to poverty line of those living below the poverty line). Possible intermediate indicators are the amount of new jobs created, employment and income opportunities offered in public employment programmes, production and income of small farmers increased, and/or the number of people depending on public transfers.

- **Direct and proxy indicators:**

  The example above presents direct indicators, i.e. measurements which directly relate to the expected outcome of a policy (decrease in poverty, increased employment and income). Due to lack of suitable and up-to-date data, or because changes cannot be measured in quantitative terms, it is sometimes necessary to use proxy indicators. Although not necessarily an explicit or proper expression of the intended changes, proxy

[41] Prennushi et al., 2001

[42] Ibid.

[43] See section 1.2 above, on policy objectives.

indicators help to detect changing phenomena which are closely related to such changes, and therefore allow conclusions on the overall effectiveness of the policy interventions. This particularly applies to MPI, when early and real-time evidence on - at least the nature and the direction of - impacts is required but the necessary data are not available and/or the intended impacts have not yet materialised.

Example:

A direct indicator for measuring the impact of a food security policy would be a sustainable improvement of nutritional status of the population. Because of a lack of adequate data and the immense costs and efforts involved in continuously monitoring the nutritional status of the population, proxy indicators are used, such as the nutritional status of children under five in selected sample areas, the prevalence of nutrition related diseases; the frequency of appeals for food assistance; the phenomenon of 'hunger migration', the number of meals consumed per day, the fear or perception of the poor to go hungry, etc.

- **Quantitative and qualitative indicators:**

  "Not everything that counts can be counted.
  And not everything that can be counted, counts."
  (Albert Einstein) [44]

  A further distinction has to be made between quantitative and qualitative indicators. Qualitative indicators will have to be applied, if meaningful quantitative data on impacts are not (yet) available, when qualitative and participatory approaches to impact assessment are being applied, or for cross-checking (triangulation) quantitative data.[45] Although the use of qualitative indicators does not allow econometric exact analysis of impacts, they can be classified and rated in categories such as: (much or moderately) better and worse, more or less, important or insignificant, etc. Such categorisation, done at individual or group level, can also be aggregated, allowing semi-quantitative analysis and assessment approaches.

Example

*Examples of **quantitative indicators**: Income, growth rates, production figures, nutrition status of children based on anthropometric measurements, land use figures, etc. Examples of **qualitative indicators**: Perception of households of their economic status (better/worse/same as before), of their food situation, experience and/or expectations of farmers, traders, small businessmen, formal/informal sector employees regarding changes of their economic situation, etc.*

[44] Cited in Roche, 2000.

[45] See also discussion on quantitative and qualitative approaches to impact assessment in section 1.5 below.

What makes a good indicator?

In selecting indicators, criteria should be applied which qualify an indicator as good and suitable. A list of "**SMART+**"-properties of indicators has been developed.[46] Good indicators have the following characteristics; they are:

S	Specific & Sensitive	specific to the issues which are intended to be changed, and sensitive to the changes induced;
M	Measurable	measurable, objective and unambiguous - not easily blown off course by unrelated developments, and not easily manipulated;[47]
A	Attainable & Applicable	attainable by the policy measures, and applicable to measure progress towards achieving objectives;
R	Relevant	measuring factors which are related to the policy and reflect the objectives;
T	Time-bound & Trackable	Varying over time, reflecting at what point in time changes can be expected and do happen. Indicators can be easily tracked, preferably the required data are already and frequently available, or are not too costly to track.

In defining impact indicators, a list of possible indicators will have to be put together which well reflect the sub-objectives (possible intermediate indicators) and the overall policy objectives (final indicators). Logical framework matrices, if set-up, contain such indicators for the objectives at different levels. Among the list of possible impact indicators, those are to be selected which best comply with the SMART+ criteria, i.e. which are specific & sensitive, measurable, attainable & applicable, relevant and time-bound & trackable. The latter criteria calls for a preview on relevant data which are routinely collected and can be made readily available from secondary sources (see following steps). For clarity, cost, and time-economic reasons, the number of indicators should be limited to one or few most significant indicator(s) for each (sub-)objective / impact.

Apart from **quantitative indicators** (physical, economic, social parameters) which are used to the extent that relevant up-to-date quantitative data are readily available or can be easily generated, the use of **qualitative indicators** plays a particularly important role in monitoring policy impacts, when real-time information on the direction of changes is required and the causes of such changes are to be understood, even though quantitative data are not (yet) available.

[46] "SMART+" properties adapted from the "SMART" properties in Lobb-Rabe, Allision, 2000 (with reference to Roche, 1999) and other features of good indicators cited in Prennushi et al., 2001. Lobb-Rabe also refers to an alternative list of "SPICED" properties of indicators (Subjective, Participatory, Interpreted, Cross-checked and Compared, Empowering, Diverse and Disaggregated) which are meant to particularly apply to participatory, qualitative impact assessment.

[47] Qualitative indicators should be measurable in terms of "ranking" (e.g. in terms of improvement/worsening, or very good, good, moderate, no change, worse, very bad).

Qualitative indicators comprise changes in

- attitudes,
- behaviour,
- perceptions,
- capacities,
- expectations,

among stakeholders and target groups which are induced by a specific policy and/or are relevant for achieving the policy objectives. The use of qualitative indicators requires specific social research approaches (RRA, PRA) and the application of semi-quantitative methods (e.g. grading, categorising) for analysing the survey results.[48]

In order to ensure that MPI is able to assess outcomes during a period of time relevant to decision-makers' needs, a hierarchy of indicators might be established, ranging from short-term impact indicators (e.g. school attendance, food consumption) to longer-term indicators (e.g. student performance, nutritional status).[49] This ensures that even if final impacts are not picked up initially, intermediate impacts can be assesses. The process of MPI can be planned across several time periods, allowing for more immediate impacts to be picked up earlier while still tracking final outcomes.

a) Case study example: Food security policies in Ethiopia

Table 2-8 presents a list of quantitative food security indicators and respective data for Ethiopia in comparison with Sub-Saharan Africa and LDCs. It is a relatively comprehensive set of food security indicators at aggregate national level for a specific year or time period. Many of the indicators listed measure specific aspects of food security (access, availability, stability) and can serve as intermediate indicators, to assess the impacts of specific policy measures addressing those issues. Other indicators - particularly those measuring malnutrition - give a relatively comprehensive picture on the overall food security situation and can, in principle, be used as final indicators. Since, however, such indicators only change gradually over time and respective data are neither regularly collected nor up-to-date available at national aggregate level, policy impact monitoring will have largely to rely on a set of suitable intermediate and proxy indicators.

In a country like Ethiopia where the majority of the population depends on rainfed agriculture and both food availability and access are strongly determined by highly variable weather

[48] For the different methods for data collection and analysis, see following steps and Chapter 3.

[49] Cf. Baker (2000), p. 29.

conditions (external factor), the selection of meaningful indicators for measuring policy impacts on food security is particularly delicate. A practical approach is to choose a limited set of intermediate and proxy indicators, based on

- the issues addressed in the impact hypotheses,
- SMART+ criteria,
- data availability,

and complemented by qualitative information on stakeholders' and target groups' perceptions on changing conditions. Qualitative surveys (RRA, PRA)[50] of target groups and other stakeholders (e.g. NGOs, traders) can also help to identify suitable indicators for food (in-)security, and/or to clarify the meaning of an indicator. What is, for example, the meaning of food (in-)security among different population groups?

In cases where impact indicators are already considered and respective data collected in monitoring the impacts of food security related projects and programmes, these data should be used and aggregated for MPI. To be able to do so, coordination is required among policy, programme and project impact monitoring units in regard to harmonising indicator selection and the overall methodology for impact assessment.

[50] As to survey methods, see chapter 3.

Table 2-8: Selected food (in)security indicators

Indicators (related to specific aspects of food security)	Reference Period	Ethiopia	Sub-Saharan Africa	LDCs
Access to food				
GNP per capita - US $ - Average annual growth rate	1998 1990-98	100 1.0	530 -0.4	270 0.9
GDP per capita in PPP (purchasing power parity) US $	1998	574	1,607	1,064
Population below national poverty line (%)	1999	45		
Population below poverty line of US$ 1 PPP/day (%)	1989-1998	31.3	n.a.	n.a.
Poverty gap at US$ 1 PPP/day (%)	1995	8.0	n.a.	n.a.
Share of income or consumption (%) of poorest 20% richest 20%	1987-1998	7.1 47.7	n.a. n.a.	n.a. n.a.
Percentage of household income spent on food (av. %)	1995/96	60	n.a.	n.a.
Estimated number of people in need for food assistance Millions	'96-2000 av. 2000	5.5 10.6	n.a.	n.a.
Food availability				
Food production index (1989-91=100)	1998	121	n.a.	n.a.
Agricultural production growth per annum/capita	1990-2000	-0.64	n.a.	n.a.
Average yield food grain production (kg/ha)	1993-2000	1,152	n.a.	n.a.
Share of food aid in annual food grain supplies (%)	1990-2000	5-15	n.a.	n.a.
Daily per capita supply of calories (kcal)	1995/97	1,820	2,237	2,099
Food calorie availability as percentage of requirements	1995/97	91	n.a.	n.a.
Daily per capita supply of protein (g)	1997	54	53	51
Daily per capita supply of fat (g)	1997	23	46	34
Stability of food supplies				
Standard deviation food grain production in % of annual mean	1993-2000	22.10	n.a.	n.a.
Standard deviation grain yields in % of annual mean	1993-2000	9.75	n.a.	n.a.
Annual variation in food aid supplies, in million metric tons	1990-2000	0.35 - 1.2	n.a.	n.a.
Food utilisation				
Population (%) without access to - safe water - health services - sanitation	1990-98 1981-93 1990-98	75 45 81	46 n.a. 52	36 n.a. 60
Malnutrition				
Undernourished population millions %	1995/97	28.7 51	539.3 33	
% of underweight children under five	around 1995	48	32	40
% of stunted children under five	around 1995	64	41	47
% of wasted children under five	around 1995	8	9	12
% low birth weight (< 2,500g)	1990-97	16	15	22
Pregnant women with anaemia (%)	1975-91	42	n.a.	n.a.
Other related indicators				
Human Development Index Rank (total of 174 countries)	1998	171	n.a.	n.a.
Average annual population growth rate (%)	1990-98	2,7	2,6	2,5
Life expectancy at birth (years)	1998	43.4	48.9	51.9
Infant mortality rate (/1000)	1998	107	92	77
Child mortality rate (/1000)	1998	173	173	167
Illiteracy (% of population age 15+) female/male illiteracy	1998	63 69.5/57.5	39 48.4/32.0	39 59.0/38.6
Youth illiteracy rate (% age 15-24)	1998	48.5	24.2	37.5
Gross primary enrolment (% of school-age population)	1998	43	78	96

n.a. not available or not applicable
Sources: UNDP: Human Development Report 2000, World Bank: World Development Report 2000/2001, FAOSTAT, own calculations

b) Case study example: Agricultural sector reform policies in Jordan

In the Jordan case, quantitative indicators to be reviewed on a regular basis included:

- Farm and off-farm income,
- Producer and consumer prices, trade margins,
- Water and other input use,
- Production costs,
- Production-/land use patterns,
- Herd sizes and structures,
- Farm debts,
- Exports, imports,
- Tariffs, taxes, subsidies.

Information requirements also included indicators on competitiveness of agriculture production in the various farming systems and agro-ecological zones within Jordan and in relation to the international markets. To this end, most of the indicators, and changes thereof, were to be observed in different agro-ecological zones, different farming systems and different farm types.

It became clear that not all relevant changes induced by the agricultural policy reform can be assessed in quantitative terms. This holds true particularly at the beginning of the policy reform process when changes have not yet materialised in quantitative terms but when it was most important to take corrective actions if deemed necessary. Furthermore, some of the changes to be observed were of qualitative nature. Due to such reasons, qualitative approaches to impact assessment with qualitative indicators were to be applied, e.g. to address the following issues:

- What are the perceptions of farmers and other stakeholders about the new government policies?
- What coping strategies are adopted under different economic, social and environmental conditions?
- Are there unexpected impacts?
- Is there an urgent need for mitigating negative impacts, and if so, in what regard?

2.3.5 Step 5: Research design

Once the two preceding steps are accomplished, the methods for tracing policy impacts will have to be determined. Based on the impact hypotheses to be tested, the selected impact

indicators and the respective data requirements, suitable research approaches for tracing impacts and methods for data collection are to be defined.

The following principal research approaches for impact assessment can be distinguished:[51].

a) Comparison with counterfactual (experimental design)

Here, the situation with policy interventions is compared with a situation which persists - or would persist - without interventions. In applying this method, treatment and control groups are to be formed. The control groups should show the same characteristics as the treatment groups but must not be affected by / benefiting from an interventions. While such an approach is generally applicable in partial coverage programmes which only affect / benefit part of the population, households or other units of analysis,[52] it cannot be applied to assess the impacts of country-wide policies and full coverage programmes because there is no control group. Although it is possible to "construct" a counterfactual by simulations, using Computable General Equilibrium Models (CGE) based on detailed social accounting matrices (SAMs), such an approach is quite complex and time consuming. Moreover, this approach heavily depends on the availability and reliability of a huge number of data and the validity of the assumptions. Such conditions may justify the use of CGE in a comprehensive and in-depth evaluation of impacts over a certain time period but normally preclude its application in impact monitoring systems.

b) Comparison of situations before and after (reflexive comparison)

By comparing the situations before and after the policy is being implemented, using appropriate indicators for this comparison, the relevant changes observed are conceived as effects of the policy measures introduced. The reflexive comparison method can be applied to quantitative as well as qualitative approaches for impact assessment. In the case of quantitative approaches, adequate baseline data referring to the time before are required. In the case of qualitative approaches, the perceptions of stakeholders on relevant changes and on the determining factors thereof are to be identified and analysed.

The major limitations of the reflexive comparison approach are, in summary:

[51] The different methods are presented in greater detail in chapter 3. For a discussion of the various research methods for impact assessment see also Baker (2000) and Mohr (1995), Prennushi et al. (2001)

[52] and, therefore, may be applied for impact assessment of programmes or projects.

- The *attribution problem*: to which extent can the changes recorded be clearly attributed to the policy interventions or are caused by other factors?[53]
- the need for *baseline data* which can be compared with indicators for change. Sometimes suitable baseline data are not available.
- The *single reference period* for changes to be recorded (before policy implementation); due to this fact, the retrospective comparison is specifically suitable for evaluations but less for monitoring continuous changes.

c) Combination of quasi-experimental / non-experimental designs with qualitative approaches

In monitoring policy impacts one will, for practical, cost- and time-economic reasons, normally rely on methods which are kind of compromise solutions to the methods referred to before. These are quasi-experimental or non-experimental quantitative approaches to impact assessment, such as

- *Matching methods or constructed controls* (a comparison group is matched to the treatment group on the basis of a set of observed characteristics);
- *Reflexive comparison* (see above - the baseline provides the comparison group);
- *Double difference or difference-in-difference methods* (treatment and comparison groups are compared before and after policy interventions);
- *Instrumental variables or statistical control methods* (comparison of the variation of values of selected outcome indicators with instrumental variables);

as well as

- ***qualitative approaches***,[54] taking explicitly into account the perceptions of the target population and/or other key informants on observed changes and their causes.

Such methods generally bear less reliable results, compared to the exact statistical approaches, but still allow to trace progressive changes during the course of policy implementation. By combining different methods (e.g. quantitative and qualitative methods, case studies, compilation of results of impact assessments at different levels of aggregation), and by thoughtful and sensible interpretation of their results, relevant conclusions on the impacts of policies, whether implementation of a policy is progressing towards reaching the intended objectives, and at what speed it is progressing, will be possible.

Data requirements

[53] See also section 1.5 of chapter 1.

[54] See also discussion on qualitative indicators under step 4 above and chapter 3.

The indicators selected in step 4 and the research methods to be applied determine the data requirements. The robustness of the results of impact assessment largely depends on the data quality, therefore the collection of high quality data is absolutely essential for the validity of the results of impact assessment.

Similar to the "SMART+"-criteria postulated for indicators (see step 4 above), also the data should fulfil certain quality criteria which can be labelled as “APT”:

A	accurate	data matching, as much as possible, the actual values or properties of the phenomena being studied (e.g. prevailing market prices, number of malnourished children, number of people below poverty line, etc.);
P	precise	data reflecting the exact (and not just approximate, broad, vague) values or properties of the phenomena being studied (e.g. exact production costs, market prices, incomes, instead of wide cost, price or income ranges);
T	timely	data on relevant reference periods (baseline, time sequences, recent) which are (made) available in time.

Although the "APT" criteria primarily apply to quantitative data, they can be analogously applied to qualitative data and information: Accurate and precise qualitative data can be obtained by putting the right and precise questions to the appropriate persons, and by verifying the answers and the validity of data obtained through triangulation.[55]

The choice of methods to be applied in impacts assessment pre-determines, to a large extent, the type of data required and the methods to be employed for data collection.[56]

Since the generation of highly accurate and precise quantitative data can be very costly and time consuming, there is, in practice, often the need to make compromises between data accuracy, precision and timeliness. This particularly applies to data generation for impact monitoring, when real-time data and information are required. Case studies and/or a combination of quantitative and qualitative approaches can help to overcome this problem.

Reasons of cost - and time-efficiency call for a maximum use of data which are available through statistics and/or as results of special and routine surveys done by other institutions (research institutions, government departments, development organisations, NGOs).[57] Therefore, once clarification is achieved on which data are required, the existing information

[55] Triangulation means an approach to a specific phenomena from a different angle, by asking the same question to different key informants. See section 1.5.5 of chapter 1 and chapter 3 for more on qualitative research approaches.

[56] See section 3.4 of Chapter 3, particularly Table 3.7

[57] See also Prennushi et al., 2001

and data sources should be reviewed, in order to see which meaningful data are available and routinely collected.

If the necessary data are not available, or cannot be obtained in appropriate quality and time, the need to conduct specific surveys for collecting the required data arises. Such need generally exists in regard of participatory and qualitative approaches to impact assessment.

The surveys will have to be designed by the impact monitoring unit, in close cooperation with research institutions, government organisations or other agencies which have adequate experience and capacity in the respective field. These partners may then also be involved in actual data collection and survey execution (see following step).

In developing the research design, the implications of MPI regarding capacity, resource and time requirements will become clear. If it turns out that the "optimal" research approaches are too sophisticated, too costly and/or too time-consuming to be implemented under given capacity-, resource- and time-constraints, this may lead to adjustments in the research design, priority settings and/or compromise solutions. Such modifications will usually involve a revision of the objectives and tasks of MPI, in close co-ordination and in consent with the client(s) of the MPI, hence a respective feed-back cycle, turning back to step 1 and starting from there a new revised MPI process (indicated by dotted arrow line in Figure 1-3).

For impact monitoring, a combination of quantitative with qualitative methods will often be the most suitable approach, because

- it provides the quantifiable impacts as well as an explanation of the process and interventions that yielded these outcomes;[58]
- qualitative approaches help to fill quantitative data gaps (particularly relevant if baseline data and most recent data are missing);
- qualitative methods allow verification of results through triangulation (looking at relevant issues from a different angle).

The methods to be chosen for impact assessment and the approaches for data collection are closely linked. A review of data available from secondary sources will influence the research approaches to be applied.

[58] Cf. Baker (2000), p. 15.

Impact indicators, such as mortality rates, school attendance, or household incomes attributable to policy interventions, often involve comparisons with the situation before the interventions have been launched, or in areas not (yet) covered by the interventions. Such comparisons may depend on the maintenance of national systems of vital statistics or surveys.[59] Before data from such sources are chosen as impact indicators, the research designer needs to confirm that the data systems are in place and reliable, and that the data are valid for the intervention and control areas. Potential problems in making comparisons with existing data include

- incomplete coverage of areas;
- the use of different methods in data collection, such as interviewing household members in one survey and only household heads in another;
- changes in survey techniques, such as measuring crop output in one survey and collecting farmers' estimates in another.

Such problems can invalidate any comparison. To ensure the comparability needed for impact assessment, study proposals should explain and justify the proposed approach and ensure consistency of methods.[60]

a) Case study example: Food security policies in Ethiopia

Monitoring the impacts of food security policies in Ethiopia requires the use of different research approaches, due to the complexity of issues to be covered:

- **Retrospective comparison**: Comparing food security indicators before and after policy implementation. This applies to intermediate indicators, such as measuring the impacts on the various determinants of access (income, own production, food prices, dependency on public transfers), availability (food production, market supplies), stability (variation of food production, market supplies and/or food price hikes, frequent dependency on emergency food assistance), utilisation (safe water, health status, education), as well to final indicators (e.g. nutritional status). Apart from looking at national aggregates, the assessment of such impacts on different population groups, particularly on the vulnerable population, is of utmost importance. Therefore, the retrospective comparison will have to be based on stratified samples of different population groups and combined with some kind of
- **Experimental /quasi-experimental design**: Assessing the changes of food security indicators for population groups and areas covered by food security policy measures in

[59] Cf. World Bank, OED, 1996.

[60] Ibid.

comparison with groups and areas of similar characteristics which have not (yet) been covered by the policy measures. Such **double difference** or **difference-in-difference methods** (treatment and comparison groups are compared before and after policy interventions) are possible during the initial stages of policy implementation when the policy measures will have been initiated at certain places and are not yet fully covering the whole country. Moreover, tracing the policy impacts during this initial stage of policy implementation is of particular importance because it will lead to lessons learned, and allow early adjustments in policy design and implementation if the policy measures do not bear the expected results. (Quasi-) experimental designs with double difference methods can be applied to trace the impacts of a wide variety of food security policy measures, such as:

- Natural resource conservation measures in certain areas - assessing the impacts on food production and farm income (availability and access) by comparing areas and population groups with the same observed characteristics before and after as well as with and without interventions;
- Targeted asset distribution (e.g. land, farm implements) - assessing the impacts on household food production and income by comparing the indicators for treatment and comparison groups before and after respective interventions;
- Promotion of food production - as before;
- Employment and income generation - assessing the impacts on household income and food consumption by comparing the indicators for the treatment and comparison groups (participating and non-participating population with the same observable characteristics) before and after interventions;
- Feeding programmes - assessing the impacts on household and individual food consumption and nutritional status for benefiting and non- benefiting population groups with the same observed characteristics before and after interventions.

- **Statistical control methods** can be applied to trace certain impacts of specific food security interventions, if adequate cross-section and time-series data on both the instrumental variables and the outcome indicators are available. Possible fields of application are, for example:
  - Tracing the impacts of food aid supplies (instrumental variable) on prevailing market prices, local food production and/or market supplies (outcome indicators);
  - Tracing the impacts of rural infrastructure improvements (e.g. road construction) or input subsidies (instrumental variables) on marketing margins, local market prices of inputs and produce, marketed food production, and/or farm income (outcome indicators).
- **Qualitative approaches** will have to be widely applied throughout MPI, in order to

- fill existing quantitative data gaps;
- gather complementary and additional information on the perception of target groups and other informants (e.g. traders, village leaders, representatives of government, NGOs, other organisations) on major problems faced, on changes perceived, and the factors considered responsible for the problems felt and changes experienced.

The choice of methods for monitoring the impacts of food security policies will also depend on data availability. Table 2-8 presents a selection of relevant data on food security at aggregate national level which are available in certain time intervals. Although such data may be used for MPI at national aggregate level, they will need to be complemented by more specific and real-time data, to be generated by special surveys. Such surveys are to be based on

- **stratified sampling techniques**, giving due consideration to the specific features of different areas and population groups (treatment and comparison groups), and
- suitable **methods for data collection** (case studies, focus group discussions, interviews, observation, questionnaires, written document analysis).[61]

It will be necessary to liase with other organisations (government, NGOs, international agencies) concerned with implementing food security project or programme measures and monitoring the food security situation, to coordinate research approaches and data collection for impact assessment.[62]

b) Case study example: Agricultural sector reform policies in Jordan

Baseline data

Scientifically sound measurement of effects and impacts would have required a comparison of the situations with and without ASAL which, however, was not possible since the monitoring system was established after ASAL had been launched. Hence, only developments under the presence of ASAL could be monitored.

The situation called for a rather pragmatic approach to bridge the gap of lacking baseline data. Instead of non-existing time series data, the impact monitoring unit made use of old (case) studies and data gathered for other purposes. Intensive evaluation, re-organising and re-evaluation of past data and studies may not have yielded scientifically fully satisfactory results, however, the information obtained provided a practical basis for future analysis of

[61] See following step and chapter 3.

[62] See following step and chapter 3.

developments. By supplementing existing secondary data with the results of quick surveys, conducted on a limited number of predetermined sample farms in different agro-ecological zones, a rough assessment of the status of agriculture before the start of ASAL could be obtained. This formed the basis from which future developments could be assessed, if not in statistically quantifiable and statistically significant terms but at least to identify major changes of critical variables and trends.

Current data collection

Existing data collection by the Department of Statistic or the Ministry of Agriculture served other purposes than impact assessment and needed significant adjustment to provide data which could be used for impact monitoring. For example, the data collection followed the administrative delineation of the country rather than agro-ecological zones. Means and averages were calculated across agro-ecological zones and across different farm types. For an in-depth assessment of impacts, this type of compilation and calculation was not useful.

Although it was highly desirable to use existing data collection for impact monitoring, it could not be expected that the institutions already collecting data would be able to adjust to the requirements of ASAL monitoring within a short period of time. Adjustments could only be expected after a coordinated effort and thorough evaluation of ongoing data collection and evaluation systems.

Research approaches

The AMS was designed as a ‘general agrarian policy information system with a poverty focus. It should monitor structural changes as well as the performance of the agricultural sector as a whole and within different farm classes.

As outlined in the previous step, the following, mainly quantitative information would have been required to support a respective assessment: Resource use, including farm sizes, land tenancy, land use, availability or employment of family and hired labour, debts, major assets and the objectives and problems of farming must be known. Furthermore the required information includes the competitiveness of farm enterprises within various farming systems (gross margin calculations), competitiveness of production between farming systems within Jordan (variable costs and total production costs), international competitiveness of Jordanian agriculture, farm budgets and off-farm income.

As a result of existing data constraints, a pragmatic approach was proposed, taking into consideration

- quality and quantity of existing information,
- expected differences between farm classes,
- data collection and evaluation capacity,
- information use for decision making.

Taking into account established data collection activities and comparing them with the requirements for an impact monitoring system, the APIM team focused on a limited number of particularly important aspects. While information on general competitiveness of agricultural production could be gained from existing statistics and their analysis, own surveys were necessary to assess the impacts and reactions of different farm types in different zones. Information on the general financial situation of the farm households was to be based on gross margin analyses and supplemented by calculations of:

- Comprehensive financial analysis of main products in order to assess total variable costs and total production costs,
- Economic analysis to allow comparisons with world markets,
- Calculations of export and import parity prices to allow for adjustment of trade policies.

In order to monitor trade margins, there was a need for price data not only at farm gate level but also at wholesale and retail level. Respective surveys, based on farm questionnaires, were designed to yield the necessary figures.

Since household level data had to be collected almost exclusively through primary data collection, i.e. surveys, the monitoring system had to be limited to collect a few poverty relevant indicators. Even under such a limitation, comprehensive data sets had to be collected for each sample farm and farm class. Data accuracy and completeness was considered more important than criteria of statistically representative sample size. Hence the surveys were carried out on a small number of farms, using a rather comprehensive questionnaire to get a complete picture of the current socio-economic situation.

The detailed data requirements for assessing different farming systems in different agro-ecological zones have been laid down, amounting to hundreds of individual figures to be collected on a regular basis. This exercise showed the complexity of such a monitoring system when based on representative data for various farm classes. This, again, showed that existing statistics could hardly be expected provide sufficient information on a desegregated (farm) level.

Qualitative approaches

The assessment of policy impacts also required information on perceptions, problems, anticipated developments, coping strategies etc. among different sections of the farming population. Obtaining such qualitative information required particular and different methodological approach. To get information on such issues, rapid and participatory appraisal techniques were applied. Qualitative impact monitoring relied on regular RRA/PRA exercises to provide information mainly on on-going adaptation strategies and current problems at farm and household level. Ad hoc informal surveys were conducted to get farmers perceptions of policy changes.

2.3.6 Step 6: Information and data collection

According to the selected observation methods and the information and data sources identified in the preceding step, actual collection of data will be effected through:

- **Tapping existing information and data sources:** Arrangement with the respective data collecting institutions will have to be made to ensure that the required data are made available for impact monitoring in suitable form and time. This also applies to relevant monitoring data collected by programmes and projects which are implemented under the respective policy framework.
- **Upgrading of existing data collection systems:** Existing statistical services and data collecting system may not generate exactly the type of data required for impact assessment, but similar kind of data. By slight modification and upgrading, the kind and quality of data collected could possibly be adapted to the requirements for impact monitoring.
- **Execution of specific quantitative/qualitative surveys:** Even if the two preceding possibilities are fully explored and used, there usually remains, as said before, the need to conduct special surveys for data collection.[63]

  Execution of the surveys, using one or more of the relevant instruments, has not (necessarily) to be done by the impact monitoring unit itself but can be outsourced to research institutions, government organisations or other agencies. They, preferably, have already been involved in survey design (see preceding step).

Since data collection can be both expensive and time-consuming, it is highly important to explore and make maximum use of existing data sources and ongoing data collection

[63] See Table 3-5 in section 3.3.7 of Chapter for the main data collection instruments for impact assessment, their features, use, strength and weaknesses.

efforts.[64] If the data available from secondary sources do not exactly match the type of data required for impact monitoring, coordination should take place with the data collecting agencies with the aim to adapt their approaches to the needs for impact assessment. Where there is a choice, it is usually better to piggyback surveys on to existing national or other surveys rather than to create a new data collection facility.[65] A reluctance and inertia of agencies to modify established data collecting procedures can be overcome by respective support and pressure from higher administrative levels. The agencies should also be encouraged to provide the required data without delay.

Table 2-9 lists different types of data used for impact monitoring, their sources, the agencies normally responsible for its collection, and the typical frequency of collection.

[64] Cf. Prennushi, 2001

[65] Cf. World Bank, Operations Evaluation Department, 1996.

Table 2-9: Data for impact assessment, typical sources and frequency of data collection

Data	Source	Agency	Frequency
National-level data: National accounts: GDP, Consumption, Investment, Exports, Imports, etc.	System of National Accounts, trade statistics	Central statistical agency	Monthly or quarterly where possible (trade statistics for example); at least yearly
Public finance data: revenues, expenditures by category	Budgets and actuals	Ministry of Finance, Central statistical agency, sectoral ministries	Monthly or quarterly; at least yearly
Consumer and producer prices	Price, wage surveys	Central statistical agency, Central bank	Monthly; CPI basket updated at least every five years
Social Indicators	Administrative systems	Management Information Systems, MIS of sectoral ministries	Yearly where possible
Climatic data (temperature, rainfall, etc.)	Direct measurement	National weather agency	Daily
Local-level data: Availability of services	Community surveys, multi-topic household surveys; qualitative studies	Local administration, sectoral ministries	Yearly
Utilisation of services	Tracking surveys	Local service providers	Yearly
Individual and household level data: Household consumption and income; living conditions, social indicators	Household budget / expenditure / income surveys, multi-topic household surveys	Central statistical agency, Ministry of Labour / Employment	Every three to five years
Household living standards (no detailed consumption or income)	Priority surveys, core welfare indicator surveys	Central statistical agency, Ministry of Labour / Employment, others	Yearly
Household priorities, perceptions of well-being, user satisfaction	Qualitative studies; user surveys	Central statistical agency, sectoral ministries, others	Every one to three years

Source: Adapted from Prennushi et al. 2001

Even if the possibilities to tapping existing data sources are fully explored, there may remain the need to generate own data. There are critical steps of designing the data collection

instruments, sampling, fieldwork, data management, and data access.[66] The main data collection instruments for impact assessment are: [67]

- Case studies,
- Focus group discussions,
- Interviews,
- Observation,
- Questionnaires,
- Written document analysis.

If new data are to be collected, it is important to be aware of the **additional institutional capacity and other resources demanded** by the data collection tasks.[68] Most surveys to be conducted will require a survey manager, data manger, field manager, field supervisors, interviewers, data entry operators, drivers, and possibly translators. Furthermore, analysts should be involved in the development of the questions, in the pilot test, and in the review of the data from the pilot test.

Working with **local staff** who have experience in collecting data similar to that needed for impact assessment can greatly facilitate fieldwork operations. Not only can these staff provide the required knowledge of the geographical area to be covered, but their knowledge can also be critical to developing the norms used in locating and approaching informants.[69] The type of staff needed to collect data in the field will vary according to the objectives, nature and focus of impact assessment. For both quantitative and qualitative data collection, staff must be **trained**. Data collection should be guided by manuals that can be used as orientation during training and as reference during the fieldwork.

Other crucial issues to be considered in organising data collection are: [70]

- **Pilot testing** prior to actual data collection is highly important, for different purposes:
  - to test the quality of the instrument with respect to producing the required data;
  - to familiarise fieldwork staff with the data collection process;
  - to be able to select, among the fieldwork staff employed in pilot testing, the best performers to form the actual data collection teams.
- **Communication** facilities among survey team are essential.

[66] Cf. Baker, 2000

[67] See section 3.3 of chapter 3 for the specific features and the strengths and weaknesses of the different data collection instruments.

[68] Cf. Prennushi, 2001

[69] Baker, 2000

[70] Ibid.

- **Temporal events** (holidays, school year, rainy seasons, peak working periods for planting or harvesting) are to be considered when fieldwork is planned.
- **Integration between data collection and processing,** so that errors in data collection can be identified and corrected prior to the conclusion of fieldwork.

a) Case study example: Food security policies in Ethiopia

Before specific surveys for collecting data for impact assessment are planned and conducted, existing data sources generating relevant data should be explored. Data related to the food situation are collected by a variety of organisations, including government institutions, international organisations and NGOs, e.g.:

- The governmental DPPC (Disaster Prevention and Preparedness Commission) produces annual and occasional estimates of crop performance, food supply prospects and emergency relief food assistance requirements.
- The CSO (Central Statistical Authority) produces annual estimates of agricultural and food production and conducts occasional special surveys on household income and expenditure as well as national nutritional surveys.
- The Ministry of Economic Development and Cooperation (MEDAC) has conducted a study on the poverty situation in Ethiopia and maintains a "Food Security Unit" which is supposed to play a coordinating role in food security policy matters at federal level.[71]
- At some regional state levels, regional "Food Security Units" have been established with coordinating and monitoring functions regarding food security matters.
- World Bank, poverty assessment studies, agricultural sector surveys and public expenditure reviews.
- WFP compiles and publishes current food aid statistics and provides, through its VAM (Vulnerability Analysis and Mapping) -unit, data on chronic and temporary food insecurity.
- FAO and WFP conduct an annual crop and food supply assessment mission.
- USAID has established a Famine Early Warning System (FEWS) and initiated surveys on food security and vulnerability assessment.
- The EC maintains a Local Food Security Unit (LFSU) which has initiated various studies on food security policy issues, particularly regarding the Emergency Food Security Reserve (EFSR) and food marketing.
- Various NGOs (e.g. CARE, Save the Children-UK) have conducted nutrition, household and other food security related surveys.

[71] Up to year 1999, MEDAC also hosted the "Grain Market Research Project" which generated data on the current grain market situation and conducted special studies on food security and food aid issues. The publication of a critical study on food aid targeting led to an abolishment of project.

Cooperation with and among these institutions should take place in order to coordinate data collection instruments and efforts.

If additional data are required for impact monitoring, also many of these organisation plus local universities and research institutions could be involved in survey design and execution. Due to limited capacities and resources for MPI, a decision on priority issues to be covered by specific surveys may have to be made, based on the priorities for MPI defined in the previous steps.

b) Case study example: Agricultural sector reform policies in Jordan

The ASM relied on two different types of data sources:

- **Ongoing statistics**, for which their applicability to policy impact monitoring issues could possibly be improved by evaluating the raw data with respect to specific AMS objectives and through adjustment of future data structure;
- **Primary data collection** within AMS, including both, the surveys before start of ASAL and the periodic surveys during and after the implementation.

A number of valuable data sources could be identified from ongoing statistics. They included

- The Department of Statistics
  - Annual Agricultural Statistics
  - Annual Livestock Statistics
  - Annual Agricultural Price Surveys
  - Annual Trade Surveys
  - Farm Management Survey 1988
- The Ministry of Agriculture
  - Agricultural production statistics
  - Yield statistics
  - Statistics on the area under production
- The Jordan Valley Authority
  - Complete data on land ownership and tenancy
  - Monthly data on cropping pattern
  - Monthly data on water usage and costs
- Agricultural Marketing Organisation
  - Daily and monthly data on wholesale and retail prices for fruits and vegetables
  - Quantities marketed

- The Ministry of Supply
  - Prices for barley, wheat bran and maize
  - Retail prices for vegetables and fruits (occasionally other produce and inputs)
- The Agricultural Credit Corporation and other banks
  - Debts of farmers
- World Bank Statistics
  - World market prices and international transportation cost for the calculation of important export and import parity prices

Unfortunately, the data of ongoing statistics referred to Governorate or national level and, therefore, did not permit a direct assessment of farm and household incomes or farm enterprise performance in various ecological zones by farming systems. However, a re-evaluation of ongoing statistics to generate time series could greatly improve the applicability of data for policy decision making. A grouping of agricultural data according to agro-ecological zones, farm size or farming system would lead to specific data for the years before, during and after the implementation of ASAL.

The most important time series data which should be made available were determined by the impact indicators identified in “Step 3”; they include:

- Volume of production
- Irrigated area in the highlands
- Land use patterns
- Herd sizes and structures
- Debts of farmers
- Input use
- Farm income (all these are available from existing statistics, but on aggregated level only!)
- Financial prices and trade margins
- Economic prices
- Imports and exports
- Tariffs on important commodities

To provide data on structural changes and the economic performance of various farming systems, monitoring farms had to be selected. In these monitoring farms all the relevant information had to be collected before the start of ASAL and in regular intervals during and after the implementation.

It was considered important to have a comprehensive survey done BEFORE the start of ASAL, in order to have reference data for resource endowment, land use, livestock numbers and their relation to enterprise performance, farm and off-farm income. Furthermore, such data were needed to facilitate the formulation of farm models for testing the likely impacts of ASAL on various farming systems. Model farms could be used to simulate economic situations and understand the likely impact of ASAL.

The farm surveys to be carried out during and after the implementation of ASAL were meant to monitor changes in resource endowment, land use, livestock, etc., and to relate these changes to enterprise performance and farm and off-farm-incomes in the monitoring farms. Furthermore, continuos surveys provided the database for policy decisions and could also indicate necessary changes or improvements in the extension service.

Sampling procedures

The limited data collection capacity within the Ministry of Agriculture called for a survey approach where either an extensive data set is collected from a small number of farms or only a few variables are observed in a large sample.

With little knowledge on the variability of farming in Jordan, preference was given to rather large samples in which initially a comparatively small number of variables were to be observed. The idea was to increase the number of variables along with improvements in survey capacities. Then, the number of sample farms could possibly be reduced as soon as information on the variability in farming is available.

A survey before the start of ASAL should gather information about objectives and problems of farming on approximately 600 farms. Additional surveys on farm enterprises (gross margins) should include three to four farms for each major enterprise in each district.

Surveys during and after the implementation should include annual surveys on all sample farms on changes of structural data and problems in farming, As the survey capacity increases, the number of sample farms and farm enterprises might be increased as well. In irrigated agriculture, these surveys should be carried out in each cropping season. Furthermore, additional surveys on specific topics may become necessary, e.g. on labour requirements, feeding, use of communal grazing lands etc.

Sampling methods for choosing the monitoring farms were described for the major agro-ecological zones and farming systems, based on existing information about agriculture in these areas.

Preparation of questionnaires

Based on existing information and taking into account the different features of farming systems, different questionnaires were elaborated for the different agro-ecological zones and farming systems. Intended to trace impacts caused by e.g. abolishment of input subsidies, surveys on farm structural data included questions on the extent of changes and on the causes of these changes. The farm enterprise surveys were designed based on the information about importance of certain farm types in different zones.

Survey implementation

Since the first survey was supposed to provide the basis for all subsequent data collection activities, this survey was planned and executed particularly well. Subsequent surveys were implemented at regular annual intervals, preferably always at the same time of the year. In irrigated agriculture, seasonal intervals were suggested. With increasing and improved capacity, more farms could be covered by the survey or more surveys on specific topics of interest could be implemented.

Survey procedures had been defined in order to ensure adequate data quality. Procedures for supervision of enumerators, validation of data and documentation were specified. Survey data were supposed to be evaluated, which should provide additional points of discussions with farmers and hints for further qualitative data gathering. Cross-checking and the collection of additional information, using different methods, were supposed to help in understanding causes for changes. Furthermore, these results were also interesting for the farmers and served as an incentive to participate in the surveys.

At each district, two staff members from the Ministry of Agriculture were named as enumerators and subsequently trained. In order to facilitate the understanding of the survey logic and to secure proper survey implementation in the field, training included

- Survey procedures and enumeration techniques;
- Data validation and data entry;
- Agricultural economics, in particular enterprise and farm budgeting as well as important aspects of farm management.

Quantitative data collection

Quantitative data collection, as done by the Department of Statistics (DoS) and the Statistics and Data Bank Division within AEPD, was closely scrutinised for potential improvements. Data collection and processing procedures were reviewed and proposals were elaborated on how to adapt existing activities to the needs of the AMS. As the Department of Statistics comes under the Ministry of Planning, additionally, inter-ministerial collaboration had to be fostered.

Even with partial changes in the DoS data collection procedures agreed upon, there was the short-term need for own data collection activities in the field. External assistance enabled data collection as required for the newly installed 'Farm Management Information System' (FAMIS). For future years, the required data will be provided through surveys implemented by DoS. Detailed, specific survey topics will nevertheless be handled by AEPD and either commissioned to another institution or conducted with own staff.

Qualitative approaches

It quickly became clear that quantitative data (formal surveys) alone could not provide the expected information as fast as required. Quantitative data collection could not cover all the relevant areas in a situation where the policy rationale and the expected impacts were not clear to and fully understood by the farmers. For example, farmers could not understand the reasoning behind abolishing subsidies. Livestock breeders accused the Government of making money by taxing feed subsidies. However, in reality the Government stopped a subsidy scheme, which it could no longer sustain due to its high financial and economic costs. Another example was the short-term effect of increasing pressure on pasture. With farmers not being able to afford supplementary feed for the large herds, pressure on natural resources increased dramatically. Prices for animals dropped considerable and with export restrictions in place, farmers were reluctant to sell on the domestic markets. All this information could be forwarded quickly to decision-makers. In the latter case, response by policy makers in opening the borders for export and even introducing a temporary export subsidy for a few weeks could mitigate the problem.

The APIM project assisted in elaboration of a methodology for qualitative impact monitoring. Guided by an international consultant, guidelines for using RRA techniques were elaborated and introduced to supplement FAMIS with quickly available information on topics of specific interest. Information on sharply decreasing gross margins in sheep production could hence be combined with information on perceived reasons and intended coping strategies.

The limited scope and quick implementation and evaluation of qualitative impact monitoring studies aimed at providing timely information on important developments and gave hints on necessary mitigating measures for unexpected negative effects.

Since this approach was completely new to MoA staff, especially for field staff, extensive training had to be provided before subsequent survey rounds could be conducted under the sole responsibility of AEPD.

Manpower and equipment requirements

An agricultural economist was assigned to head the central impact monitoring unit in the Ministry of Agriculture. Additional professional staff include an agricultural statistician, an economist with extensive experience in agricultural surveys, a data processing specialist with an agricultural background, two agricultural economists and two support staff. Furthermore, the assistance of an experienced external expert for the initial phase, at least two years, could be obtained. Short-term local consultants were employed, particularly for the timely completion of the initial surveys.

The main requirement for equipment was in form of a medium sized computer network, copying machines and a car to ensure transport for the centrally deployed staff.

Within the supervision units, four clerical support staff assisted the four supervisors. They were also given access to computers and printers. Cars, which they could share with other staff at the agricultural offices, were provided.

For the operational units at District Agricultural Offices, the main need was for transport. It was expected that employment in survey activities would take up to 50 percent of officers working capacity. The requirement for additional staff time on that level was not assessed as survey activities and other regular duties would partly overlap.

2.3.7 Step 7: Data compilation, processing and analysis

Once the data are collected - primary data from own surveys as well as secondary data from other sources - they will have to be compiled, processed and analysed, according to the research approaches and analytical methods defined in step 5, in order to serve the specific purpose of impact assessment. Problems with cleaning, validating and interpretation of data will almost surely arise during this process. Therefore, close collaboration between data

producers, processors and analysts is required, in order to clarify questions and to ensure timely and quality results.[72]

The most relevant analytical methods for impact assessment, comprising quantitative as well as qualitative methods, are presented in chapter 3.

There are specific hard-, software and capacity requirements for data processing and analysis. Data banks are to be set-up and administered. Data analysis involves an examination of the quantitative as well as qualitative data, with the aim:

- to identify patterns which allow a **verification (or falsification) of the impact hypotheses**,
- to establish clear **cause-effect relationships**, particularly also regarding impacts which are not as expected,
- to be able to provide clear evidence on which of the possible **policy impact scenarios applies**,[73]
- to arrive **conclusions** and to give **recommendation for policy adjustments**.

The ability to fulfil these tasks requires substantial analytical capacities, knowledge of how the data were collected and what they mean and express, as well as full awareness of the contents of preceding steps and of the process of MPI as a whole, including the ability to understand the policy, its mechanisms and its effects in the given socio-economic, political and cultural context.

a) Case study example: Food security policies in Ethiopia

The existing facilities and capacities for data management and analysis need to be carefully assessed. At present state, they are likely to be insufficient at federal government level to fulfil the data management and analysis tasks related to MPI. There are two basic possibilities to cope with such constraints:

- to establish and upgrade the facilities and capacities for data management and analysis at the impact monitoring unit to be set-up,
- to subcontract national or international (possibly best: a consortium of both) research institutions or consultants for such tasks.

[72] Baker, 2000, p. 38.

[73] See chapter 1, section 1.3.

Even if the second alternative is chosen - and there are good reasons for such a solution - there will be requirements for capacity building among government and well as research staff. There is scope for external development assistance from one or more of the international or foreign agencies concerned with food security in Ethiopia.

b) Case study example: Agricultural sector reform policies in Jordan

Compilation, processing and analysis of primary and secondary data has been done at the AEPD of the Ministry of Agriculture. The necessary data processing facilities had been set up under the framework of the APIM project.

The data from ongoing statistics and secondary sources had to analysed, re-arranged and re-grouped to serve the needs for impact assessment.

As to the data collected from field surveys, they were first assessed for completeness and consistency by one of the supervisors. Open questions and missing information could directly be discussed with the respective enumerator. A first interpretation of the results was then discussed at Directorate level with agricultural staff and farmers.

The questionnaires were then forwarded to AEPD of the Ministry of Agriculture where a last crosscheck for logic and completeness was done. The data were then entered into the FAMIS computerised database system from which information on the relevant farm and household level indicators could be obtained.

The analysis of the data revealed the following **major results** of impact monitoring:

- In the small ruminant production, the introduction of ASAL was responsible for a development that led to significant losses in income during the observation period.
- Next to this "direct effect" a number of "indirect effects" became prevalent with a delay, affecting both the flock size and the productivity of small ruminant production. Higher feed costs caused farmers to extend the wheat and barley cultivation maximally to produce fodder. Even this could, however, not prevent the need to cut flock sizes, in some cases by 25%. At first the milk yield decreased, then also the number of new-born lambs. Due to insufficient liquidity, the farmers had to reduce the quantity of concentrates further. As a consequence, less lambs were born and losses increased. The Situation was particularly critical in one region where farmers could not even cover their variable costs with their gross Output. Therefore more and more farmers stopped with production.
- In the production period 1999, the very dry weather was the major factor affecting the profitability of livestock production. The government supplied subsidised fodder to

support the sheep farms. These measures could, however, not prevent yet another drastic deterioration of the flock size and the productivity in small ruminant production. In the areas with less than 150 mm of rainfall, flocks with over 150 ewes and does disappeared completely. Although this dramatic reduction was mainly due to the drought, the development was reinforced by the medium and long term effects of the ASAL.

- The disastrous effect of the reduction in herd size, prices and productivity on the income of the sheep and goat farms became fully evident when looking at the development of the profits of the typical farms in the various regions. Prior to the introduction of the ASAP, only the small and medium farms in Region I had less than 1000 JD (Jordanian Dinar) profit. In 1999 all farms were below the minimum income line of 1000 JD. All of the observed farming Systems without any exceptions were working with a loss in 1999.
- As to vegetable and fruit production, the results of the APIM showed that there still is considerable potential to use the existing water in vegetable and fruit production more efficiently. Investment in water-saving technologies is indispensable to improve water efficiency at the farm level. The policy maker have to examine how the necessary financial resources can be made available to the agricultural sector.

2.3.8 Step 8: Feed-back of results of MPI

The last and most important step is the feedback of the results of MPI to the policy makers and other stakeholders. In disseminating and presenting the results of MPI, the following aspects are to be considered:

- Clients / audience: primary clients:
  policy makers; but also: programme managers, international, donor, non-governmental organisations, beneficiaries, public, media, research institutions.
- Means of presentation:
  e.g. regular or occasional bulleting, reports, meetings, workshops, computer presentation, web-pages, etc. Means of presentation should be adapted to the intended audience, their presumed interest, capacity, information needs and access to media. The modern media offer a wide variety of techniques for communication and presentation. Staff of MPI unit may need to be trained in such techniques.
- Timeliness:
  In order to be useful, the results must be available when they are needed. Particularly in MPI, the results should be presented as early as possible, in order to enable the policy makers to take corrective actions, if required. In practice, this may generally mean the presentation of monthly, quarterly or annual MPI reports/bulletins, and ad-hoc or occasional reports/quick infos if there is a particular reason (e.g. major event affecting

policy design or implementation, results of an important study becoming available) or an urgent request by one of the clients of MPI.

- Impacts as planned?
  Diversions of reality from plan in impact achievements should be pointed, if there are any.
- Cause-effect-relations
  should be pointed out, particularly in cases where impacts do not match the objectives; reference should be made to which impact scenario applies.[74]
- Recommendations:
  The results of impact monitoring will have the most policy relevance if they include clear and practical recommendations on policy adjustments.[75] These can be broken into most urgent, short- and long-term priorities, and may also include budgetary implications.

A special problem may arise if the results of MPI are critical and do not please the policy makers or other clients. Although there is no general recipe how to handle such a situation, the analysts must be aware of a potential threat to the clients, in order to find the most appropriate way and approach to trickle and present the research results.

a) Case study example: Food security policies in Ethiopia

Due to the paramount importance of food security issues and policies in Ethiopia, there is a wide scope of potential clients /audience to receive feed back of the results of MPI:

- Different government bodies (commissions, committees, ministries, departments, organisations) at federal and regional state levels;
- International and bilateral donor organisations;
- NGOs;
- Research institutions;
- Farmers' organisations and other target group representatives;
- Public media.

There is a case for a general regular (quarterly, bi-annual or annual) bulletin and/or workshops in which the results of MPI are presented and discussed, as well as for special forms of presentation and discussion of the MPI results which are particularly tailored for serving the needs of the different stakeholders.

[74] For different impact scenarios, see chapter 1, section 1.3.

[75] Cf. Baker, 2000, p. 39.

b) Case study example: Agricultural sector reform policies in Jordan

In order to initiate a continuos flow of information to the decision-makers, a system of regular meetings was introduced. During the weekly meetings, the head of the APIM unit informed participants on the latest findings and developments. In addition, the unit in charge published regular papers, summarising the current findings and informing about recent developments. Interested subscribers included relevant government staff and also NGOs, bilateral and international agencies as well as farmer unions and the general press. The farm management related information was computerised and permanently and easily accessible from the FAMIS database. The information was made available to all interested and involved parties. The transparent system of information flow helped creating an open atmosphere.

The published bulletins were appreciated for helping to justify certain policy measures. In-depth studies which were carried out in addition to regular surveys, brought crucial issues on the agenda and into the discussions. Timely presentations of important findings made it easier to initiate measures to mitigate unexpected effects and hardships which appeared, e.g. the income decline for livestock breeders could be buffered by a promotion campaign for exports. Developments in the ecological sensitive Badia area could also be assessed and addressed in a timely and effective manner. Were formal surveys showed the reconversion of agricultural land to pasture, informal, RRA based surveys showed increasing pressure on these sensitive resources by intensified grazing. Such information could be communicated during the regular meetings, where ad-solutions for tackling the problem were then discussed.

2.4 Conditions for a wider application of the Eight-Step-Approach for MPI

The applicability of the Eight-Step-Approach for MPI has been demonstrated for two different policy cases in the context of different countries. However, the actual features of policies and the conditions under which they are implemented are highly diversified. Therefore, the MPI approaches will always have to be tailored to fit the case to which it is applied. We have already said in chapter 1 that the eight steps represent a logical order of subsequent activities related to MPI but are in no way absolute and binding. The steps are closely linked, and, in proceeding further down the eight steps, it may often become necessary to go back to one or another of the previous steps and to repeat the respective cycle of steps. This, for example, is the case regarding data availability (step 6) which determines research design (step 5) and/or the choice of indicators (step 4). Nevertheless, in spite of the specifics of

each individual approach to policy impact assessment, there are some common critical issues to be considered if the Eight-Step-Approach for MPI is to be applied in a wider policy and country context. Such major issues are summarised as follows:

The **LogFrame approach**[76] can and should be applied:

On Step 1: To clearly set out the objectives and tasks of MPI, as well a on

On Step 2: To get a well structured analytical view of the policy to be monitored. If the policy and related programmes are not yet structured according to the LogFrame format, it may be worthwhile to do it retrospectively.

On Step 3: In developing an **impact model**, in formulating **impact hypotheses**, and

On Step 4: In **selecting impact indicators**, **differentiation** should be made between:

- Short-, medium-, long-term impacts & impact indicators,
- Intermediate and final impacts & impact indicators (impact paths),
- More and less important impacts & impact indicators,
- Planned and unplanned impacts & respective indicators,
- Desired and undesired impacts and respective indicators,
- Quantifiable impacts, and impacts which are to be qualitatively assessed (nevertheless the latter can by analysed using semi-quantitative techniques such as grading and ranking).
- Furthermore, the selection of impact indicators should already be done with a preview on data availability.

On Step 5: The **choice of suitable methods** for tracing policy impacts depends on the **research questions** (impact hypotheses) to be answered as well as the **timing**, **budget constraints** and **implementation capacity**. The pros and cons of different research designs should be considered to determine which methodologies are most appropriate and how quantitative and qualitative techniques can be integrated to complement each other.[77] If resource, capacity and/or time constraints will not permit to carry-out impact monitoring according to a comprehensive or optimal research design, it may become necessary to redefine the scope and tasks of MPI (e.g. prioritisation on certain impacts, impact chains or impact areas; less sophisticated methods to be applied; aiming at tentative rather than statistically verified, quantified results), hence to return to step 1 and to agree with the stakeholders on a respective reduced approach.

[76] For the LogFrame method, see following chapter 3.

[77] Cf. Baker, 2000, p. 23.

On Step 6: Before own data are collected**, existing data sources** should be reviewed and made maximum use of. Coordination and cooperation with data collecting agencies is required, and **piggybacking of data collection** on ongoing surveys should be preferred to own and additional surveys.

On Step 7: Data analysis should result in pointing out **any major divergence between plan and reality,** desired objectives and impacts actually achieved, and if a divergence is detected, the **cause-effect relations**, i.e. the reasons for such divergence, will have to be identified. It should become clear which of the **impact scenarios** applies.[78]

On Step 8: Feed-back of results to policy makers and other clients should be guided by their **information needs/interests** as well by criteria of **clarity, comprehension, digestibility** and **applicability. Recommendations for policy adjustments** should be made. **Internet web-pages** to be used for information of the public on the results of MPI.

[78] For the different impact scenarios, see chapter 1, section 14.

Exercises
related to Chapter 2

Take an actual policy in a country of your choice (e.g. home country of participants of training courses or country where course is held) and pass through the eight steps for MP, addressing all major issues related to the various steps, as presented in chapters 1 and 2, the methods for impact assessment presented in chapter 3, taking the following aspects into account:

- Logical framework approach to be used on step 1 and 2.
- In developing an impact model and formulating impact hypotheses (step 3), and selecting impact indicators (step 4), the following aspects are to be considered:
  - Short-, medium-, long-term impacts;
  - Intermediate and final impacts & impact indicators (impact paths),
  - More and less important impacts & impact indicators,
  - Planned and unplanned impacts & respective indicators,
  - Desired and undesired impacts and respective indicators,
  - Quantifiable impacts, and impacts which are to be qualitatively assessed,
- In developing the research design (step 5), aspects of data availability, timeliness, budgetary and capacity constraints are to be taken into consideration.
- In determining the approaches and methods for data collection (step 6), existing data sources and the possibility of piggybacking of data collection on ongoing surveys are to be considered.
- In planning the approaches for data analysis (step 7), it should be kept in mind that they aim at findings on which impact scenario(s) apply(ies), on cause-effect relations and the factors which are responsible for any significant divergence between planned and actual impacts, and allow conclusions as to necessary adjustments in policy design and implementation.
- In planning the feed-back of the results of MPI to the policy makers and other clients (step 8), aspects of their information needs, clarity, comprehension, digestibility and applicability are to be taken into account.

Note: The results of the exercises related to chapter 1 can be integrated into this exercise.

Key references and web-links related to chapter 2

References related to case study examples: Ethiopia

Clay, D.C, D. Molla, and H. Debebe, 1999. Food Aid Targeting in Ethiopia: A Study of Who Needs it and Who Gets It, Food Policy, Vol. 24.

CSA, 1998: Revised report on the 1995/96 household income, consumption and expenditure survey. Statistical Bulletin 204. Addis Ababa

CSA, 1999: Report on the 1996 welfare monitoring survey. Statistical Bulletin 205. Addis Ababa

CSA and Macro International, 2000: Ethiopia demographic and health survey 2000. Preliminary Report.

DPPC, 1997, Guidelines for Planning & Implementation of Employment Generation Schemes (EGS), Addis Ababa, September

DPPC, 1998, Five-Year Plan of the Federal Disaster Prevention & Preparedness Commission 1998-2002, Addis Ababa

Disaster Prevention and Preparedness Commission (DPPC), 2000, National Food Aid Targeting Guidelines, Addis Ababa, Ethiopia, November

FDRE, 1996, Food Security Strategy, Prepared for the Consultative Group Meeting of December 10-12, 1996, Addis Ababa, November.

FDRE, 1998, Food Security Programme (1998-2002), draft, Food Security Unit MEDaC, Addis Ababa, June.

FDRE, 2000, Ethiopia, Interim Poverty Reduction Strategy Paper 2000/01 – 20001/03

FDRE, 2002, Food Security Strategy, Addis Ababa, March

Grain Market Research Project, 1998, Food Aid Targeting in Ethiopia: A Study of Household Food Insecurity and Food Aid Distribution, Addis Ababa, March

Grain Market Research Project and EU Local Food Security Unit ,1999, Donors' Local Food Aid Purchase: An Evaluation of Impact and Performance, Addis Ababa, January

Hailemariam, A.: Population policies and programmes. Population Education Monograph, Ministry of Education

Jayne, T.S., John Strauss, Takashi Yamano & Daniel Molla, 1999, Targeting of Food Aid in Rural Ethiopia: Chronic Need or Inertia?, November

Jayne, T.S., John Strauss, Takashi Yamano & Daniel Molla, 2000, Understanding and Improving Food Aid Targeting in Rural Ethopia, Policy Synthesis, USAID, No. 50, February

Mathys, Ellen, 2000, Assessment of the Impact of Food Aid on Household Economies of North Wollo, South Wollo and East Hararghe, Ethiopia, Food Security Unit, Save the Children nd (UK), February

MEDAC,1999: Poverty situation in Ethiopia. Addis Ababa

Middlebrook, Peter, 2000: Livelihoods, the Poverty Reduction Strategy Paper & employment based safety nets: An opportunity for integration in Ethiopia? Paper presented at the "International Conference on Poverty Reduction and Alleviation Strategies" Addis Ababa 15th to 18th May 2000

Ministry of Economic Development and Cooperation, Welfare Monitoring Unit, 1999, Poverty Situation in Ethiopia, Addis Ababa, February

National Regional State of Tigray, 2000, Integrated Food Security Programme for Drought Prone Areas, 2001-20005, Main Summary Document.

Natural Resource Institute, 1998, National Food Security Reserves – A Comparative Assessment with Specific Reference to Ethiopia, DFID, Greater Horn and Coordination Department, December.

Natural Resource International Ltd (DIFID/NRI), 1999, Review of the Role, Size and Structure of the Ethiopian Food Security Reserve, June/July.

Neun, Hansjoerg, 2000, Food Aid: Missed Opportunities and/or Latent Potential for Poverty Reduction and Alleviation in Ethiopia, Paper presented at the “International Conference on Poverty Reduction and Alleviation Strategies”, Addis Ababa 15th to 18th May.

RESAL, Ethiopia, 1999, An Analysis of Grain Market Integration in Ethiopia, ADE, August

SCF (US), 1999, Cash-For-Work Versus Food-For-Work.

Transitional Government of Ethiopia, 1993, Directives for Disaster Prevention and Management, October

TGE, 1993: National policy on Ethiopian Women. Addis Ababa

TGE/UNICEF, 1993: Children and women in Ethiopia. A situation report

United Nations Emergency Appeal for the Drought in the Horn of Africa, Ethiopia, Kenya, Eritrea, Somalia and Djibouti, June-December 2000, New York and Geneva 2000

UNDP 1989, Relief Infrastructure Study of Ethiopia.

UNDP 2000: Human Development Report 2000. Oxford

Webb, Patrick and von Braun, Joachim, 1994: Famine and Food Security in Ethiopia. Lessons for Africa. Chichester

WFP, Food Aid Information Unit, Ethiopia Food Aid Status, bi-weekly issues

WHO 1995: Physical status: the use and interpretation of anthropometry. WHO Technical Report Series 854 Geneva

World Food Summit Plan of Action. 13-17 November 1996. Rome

World Bank, 1998: Ethiopia. Social sector report. Washington

World Bank, 1999, Ethiopia Public Expenditure Review, Vol. I & II, Report No. 20283-ET, Word Bank Country Office in Ethiopia, November 30

Word Bank/Multi-Donor Team, 1999, FDRE Food Security Programme, Report of the Multi-Donor Team.

Case study APIM-Jordan (mostly internal documents)

APIM/AEPD, Ministry of Agriculture, Amman, 1997, Qualitative Impact Monitoring (QIM) 97 of the Structural Adjustment Program on the Livestock and the Cereal Subsector in the Badia and the Uplands, Amman, November

Bauer, E., 1997, Developing and Pretesting Survey Design 1997 for Policy Impact Monitoring, Berlin, July

Boueiz, M., 1997, Rapid Rural Appraisal Training and Qualitative Impact Monitoring Survey 1997 (Consultancy Report), Hamburg, October

Metz, M., El Nasser, 1997, Report on the Results of Project Support Mission to the Agricultural Policy Impact Monitoring (APIM) Project in the Ministry of Agriculture, Agriculture Economics and Policy Department (AEPD), Jordan, Amman/Berlin, April

GFA, 1996, JORDAN - Assistance to the Agricultural Policy Department in the Development of a Monitoring and Evaluation System (M+E System) for the Agricultural Adjustment Loan (ASAL) Second Phase, Eschborn, July

GTZ, 1995, Impact Evaluation and Analysis of the Agricultural Structural Adjustment Programme (Project Document), March

GTZ, 1995, Monitoring and Evaluation for the Agricultural Structural Adjustment Programme in Jordan (Mission Report), Amman/Eschborn, June

Hanisch, M., 1997, Assistance to the Agricultural Policy Department in the Development of a Monitoring and Evaluation System (M+E System) - Analyzing the Department of Statistic's Data - , Amman/Berlin, January

National Information Center, 1995, The Initial Report of the Technical Committee for the Coordination of the Agricultural Sector's Information, Amman

Nejdawi, M. et al., 2001; Agricultural Policy Impact Monitoring (APIM), Development of a M+E System for the Agricultural Structural Adjustment Program (ASAP), Final Report Summary of the Overall Project Activities and Results, prepared for GTZ, Amman-Triesdorf, October

Noerr, B., 1996, Assistance to the Agricultural Policy Department in the Development of a Monitoring and Evaluation System (M+E System) for the Agricultural Adjustment Loan (ASAL), Berlin

v. Zitzewitz, E., 1997, Developing and Pretesting Survey Design 1997 for Policy Impact Monitoring, New York, September

FAO/GTZ Training Manual on MONITORING POLICY IMPACTS

Chapter 3:
Methods and Tools for Monitoring Policy Impacts (MPI)

(Prototype draft, 16-10-02)

prepared by Andreas Groetschel
(with contributions by Norbert Jost)
for FAO-TCAS & GTZ, Unit 4555

Chapter 3: Methods and Tools for Monitoring Policy Impacts (MPI) 107

Chapter 3:
Methods and Tools for Monitoring Policy Impacts (MPI)

Objective : *Presentation and description of selected methods and related tools to be employed for different tasks of the multi-step policy monitoring process. Readers are introduced to main features of various methods and acquainted with their respective characteristics, such as: conditions of their applicability, their relative advantages (strengths) or disadvantages (weakness). Essential pre-requisites of methods to be effective are identified, so as to enable users of this manual to select and apply suitable methods and tools fitting the country-, policy- and situation-specific requirements of impact monitoring.*

3.1 Introduction

Monitoring impacts of policies is different from project- and programme monitoring. While the latter is mainly concerned with monitoring of activities, inputs and outputs, policy impact monitoring is specifically concerned with (immediate, intermediate and long-term) effects on parameters of a more complex and aggregate nature, which are defined and can be observed only at the "higher" - and usually more abstract - plane of planning and policy objective formulation[79]. Policies usually do not affect a limited region, sector or group of people as projects or (no-country-wide) programmes do, but lead to impacts on the society as a whole or larger parts thereof and/or induce changes within an entire sector of the economy or even sectors.

However, there are no new methods or tools which are specific to the purpose of policy impact monitoring alone. The same tools as applied for other planning and management purposes can also be used, if appropriately adapted to the nature of policy implementation and the specific questions to be addressed by policy impact monitoring.

This chapter describes selected methods and related tools which can generally be considered as options of choice in carrying out the specific tasks through the eight steps of the policy impact monitoring process.[2] The choice of method(s) also depends on the nature

[79] See Chapter 1.1.1 "What is MPI?"

[2] See Chapters 1 and 2

of the policy /-ies to be monitored and respective policy measures adopted, as well as on the desired degree of accuracy of observation, on available resources, and on cost considerations.

Since policy impact monitoring is a recursive, repeat-cycle of activities culminating in a feed-back of results of impact monitoring and subsequent re-planning and adjustments in policy design and/or implementation, more than one method will have to be applied. By employing a mix of methods in an iterative and recursive manner, a more comprehensive spectrum of impact-relevant aspects of policies can be addressed. Moreover, by using different methods, tapping a variety of types and sources of information, and by doing this repeatedly in subsequent monitoring cycles, one generally arrives at qualitatively improved and more reliable (cross-checked, substantiated by time-series observations) information and - consequently – results.

The selection of methods presented here in chapter 4 has been made purposively, amongst others so as to emphasise the aspects of transparency, participation and ownership throughout the process of policy formulation, policy implementation and policy monitoring. In any case, any method referred to below may require adaptation to suit people, culture, local conditions and any resource constraints under which monitoring of policy impacts takes place.

Chapter 3 is structured according to the nature of methods required at the different stages of the impact monitoring process:[80]

1) Planning methods, applicable on steps 1 to 5,
2) Methods for data collection, applicable on step 6.
3) Methods for data analysis, applicable on step 7.
4) Communication and presentation methods, applicable on step 8.

The following description of methods is confined to a summary presentation, focussing on:

a) description of method; its salient features / characteristic(s);
b) selected aspects of application of method for the purposes of MPI, e.g. prerequisites, if any, for a gainful application of the respective method;
c) advantages / strengths, problems, limitations.

[80] Table 1-2 in chapter 1, section 1.4 gives an overview on relevant methods to be applied at the various steps of MPI.

For an in-depth familiarisation with respective methods, especially with aspects of their practical application, the reader will have to refer to specialised literature as listed in the references.

Due to its paramount importance for policy analysis, planning and impact assessment, a detailed description of the Logical Framework (LogFrame) method is attached as Annex 1.

3.2 Planning Methods

3.2.1 The Logical Framework (LogFrame) Method

> ***Note:***
>
> *For a detailed description of the LogFrame Method and its application, please see Annex 1.*

What is it?

The term "Logical Framework", briefly called LogFrame, is a rather generic one and comprises a fair number of similar methods under different names; these methods, however, differ in details or special terminology only. Substantially, all of them have in common that they are based on the use of simple, but systematically and methodologically applied stringent logic to clarify **cause – effect relationships**

- between problems and factors causing them; and
- between objective/s to be achieved and means to achieve them

within a frame of reality conditions (context), generally treated as assumptions.

The LogFrame Method is an instrument employed by analysts, planners and managers for:

- problem analysis,
- objective formulation, and
- the planning and implementation

of selected, objective-oriented interventions which aim at a change of reality from a situation which is perceived as negative towards a positive situation.

Because of its general logic, the LogFrame method can be applied to any type of objective oriented tasks, irrespective of the nature, level of aggregation or complexity of the problem to be solved. Though originally developed as method for **project** planning and management,

the method and its methodological principles can analogously be applied to analysis, planning and management of **programmes and policies**.

The **planning matrix** is the main (physical) output of the entire LogFrame analysis and planning exercise. It presents, in a concise form, identified objectives, their interrelations within an objective hierarchy and the related interventions to achieve them. The matrix also identifies responsibilities, the necessary resources for and specific indicators of objective achievement, as well as critical assumptions on important conditions and risks for objective achievement.

Application to MPI

For the purposes of planning and implementation of MPI, the LogFrame method and its methodological principles can be applied to:

- Review and analysis of the policy to be monitored (see step 2 of MPI, chapter 2.3.2)
  On the basis of available documentation and other evidence, the policy is examined for compliance with strict "means-to end" logic and other criteria such as relevance / significance, effectiveness, feasibility, adequacy, consistency, coherence, between major policy components, i.e. its objectives, strategy, measures of intervention, assumptions, implementation agents, stakeholders, resources and the underlying schedule.
- Development of an impact model for MPI (see step 3 of MPI, chapter 2.3.3);
- Identification of impact indicators (see step 4 of MPI, chapter 2.3.4); and

The LogFrame method can also be applied to the planning and management of MPI itself. In this case, the activities to be undertaken for purposes of planning MPI are treated as those of a "normal" project - starting with step 1, i.e. clarification of the objectives of MPI and (pre-) identification of the tasks to be performed in planning and implementing of MPI.[81]

Advantages, Problems, Limitations

The main advantages of the LogFrame method is that its helps to bring about

- an in-depth understanding and
- a correspondingly high quality of problem analysis, consistent objective definition and planning of interventions with suitable instruments/means;
- awareness of planners of the significance of specific assumptions and risks for objective achievement;
- transparency;

[81] For examples see section 2.3.1.

- participation of stakeholders, and so
- a high degree of identification (ownership) of stakeholders with the objectives and the actions to be undertaken to achieve them.

Though the LogFrame method is a very useful tool for planning and management of projects, programmes and policies, there is also a major risk involved, namely that it may seduce planners – due to its fascinating logic and clarity - to apply the method too rigidly and mechanically. One should be aware that the result of a LogFrame analysis can only reflect a reduced and "constructed" model of the reality, that there are usually a number of hidden (yet important) objectives not included in this model, and that the assumed cause-effect relations and postulated "impacts paths" of interventions can never fully reflect reality. The LogFrame method can only support, but never replace common sense approaches, professional judgement and experience, nor can it substitute for technical, economic, social or environmental assessment. Therefore, the strengths of the LogFrame method are made best use of when it is flexibly applied in an iterative process of continuously adjusting analysis, planning and management to a complex and changing environment.

3.2.2 Document Review and Analysis

What is it?

The review of documents is concerned with existing papers, reports, maps, web-pages and whatever other type of material related to the policies under investigation can be made available. It provides a starting point to learn about important issues in a sector and/or for acquainting with policy measures under consideration. The material under investigation may refer to earlier experiences with policy interventions in the same sector, experiences with planned measures in other countries or regions, or it may supply methodological guidance derived form previous interventions. Material to be reviewed and analysed may not only b found as hard copies from relevant institutions. Additionally, a web search might reveal supplemental information.

Application to MPI

A relevant documentation to refer to first will be the LogFrame for the policy measure(s) to be monitored. The planning documents give an overview of the measures planned and implemented, about the time-frame for the implementation of policy measures, their phasing, and the linkages between policy objectives and policy measures. The information about the planned actions can be checked for consistency and relevance with regard to the stated

policy objectives.[82] Experts will assess the suitability of strategy and measures and will determine the potential fields of investigation, i.e. the areas of expected results and impacts.

The intended implementation schedule of the policy measures can to be assessed against the actual state of implementation. Impacts will only be observable after the implementation of policy measures has started. Moreover, complementary and mutually supplementing measures must be implemented accordingly. In many instances, e.g. when regulatory measures are put in place, it will not be sufficient to review documented legislation only but to check to what extent it has been adopted and enforced.

The documents to be reviewed will, for example, comprise of:

- LogFrame documentation of the policy(ies);
- Responsibility charts;
- Associated rules and regulations, drafted and passed;
- Activity reports of implementing agencies;
- Financial statements of responsible ministries and executing institutions;
- Evaluation and assessment reports;
- Stakeholder statements (entrepreneurs, unions, cooperatives, etc.);
- Documentation of debate on policy in parliament.

Advantages, Problems, Limitations

The review of existing documentation will generally be the initial phase of research. All information that is found without lengthy field surveys and evaluation will speed up the understanding of the issues under consideration. Avoiding duplication of efforts is probably the main benefit from document review. The knowledge gained here will provide the basis for further (own) research. However, data and information in existing documents might be outdated or contain biases. Impact monitoring requires the collection of well-founded information. The information and data contained in readily available documents can supplement or guide the collection of such information but will rarely be sufficient, calling for special efforts for information and data collection from other sources as well.

3.2.3 Workshops / Meetings

What is it?

A planning workshop or meeting at the initial stage of the policy impact monitoring process will bring together, for a first time, the main actors from different hierarchical levels and

[82] See LogFrame Method in Annex 1 for details.

different organisations. The main purpose of such an event is to develop a common understanding about the monitoring endeavour. The different actors will be encouraged to express their views and concerns, to prepare a common ground for future activities. It promotes transparency on the process of organising tasks and distribution of responsibilities.

Any such workshop or meeting will need a well-prepared and independent facilitator who will guide discussions and mediate between the different interests of different participants. She/he will also have to ensure appropriate documentation of all contributions.

A suitable approach to list, structure and visualise the issues raised in a workshop/meeting is the **Metaplan** technique: The individual issues are noted on cards (preferably by the participants) which are put at a board, at first unsorted, and then re-arranged into an appropriate hierarchical structure, with horizontal and vertical linkages. Thus, the issues and results of a meeting/workshop become transparent to all participants.

Application to MPI

Workshops or meetings provide a good opportunity to jointly analyse the complex and often complicated issues of monitoring policy impacts. As MPI requires collaboration of different institutions at various levels, a joint discussion about objectives, results and activities is crucial for the long-term success of the system (see also 4.2.4.). Whatever early commitment for collaboration can be reached at an early stage in the MPI process will facilitate the smooth implementation of the monitoring system and ensure broad participation and usage of its results.

Advantages, Problems, Limitations

The crucial issue for workshop success is proper preparation and facilitation. A key for achieving the desired results is the involvement of the main and most important actors. Selection of participants will need to ensure broad participation without risking to overload discussions with too many conflicts. For complex policy issues it may be advisable to organise a series of initial workshops at different levels. In any case an appropriate form of visualisation and documentation is required.

3.2.4 Stakeholder Consultations

What is it?

Review of written documentation and general planning meetings with multiple participants will not be sufficient. Concerned, involved and affected individuals and groups will also be able to give first individual assessments of the important issues to be taken into

consideration. First interviews amongst planners, implementers and intended target groups will supply important information about expected and unexpected impacts and impact mechanisms. Stakeholder consultations and analysis will give researchers an understanding of the roles different actors play, or can play, in planning, implementing and monitoring of policy measures. Often, prime concern of decision-makers is the impact of policy interventions on target group level. Therefore, their active involvement must be of paramount interest of all parties.

Application to MPI

Impacts of policies are often determined by people's, stakeholders' and target groups' perception and understanding of a policy and its intended effects. The information collected through quick informal interviews and an evaluation of the facts and opinions will lead to basic understanding as to where the emphasis in the MPI process will have to be put.

Advantages, Problems, Limitations

The often very subjective statements that are collected during stakeholder consultations at all levels supply a fair amount of information about peoples' interest in and perception of a policy. However, the information must be seen and treated as what it is: Quite subjective. Well-educated and eloquent groups might dominate stakeholder consultation processes and influential people may use this method and capture the process.

Nevertheless, stakeholder consultation processes will lay the ground for future participative monitoring efforts. Without active involvement in the planning stage, participation during the monitoring system cannot be ensured.

3.2.5 Survey Planning

What is it?

Planning (and implementation) of a survey consist of the following steps:

1) Defining the objectives of the survey
2) Designing the questionnaire
3) Choosing and applying a correct sampling technique
4) Pre-testing
5) Conducting the survey
6) Codifying and recording all answers
7) Interpreting and disseminating the results

While the appropriate design of questionnaires (or guideline questions) will have to be cross-checked by a pre-test, the decision about whom to include in the survey requires statistically sound sampling techniques. Only when the objectives of a survey are clarified and the **population to be investigated** is defined, a decision on sampling for cost and time efficient data collection can be made.

Table 3-1 lists the most commonly applied sampling techniques and their basic features.

Table 3-1: Sampling techniques

Technique	Principle
Simple random selection	Each observation unit is selected randomly. It has an equal chance of being part of the sample and can be selected only once. The selection of one individual is independent of the selection of another individual
Systematic selection	1 individual out of 10 or 100 is chosen; the first individual is chosen randomly. Make sure that the respective list is not ordered in any specific way
Stratified random sampling	When the population is not particularly homogeneous, it is divided into homogeneous (however, different from each other) sub-groups and a sample is taken in each stratum thus constituted. Actual sample sizes will be dependent on the proportion amongst sub-groups
Selection by clusters	The population is divided into sub-categories or clusters (e.g. farms receiving subsidies, geographical location); some clusters are chosen randomly and then all individuals in a cluster are questioned
Selection by quota	A reduced model is constructed, consisting of the known characteristics of the population under study; the researchers have then to find the individuals corresponding to the characteristics. Applicable when the specific impacts on a specific group are to be studied
“Snowball”	Based on a sample with a limited number of persons, more units , related to the first one are added. (e.g. units are added on recommendation of previous respondents.)

Sampling will in most cases take place to estimate baseline statistics (prevalence or degree in certain characteristics) or to estimate the difference or changes over time.

For the calculation of the number of units to be covered by a survey, it is advisable to consult an experienced statistician. When the required sample size is determined, surveyors should add an additional 10% as contingency for problems which may occur in executing the surveys. Some of the planned respondents may not be available at the time of the survey or they may refuse to answer.

Application to MPI

No matter what survey methods are finally applied for MPI, the careful planing is of paramount importance because the affected population will usually be very large. To carry out a census is neither feasible nor necessary for most policy monitoring systems. However,

careful work on the first four planing steps is even more important for policy impact monitoring than for data and information collection in the framework of project activities.

Advantages, Problems, Limitations

For policy impact monitoring, the definition of the population (total units of interests) may pose a first problem. Often the population affected by policy measures and to be adequately covered by a sample survey is not exactly known. For example, policy measures to boost agricultural exports will certainly affect export crop producers and, furthermore, it may open up possibilities for producers intending to shift production. A secondary effect will be a general shift of resources towards export production. A clear definition of the population to be covered and proper sampling techniques are necessary to obtain statistically valid data.

3.3 Data Collection Methods

3.3.1 Secondary Data and Information Compilation

What is it?

Secondary data and information refers to material already available and provided by other sources which can be used in MPI. Secondary data include results of previous research on the same or related topics, old and new maps, planning and evaluation reports, existing statistics, or any other type of document found in the public domain or by searching relevant data sources. Pulling together all the relevant material, published and unpublished, collected by government agencies, programme and project implementing institutions, NGOs or other civil society actors provides the knowledge base on which further research can be grounded. There is hardly any topic or region, including the ones of interest for policy impact monitoring, where planners and decision-makers could not draw on a wealth of existing data and information from secondary sources. The time invested to explore existing secondary data sources will quickly pay off. Avoiding duplication of efforts is probably one of the most cost and time saving approaches.

Application to MPI

Existing statistical data can be used for baseline as well as, if up-to-date, for tracing the changes occurred.

Old maps, photos, aerial photographs can e.g. determine the scope of impact monitoring for environmental protection policies. They may constitute a ‘baseline’ and can help determining a counterfactual picture, and also for distinguishing policy impacts from the influence of

external factors. In particular, for the distinction and subsequent analysis of general changes and of the impacts of certain policies, an evaluation of secondary data to create a ‘baseline' can be very helpful. Often, such an approach is the only option for impact assessment.

Advantages, Problems, Limitations

The main advantages of having secondary data at hand are time, resource and cost savings. Avoiding the duplication of data collection efforts saves time and money. Also the possibility to re-evaluate existing material with new research questions and hypotheses should be fully explored. Some of the questions guiding the research on impact monitoring may be answered without own data collection efforts. In many instances, such information provides not only a valuable but also the only baseline for impact assessment.

Caution is due concerning the reliability of secondary information. A careful look at the sources and at the methods used for collection and compilation is necessary. Data and information obtained from secondary sources will always have to be quoted together with the respective origin. Existing biases and/or limitations must be pointed out. However, an inherent problem of secondary information is very often exactly the fact that underlying methodologies are not documented, hence, biases are difficult to determine.

Examples

Impact monitoring regarding the cereal sector adjustment programme in **Marocco**. made intensive use of the data collected and compiled by cereal importers, millers, traders and their respective associations. The results guided the planning of additional surveys among other stakeholders.

3.3.2 Piggybacking ongoing Information Collection

What is it?

Upgrading and/or extending of existing data collection systems is another option to gather data and information in a cost- and time-saving way. Ongoing surveys can be extended to include specific questions relevant for impact monitoring or survey areas could be regionally adjusted to cover a certain group of intended beneficiaries. By slight modification and upgrading of the kind and quality of data collected, surveys could possibly be adapted to the requirements for impact monitoring. Possibilities in this regard should be explored, and the respective institutions encouraged to cooperate.

In particular, when survey teams operate under time and other resource constraints, co-operation arrangements will generally be mutually beneficial. For example, adding on a few

expenditure related questions to a survey on nutrition might generate the necessary information about changing consumption patterns as a result of policy-induced income changes. Such collaboration possibilities and arrangement regarding data collection and use between government departments, NGOs, research and other organisations and international research teams should be fully explored.

Application to MPI

For policy impact monitoring purposes, piggybacking planned or ongoing surveys will have to take into consideration the timing and coverage of these investigations. Monitoring is not a one-shot activity, hence, data collection activities are usually not limited to single surveys. Cooperation arrangements should be sought with agencies conducting regular survey activities, like the Department of Statistics, NGOs, civil society organisations, international organisations and donors. In particular the cooperation with the Department of Statistics helps to foster credibility of monitoring results due the official character of the information released by such departments. Furthermore, as the examples below show, an important option for policy impact monitoring to become cost-effective and institutionalised is to link it to existing monitoring efforts.

Linking up with other surveys is particularly relevant when, due to time or cost constraints, additional own surveys are not feasible or justified.

Advantages, Problems, Limitations

Data collection for official statistics frequently suffers from technical constraints which may lead to results that are either partially incorrect, inconsistent or not available within a time frame acceptable for monitoring purposes. Nevertheless, the wealth of information included in these materials and the knowledge of the people who are in charge of official statistics are a source that should not be left untapped. Providing capacity building to an existing institution to overcome their limitations will often be more cost-effective than installing own survey capacities.

Existing statistical services and data collecting systems, even when operating technically very sound, may not generate exactly the type of data required for impact assessment but may produce either similar kind of data or conduct their surveys in the same geographical region under investigation. Therefore, an adaptation of the existing efforts of data collection to the needs of impact assessment should be aimed at.

Examples

In **Jordan**, substantial efforts were made by the Agricultural Policy Impact Monitoring (APIM) project[83] to use the existing data collection of the Bureau of Statistics, which operates under the Ministry of Planning. However, sampling techniques used for national and regional statistics used administrative boundaries to chose subsamples. Within the administrative regions, random sampling was applied. Unfortunately, administrative boundaries cut across the delineation of agro-ecological zones. Moreover, the annual random sampling amongst the heterogeneous farming society randomly included different farm types in the surveys each year. In one year, livestock breeders were part of the survey sample, in the next year a vegetable farmer and the other year possibly a horticulture farm. It was not possible to use the data to systematically follow up on developments in specific farming systems as no timeline data for individual farms or farming systems were available. However, as the survey staff was well trained in conducting interviews and assessing data, their expertise was much appreciated and an adjustment of the survey approaches to serve the requirements for MPI was envisaged.

For a study on the impacts of electricity tariff increases in **Armenia,** the research team cooperated with an international team supporting the Government in conducting a poverty assessment. The poverty assessment questionnaires could be supplemented by a small number of specific utility related consumption and expenditure questions. Without having to repeat a large sample survey with basically identical questions, the research team got access to all the information required for the intended impact assessment.[84]

3.3.3 Formal Surveys

What is it?

Formal surveys use questionnaires to gather mainly quantitative information[85]. The surveys consist of a range of standardised questions in a structured format. Questions might, however, be descriptive, normative or causal. With respondents usually selected to be representative of the population or sometimes even covering the whole population (e.g. in a census), formal surveys allow to draw generalisable conclusions.

[83] See case study example in Chapter 2.

[84] For more details see Lampietti, 2001

[85] There is no rule, which prevents the collection of qualitative information through formal surveys. However, due to the nature of questions and the options (and limitations) for processing and evaluating qualitative information, formal surveys usually concentrate on the collection of quantitative data.

Formal surveys are most useful when researchers have a clear idea about the phenomena under investigation. In its simplest form, the surveys consist of a number of closed questions with an associated list of predetermined answers from which the respondents can chose (multiple choice). Although formal surveys do not exclude open-ended questions, such questions are in practice, rarely part of questionnaires due to problems with codifying and processing the respective answers. In case answers are supplied in an open-ended format, they have to be converted into a limited set of coded options for subsequent statistical analysis and interpretation.

Coverage of formal surveys has to be pre-determined in the survey design and before the actual start of the survey. No changes can be made during interviews. Formal surveys require very careful planning and pre-testing to avoid problems in the implementation phase that will hardly be possible to correct. For monitoring and evaluation purposes, formal surveys are commonly used to determine the baseline and to collect updated data in subsequent survey rounds.

Application to MPI

Formal surveys are particularly suited as a tool to gather data and information for monitoring longer-term impacts. Formal surveys are useful to monitor e.g. changes in the employment situation in rural areas (surveys among different types of enterprises), income situation (surveys on farm households, petty traders, formal sector employees, etc.). They can be very important to deepen planners' and decision-makers' knowledge about aspects of neglected or overseen negative impacts, identified through other methods (see also semi-formal surveys below). Formal surveys will supply regular updates of quantifiable indicators and will provide statistically robust information about observable changes.

Advantages, Problems, Limitations

The advantage of formal surveys is that, given they are conducted properly, the information and data collected provide a correct picture of the whole populace under investigation, either directly or through extrapolation. Formal questionnaire surveys can be particularly useful where populations are large and homogeneous (e.g. rice farmers in a country, small crop traders, extension staff).

The surveys are often expensive and difficult to implement, particularly with respect to sound statistical criteria (see also the section on sampling techniques). The time lapse between survey planning and the availability of results is relatively long, usually more than half a year minimum. Often the results of large national surveys or censi are not published before one or

two years after the survey took place. Such a time lapse is often not acceptable for impact monitoring purposes, when emphasis is on real time information.

The major problem with formal questionnaire surveys is the fact that researchers must have a rather precise idea of what to look for, what questions to ask and how to ask. A survey may include open and closed questions, responses, hence being not only numbers and figures but also opinions and ideas. Though such combination might be useful, it makes analysis more complex, expensive and cumbersome. Classification, interpretation, analysis and communication of descriptive information is difficult., time consuming and requires substantial analytical capacity.

Answers provided in formal surveys may give detailed description of the current situation but they usually reveal little about cause and effect relationships. Impact monitoring, however, needs to clarify the relationship between policy measures and observed impacts. Formal surveys alone will not be sufficient to unambiguously establish such kind of relationship.

An advantage of formal questionnaire surveys lies in the possibility to repeat them periodically and obtain time series data. This is of particular interest for monitoring purposes as changes can be observed, analysed, and conclusions concerning trends or sustainability of impacts can be drawn.

3.3.4 Semi-Formal Surveys

What is it?

Semi-formal surveys consist of open, mainly qualitative interviews, with groups or individual informants.

Open interviews take advantage of the fact that respondents, when they are encouraged to do so, will express their personal view about a situation or about changes. The interviewer uses an open guideline of questions to direct the respondent to the topics of main interest which creates an atmosphere of openness and interest. However, there must not be any influence on the content of answers. No predetermined or limited answers should be given to chose from, and interviewers will have to be open for additional topics of interest that come up during an interview. The topics, which are brought up by respondents, will of course vary a lot, depending on their very personal situation.

Application to MPI

Semi-formal surveys can provide an in-depth understanding of perceptions, behaviour, and attitudes. They can reveal the linkages between policy measures and intended as well as unintended impacts. While formal surveys will measure the magnitude of changes, semi-formal, open interviews can help to clarify the cause-effect relationship. They will be used to bridge the 'attribution gap', explaining behavioural changes, in particular when they are not following standard economic models. Open interviews are best suited to discuss complex issues in an unbiased way. Farmers can express their views about reduced subsidies, private traders can be interviewed about the impacts of abolished state marketing boards, and rural or urban consumers can tell their opinion about staple food pricing.

Advantages, Problems, Limitations

Although there is substantial planning effort required to conduct useful semi-formal surveys, actual costs are smaller compared to formal surveys. As surveys can and should be adapted during the process of execution, there is less need for intensive preparation, interview rounds can be launched faster with results being available quickly. The flexibility of the method allows for incorporating new topics as they are brought up by respondents.

Issues often neglected are the skills required from interviewers. Conducting an open-ended interview demands much more knowledge about interpersonal communication than simply filling a questionnaire. Guiding an interview without giving preconceived answers requires knowledge and experience in sophisticated techniques.

A further problem of this method is that the results can hardly be generalised. Views and opinions expressed are often purposely very subjective. Hence, before making general conclusions based on open interviews, one has to look at the problems, changes and developments mentioned, using additional and different methods. With regard to policy impact monitoring, it is, of course, very important to gain an understanding of peoples' perceptions about changes and effects. However, opinions expressed in open interviews need to be carefully reflected upon and cross-checked through the application of other information collection methods.

Examples

During open interviews carried out for the 'Agricultural Policy Impact Monitoring' project in **Jordan**, it turned out that, after the Government had cut feed subsidies, farmers were accusing the Government of making lots of money by raising the prices. The impact was not only an economic one for the farmers, less profit through higher input costs, but it created

also social unrest as most farmers did not understand the background and economic reasoning for cutting subsidies. This perception of farmers could not have been captured through a formal survey.

3.3.5 RRA/PRA Methods

What is it?

The tools that form part of RRA – Rapid Rural Appraisal – or PRA – Participatory Rural Appraisal – methods have a few characteristics in common. They aim at a rather quick assessment of a situation, emphasising also on processes that brought about changes in a society. Depending on the context of subsequent usage of the available information, the tools may vary significantly in the degree of participation.

The space provided for stakeholders to bring forward their problems and discuss their perception of causes and effects of changes in a society can broaden the view of policy planners and decision-makers about the impacts achieved or achievable. Some impacts may only become obvious when a comprehensive understanding on the socio-economic environment is obtained. Such an understanding is supported by applying the techniques described below. Different tools are usually combined to obtain a comprehensive and valid picture.[86]

Application to MPI

Group discussions. Getting a larger group of stakeholders together for discuss policy impacts eliminates partly the problem of getting answers which are solely determined by the respondents' personal situation. Different aspects as perceived by different group members can be compared and discussed within the group and between the group and the moderator. Group discussions also facilitate the preparation of time lines (recognition of relevant or important events over time) and the collection of historical information which is important to assess long-term and recent changes.

Focus groups constitute a special way of conducting group discussions. While in normal group discussions the emphasis is, in general, on collecting information from a heterogeneous group on wide range of topics of their interest, focus groups will concentrate more on in-depth analysis of a specific topic. The tool is particularly valuable for analysing complex or much disputed issues. A focus group consists of a number of individuals who

[86] The list of PRA/RRA tools presented here is not exhaustive. New tools, adapted to specific problems, are continuously invented. "Old" tools are adapted to allow their application in new environments.

share the same characteristics and/or experience, e.g. small entrepreneurs, female farmers, extension workers etc.

In connection with policy impact monitoring, focus groups are helpful in creating a clear and comprehensive understanding of causes and effects, expected and unexpected, as perceived by a group of stakeholders. The impacts on different groups can be compared when focus group discussions are conducted with different stakeholders. Such an approach can also help mitigating the bias, which is usually associated with discussions amongst homogeneous groups that have their own specific interest and opinion on a policy intervention. Focus groups can be helpful in adjusting indicators to reflect the impacts on a specific group. However, they can tell very little about desired and undesired effects outside the groups' direct environment.

Key person interviews. For policy impact monitoring, observations and opinions of key persons can guide planners and decision-makers and may raise awareness about unexpected impacts or additionally affected groups. Key persons for policy impact monitoring could be e.g. the heads of farmers associations, representatives of business organisations or political and social leaders. Interviewing key persons can be a time saving approach, in particular when there is a need for information on topics which have not yet been covered by other survey techniques. The information gathered from one single interview can than trigger a new series of investigations into areas previously uncovered. Information provided here may also be used to determine indicators for impact monitoring.

Venn Diagrams, organisational charts, mobility charts. Diagrams and charts can be of great use in visualising relationships, power structures, social infrastructure, institutional networks, their internal and external structure, etc. Changes over time and space can be visualised and documented. These tools are very helpful, especially for monitoring of policy induced changes in institutional environments, e.g. monitoring the impacts of decentralisation policies. They are also useful in tracing changes regarding access to resources and for gender differentiated observations. Using these tools, impacts, e.g. of special support measures for female farmers, could not only be listed as a result of a focus group discussion, but also visualised and assessed in its socio-economic environment.

Ranking and scoring exercises can reveal peoples' preferences, priorities and major problems. It is useful to learn about peoples' perception of cause effect relationships and to identify criteria applied by beneficiaries to describe their situation and/or changes in their wealth or wellbeing.

Advantages, Problems, Limitations

RRA/PRA methods are a low-cost supplement or even an alternative to formal surveys. It requires, however, well trained staff to conduct the surveys. While data and information collection is fairly easy with these methods, systematising and analysing the data can be a complex task. Considerable experience is required to analyse and assess the wealth of raw data from RRA/PRA exercises, and to draw conclusions for policy impact monitoring.

Examples

In a sector reform programme in **Marocco**, a focus group approach was applied to monitor and discuss impacts of liberalisation measures in the cereal sector. By supplementing and supporting economic modelling and other quantitative monitoring approaches, observations and opinions of main actors in the cereal markets were collected on a regular basis, using focus groups, e.g. cereal importers, millers, traders. The results provided a basis for fine-tuning and adjusting liberalisation measures, thus helping to design and implement support measures tailored to the groups in need.

3.3.6 Case Studies

What is it?

This method is geared towards an in-depth study of data and information collected from specific, clearly defined cases. Using a case study approach may best suited to monitor impacts of complex policy packages. An in-depth analysis of carefully selected cases can enhance the better understanding of effects in a representative or particularly relevant environment. Case studies are applicable in situations where there is still a lack of information, or even understanding, of the impacts of policy interventions. They can provide a comprehensive of and deep insight in a given problem situation, a detailed picture of relevant phenomena (including role of external factors), and of cause-effect-relationships.

Selecting of case studies for impact monitoring purposes will depend on the context of their usage and on the issues to be addressed. Planners should be aware of the problems in selection an appropriate place to conduct a case study. Avoiding biases is important.

Table 3-2 presents typical issues which determine the selection of case studies.

Table 3-2: Selection of case studies

Questions to be answered	Selection basis
What happens at the extremes? What explains these differences?	Contrasting cases
What explains the effectiveness of a policy intervention?	Best cases
Why are planned or expected impacts not achieved?	Worst cases
How can different policy measures be compared? (benchmarking)	Sub-sets of cases studies
What explains significant changes observed on a wide scale, what happens and why?	Representative cases
What happens under very specific circumstances and why?	Particular cases

Application to MPI

Case studies themselves make use of wide range of tools for observation and collection of quantitative as well as qualitative information. The approach is a holistic one applied in complex environments. The comprehensive explanatory value of case studies can support the judgements on policy impact hypotheses. A detailed description of a socio-economic environment, of the changes observed and perceived, plus an explanation of cause-effect-relationships is highly relevant for impact monitoring.

Advantages, Problems, Limitations

A case study approach cannot fully substitute other approaches, which provide more generalisable information, it will rather supplement other methods and help focusing on specific issues relevant for impact assessment.

Disadvantages of case studies are time and budget constraints. Comprehensive case studies are expensive to conduct and to document. Regular repetition to obtain time lines on changing environments and impacts are even more difficult to achieve. However, they are valuable methods to detect cause-effect relationships which have not completely understood before, and they can help to get an understanding of relevant issues in different areas and environments. Even if it is difficult to extrapolate from single case study results, case studies can also help to determine which other, e.g. statistical or quantitative methods, should be complementarily applied.

3.3.7 Triangulation and Combination of Different Data Collection Methods

What is it?

Triangulation means the controlling and cross-checking of survey results with different methods and tools, i.e. from different angles. It is based on the notion that results of single methods may provide an incomplete or distorted picture. Respondents may not always give

objective answers to certain questions. The reasons for this maybe personal (hoping for assistance by understating, for example, income data), cultural (not admitting that answers to some questions are not known), or an overall different understanding of the problem or question. Investigating an issue from different directions, using different tools, will validate or reject respective answers, or will point to topics where reliable answers can not easily be obtained.

The combination of different methods should be part of an overall survey methodology. In qualitative surveys, it is of high importance because questions often touch on very subjective issues. In quantitative surveys, it can be used to verify the answers from a questionnaire during pre-testing.

Application to MPI

The complex nature of policy impacts and the way they are felt and perceived by different people often require a multi-layer investigation. In order to unambiguously determine cause-effect-relationships, it is not sufficient to rely on observations from one level or perspective only. Since the monitoring policy impacts usually deals with complex relationships, usually a methodological mix is required.

Advantages, Problems, Limitations

The specific features of different methods are compared in table 3-3 below. The table provides a summary of the proposed method, their strengths and weaknesses. Researchers will combine different instruments to mitigate weaknesses and to obtain a valid and objective picture of the topic under investigation.

Careful selection of the most suitable approaches and mix of methods has to be exercised. Each additional tool and supplementary round of survey will increase the costs and the time of the research. Therefore, triangulation should be thoughtfully applied, not just to compensate for weak planning and implementation of individual methods.

Table 3-3: Main Data Collection Instruments for Impact Assessment

Technique	Definition and use	Strengths	Weaknesses
Case studies	Collecting information that results in a story that can be descriptive or explanatory and can serve to answer the questions of how and why.	• Can deal with a full variety of evidence from documents, interviews, observation • Can add explanatory power when focus is on institutions, processes, programs, decisions, and events • Time consuming	• Good case studies are difficult to do • Require specialised research and writing skills to be rigorous • Findings not generalisable to population • Difficult to replicate
Focus groups	Holding focused discussions with members of target population who are familiar with pertinent issues before writing a set of structured questions. The purpose is to compare the beneficiaries' perspectives with abstract concepts in the evaluation's objectives.	• Similar advantages to interviews (below) • Particularly useful where participant interaction is desired • A useful way of identifying hierarchical influences	• Can be expensive and time consuming • Must be sensitive to mixing of hierarchical levels • Not generalisable
Interviews	The interviewer asks questions of one or more persons and records the respondents' answers Interviews may be formal or informal, face-to-face or by telephone, or closed- or open-ended.	• People and institutions can explain their experiences in their own words and setting • Flexible to allow the interviewer to pursue unanticipated lines of inquiry and to probe into issues in depth • Particularly useful where language difficulties are anticipated • Greater likelihood of getting input from senior officials	• Time consuming • Can be expensive • If not done properly, the interviewer can influence interviewee's response
Observation	Observing and recording situation in a log or diary. This includes who is involved; what happens; when, where, and how events occur. Observation can be direct (observer watches and records) or participatory (the observer becomes part of the setting for a period of time).	• Provides descriptive information on context and observed changes	• Quality and usefulness of data highly dependent on the observer's observational and writing skills • Findings can be open to interpretation • Does not easily apply within a short time frame to process change
Questionnaires	Developing a set of survey questions whose answers can be coded consistently.	• Can reach a wide sample simultaneously • Allow respondents time to think before they answer • Can be answered anonymously • Impose uniformity by asking all respondents the same things • Make data compilation and comparison easier	• The quality of responses highly dependent on the clarity of questions • Sometimes difficult to persuade people to complete and return questionnaire • Can involve forcing institutional activities and people's experience into predetermined categories • Can be time consuming
Written document analysis	Reviewing documents such as records, administrative databases, training materials and correspondence.	• Can identify issues to investigate further and provide evidence of action, change, and impact to support respondents' perceptions • Can be inexpensive	• Written documents do not necessarily provide the data as required

Source: adapted from Baker (2000), based on Taschereau (1998)

3.4 Analysis Methods

Data collection and analysis are closely linked, and the planning of data collection, and decisions on the methods to be applied for data collection, imply and predetermine the methods to be applied for data analysis, and vice-versa: The choice of a specific methods for data analysis determines data requirements. The following table 3-4 provides an overview on analytical research methods and their respective data requirements.

Table 3-4: Methods for impact assessment and corresponding data requirements

Method	Data Requirements		Use of Qualitative Approach
	Minimal	**Ideal**	
Experimental design or randomised controls	Single project cross-section with and without beneficiaries	Baseline and follow-up surveys on both beneficiaries and non-beneficiaries. Allows for control of contemporaneous events, in addition to providing control for measuring impact. (This allows for a difference-in-difference estimation.)	• Informal design of survey instrument, sampling • Identify indicators • Data collection and recording using • Textual data • Informal or semi-structured inter-views • Focus groups or community meetings • Direct observation • Participatory methods • Photographs • Triangulation • Data analysis
Non-experimental designs a) Constructed controls or matching	Large survey, census, national budget,	Large survey, and smaller project-based household survey, both with two points in time to control for contemporaneous events	
b) Reflexive comparisons and double difference	Baseline and follow-up on beneficiaries	Time series or panel on beneficiaries and comparable non-beneficiaries	
c) Statistical control or instrumental variable	Cross-section data representative of beneficiary population with corresponding instrumental variables	Cross-section and time series representative of both the beneficiary and non-beneficiary population with corresponding instrumental variables	

Source: Baker (2000), adapted from Ezemenari, Rudqvist, and Subbarao (1999) and Bamberger

The most commonly used methods are briefly described below.

3.4.1 Reflexive comparison (before/after)

What is it?

By comparing the situations before and after the policy is being implemented, using appropriate indicators for this comparison, the relevant changes observed are conceived as effects of the policy measures introduced. The reflexive comparison method can be applied to quantitative as well as qualitative approaches for impact assessment. In the case of quantitative approaches, adequate baseline data referring to the time before are required. In the case of qualitative approaches, the perceptions of stakeholders on relevant changes and on the determining factors thereof are to be identified and analysed.

Application to MPI

The method represents a fairly simple research design but is of limited use to unambiguously determine cause – effect relationships. However, for policy decisions where impact chains are short and easy to determine, and external influencing factors are of very limited impact, a simple before and after comparison may be sufficient to verify impact hypotheses.

Advantages, Problems, Limitations

The major limitations of the reflexive comparison approach are, in summary:

- The attribution problem: to which extent can the changes recorded be clearly attributed to the policy interventions or are caused by other factors?
- The need for *baseline data* which can be compared with indicators for change. Sometimes suitable baseline data are not available.
- The *single reference period* for changes to be recorded (before policy implementation); due to this fact, the retrospective comparison is specifically suitable for evaluations but less for monitoring continuous changes.

3.4.2 Experimental / quasi-experimental design: Comparison with counterfactual

What is it?

In an experimental or quasi-experimental method, the situation **with** policy interventions is compared with a situation, which persists - or would persist - **without** interventions. In applying this method, treatment and control groups are to be formed. The control groups should show the same characteristics as the treatment groups but must not be affected by / benefiting from an interventions.

Application to MPI

While such an approach is generally applicable in partial coverage programmes which only affect / benefit part of the population, households or other units of analysis,[87] it cannot be applied to assess the impacts of country-wide policies and full coverage programmes because there is no control group. The method is well suited to determine the impacts of policy interventions that are phased in or scaled in on a geographical basis, i.e. where 'pilot sites' are affected first while regions where interventions will be introduced later can serve as control groups.

Advantages, Problems, Limitations

Although it is possible to "construct" a counterfactual by simulations, using Computable General Equilibrium Models (CGE) based on detailed social accounting matrices (SAMs), such an approach is quite complex and time consuming. Moreover, this approach heavily depends on the availability and reliability of a huge number of data and the validity of the assumptions. Such conditions may justify the use of CGE in a comprehensive and in-depth evaluation of impacts over a certain time period but normally preclude its application in impact monitoring systems.

3.4.3 Double difference

What is it?

The double-difference methods compares a treatment group (exposed to policy intervention) with a comparison group (unaffected) both before and after the intervention. In its simplest form it uses baseline data of both groups and compares is with follow-up surveys after the policy intervention is introduced. It first calculates the mean difference between after and before values of impact indicators in both groups. Then the difference between these two mean differences is calculated. This will provide an estimate of the policy impact.

Application to MPI

Methodologically, the double-difference is the soundest research design for impact monitoring. When solutions for the practical obstacles to its application can be found (see below), the approach may provide the closest estimates for MPI.

Advantages, Problems, Limitations

Comparing the different developments in a treatment group and a comparison group is only possible if there is a baseline before the intervention starts. For policy interventions, finding a

[87] and, therefore, may be applied for impact assessment of programmes or projects.

comparison group with same characteristics, except being affected or not by a policy intervention, is difficult. There are methods to find (construct) such comparison groups, however, the methodological effort has to be in a reasonable range. Time and other resource constraints may call for another research design.

3.4.4 Qualitative and semi-quantitative approaches (Categorising, Ranking)

What is it?

In monitoring policy impacts one will, for practical, cost- and time-economic reasons, normally rely on methods which are kind of compromise solutions to the methods referred to before. These are quasi-experimental or non-experimental quantitative approaches to impact assessment, such as

- **Matching methods or constructed controls** (a comparison group is matched to the treatment group on the basis of a set of observed characteristics);
- **Reflexive comparison** (see above - the baseline provides the comparison group);
- **Double difference or difference-in-difference methods** (treatment and comparison groups are compared before and after policy interventions);
- **Instrumental variables or statistical control methods** (comparison of the variation of values of selected outcome indicators with instrumental variables);
- as well as
- **qualitative approaches***,* taking explicitly into account the perceptions of the target population and other key informants on observed changes and their causes.

Application to MPI

Such methods generally bear less reliable results, compared to the exact scientific approaches, but still allow to trace progressive changes during the course of policy implementation. By combining different methods (e.g. quantitative and qualitative methods, case studies, compilation of results of impact assessments at different levels of aggregation), and by careful interpretation of their results, relevant conclusions on the impacts of policies, whether implementation of a policy is progressing towards reaching the intended objectives, and at what speed it is progressing, will be possible.

Advantages, Problems, Limitations

Combining elements of research design to match the conditions found in a particular situation is a reasonable way to avoid the pitfalls of strict application of individual approaches. Instead of relying on unsecured quantified, getting an estimate of whether impacts lead into the desired direction will satisfy the short-term demand of decision-makers.

A combination of different analytical methods will also be called for when different methods for data collection are applied to determine policy impacts, e.g. a quantitative formal survey and a series of semi-structured interviews.

Examples

The APIM project in Jordan used a methodological mix to arrive at conclusions on impacts. As baseline data, the results of a broad-based survey for farm data investigation were used. The re-evaluated data provided the basis for impact assessment. Updating the data was done through regular surveys on a number of representative farms in different agro-ecological zones. This constructed “before and after” comparison was supplemented by specific surveys on issues arising from additional RRA/PRA exercises. This was done, in order to ensure the inclusion of impacts or impact areas outside the scope of the original formal surveys.

3.4.5 Statistical and Econometric Methods (Regression Analysis)

What is it?

Apart from statistical tools like calculating averages and means, regression analysis provides a method for analysis and interpretation of monitoring data.

Regression analysis is concerned with the study of the dependence of one variable, the dependent variable, on one or more other variables, the explanatory variables, with a view to estimating and/or predicting the (population) mean or average value of the former in terms of the known or fixed (in repeated sampling) values of the latter.

There are two main types of regression analysis to be distinguished. Two-variable regression analysis is concerned with studying the dependence of one variable on one explanatory variable, e.g. the dependence of household consumption expenditure on household income. Multiple regression analysis studies the dependence of one variable on more than one explanatory variable, e.g. the dependence of household income on sex, education, age of household members.

Application to MPI

Although the objective of regression analysis is mostly to estimate or predict the average value of the dependent variable (e.g. increase of consumption expenditures when incomes are raised), it can be used to verify or discard the impact hypotheses under investigation (e.g. that consumption rises by 50 percent).

Mostly used for ex-post (and cross-country) analysis, the results of policy intervention can be traced by feeding monitoring data into respective formulae.

Advantages, Problems, Limitations

There are, however, some general methodological problems associated with the tools that will call for the involvement of experienced econometricians before collecting and when analysing monitoring data. Regression analysis can only help to determine the statistical relationship. The causation has to be established by investigating the logic of impact hypotheses beforehand. For example, in the multiple regression example cited above, the linkage between household income and educational level does not immediately explain which variable explains the other.

Usually it will not be sufficient to run regression only on the (two) variables in the explaining impact hypotheses. The results will, at least, have to be compared between the population affected by respective policy measures and the control group. In the absence of a control group, an even more detailed analysis is required, because explanatory variables are even less obvious. As stated above, such analysis calls for the involvement of experienced econometricians. As with other analytical methods, monitoring staff should be aware of the fact that the results of a regression analysis can, at best, be as good as the quality of data.

3.5 Communication and Presentation Methods

3.5.1 Reports

What is it?

A report is the most common way for presenting results in a written form. The report should comprise an executive summary at the beginning, and a detailed documentation of the results, the main report. Background material and technical details are to be provided in Annexes. Impact monitoring reports can be internal documents, for the exclusive use of the client(s) of the MPI exercise. They may, however, also be distributed to a broader audience for use and discussion.

Policy impact monitoring reports will have to satisfy academic and scientific standards. Unlike general press information, they are targeted at an audience which is generally familiar with the issues being addressed. Nevertheless, the reports should be written in a fluent and easily understandable way.

Application to MPI

A (comprehensive) report will be the most profound documentation of policy impact monitoring results, to be presented to the clients of the MPI. Apart from presenting the results of the policy impact monitoring, the report should also make suggestions for policy adjustments, if deemed necessary. The report(s) will serve as basis for discussions of required policy adaptations or refinements, e.g. as input for workshops or meeting as described in section 3.5.4. below.

Advantages, Problems, Limitations

Reports will address a certain audience and will use a language and terminology depending on the institution that commissions the report. Report writing requires skilful authors who can document complicated issues in straightforward terms. A general problem of many reports is their length. Depending of course on the topics to be covered, main reports of more than 100 pages are seldom read completely and in detail.

Another flaw in many reports is the weak distinction between basic data and information, their analysis, and the subsequent interpretation of the results. In particular for the field of policy impact monitoring, such a distinction is important for the credibility of its content.

3.5.2 Brochures

What is it?

Brochures are shorter forms of written information compared to reports. They address a wider public with summarised information, written in commonly understandable language. They are used to disseminate findings to a broader audience.

Application to MPI

Disseminating information in a summarised form, made accessible to a larger audience, can invite broader participation to the discussion of policy measures and their successive impacts. They promote transparency by informing not only directly involved stakeholders but the interested public. Such wider audience is particularly relevant in documenting results of policy impact assessment.

Advantages, Problems, Limitations

Brochures need to be adapted to the specific target group they try to reach. Writing requires specific skills, i.e. didactical knowledge to put complex cause-effect relationships into easily digestible language of the intended audience. The brochures are not just copies of report

summaries but will require extra efforts, capacities (and budgets) for preparation and dissemination.

Information brochures about facts, findings and methodologies may also serve the purpose to get feed back on and to encourage contributions to the further development of policy impact monitoring.

3.5.3 "Quick Info"

What is it?

A special form of short and condensed summarised information is a "Quick Info".[88] They are usually prepared for decision-makers at higher levels on critical issues arising from the MPI exercise.

Application to MPI

"Quick Infos" are essential parts of the information flow between technical staff in a MPI unit and actual decision-makers. Depending on the sector and the implementation stage of different policy measures, "Quick Infos" may be provided on a regular (weekly, monthly basis), to keep the clients and other stakeholders informed about the progress in MPI, or occasionally, if particularly important issues have come-up during the MPI process.

Advantages, Problems, Limitations

"Quick-Infos" will promote awareness among the stakeholder community, and enable decision-makers to react on emerging issues without serious delay and before (more) economic, social (and political) damage occurs.

3.5.4 Workshops

What is it?

Workshops with clients and other stakeholders are a most suitable forum for presenting and discussing the results of MPI.

The client(s) of MPI and other stakeholders will be given the opportunity to share their views about causes and effects, and the underlying methodology. The workshop(s) will also serve the purpose to discuss necessary policy adjustments.

[88] The term "Quick Info" is used here to stress the brief and concise nature of such documents. The same type of written info may be found under different names.

Requirements for information dissemination and analytical workshops follow the same principles and rules as planning workshops (see 3.2.2.). They will need proper preparation, facilitation and documentation, and appropriate forms of presentation and visualisation of the results of MPI (e.g. graphics, power-point presentations, see below) should be applied.

Application to MPI

Monitoring results, i.e. the interpretation of data and information is frequently open to diverse discussions. MPI is even more prone to different interpretations as policies rarely manifest in straightforward impacts. A workshop can help to clarify different views and exchange opinions about reasons for certain observations and subsequent options for going ahead, thus complement the findings of the MPI exercise.

In case the results of MPI are different from what had been expected, the messages to be conveyed may represent a potential threat to the clients / policy-makers. In this case, closed workshops with the clients and/or selected stakeholders will be the most appropriate forum to present and the results of MPI.

Advantages, Problems, Limitations

Finding consensus among different stakeholders about causes, effects and required actions is best achieved through a broad participatory process of which workshops will form an important part. However, the results of such workshops will, of course, be influenced not only by the objective findings from the MPI system but also from personal (or institutional) preferences and objectives. Depending on the results of the MPI exercise, the complexity of the issues addressed and the critical contents and implications for different groups of stakeholders, it is be prudent to organise a sequence of workshops with different stakeholders.

3.5.5 Presentation methods (Verbal, Transparencies, Power Point)

What is it?

Different audiences, different content and different environments will all need adapted forms of presentations. The key to successful dissemination of MPI results and to stimulating lively and participatory discussions are presentations that take into account the specific context. Oral presentations, supported by simple visualisations will be preferred for meetings with local population, e.g. farmer groups. Computer-aided presentations, e.g. PowerPoint presentations will be the method of choice for information meetings at higher administrative levels.

For all presentations it is very important to find the appropriate mix of oral presentation and an adapted form of visualisation. Oral presentations will have to use a language understandable to the particular audience. Visualisation will need to take into account literacy levels and local customs and will depend on the complexity of content to be transmitted.

Application to MPI

The MPI system promoted here depends on broad participation and comprehensive feedback on results and methods. Hence it is very important to supply information in different, adapted ways to different stakeholders. All stakeholders will benefit from adapted forms of presentations.

Advantages, Problems, Limitations

Presenting information in understandable forms and terms is a prerequisite for the inclusion of all stakeholders into the MPI system. However, the complexity of policy related cause effect relationships is sometimes difficult to explain in simple terms with simple visualisation techniques. It will probably require different people to do different presentations at different levels.

3.5.6 Public Media: Press-releases, Radio and Television, Web-sites

What is it?

Presentations of results of MPI in public media, e.g. through press releases, radio and television interviews and features. Public media coverage is widely used by governments for justification of policies. Web-pages offer a very good possibility to reach a wide public.

Application to MPI

Publication of the objectives and features of a policy and of progress achieved and results obtained in the implementation of policies are important to create public awareness, for justification, to stimulate public discussion on and to generate public support for a policy.

Advantages, Problems, Limitations

The policy makers / clients of MPI will generally only agree to give the results of MPI a wider coverage through public media, if the results are positive in the sense that a policy has been successful in reaching its objectives.

3.5.7 How to deal with "unpleasant" results of MPI?

Particular problems in communication and presentation of the results of MPI arise if the results of MPI are critical and represent a potential threat to the policy makers (and, in turn, possibly also to the analysts arriving at and presenting the critical results), e.g. if a failure of a policy in reaching its objectives reflects on public recognition, on re-election prospects, or if it becomes clear that the policies pursued adversely affect an important political pressure group.

There is now "golden rule" to tackle such problem, apart from the recommendation to those in charge of performing the impact monitoring tasks, to inform the client(s) / policy makers as early as possible on any diversions between plan and reality detected during the process of MPI. This, in fact, is the main purpose of MPI.

It must be stressed, however, that this will only work, and MPI only achieve its intended purpose, if there is a basic positive attitude to imperfections or "failures" and a positive learning attitude on the part of the policy maker(s). Any critical results of impact monitoring must be understood as a positive contribution and a chance for improvement, and not as a vexing nuisance or an ill-intended design to dethrone the minister (or anybody else) for reasons of bad performance. Policy makers, policy implementing agents and those monitoring policy impacts must genuinely co-operate in an atmosphere of trust, respect and confidence.

The fruits of impact monitoring can only be reaped in the absence of any direct or indirect political inference in the MPI process, and of any subtle threats and fear of potential sanctions - should the results of impact monitoring not be "to the liking" of the policy decision makers.

Key references and web-links related to chapter 3

References – LogFrame Methods

European Commission, 2001, Project Cycle Management - Training Courses Handbook, Version 1.1, http://europa.eu.int/comm/europeaid/evaluation/methods/pcm.htm

GTZ, 1998, ZOPP. Objectives-oriented Project Planning – A planning guide for new and ongoing projects and programmes, Eschborn http://www.gtz.de/pcm/download/english/zopp_e.pdf

USAID Center for Development Information and Evaluation, 2000, Building a Results Framework, TIPS, No. 13; http://www.dec.org/usaid_eval/

World Bank, 2002, Monitoring & Evaluation - Some Tools, Methods & Approaches, Washington D.C., http://www.worldbank.org/oed/ecd/doc_list.html

References – Planning Methods

Herweg, Karl & Kurt Steiner, 2002, Impact Monitoring & Assessment, Instruments for Use in Rural Development Projects with a Focus on Sustainable Land Management, Centre for Development and Environment, Bern, and GTZ, Eschborn

Rietbergen-McCracken, Jennifer, and Deepa Narayan, comps. 1998. Participation and Social Assessment: Tools and Techniques Washington, D.C.: World Bank. http://poverty.worldbank.org/library/view/3578/

Vahlhaus, Martina, and Kuby, 2001, Thomas, “Guidelines for impact monitoring in economic and employment promotion projects with special reference to poverty reduction impacts Manual on participatory monitoring of employment-creation projects” Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), Eschborn. http://www.ids.ac.uk/eldis/poverty/guidegtz2.htm

World Bank, 2002, Monitoring & Evaluation - Some Tools, Methods & Approaches, Washington D.C., http://www.worldbank.org/oed/ecd/doc_list.html

References – Data Collection Methods

Casley, Dennis and Krishna Kumar.1988. The Collection, Analysis, and Use of Monitoring and Evaluation Data. World Bank: Washington DC

Chung, Kimberley. 2000. "Qualitative Data Collection Techniques" in Margaret Grosh and Paul Glewwe, eds., Designing Household Survey Questionnaires for Developing Countries: Lessons from Ten Years of LSMS Experience. World Bank: Washington, D.C.

Dixon, J.M., Hall, M., Hardacker, J.B., Vyas, V.S., 1994, Farm and community information use for agricultural programmes and policies, Rome

Margaret Grosh and Paul Glewwe, eds., Designing Household Survey Questionnaires for Developing Countries: Lessons from Ten Years of LSMS Experience. World Bank: Washington, D.C. (contains reference to different data collection methods)

Rietbergen-McCracken, Jennifer, and Deepa Narayan, comps. 1998. Participation and Social Assessment: Tools and Techniques Washington, D.C.: World Bank. http://poverty.worldbank.org/library/view/3578/
(This resource kit aims to share information and experience on participatory methods in order to support the adoption of participatory approaches in development projects and studies. The materials included have been selected to provide the core essential information about the different methods and applications, with the primary focus on providing practical guidance and examples.)

USAID Center for Development Information and Evaluation, 1996, Performance Monitoring and Evaluation, Conducting Key Informant Interviews, TIPS, No. 2. http://www.dec.org/usaid_eval/

USAID Center for Development Information and Evaluation, 1996, Performance Monitoring and Evaluation, Using Rapid Appraisal Methods, TIPS, No. 5. http://www.dec.org/usaid_eval/

World Bank, 2002, Monitoring & Evaluation, Some Tools, Methods & Approaches, Washington D.C., http://www.worldbank.org/oed/ecd/doc_list.html

UNDP (United Nations Development Program). 1997. Who are the Question-makers?: A Participatory Evaluation Handbook. OESP Handbook Series, Office of Evaluation and Strategic Planning, New York, NY.

References –Analysis Methods

Baker, J.L., Evaluating the impact of development projects on poverty – A handbook for practitioners, Washington, 2000, http://www.worldbank.org/poverty/library/impact.htm

Bourguignon, F., L Pereira Da Silva, and Nicholas H. Stern. 2002. Evaluating the Poverty Impact of Economic Policies: Some Analytical Challenges. Processed. Washington, D.C.: World Bank, http://poverty.worldbank.org/files/11287_Bourguignon_Stern_ Pereira_IMFConf_03_2002_Final.pdf

Eber, Herbert W. 1975. “Multivariate Methodologies for Evaluation Research.” In Elmer L. Struening, and Marcia Guttentag, eds., Handbook of Evaluation Research. Vol. 1. Beverley Hills, California: Sage Publications, Inc.

Herweg, Karl & Kurt Steiner, 2002, Impact Monitoring & Assessment, Instruments for Use in Rural Development Projects with a Focus on Sustainable Land Management, Centre for Development and Environment, Bern, and GTZ, Eschborn

Marshall, Catherine and Gretchen B. Rossman. 1995. Designing Qualitative Research. Thousand Oaks, California: Sage Publications, Inc.

Patton, Michael Quinn. 2002. Qualitative research and evaluation methods. 3rd edition. Thousand Oaks, California: Sage Publications, Inc.

Rossman, Gretchen B., and Bruce L. Wilson. 1985. "Numbers and Words: Combining Quantitative and Qualitative Methods in a Single Large-Scale Evaluation Study." Evaluation Review 9(5): 627-43.

Vahlhaus, Martina, Kuby, Thomas, “Guidelines for impact monitoring in economic and employment promotion projects with special reference to poverty reduction impacts - Manual on participatory monitoring of employment-creation projects” Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), 2001, http://www.ids.ac.uk/eldis/poverty/guidegtz2.htm

FAO/GTZ Training Manual on MONITORING POLICY IMPACTS

Chapter 4:
How to Organise Policy Impact Monitoring

(Prototype draft, 16-10-2002, incl. exercise)

prepared by Andreas Groetschel
for FAO-TCAS & GTZ, Unit 4555

Chapter 4:
How to Organise Policy Impact Monitoring

Objectives: *Readers know about possible alternative set-ups of a Policy Impact Monitoring Unit, their advantages and disadvantages, and are aware of the aspects to be considered, the capacity and resource requirements, and the conditions to be established in setting up and operating a system for Policy Impact Monitoring.*

4.1 Introduction

This chapter discusses the relevant issues related to the establishment of a policy impact monitoring system, and the setting up and operation of a policy impact monitoring unit. Practical solutions and possible institutional alternatives, their advantages and disadvantages, will be pointed out, taking into consideration the tasks to be performed on the various steps of policy impact monitoring as outlined in chapters 1 and 2, and the research methods to be applied as presented in chapter 3.

There is one overwhelming precondition for the establishment of a policy impact monitoring system: It must be ensured that the analysts mandated with the impact monitoring tasks can do their work free of political interference. This requires a sufficient degree of independence of the impact monitoring unit, and co-operation in an atmosphere of trust, respect and confidence among all stakeholders involved.

4.2 Scope of policy impact monitoring: a special or regular exercise

When establishing a policy impact monitoring system, clarification has to be achieved about the main purpose of impact monitoring. Shall it serve to monitor the impacts of a particular (new) policy or policy change (e.g. sector adjustment, food security, privatisation of agricultural services), or shall it be established as a regular exercise, e.g. to continuously monitor sector policies and performance, or to continuously monitor policies with respects to specific effects of particular importance, such as impacts on poverty or environment.[89] In the first case, policy impact monitoring will be established for a certain period only, for the time

[89] See chapter 1, section 1.5.1

when the respective policy is being implemented; in the second case, it will have to be established as a permanent structure, with substantial implications for the institutional set-up and organisation.

4.3 Setting-up an Impact Monitoring Unit

The establishment of a Policy Impact Monitoring system requires a decision on **where to set up a respective unit** and on **how it will have to be equipped**. There are a number of issues to be taken into consideration and there is no standard solution which would fit all circumstances. It largely depends on the features of the policy to be monitored (macro -, sector - or special policies) and on the institutional capacities available within or outside the government structures. Any decision on institutionalising a monitoring system should be preceded by a thorough institutional analysis.

Different options to place a policy impact monitoring unit are to be considered. In principle, there are four possibilities for installing such a unit:

1) At **central government level**, not directly affiliated to a line ministry;
2) As a **special unit in a line ministry** (e.g. Ministry of Agriculture);
3) As a **separate project-type unit**;
4) To employ an **external institution** (research institute, NGO, consulting firm).

There are advantages and disadvantages associated with all four alternatives.[90]

4.3.1 Placing the impact monitoring unit at central government level

Attaching the monitoring unit at the central government level can ensure a faster and more intensive flow of information between the staff of the monitoring unit and decision-makers. A closer and more direct link between the two entities would also enhance the possibilities to access data and information from other government agencies through formal as well as informal means of communication. Furthermore, resource allocation to the unit is expected to be better when closely linked to the central government level.

On the other hand, there is the danger of increased political interference into the work of the unit. Moreover, for a unit directly attached to the central government level, there is the possible disadvantage of being further away from the technical staff who is responsible for

[90] The major criteria for selecting the appropriate institution for MPI and the main advantages and disadvantages are listed in Table 4-1.

policy implementation “on the ground”. It will be more difficult to get regular feedback from implementers in the "field", who are a main source of information on impacts. The more parties and levels are between the monitoring unit and its sources of information, the more efforts have to be made to ensure a continuous flow of information.

The actual decision on where to place the unit will, in practice, depend on the economic context, and the importance attached to the policy to be monitored. Priority policy measures, as e.g. food security policies, are mostly handled by special entities, which directly report to the government. Such units are in charge of respective policy formulation and associated monitoring

Example:

In Ethiopia the central government’s efforts in the field of food security are organised through the “Food Security Unit” which directly report to the government. Placing at the highest hierarchical order stresses the emphasis given to food security issues. The unit looks into the effects of different sector policies on the cross-cutting theme of food security.

4.3.2 Setting-up the monitoring unit at a line ministry

Setting-up a unit in a concerned line ministry will in many circumstances be an appropriate place, particularly if policy impact monitoring refers to a sector policy for which the respective ministry is mandated. A closer link between technical staff responsible for implementation and the decision-makers can enhance the work of the monitoring unit. Establishing the entity and staffing it from within the line department will ensure a better understanding on how the concerned ministry works and on how policies in the respective sector are being implemented. While policy formulation is usually done within specialised departments of line ministries, the independence of such units is, however, more difficult to ensure. The closer the impact monitoring unit is situated to the decision-makers the greater may be the political pressure exercised on them.

Example:

The Jordan case provides a good example for the placement within a line ministry. The monitoring unit is located within the ‘Agricultural Economic and Planning Department’ of the Ministry of Agriculture, close to the office of the minister. The unit is in charge of looking at specific impacts of policy reform initiated under the agricultural sector adjustment programme.

4.3.3 Creating a special project-type monitoring unit

On the other hand, the Jordan case can also serve as an example for a project-type unit The unit was created as a prerequisite for the Government of Jordan to receive a World Bank and KfW-funded sector adjustment loan to finance the restructuring of the agricultural sector. The agricultural policy impact monitoring unit had the advantage to be adequately funded through foreign assistance. It was well equipped to perform the duties as outlined (and demanded) by the lending agencies. However, the uncertainty about the future of the unit made it difficult to employ the highly qualified staff actually required. Furthermore, the capacities that were finally created with the deployment of project funds might not be sustainable. In view of this, efforts were made to convert the unit into a regular department.

4.3.4 Outsourcing the impact monitoring tasks to an external institution

The task of policy impact monitoring may also be completely outsourced, by commissioning a local research institution, a NGO or a consulting firm to do the job. Such an approach is particularly appropriate if impact monitoring shall not be established as a regular exercise but only been done with regard to a special policy / a certain policy implementation phase during a limited time period. Since there is no need to set up, to staff and to operate a separate monitoring unit, outsourcing will likely be the most cost-effective solution. Furthermore, one can rely on experience and capacities which may not be available within government but are available in the country. A further possible advantage is that an external research institute, NGO or consulting firm can act more independently from political interference.

The main problems / possible disadvantages with such an arrangement is that an external institution outside government structures is further away from the policy decision makers, inhibiting intensive and regular communication, and may not benefit from the same degree of support and acceptance from government authorities as a governmental body. This can, however, be catered for by suitable arrangements, e.g. an official/ministerial order, obliging the government institutions to grant all necessary support and full access to relevant data and information to the external institutions entrusted to perform the impact monitoring tasks. Outsourcing might also create a conflict of interest when funding becomes a pressure to produce “acceptable” results, especially when findings are expected to be critical.

Table 4-1: Criteria for setting-up an impact monitoring unit

Location	Criteria	Advantages	Disadvantages
Central government level	• Monitoring of broad economic reforms • Monitoring impacts of cross-cutting policies • Ongoing (long term) policy reforms in different sectors	• Close lines of communication to decision-makers • Trust and reputation • Easier access to official data	• Long communication channels to technical staff on the ground • Thin line between independence and political interference
Line ministry	• Ongoing (long term) monitoring of sector policies • Monitoring of reform impacts on a specific sector	• Access to own technical expertise • Acquaintance with subject matter • Close link between decision-makers, implementers, and monitoring staff	• MPI might be seen as a "side activity" • Sometimes no clear division of labour and responsibilities
Project type monitoring unit	• Timely limited monitoring of a specific policy reform programme • Pilot phase for institutionalised unit • Requirement of externally financed reform programme	• Predetermined, planned budget, often with foreign assistance • Can be tailored to the very specific needs of a reform programme	• No capturing of long term implications of policy changes • Less commitment for time-bound activity • Possible dependency on foreign funding
External institution	• Specific impacts to be investigated • If data collection and/or analytical capacities are weak in Government institutions • Very specific expertise required • Scaleable from partial involvement to complete outsourcing possible	• Best and special expertise can be chosen • Labour division according to needs and expertise • Greater independence from political interference	• Financial dependency can cause twisted results • Difficult access to official data and information • Less support due to distance between researchers and decision-making bodies
• **Important cross-cutting issues**		• The closer a monitoring unit is located to decision-makers, the better may be the information flow. But at the same time there is an increased risk of political interference. • No matter whether specific tasks or complete monitoring systems are outsourced, an independent assessment will depend on available capacities and secured finance. • Impact monitoring requires special budgetary allocations.	

Independent from the question whether a government body or an external institution will be entrusted with the overall responsibility for policy impact monitoring, outsourcing will be an option to be considered in regard of specific tasks (e.g. policy analysis, development of research design, data collection, surveys) to be fulfilled throughout the process of policy impact monitoring, see following paragraph.

4.4 Delineating Roles and responsibilities[91]

Enabling a unit to perform its duties requires the setting of clear objectives together with the delegation of respective authority to the unit. Roles and responsibilities have to be clearly set. Working will only be possible when the staff of the unit can draw on resources, which enable them to accomplish their tasks. Independence from political influence and transparency in working procedures should be ensured.

Tasks for the impact monitoring unit will have to be delineated from the tasks of other units. There is sometimes a misunderstanding about how far a monitoring unit can and must go when collecting and analysing data and information. There is no clear-cut border between monitoring of the process of policy implementation and monitoring and analysis of impacts. Providing information on impacts requires an understanding of impact chains, hence an analysis of the process of how policy measures affect different groups and people. This type of analysis is part of the impact monitoring procedures. Staff of the impact monitoring unit will have to closely collaborate with the staff of policy planning and analysis departments, in order to avoid frictions.

Example:

In the APIM project in Jordan there was in the beginning an unclear distribution between the unit supposed to provide policy advisory services and the unit providing policy impact information. This situation created overlaps in activities and unnecessary competition for scarce resources. In addition, the working atmosphere in the department deteriorated due to mistrust and misunderstandings. Only a clear outline of working procedures and responsibilities finally solved the problem.

One of the crucial questions here is whether the unit will be made responsible for executing all steps of policy impact monitoring themselves or whether its role will be a more co-ordinating, supervising and consolidating one. Best use of available resources may not always be to deploy them all to conduct own activities in the field. Allocating funds for being able to draw on outside experience may be the more cost-effective solution. Furthermore, an

[91] This chapter refers specifically to steps 1 to 3 in MPI

involvement of other stakeholders in the process of policy impact monitoring contributes to wider acceptance of the results of policy impact monitoring and of the policy as a whole.

The staff of the unit must have the authority to draw on the information collected and analysed in other government agencies. It is not very uncommon that distrust and rivalry governs the relationship between different departments, inhibiting smooth exchange of data and information. In order to avoid such inefficiencies, special regulations will have to be made from high authority levels to ensure reasonable inter-agency collaboration and exchange.

The established reporting procedures need to ensure a smooth flow of information in both directions between monitors and policy makers. This can be achieved by regular bulletins, quick-infos and meetings.[92]

4.5 Manpower, Material and Financial Requirements

Enabling a monitoring unit to do their work includes not only the assignment of qualified staff but also the provision of material and financial resources, and the necessary budgetary provisions. The financial requirements will be determined by the scope of tasks to be performed, independent from the issue whether a unit will e.g. conduct its own impact surveys or whether external institution will be involved. In either case, the work will have to be budgeted and paid for.

Detailed manpower requirements have to be to be carefully assessed and defined in each case. A multidisciplinary team will have to be brought together under a leadership and coordination with strong management capacity. Core expertise of the unit will likely include

- **Subject matter specialists** regarding the policy area or sector to be covered;
- **Economics**, to assess the (quantitative) linkages between measures and impacts;
- **Research management**, to set up an appropriate data and information collection and analysis system;
- **Planning**, to conceptualise the various activities of the unit;
- **Sociology**, to ensure identification and adequate consideration of all stakeholders;
- **Communication**, for optimal and user-friendly forms of information dissemination.

[92] See Chapter 3, section 3.5.

If and where the necessary expertise is not readily available - the normal case to be usually expected, particularly when an impact monitoring unit shall be newly established - provisions for **capacity building** and substantial initial investments will have to be made in this regard, or provisions have to made for outsourcing or to hire experienced professionals for accomplishing specific tasks. Also in cases when certain functions or the overall execution of MPI is outsourced, provisions may have to be made for further training of the staff of contracted institutions.

Support staff will also be necessary, especially in the field of computer operations. As a large share of the work will consist of data compilation and analysis, there is strong demand for literacy in software applications for database management, spreadsheet application, and presentation tools and skills. In addition, the technical equipment (hardware) of the office has to match the tasks to be performed. Furthermore, the unit will have to be mobile in order to keep in close contact to other departments and ensure exchange with field staff.

Hence, initial investment costs for the set-up can be considerable, including also, as said before, the costs for capacity building.

Example:

For the project-type APIM unit in Jordan, the budget comprised an amount of approximately two million US Dollar for a period of 5 years. This amount, however, included the initial investment costs for cars and computers plus the deployment of an international advisor to the unit. The amount corresponds to roughly 3% of the estimated (credit) cost of the structural adjustment process to be monitored.

4. 6 Commencing impact monitoring Activities

Depending on the - usually limited - capacities available at the beginning of a MPI exercise, it rarely can be expected that the full-fledged impact monitoring system will fully operate right from the start. Recruitment of qualified staff and capacity building measures will take some time. It is, therefore, realistic to assume that a newly established impact monitoring unit will only show a limited performance in accomplishing policy monitoring tasks during the inception period.

In general, a most useful and important inception of impact monitoring activities consists in establishing the baseline and collecting baseline data.[93] To obtain baseline data requires to collect information on the situation before the actual implementation of policy measures. Since the collection and compilation of baseline data requires considerable time and effort, a system for impact monitoring should ideally be established and functioning well ahead before policy implementation starts. Drawing on secondary data might not always be feasible at a later stage, or is, at best, a compromise solution. In order to be as precise as possible and to avoid being challenged on the results of impact monitoring due to methodological shortcomings, the first step should, therefore, always be a thorough assessment of the status quo.[94]

The relevant data and information will have to be collected and analysed in different time intervals. It will include, for example, daily, monthly, yearly market information for certain products. Data collection will have to be scheduled accordingly. Household level information will have to be collected and survey activities have to consider the timeframe of those to be interviewed. Time has to be allocated to regularly assess and check the information that feeds into the impact monitoring system. Drawings on different sources from different institutions, which all have their own methodology, will need considerable efforts to harmonise and adjust the data to the specific needs of the system.

Sector-wide or even country-wide collection of data and information needs careful planning and coordination among all parties involved. As the policy impact monitoring unit will have to do an assessment of all existing information first, before embarking on own survey activities, another point must be made in favour of an early establishment. Any own information collection must, of course, also be done according the rules for proper choice of sources and sampling techniques.[95]

4.7 Further aspects to be considered in Organising MIP

In setting-up a MIP system, arrangements have to be made that the essential functions on the various steps of the MIP process are effectively performed. All relevant stakeholders (organisations and groups, senior policy makers, government departments, NGOs,

[93] see Chapter 3.

[94] See Chapter 3, section 3.4 on data analysis methods.

[95] See Chapter 3, section 3.3 on methods for data collection.

development and research institutions, target groups and people affected by a certain policy etc.) should be actively involved in this process.

The guiding principles for a respective monitoring system are:

- To be functional and practical;
- to be transparent;
- to use cost-effective approaches;
- to take into consideration existing conditions, potentials and constraints.

The specific issues to be considered in setting up a policy impact monitoring system are only partially identical with “conventional” monitoring of project activities. Such specific aspects include:

At first, an inventory and review of all relevant policy-measures (programmes, projects and activities), institutions and organisations, as well as available data, information, and data sources will have to be made. This should also ensure that, from the very beginning, duplication of efforts in collection and analysis of information is avoided. Cost-effectiveness considerations should, however, not mean to unconditionally adopt the results of monitoring and data collection activities of other institutions. Thorough attention has to be given to assess the reliability of data and information from various sources and being used for impact monitoring. This, of course, also applies to own surveys to be conducted.

A transparent system will ensure the involvement of concerned government institutions, NGOs, interest groups, research institutions like e.g. universities, consultants and development agencies, etc. Many of such institutions can make useful contributions to impact monitoring. They may have their own information and database to be tapped, and they can possibly also be involved by performing specific tasks during the process of impact monitoring.

National, sectoral or regional statistics offices will in many cases play an important role as data source. In most countries, such institutions maintain comprehensive databases, containing valuable information also for impact monitoring purposes. However, experience has shown that data and information is often not available in a suitably processed form, usable for the specific monitoring tasks. Information gathering methods might, for example, be based on regional sampling, based on administrative units, while the need of the impact monitoring system is on sector specific information.

Example:

In Jordan the biggest obstacle for the collaboration between the APIM unit and statistics offices was the fact that the latter based their sampling for farm surveys on administrative boundaries, ensuring equal representation of farmers from all regions. To assess the impacts of policy measures affecting a certain (sub-) sector, sampling would have to be done from within the affected farmers. To adapt the existing methodology to the needs of the APIM unit required considerable discussions and a clear definition of the data requirements.

The establishment of formal co-ordination and co-operation mechanisms (e.g. for information and data exchange, surveys, data processing and analysis) among the agencies concerned is one of the biggest challenges for every policy impact monitoring unit. This step will need careful and sensitive planning, as it will have to include an assessment of available monitoring capacities within other government institutions and different concerned ministries. Questioning of data reliability without proposals on how to improve the situation will rather spoil future working relation than enhance the willingness for collaboration. In this respect, the planning of capacity building measures related to impact monitoring should not be confined to the staff of impact monitoring unit but also cover the need of collaborating institutions. Understanding the MPI system and being able to deliver the required data and information will be important to all stakeholders. Enhancing the capacities within those institution which are already concerned with respective data collection will probably be cheaper than creating new capacities from scratch within the own monitoring unit. However, even establishing and maintaining an information exchange system between equal partners will always involve an investment of resources.

The possibility of outsourcing of impact monitoring functions should always be seriously considered. As mentioned above, the division of labour in impact monitoring should be governed by the criterion to make maximum use of existing capacities, whether from within or outside government structures. Assignment of tasks to those institutions which have a comparative advantage in terms of qualification and costs will be the most effective and economical way to accomplish the overall objective of a MIP system.

In spite of a possible division of labour in performing different tasks during the process of impact monitoring, there are certain functions which remain with the impact monitoring unit. These are, first of all, an overall co-ordinating and supervisory function. Furthermore, the impact monitoring unit - be it a government or an external institution - should be the place where the relevant data and information base is kept and maintained. The setting-up and management of such an information base will require special technical know-how. Such skills should be pooled within the monitoring unit as it should act as the focal point for accessing the compiled and analysed data.

The management of an impact monitoring system requires a multidisciplinary approach. Although there is no need for the staff to be experts in all relevant disciplines, they must have the know-how and be able will have to identify and select the appropriate institutions for certain tasks and to judge and utilise the outputs submitted by them.

The government (or whoever is the client of the MPI) must commit the human, financial and material resources for carrying out the commissioned impact monitoring tasks. Since impact monitoring calls for a real-time performance, it is particularly important for the unit to be flexible in its approaches and able to quickly respond to new situations. Policy impact monitoring, in order to be able to trigger necessary policy adjustments to changing conditions, itself requires real-time adjustments to such changes. And, to repeat what was said before: Monitoring of policy impacts can only achieve its objectives in an atmosphere of mutual confidence and trust among the policy makers, the policy implementers and those concerned with MPI.

Exercises
related to Chapter 4

Choose a policy reform package, a sector or any other policy currently pursued in a country of your choice. Your are given the task of design and organise an impact monitoring system which is capable to keep the government continuously informed on the policy impacts.

Determine which aspects are to be considered in setting-up such a system, taking into account

- institutional and organisational set-up, possible alternatives, their advantages and disadvantages,
- the institutions (potentially to be) involved, their capacities, role and tasks,
- the resources (staff numbers and capacities, financial, material), required to establish and operate the system, and a funding proposal,
- point out the preconditions for organising MPI, the provisions to be made and the critical issues to be solved (e.g. considering capacity building measures in which fields).

Key references and web-links related to chapter 4

References

Baker, J.L., 2000, Evaluating the impact of development projects on poverty – A handbook for practitioners, Washington. http://www.worldbank.org/poverty/library/impact.htm
(This handbook seeks to provide project managers and policy analysts with the tools needed for evaluating the impact of interventions. It includes a discussion of evaluation methodologies and implementation issues and presents several case studies.)

European Commission, 1999, MEANS Collection – Evaluating socio-economic programmes, Luxembourg,

Prennushi, G., G. Rubio and K. Subbaro, 2001, Monitoring and Evaluation, in: World Bank, Poverty Reduction Strategy Sourcebook, Draft for comments, http://www.worldbank.org/poverty/strategies/sourcons.htm
(This chapter of the Poverty Reduction Strategy Sourcebook aims to assist countries in developing an outcome monitoring and impact evaluation strategy).

USAID Center for Development Information and Evaluation, 2000, Performance Monitoring and Evaluation, Measuring Institutional Capacity, TIPS, No. 15. http://www.dec.org/usaid_eval/

World Bank, Operations Evaluation Department, 2000, Designing Project Monitoring and Evaluation, Lessons and Practices, Number 9, Washington D.C.

World Food Programme, Office of Evaluation (OEDE), 2001, Monitoring and Evaluation Guidelines, draft, October

FAO/GTZ Training Manual on MONITORING POLICY IMPACTS

Annex 1:
The Logical Framework (LogFrame) Method

Its Application to Policy Planning and Monitoring of Policy Impacts

Prototype draft, 18-10-02

Prepared by Norbert Jost

1. General description of the method

The Logical Framework Method, briefly called *LogFrame method*, is an analytical instrument employed by planners and managers for**:**

- problem analysis,
- objective formulation and
- the planning, implementation and assessment (monitoring and evaluation)

of **positive action**, i.e. selected, objective-oriented interventions by identified actors which aim at a desirable change of reality from a **negative situation** in the presence (as described by the problem tree; see below) towards a **desired positive situation** in the future (as described by the objective tree and defined by specific objectives; see below).

Originally, the LogFrame method has been developed for project planning and management. However, the LogFrame method can be applied to **any** types of problem-solving and objective-oriented tasks, irrespective of the respective problems' nature, level of aggregation or complexity. Because of its **general** (methodological) logic, the method can also be analogously applied to programmes and policies.

As the final (physical) result of the stepwise application of the analytical and planning tasks of the method, the LogFrame **Planning Matrix** identifies and presents in a concise form defined objectives and corresponding positive actions / activities to be carried out to achieve them. The matrix also identifies responsibilities and the necessary human, physical, financial resources with respect to quantity, quality and timing as well as important critical assumptions underlying the planning concept and specific indicators to assess objective achievement.

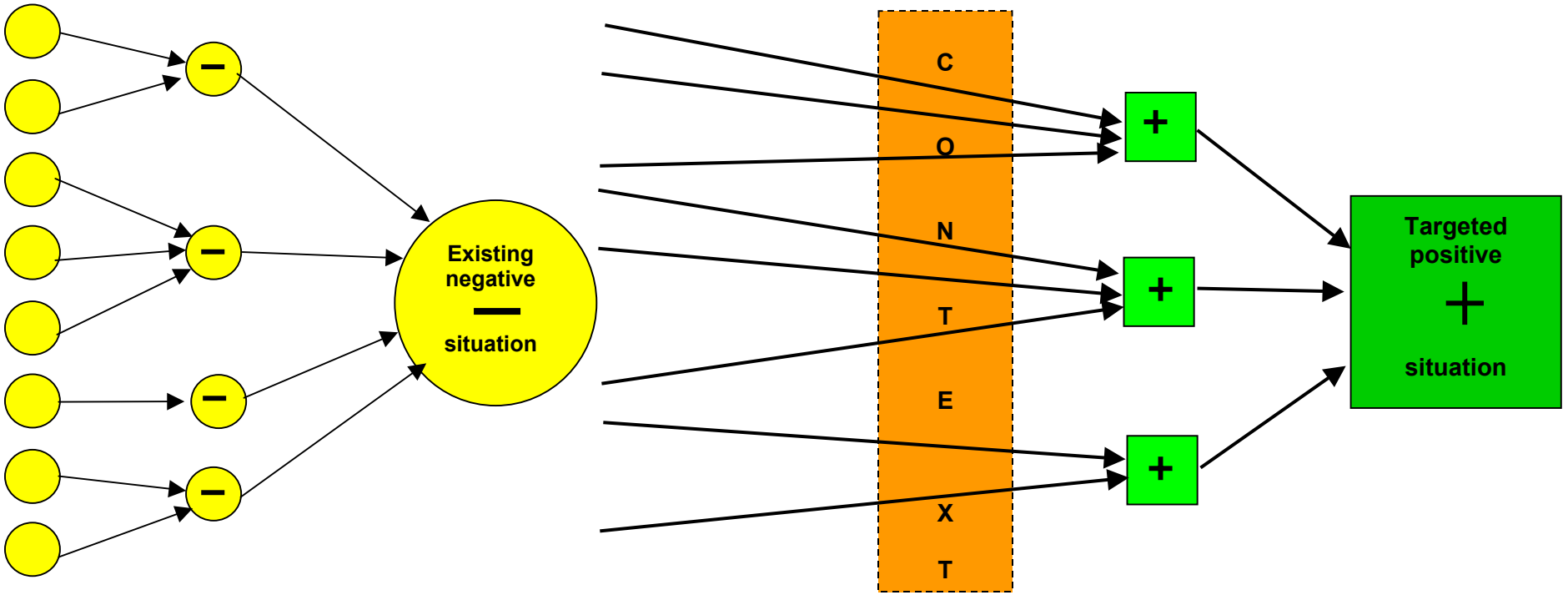
The term "LogFrame" is a rather generic one and comprises a fair number of similar methods under different names. These methods, however, differ in details or special terminology only. Substantially, all of them have in that they are based on the use of simple, but systematically and methodologically applied, stringent logic **to identify and clarify cause – effect relationships** (see Figure A-1 below) [96] between:

- **problems** and the **problem causing** factors; and

[96] For an example of the linkages between policy measures (positive actions) and an objectives hierarchy, see Graph 1-2 in section 1.2 of Chapter 1.

- **objective/s** to be achieved and the **positive action / means** to achieve them within a frame of set **reality conditions (context)**, generally treated as **assumptions**

Figure A-1: Cause-Effect Relationships between Major LogFrame Elements



Root causes of problems	Sub-problems	Core problem	Planned Interventions: programs, projects; rules, regulations, laws,	Context: ecological, socio-economic, cultural, legal, political environment; external factors	Sub-Objectives	Overall Policy Objective
Problem Hierarchy			Positive Action	Assumptions	Objective Hierarchy	

Design: Norbert Jost

The LogFrame method is characterised by:

- a stepwise procedure;
- the involvement of a wide range of participants and stakeholders of diverse interests and expertise;
- intensive and open discussions;
- the use of visualisation techniques (e.g. metaplan);
- repeated backward–forward checks for consistency, relevance, adequacy / completeness and stringent logic, and
- any resulting re-adjustments.

Such characteristics help:

- to develop an in-depth understanding and
- a correspondingly high quality of problem analysis, consistent objective-definition, selection of suitable strategies and instruments and planning of selected interventions;
- to create transparency;
- to contribute to consensus between stakeholders, and
- to bring about a high degree of identification (ownership) of participating stakeholders with collectively defined objectives and actions to be undertaken to achieve them.

2. The LogFrame Method and its implicit paradigmatic premise

Before describing the individual analytical and planning steps of the LogFrame method, the implicit paradigmatic premise of the method shall be pointed out. The underlying hypothesis of the LogFrame method is

- that the true - or at least main - causes of problems can be identified, and
- that **change can systematically be brought about** through rationally planned and objective-oriented action / activities.

This hypothesis is based upon the **fundamental paradigm** that human beings *can* manipulate reality conditions (context) and their causes towards desired ends and so change reality and produce a future according to their will by

- making use of their intellectual capabilities of analytical rationalisation, anticipation and planning,
- by strictly applying the instrument of logic, and by
- systematically making use of their knowledge about the efficacy of suitable means.

It is obvious, that the above paradigm is vulnerable to fundamental criticism, because - at best - it holds **only partly true**:

- Reality itself is no objective, indisputable phenomenon; strictly speaking, there exist so many "realities" as there are perceiving individuals.
- Analysis of reality situations (problems) and plans to change them through purposive positive action can only be made by a (although judicious, nevertheless) **reduction of complexity** to essentials and **simplification**, and by taking refuge to a set of (often unreliable) assumptions and impact hypotheses.
- There hardly exist any simple (mechanical) input-output relations between instruments on the one side and political / developmental / social objectives on the other.
- Context conditions are interwoven into a very complex – mostly only incompletely understood - reality network. Moreover, neither do context conditions remain the same over time, nor does their respective impact mode, since they themselves are subjected to *too* large a number of influencing factors that rationally planned action could take them into proper account.
- Furthermore, the actors of change themselves and the organisations they form, tend to function much less rational than planners assume. This can not surprise since human beings are governed much less by their rationality than their emotional and subconscious drives. This becomes more evident the more heterogeneous a society is, the more numerous and conflicting the interests of its sub-groups are and the more complex the task is which positive action (e.g. a policy) wishes to address.
- Dealing with planning and forming the future, we have to acknowledge the dynamics and vagaries of Time and the principal uncertainty of Future.
- Lastly, the concept of what logic is, and more so what its value is for an explanation of reality and its causing factors, is by no means unchallenged between peoples of different societies and cultures. The LogFrame method is a typical product of "western"-cultured mode of thinking and perception with a heavy, often even undue rationality bias.

Nevertheless, despite the above mentioned reservations, the above paradigm seems the only alternative to complete fatalism and surrender to reality conditions, which are strongly perceived as unsatisfactory and negative (problems). So, instead of doing nothing, with the necessary humility, with due respect for imperfection and even failure - try and act we must as best as we can and as we can know for the time being. And, given genuine commitment and goodwill of all major stakeholders, with their necessary readiness for co-operation and fair compromise of interests where they differ - a rational, purpose–oriented approach consisting of a thorough problem analysis, policy formulation, planning and efficient

implementation of positive action can go a long way towards objective achievement and the building of a better future.

In whatever one fell short or failed, the next opportunity to improve on past shortfalls offers itself. Also due to this, there is a the need for continuous adjustment, re-planning and monitoring of the implementation of policies.

3. The Steps of the LogFrame Method

The LogFrame approach consists of three major phases, i.e. problem and context analysis, objective analysis, and the planning phase, each of which can be further divided into different tasks/ sub-steps:

Problem- and Context Analysis

- Identification and analysis of stakeholders;
- Identification and analysis of the existing negative situation, i.e. the problem/s, their causes (problem hierarchy, **problem tree**) and their inter-relationships;

Objective Analysis

- Development of a future positive situation by reformulating problems into corresponding objectives (objective hierarchy, objective tree);
- Review, assessment and further amendment of the **objective tree**.

Planning

- Strategy analysis and choice;
- Identification of specific measures / activities to be carried out in pursuance of each selected objective;
- Detailed scheduling and planning of identified measures / activities
- Documentary summary in form of a Planning Matrix

3.1 Stakeholder Analysis

For all practical purposes, it is assumed that - *before* any detailed and systematic analysis and planning work takes place with the help of the LogFrame method - there already exists some initial idea, however vague, about the problem/s one wishes to solve or even about the nature of the positive situation one wishes to bring about.

Stakeholder analysis has proven to be a useful **starting point** for problem- and context analysis for two main reasons:

Firstly, the LogFrame approach stresses the importance of participation for the principal reason that it is people's benefit which ought to be the ultimate rationale of any planned action, e.g. government policies. Secondly, since societies are made up by distinct classes and stratified into numerous social groups and sub-groups of fairly different properties, interests and perceptions, the participation and contribution of **all relevant** stakeholders becomes mandatory if one intends to arrive at a reasonably thorough understanding of a complex reality and its contextual environment. The quality of planning and the success of implementation largely depends on an in-depth problem-/context analysis which is virtually impossible without tapping the expertise and life experience of those concerned and affected.

In a first step, the stakeholder analysis identifies **all** social groups, institutions, organisations, etc. which are somehow connected with, concerned about or affected by the current negative and the desired future positive situation and the action needed to be taken to this end. (list of stakeholders).

In a second step, the particular characteristics and concerns of the stakeholders with respect to the problem area or with interests in problem solution are analysed. Stakeholders can be directly or indirectly, more or less affected / concerned; they usually differ widely in terms of their political power, capacities, social status and public influence, attitudes, constraints, strengths, expectations and interests. Some stakeholders may reap (or expect to reap) advantages as beneficiaries or service providers, others may experience or be afraid of disadvantages (actual or perceived).

Especially the analysis of their willingness, respectively their capacity to support or obstruct a change of the status-quo situation and the degree of objective-achievement requires special attention, since this property alone can make specific stakeholders critically decisive ones. Some stakeholders may have common or divergent interests, form alliances or harbour animosities against each other. As a rule, the majority of stakeholders are of national / local denomination; however, there often are also important international ones (governments of neighbouring countries, international banks, donor- and UN-organisations; international NGOs). Stakeholders can be government institutions at different administrative levels; parastatals, private and community organisations; professional, religious, ethnic groups,

women and youth groups and their representations; last not least the very target- or beneficiary groups.

In a third step, the list of stakeholders is reduced to the very group of **relevant** stakeholders whose active participation and co-operation is considered particularly important or indispensable. Ideally, representatives of this group should jointly undertake the subsequent steps of problem analysis and planning of positive action in a participatory planning workshop. This is not always practical and/or meaningful for various reasons; in such cases, alternate arrangements – e.g. separate, preparatory workshops with selected (local) groups – are then called for, the results of which will have to be appropriately considered and incorporated.[97]

3.2 Problem Analysis

It cannot be overemphasised that it is the **quality of problem analysis**, namely the compliance with logic stringency which determines the value of the ultimate result of the entire LogFrame exercise and its usefulness for the planning and successful implementation of problem solving, objective-oriented action.

Collectively, the participants of a participatory planning workshop ought to represent a wide range of experience and knowledge about the pre-identified problem; this collective expertise is exploited and should guarantee a quality in-depth problem analysis. Such a result can only be accomplished by extensive, free, non-discriminatory and thorough deliberations and –if need be - discussions between participants.

3.2.1 Development of a Problem Hierarchy (Problem Tree)

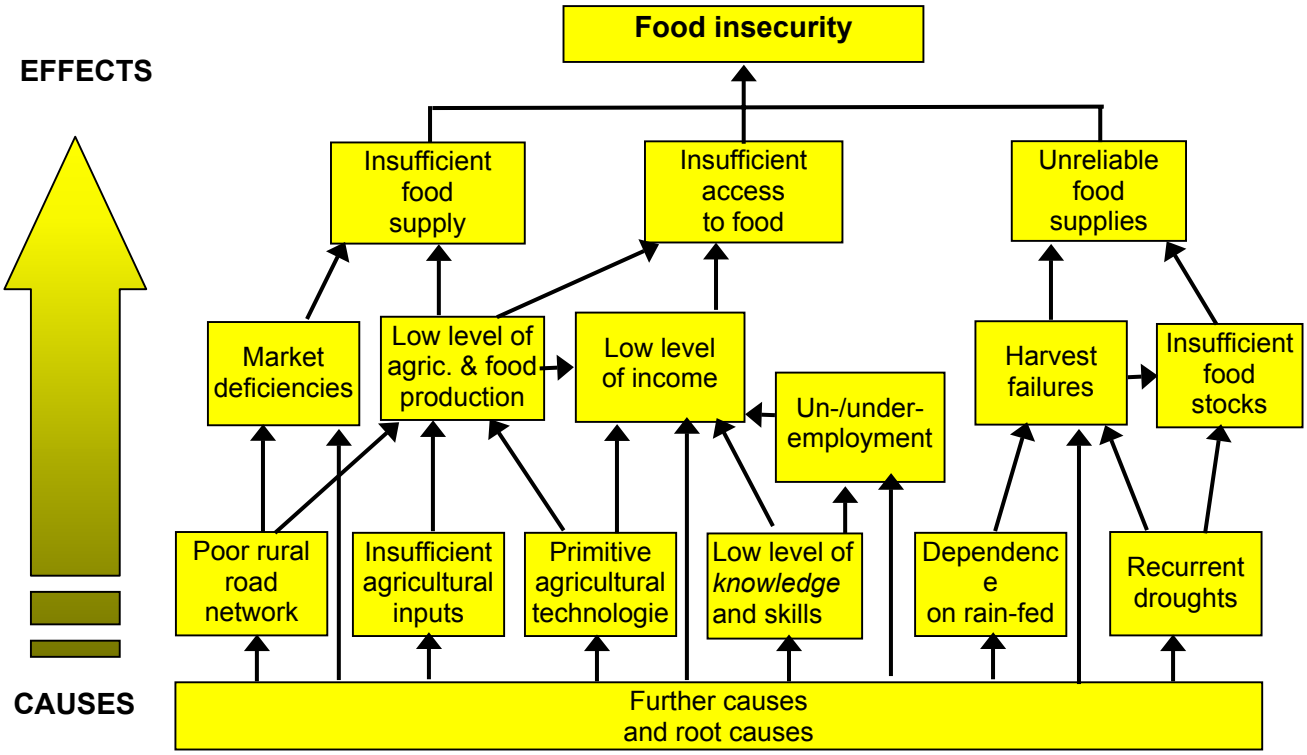
The start is made with a brainstorming exercise of participating stakeholders who will individually **indicate** what they consider as the key problems of a prevailing situation. Such brainstorming produces a fairly comprehensive list of heterogeneous problems in an unsorted order. A suitable tool to list and visualise each identified problem and to bring them into order is the metaplan technique: individual problems are noted on cards (one card per problem) which are stuck to a (pin- or magnetic) board.[98]

[97] Special arrangements and preparatory works for the conduct of a successful participatory planning workshop need to be made. For details on the aspect of workshop organisation reference is made to chapter 3, section 3.2.3. and listed literature.

[98] For details about the metaplan technique, see section 3.2.3.

In a second step, the identified problems so noted on metaplan cards will be arranged, re-arranged, grouped and re-grouped and brought into a hierarchical order which shall illustrate the cause-effect relations between and among problems. Starting with any of the aforementioned unsorted problems, a problem tree (See Figure A-2) successively develops by linking problems which each other.

Figure A-2: Example of a Problem Tree



Design adapted from: European Commission, 2001

This is done by making use of the criteria of **"causes"** and **"effects"**. The relationships among problems are shown in such a way that a problem x (=cause) being a causing factor of another problem y (=effect) finds its place at a lower level in the **problem hierarchy**. If any problem can - at this stage of problem analysis - be categorised neither as a cause nor as an effect of another problem already identified, such problem is treated - for the time being only - as an "independent" problem and a corresponding, yet unrelated position within the problem hierarchy is allocated. Such "independent" problems only indicate that the opening brainstorming has yielded an incomplete result and needs further improvements.

The problem tree will be completed step-by-step by:

- reformulation of problems and making them more specific,

- adding relevant, but yet missing "cause" factors / problems and resulting "effect"-problems,
- elimination of "problems" found to be of marginal relevance or irrelevant[99] and
- making re-arrangements within the problem hierarchy so as to more accurately reflect cause-effect relationships between problems and their causing factors.

In a third step, a **central** or **core problem** can be identified. This is usually the one which presents itself at the top of the problem tree as a climax effect within the problem hierarchy.

3.2.2 Rules to be observed for the Development of a Problem Tree

The development of a logically stringent problem tree is a fairly challenging task and usually takes quite some time for intensive discussions, frequent checks and re-arrangements. This is so because two critical conditions for problem formulation have to be complied with to facilitate a high quality problem analysis:

Condition 1

Problems and their problem causing factors should be linked **by well established and** (preferably) **undisputed direct cause-effect relationships** of a highly determining character. If this is not the case, the cause-effect hypothesis is either wrong or only true to a limited extent. Other, so far not identified intermediate problems, respectively causes, have been overlooked. These, therefore, still need identification so as to help filling remaining logic-gaps. Logical "short-cuts" violate the LogFrame principle of stringent cause-effect relationships.[100]

Condition 2

The problem tree in its entirety must describe and explain the negative situation and its causes in **adequate and sufficient detail.** Only if the **main** causes of problems and their

[99] A note of caution: As a rule, one should, at such early stage of problem analysis, abstain from eliminating / discarding problems for principal and psychological reasons: The value/relevance of a certain "independent" problem may only become apparent at a later stage of problem- or objective analysis or even later. If not, it can always be eliminated at a later stage. Secondly, the problem has been identified by a participant who may become discouraged and subsequently withhold his/her active contribution to the remaining analysis and planning work – which ought to be avoided.

[100] Whether or not an assumed direct cause-effect relationship exists or is of major or only marginal relevance, is by no means always self-evident. There can be controversial views about the nature of cause-effect relationships. This is particularly the case if ideologically biased thinking or ideological issues creep/s into problem analysis and if the identification of causes is (heavily) biased by pre-conceived solutions. A classical example in the field of economics: Do demands for wage increases of trade unions cause inflation (as employers argue) or is inflation induced by market price hikes, necessitating compensatory wage claims (as trade union representatives argue)?

effect chains (mode and path of impacts) have been properly identified, reality can be described to a satisfactory degree, so that the essence of the nature of problems can be understood sufficiently well - and correspondingly addressed. An inadequate description of the negative situation and its causes can only produce inadequate (problem solving) solutions.

Strict adherence to both conditions is a must because only **together** they guarantee a reasonable reality relevance of the problem analysis and so determine its value for the planning of effective positive action to overcome a currently prevailing negative situation for the sake of a better one.

3.2.3 Dos and Don'ts of problem formulation

Particular attention ought to given when formulating problems. The following *Dos and Don'ts* have proven helpful to avoid logical traps, logical gaps and redundancy:

Dos and Don'ts of problem formulation

- each problem shall be formulated **separately** so that it can find its proper place within the problem tree;
- problem formulation must be **specific**; generalities do not contribute to in-depth understanding of the negative situation; nor do they help to identify suitable measures of remedy;
- avoid similar formulations for same problems or causes;
- avoid problem formulations in the form of "absence / lack of something" which is an frequently observed tendency; such formulations are not sufficiently specific and only indicate that the causes of problems have not (yet) been identified precisely enough;
- avoid problem formulations which imply a specific solution or contain an implicit bias towards specific solutions (***solution prejudice***); problem analysis concentrates on identifying problems, their causes and relationships between and among them – the search for efficient measures of remedy is dealt with at a later stage of the LogFrame approach.

3.3 Objective Formulation and Objective Hierarchy (Objective Tree)

Whereas problem analysis deals with the aspects of a negative reality situation (problems and their causes), the objective analysis describes the positive aspects of a desirable future situation and means to achieve them. To this end, **problems are re-formulated or transformed into corresponding objectives** as is shown in Figure A-3.

By transforming the problems of the problem tree into objectives, a corresponding objective tree is developed – as presented in Figure A-4. It can be seen that what have been "cause – effect" relationships between problems of different hierarchies (refer to Figure A-2: Problem Tree) turn now into "**means to end" relationships** between objectives. In a graphically condensed form the objective tree shows **impact paths** and **impact areas.**[101]

[101] See section 3.3, step 3: Development of impact model.

Figure A-3: Transforming Problems into Objectives

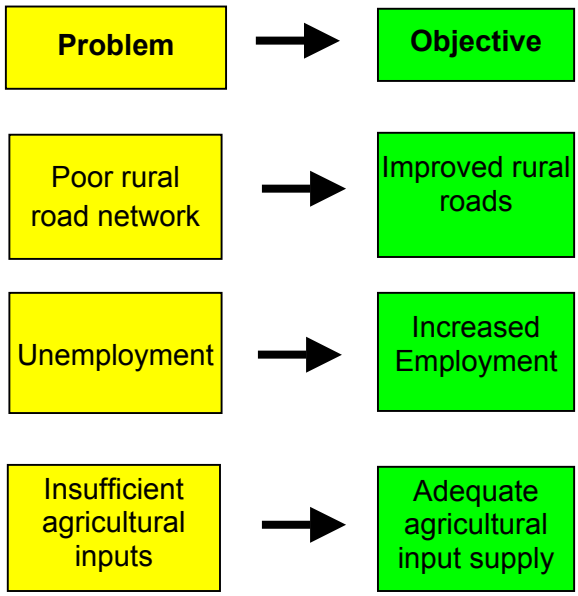
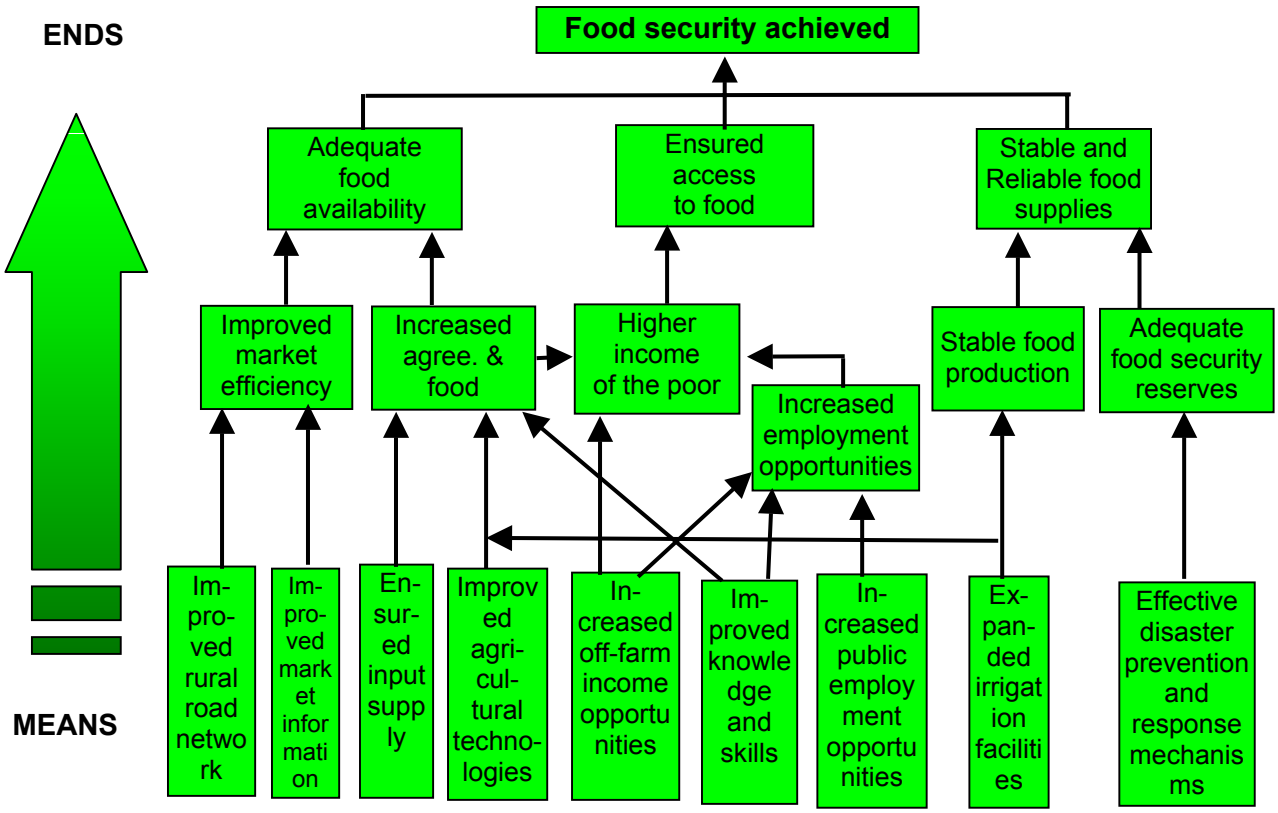


Figure A-4: Example of an Objective Tree



Design adapted from: European Commission, 2001

3.4 Review, Assessment and Amendment of the Objective Tree

A thorough review of the objective tree as developed by reformulation of problems will show whether the preceding problem analysis has been sufficiently logic, comprehensive and consistent.

Both rules mentioned in section 3.2.2 and the **"Dos and Don'ts"** suggested for problem formulation are equally relevant for objective formulation. For this purpose, they only need to be analogously reformulated so as to comply with the "means to end" relationships between objectives. If these rules and suggestions have not been strictly complied with, this will, respectively **should** become obvious at this stage. Any remaining logic gaps or other deficiencies of the objective tree which can be found **now**, these invariably stem either from unnoticed prior imperfections and inadequacies of problem analysis and formulation, or are caused by faulty re-formulations of problems into objectives.

Review and critical assessment of **both**, objective- **and** original problem tree, ultimately lead to a revised and improved objective tree. This usually requires an intensive dialogue between workshop participants, frequent recursive references to the problem tree, adjustments - and time.

Time allocation for review and assessment, respectively finalisation of the objective tree, is a critical aspect of the analysis phase. Obviously, there must be a time limit to avoid "endless" discussions between workshop participants and limit their fruitless prolongation with no or only marginal additional gains. It requires experience and good common sense to determine the right moment when the process of objective analysis and formulation shall be discontinued, because the achieved result (in form of the objective tree) indeed satisfies good quality standards. This is a matter of judgement and shall be decided by consensus.

The so improved version of the objective tree will then allow some final reorganising touches with respect to its structure by

- assigning objectives and their respective sub-objectives (means) to their appropriate level within the objective hierarchy, and
- grouping them into subject related problem-, respectively **objective clusters.**

3.5 Strategy Analysis and Choice

As a result of a so far **purely analytical effort**, the developed objective tree identifies **an array of objectives**, hierarchically positioned as objectives of an ascending order (sub-

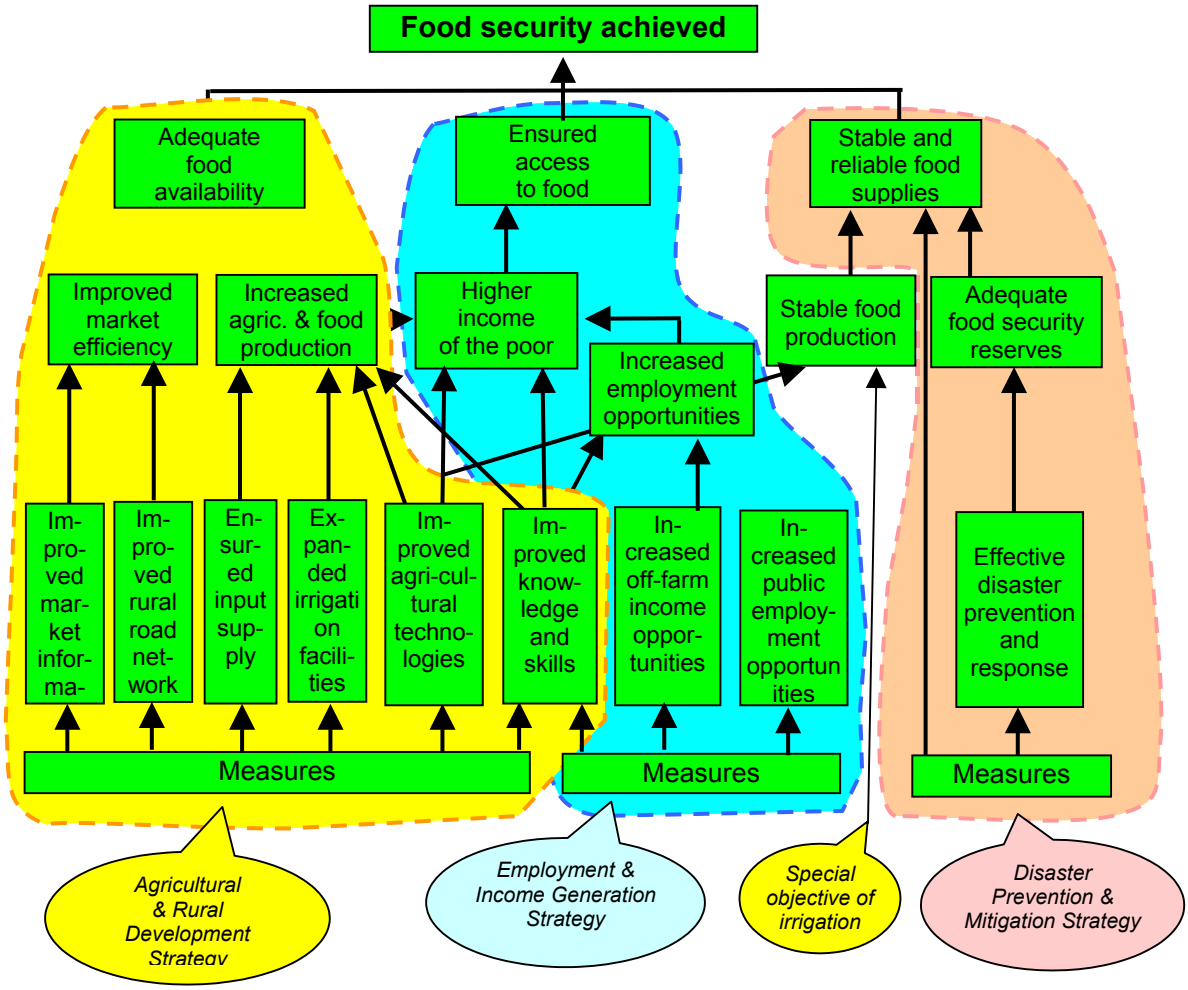
objectives, objectives and an overall objective) and interrelated by means-to-end relationships. Up to this stage, neither have any specific objectives to be pursued been selected, nor have any specific activities been identified which were to be carried out, nor have any other practical, (policy-, programme- or project-) implementation-relevant aspects yet been considered.

As a final step of the analysis phase, these open issues will now have to be addressed requiring **decisions** regarding :

- which objectives shall be pursued ? and which not?
- what shall be the scope of interventions?
- which strategy or strategies shall be chosen to best achieve selected (priority) objectives?

The above mentioned **objective clusters** can serve as good starting points for the search of a strategy of choice. Well arranged objective trees often virtually show and suggest different strategy options at hand - as can be seen from Figure A-5.

Figure A-5: Strategy Selection



Design adapted from: European Commission, 2001

Strategies usually comprise a bundle of measures directed at few closely related (sub-) objectives which themselves are **major** components of the overall objective aimed at. Strategy selection and the selection of suitable measures to be undertaken vary depending on the **level** of planning:

- At the **policy level**, the chosen strategy may consist of **programmes, projects and/or legislative and regulative measures** which are considered essential and effective to achieve objectives of a relatively high hierarchical order and complexity.
- At the **project or programme level**, the strategy may comprise a number of **measures or activities**, aimed at achieving specific project/programme **results**. These represent selected sub-objectives at lower hierarchical levels of the objective tree.

With reference to Figure A-5, three major strategies have been identified:

a) an Agricultural & Rural Development Strategy;
   with possible interventions such as: rural road construction, establishment of a rural credit system, provision of improved seeds to farmers, etc.
b) an Employment & Income Generation Strategy;
   with possible interventions such as: income generation schemes, public employment schemes, skill training programmes, etc.;
c) a Disaster Prevention & Mitigation Strategy;
   with possible interventions such as: building-up emergency food reserves, establishment of an early warning system, relief operations, etc.

The choice of a strategy of preference – or also a combination of strategies (!) - to be pursued shall be based on a comparative examination of *plausible and meaningful* strategy alternatives. The choice is often made in favour of such strategies which address the most pressing problems or priority objectives or those which can yield quick visible results. Whether or not such choice is really the best to eliminate root causes of problems is sometimes debatable.

Strategy choice requires judgement and a pre-assessment of respective relative advantages / disadvantages of alternate strategies with the help of **criteria** such as:

- effectiveness with respect to priority (sub-) objectives,
- feasibility,
- sustainability,
- pre-conditions for implementation,
- potential to generate short-term, intermediate and long-term effects,
- general social acceptance,
- response of stakeholder groups,
- other time-implications,
- risks involved and dependency on critical assumptions,
- consistency with other important objectives and policies,
- resource and capacity requirements and availability,
- costs and budgetary implications,
- probability of any positive / negative (side-) effects on , e.g.: poverty, employment, income distribution, ecology, gender, youth and children,
- reliance on own resources versus dependency on foreign aid assistance, et al.

It is most desirable that the decisions concerning the strategy to be employed and the selection of specific objectives will be made by consensus, reconciling different interests of stakeholder groups.

3.6 Identification and Planning of Activities / Measures

Once the aforementioned decisions (on strategy and specific objectives) have been made, the objectives to be aimed at by positive action are to be defined **in measurable terms** and the specific measures / activities to be carried out in pursuance of **each** concerned objective / sub-objective are to be identified. The definition of objectives in measurable terms is likely to require some re-adjustment***s***, so as to be in line with the outcome of the subsequent identification and planning of specific activities to be carried out and their respective targeted results.

The identification and planning of these specific activities and the determination of their results in measurable terms is a major and time-consuming task which often also demands specific know-how in various fields of specialisation. Depending on the magnitude of the planning task and heterogeneity of subject matters to be considered, this planning step may lend itself for work in sub-groups.

An often encountered problem at this planning stage is to find the **right measure of detail**. It is quite a challenge even for experienced analysts, planners or moderators to strike a good balance between the **necessary** degree of detail of activity-planning and the excessive. According to common experience, technical experts tend towards the extreme of exaggerated detail, whereas generalists and administrators tend to be satisfied with an insufficient degree of detail. It has to be kept in mind that the main purpose of planning activities **here** is that of an essential framework planning, and **not** to develop a detailed work plan for implementation and management purposes.

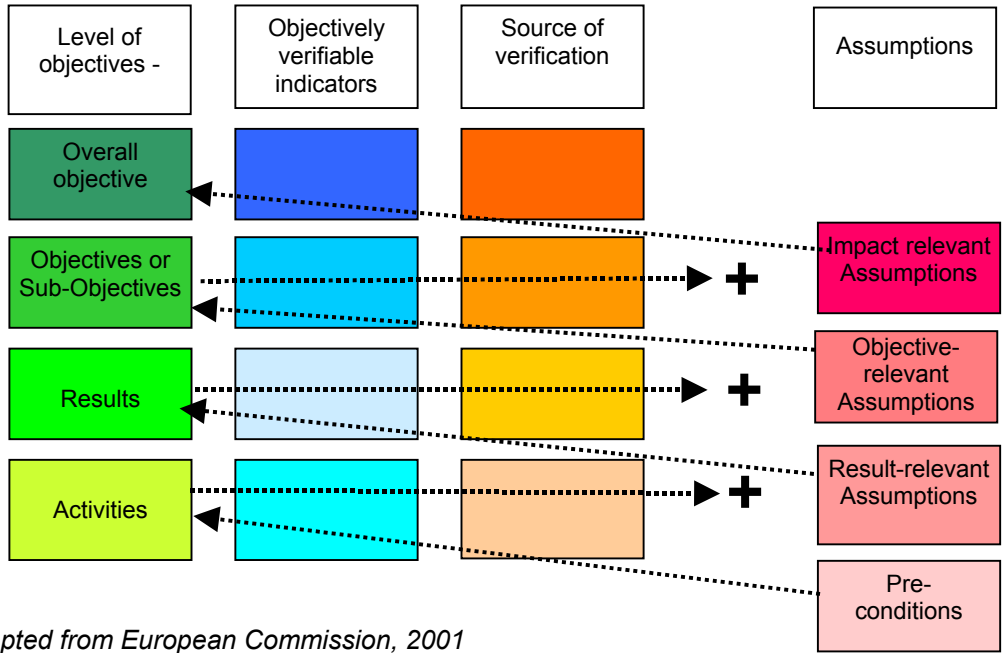
Nevertheless, a certain, albeit **limited** degree of detail is **indispensable***,* because it is usually only in the course of **such** detail planning of activities that one becomes aware of certain factors, consequences or implications with (potentially) critical effects on objective achievement, such as: important assumptions, time-implications, risks, consistencies between objectives, side-effects, et al.. It is usually so that special insights and awareness about such factors gained at this stage of planning of activities, necessitate further references to results of earlier steps of problem and objective analysis and cause, for example, even a re-formulation of objectives, a reduction of the original scope of interventions, or a change in strategy.

Two key criteria for the selection of suitable and necessary activities / measures are their **feasibility and** (preferably) **direct impact relevance** for the realisation of defined results, because **their** collective realisation is the prerequisite and basis for the achievement of objectives at higher hierarchical orders.

3.7 The LogFrame Planning Matrix

The **planning matrix** is the main (physical) output of the entire LogFrame analysis and planning exercise. It summarises the results of all preceding steps of analysis and planning in a condensed form.

Figure A-6: Basic Structure of a LogFrame Matrix



Design adapted from European Commission, 2001

The **standard LogFrame matrix** consists of a 4 x 4 table:[102]

- The upper three rows refer to **objectives** of different levels of the objective hierarchy whereas the lowest row refers to all identified **activities** in pursuance of the objectives.
- In the first column, the **objectives** are positioned according to their appropriate level in the objective hierarchy.
- The second column identifies **objectively verifiable indicators** for each activity and objective. To enable verification of objective achievement, objectives need to be

[102] See also Table 2-4, chapter 2, for an example of a LogFrame matrix for a programme.

expressed in measurable, preferably quantifiable terms (targets) and specified units of measurement.

- The third column indicates the **sources of verification** (sources of data for the objectively verifiable indicators), also specifying format and a time of reference when the respective data and information shall be collected and provided.
- The fourth column lists – separately for each activity and objective - any critical assumption on **additional**, **necessary conditions** (horizontal arrow line) to realise achievement of targeted results and objectives of the next higher hierarchical level (upward arrow line).

An extended version of the LogFrame matrix additionally records - separately for each identified planned measure / activity:

- the required human, physical, financial **resources** in terms of quantity, quality and timing;
- the **schedules** *and* **duration** of measures / activities, especially highlighting any possible risks with regard to **critical** schedule implications;
- the **responsibilities** of organisations, units, groups or individuals for the implementation of respective measures / activities and their monitoring.

The summing up of the financial requirements for the individual interventions leads to a consolidated budget.

3.8 The LogFrame Method's Intervention Logic

The planning matrix reflects the intervention rationale of the LogFrame method which can be summarised as follows:

1) If there is / are any pre-condition/s for any or all planned positive action –
   this / these have to be fulfilled *before* planned activities should commence.

2) If identified measures / activities will be carried out in the planned manner **and**
   if assumptions concerning critical conditions for result achievement will be fulfilled,
   then defined results / sub-objectives will be achieved.

3) If results / sub-objectives have been achieved **and**
   if assumptions concerning critical conditions for objective achievement will be fulfilled
   then defined objectives will be realised.

4) If defined objectives will have been achieved **and**
   if assumptions concerning the impact hypothesis and external factors will hold true, -
   then overall- development objective will be realised.

3.9 Assumptions

The LogFrame method places particular importance to assumptions and on their identification in the planning process. Assumptions are **necessary conditions** which have to be realised **in addition** to a successful implementation of all planned action, if objectives were to be achieved. Should assumptions on essential conditions not materialise, then defined objectives cannot be achieved even if the planned activities had been successfully implemented and indeed attained **their** targeted results.

Example

Following an impressing feasibility study by a renowned international consultancy firm about the mid-term and long-term economic prospects of coffee production, an African government plans to increase its foreign currency earnings through increased coffee exports. To this end, an ambitious integrated policy has been developed

- *to increase acreage under coffee plantation;*
- *to increase acre-yields by improved genetic material and technology;*
- *to reduce losses by improved pest control; etc.*

All programmes under this policy have been very successfully implemented: Coffee production has soared and coffee exports have been increased. However, the objective of increased export earnings has not been achieved, because the world market price has dropped drastically. The implicit assumption of the coffee export policy has been that prevailing coffee export prices remained stable. This assumption did not hold true – therefore the overall policy objective could not be achieved, although all other objectives of the same policy have been achieved.

Basically, two different **types of assumptions concerning conditions** can be distinguished from a planner's and managerial point of view:

1) Assumptions on conditions which can be assured - if need be - by those who are responsible for (policy) implementation of positive action.
   Such conditions either exist - then nothing special needs to be done about them; the assumption of such conditions is permissible, because of their high probability. Or they do not (yet) exist or are doubtful; such assumptions are also permissible – **provided** that planning makes necessary allowance that they can be arranged for by others or that they are **actively** brought about by special planned efforts so as to ensure their realisation.
   Often, the achievement of results / objectives depends on the condition of timely realisation of other results which themselves are to be achieved under the same or any other policy implementation programme. This underlines the often highly sensitive issues

of interdependencies and realistic **scheduling** of (policy) activities / measures and consistencies and co-ordination between policies.

2) Assumptions on conditions which can **not** be assured by those who are responsible for implementation of positive action, i.e. the concerned policy-, programme or project management.

   Such conditions are either determined by **external** factors or they are considered as such by planners as calculated **risks**. As a rule, assumed conditions being caused by external factors **can not** be influenced by the management, since the manipulation of such conditions is beyond its control.

   It remains the responsibility of (policy) planners to ensure that objective achievement is not unduly endangered by unrealistic assumptions. Assumptions must be **plausible**, **realistic** and shall not imply **unreasonable risks**. Otherwise, they almost guarantee failure and non-achievement of objectives ("*killer assumptions*").

   In such cases, planners must recheck the design of the "logical" framework – starting from problem analysis, objective definition, choice of strategy, etc.- because of a fundamental fault of its internal logic. Alternatively, such critical assumptions must be included as specific objectives of their own, requiring implementation of specific measures to bring about their realisation.

*With reference to the **example** given above, the assumption concerning a stable coffee export price has been such a critical assumption which the concerned government had no possibility to influence or manipulate. Because of non-compliance, this assumption alone caused failure of the entire policy.*

3.10 Special Concern: a comprehensive documentation

A reliable and accessible institutional memory is not only good administrative standard but enables transparency and research and serves as an important source of reference for purposes of monitoring and evaluation.

Especially with respect to **policies**, a comprehensive documentation of **key** information pertaining to the proceedings and results of the entire policy formulation process is of particular value - thereby permitting subsequent efforts of policy (re-) formulation and implementation to benefit from any experience gained from earlier successes and failures.

Particularly essential for those entrusted with the task of MPI – and here explicitly for the task of policy review and analysis - is the information contained in the LogFrame matrix and other documents about background information concerning the genesis of the very policy to be monitored. E.g., detailed information and knowledge about the specific contextual conditions

and circumstances (when has the policy been formulated?, on whose initiative?, by whom and how?, who participated?, what has been the specific historical context at the time of formulation, etc.), under which the original policy formulation process took place should be made available so as to facilitate a thorough policy review, analysis and assessment as the stepping stone for an organisation and implementation of MPI.

4. Relevance of LogFrame Method for Monitoring Policy Impacts

4.1 Applicability to Policies

The LogFrame method has been developed for and is widely applied for project planning. However, because of its general methodological applicability to problem solving and planning tasks, the method can be equally applied for the analysis and planning of **policies**.

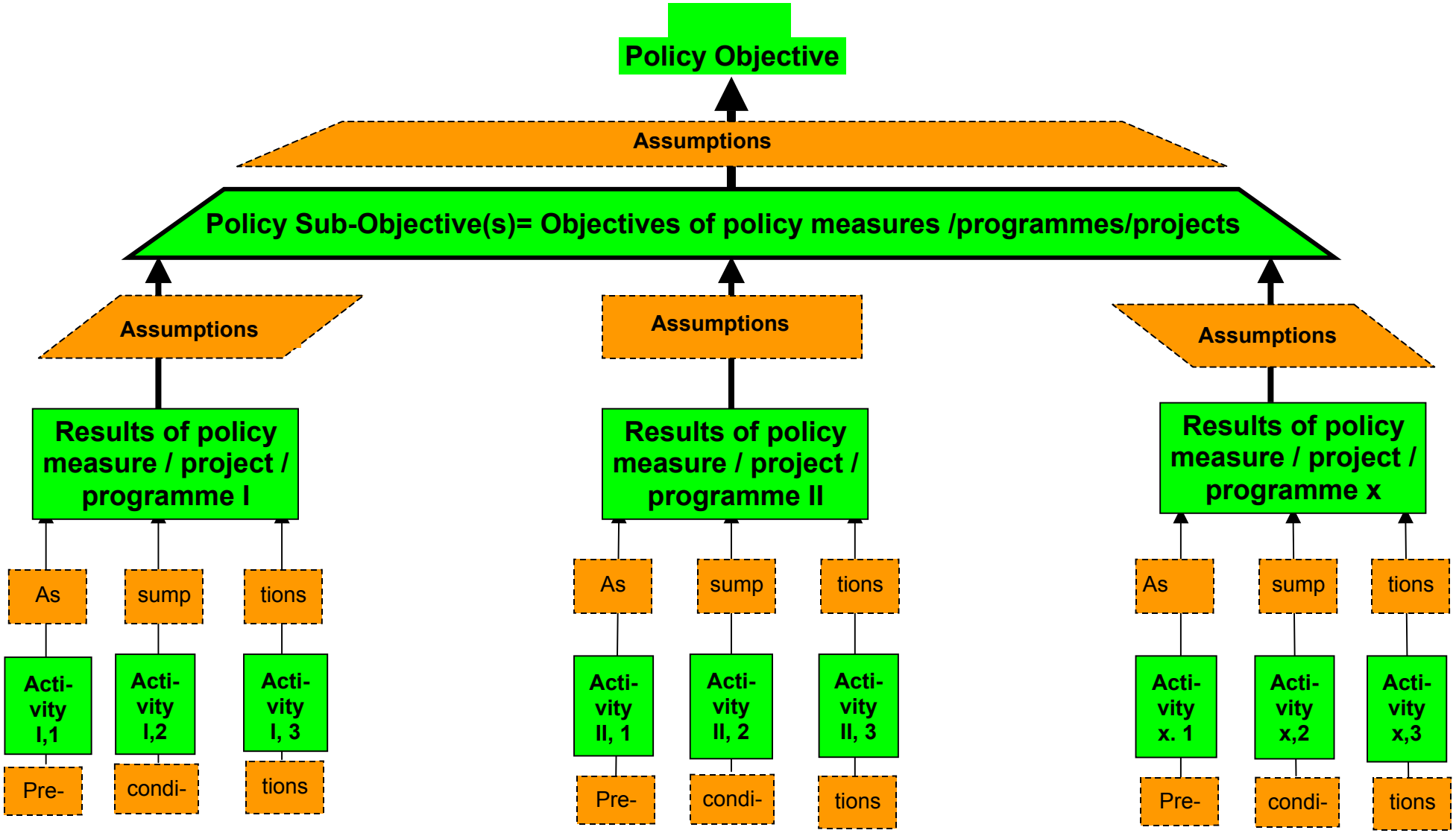
Figure A-7 provides an overview of the LogFrame intervention rationale at policy level. It also shows the levels of objectives which are particularly relevant for MPI: Since a policy is usually implemented through a number of different policy measures, projects and/or programmes which **together** contribute – in differing proportions - to the achievement of their "common" objective of next higher hierarchical order,[103] their (partial) policy impacts cannot be separately ascertained and attributed to the individual programme or project.[104] Their impact can only be assessed as a collective or compound impact. This is the very subject of MPI.

If the LogFrame method has not been applied for the purpose of formulation of the policy to be monitored, it is strongly advisable to develop a LogFrame matrix of such policy in retrospect at the very start of the MPI process, that is as a task of step 2 "Review and analysis of policy".

[103] See example of a food security policy presented in section 1.2 of Chapter 1.

[104] See discussion on the "attribution gap" in chapter 1, section 1.5.6.

Figure A-7: Basic Structure of LogFrame Intervention Rationale for Policies



4.2 Applicability with respect to implementation of MPI

For the purposes of planning and implementation of **MPI**, the LogFrame method and the application of its methodological principles is particularly relevant and useful for the following tasks and reasons:

1) **Review, analysis and assessment of the policy to be monitored**[105]
   On the basis of available documentation and other evidence,[106] the policy to be monitored is examined for compliance with the method's strict cause-effect logic (quality of problem analysis and problem hierarchy) and "means-to end" logic (objective hierarchy), with its intervention rationale and adherence to important principles (relevance / significance, effectiveness, feasibility, adequacy, compatibility, vertical and horizontal consistency, coherence) **between and among major policy components**, namely: Overall objective, selected objectives and quantitative targets; chosen strategy and instruments; the measures of intervention; implicit and explicit assumptions on conditions and risks; the choice of implementation agents; main target groups; allocated resources in terms of quality, quantity and time; and the underlying time schedule.
   Any deficiencies or omissions that can be found regarding logic compliance and adherence to above principles must be assumed to be (or to have already become) performance and impact relevant during the course of policy implementation. Such deficiencies would call for an early re-adjustment of the policy itself or selected policy components[107] and need to be suitably incorporated in the subsequent steps 3 and 4 of MPI.
2) **Development of an impact model for MPI**[108]**;**
   The policy's underlying impact model – which either has been explicitly stated or has to be distilled from available documentation and evidence – forms the basis for the development of the impact model for MPI purposes. Both models need not necessarily be identical, and - as a matter of fact - they rarely are. Particular attention should be paid when reviewing the policy makers' model on any critical **implicit assumptions** which may be "hidden" in the underlying impact model.
   Generally it can be assumed that, as a result of the foregoing policy analysis and assessment (step 2 of MPI) and taking the specific objectives of the monitoring task into consideration, the impact model for MPI purposes has to be an enlarged and a more widely facetted one. This is so because monitoring – by definition of its purpose - has to

[105] See step 2 of MPI, chapter 2, section 2.3.2.

[106] See chapter 3, section 3.2.2: Document review and analysis.

[107] To this end an early policy analysis report can be prepared which identifies any critical weaknesses of policy design if they can be diagnosed already at this stage of MPI.

widen its field of observation beyond the scope of intended effects and defined objectives. In addition to those, MPI has also to pay particular attention to any possible unintended impacts / side-effects of policy measures, to possible risks which have not been identified earlier, or even to possible "hidden" undeclared objectives of a policy.

3) **Identification of policy impact indicators**[109]

Identification and selection of impact indicators is a core task of MPI. The choice of indicators for MPI is based on the impact model developed under step 3 of MPI and, therefore, also takes into account possible impacts not intended or overseen by the policy makers at the time of policy design. For the task of definition of indicators, special consideration ought to be given to the observation of

- risk factors;
- external factors;
- any sensitive context factors in the realm of environment, health, gender, or alike;
- the possible effects on minorities or any other vulnerable group of the society (children, elders);
- possible effects on possible / likely resistance groups;
- effects resulting from inconsistencies of policy or employed policy measures;
- possible effects resulting from conditions which were implicitly or explicitly assumed.

Beyond the detailed presentation concerning selection of impact indicators in chapter 2.3.4, here it suffices to (re-)emphasise that - whatever indicators are chosen – they have to be **suitable** to measure or gauge (significant) impacts and **necessary**, i.e. critically relevant.

4) **MPI Planning**

Last but not least, the LogFrame method can also be applied to the planning and management of MPI itself. In this case, the activities to be undertaken for purposes of planning MPI are treated as those of a "normal" project - starting with step 1, i.e. clarification of the objectives of MPI and (pre-) identification of the tasks to be performed in planning and implementing of MPI. As examples of a basic LogFrame matrix for MPI, related to the case studies presented in chapter 2, see Tables 2-1 and 2-2 of section 2.3.1.

---

[108] See step 3 of MPI, chapter 2, section 2.3.3.

[109] See step 4 of MPI, chapter 2, section 2.3.4.

FAO/GTZ Training Manual on MONITORING POLICY IMPACTS

Annex 2:
References and web-links

1. References

Angrist, Joshua D., Guido W. Imbens, and Donald B. Rubin. 1996. Identification of Causal Effects Using Instrumental Variables. Journal of the American Statistical Association 91(434): 444-455.

Baker, Judy L., 2000, Evaluating the Impact of Development Projects on Poverty, A Handbook for Practitioners, The World Bank, Washington D.C.
http://www.worldbank.org/poverty/library/impact.htm
(This handbook seeks to provide project managers and policy analysts with the tools needed for evaluating the impact of interventions. It includes a discussion of evaluation methodologies and implementation issues and presents several case studies).

Bondonio, David. 2002. "Evaluating Decentralized Policies: A Method to Compare the Performance of Economic Development Programmes Across Different Regions or States." Evaluation 8(1): 101-124

Bourguignon, F., L Pereira Da Silva, and Nicholas H. Stern. 2002. "Evaluating the Poverty Impact of Economic Policies: Some Analytical Challenges." Processed. Washington, D.C.: World Bank.
http://poverty.worldbank.org/files/11287_Bourguignon_Stern_Pereira_IMFConf_03_2002_Final.pdf

Casley, Dennis and Krishna Kumar.1988. The Collection, Analysis, and Use of Monitoring and Evaluation Data. World Bank: Washington DC.

Centre for Advanced Training in Agriculture and Rural Development (CATAD), 1996, Qualitative Impact Monitoring of Agricultural Structural Adjustment in Jordan, Schriftenreihe des Seminars für Ländliche Entwicklung Nr. S 173, Amman/Berlin

Chung, Kimberley. 2000. "Qualitative Data Collection Techniques" in Margaret Grosh and Paul Glewwe, eds., Designing Household Survey Questionnaires for Developing Countries: Lessons from Ten Years of LSMS Experience. World Bank: Washington, D.C.

Dehejia, Rajeev H., and Sadek Wahba. 1999. Causal Effects in Nonexperimental Studies: Reevaluating the Evaluation of Training Programs. Journal of the American Statistical Association 94(448). 1053-1062.

Dehejia, Rajeev H., and Sadek Wahba. 2002. Propensity Score-Matching Methods for Nonexperimental Causal Studies. The Review of Economics and Statistics 84(1): 151-161.

Dixon, J.M., Hall, M., Hardacker, J.B., Vyas, V.S., 1994, Farm and community information use for agricultural programmes and policies, Rome,

Dolzer, Hermann et al., 1998, Wirkungen und Nebenwirkungen, Misereor, Aachen

Donecker, Jane and Michael Green, 1998, Impact Assessment in Multilateral Development Institutions, DFID, August

Eber, Herbert W. 1975. “Multivariate Methodologies for Evaluation Research.” In Elmer L. Struening, and Marcia Guttentag, eds., Handbook of Evaluation Research. Vol. 1. Beverley Hills, California: Sage Publications, Inc.

European Commission, 1999, MEANS Collection – Evaluating socio-economic programmes, Luxembourg,

European Commission, 2001, Project Cycle Management - Training Courses Handbook, Version 1.1, http://europa.eu.int/comm/europeaid/evaluation/methods/pcm.htm

Grossman, Jean Baldwin. 1994. "Evaluating Social Policies: Principles and U.S. Experience." The World Bank Research Observer 9(2): 159-80.

GTZ, 1996, Project Cycle Management (PCM) and Objectives-oriented Project Planning (ZOPP) - Guidelines, Eschborn, http://www.gtz.de/pcm/download/english/zopp_e.pdf

GTZ, 1998, ZOPP. Objectives-oriented Project Planning – A planning guide for new and ongoing projects and programmes, Eschborn
http://www.gtz.de/pcm/download/english/zopp_e.pdf

GTZ, 1998, Project monitoring - An orientation for Technical Cooperation Projects, Eschborn
http://www.gtz.de/pcm/download/english/monit_e.pdf

Heckman, James J. 1989. Choosing Among Alternative Nonexperimental Methods for Estimating the Impact of Social Programs: The Case of Manpower Training. NBER Working Paper 2861 (February), National Bureau of Economic Research, Cambridge, MA.

Heckman, James J., Jeffrey A. Smith, and Nancy Clements. 1997. "Making the Most Out of Programme Evaluations and Social Experiments: Accounting for Heterogeneity in Programme Impacts ." The Review of Economic Studies, 64: 487-535.

Heckman, James J., Hidehiko Ichimura, and Petra E. Todd. 1997. Matching as an Econometric Evaluation Estimator: Evidence from Evaluating a Job Training Program. Review of Economic Studies, 64: 605-654.

Heckman, James J., and Edward Vytlacil. 2001. "Policy-Relevant Treatment Effects." The American Economic Review (Papers and Proceedings), 91(2): 107-111.

Herweg, Karl (CDE), Kurt Steiner (GTZ), Joep Slaats (KIT), 1999, Guide pour le suivi des impacts, Volume 1: Manuel, Volume 2: B⇔te à outils, Berne/Eschborn

Herweg, Karl & Kurt Steiner, 2002, Impact Monitoring & Assessment, Instruments for Use in Rural Development Projects with a Focus on Sustainable Land Management, Centre for Development and Environment, Bern, and GTZ, Eschborn

Heidbrink, Kathrin (GTZ), 2000, Wirkungsmonitoring in Projekten der Institutionenent-wicklung im Umweltbereich - Ein Beitrag zur Diskussion - (Impact Monitoring in Projects of Institutional Development in the Environment Sector), incl. English, French, Portuguese and Spanish summaries), GTZ Arbeitsfeld 4404, Eschborn.

Kothari, Uma, 2000, Developing Guidelines for Assessing Achievement in the Eight Focal Areas of Social Development Work and For Assessing Outcomes, Assessment Procedures, Institute for Development Policy and Management, University of Manchester, Centre for Development Studies, University of Bath, January

Kuby, Thomas, 1999, Innovation is a social process. What does this mean for impact assessment in agricultural research?, Paper presented at the Workshop on the Impact of Agricultural Research and Extension organized by the Sector Network "Agricultural Research".

Lampietti, Julian A.; Kolb, Anthony A.; Gulyani, Sumila; Avenesyan, Vahram; “Utility Pricing and the Poor, Lessons from Armenia”, World Bank Technical Paper No. 497, 2001

Lobb-Rabe, Alison, 2000, Impact Assessment with a Poverty Focus in Policy Advisory Projects: Concepts, Questions and Cases, GTZ Poverty Reduction Project, Eschborn, September

Marshall, Catherine and Gretchen B. Rossman. 1995. Designing Qualitative Research. Thousand Oaks, California: Sage Publications, Inc.

Meyer, Bruce D.1995. "Natural and Quasi-Experiments in Economics." Journal of Business and Economic Statistics 13(2): 151-161

Moffitt, Robert. 1991. "Program Evaluation with Nonexperimental Data." Evaluation Review 15 (3): 291-314.

Mueller-Glodde, Ulrike, in collaboration with Chris Pain, 1998, Qualitative Impact Monitoring of Poverty Alleviation Policies and Programmes in Malawi, Social Policy Advisory Services, German Technical Co-operation (SPAS-GTZ) Lilongwe, Malawi, August

Müller-Glodde, Petra (ed.), Martina Vahlhaus und Thomas Kuby (authors), 2000, Orientierungsrahmen für das Wirkungsmonitoring in Projekten der Wirtschafts- und Beschäftigungsförderung unter besonderer Berücksichtigung armutsmindernder Wirkungen (Framework for Orientation for the Impact Monitoring in Projects of Economic and Employment Promotion With Specific Consideration of Poverty Alleviation Impacts), GTZ, Eschborn

Mohr, Lawrence B., 1995, Impact Analysis for Program Evaluation, SAGE Publications, Thousand Oaks, London, New Delhi

Neubert, Susanne, 2001, MAPP - Methode zur Wirkungsanalyse von Projekten und Programmen (Method for Impact Analysis of Projects and Programmes), Handout zum Workshop, Bonn/Berlin

Ojha, Durga P., 1998, Impact Monitoring - Approaches and Indicators, Experiences of GTZ-Supported Multi-Sectoral Rural Development Projects in Asia, GTZ, Eschborn

Patton, Michael Quinn. 1987. How to Use Qualitative Methods in Evaluation. Newbury Park, California: Sage Publications, Inc.

Patton, Michael Quinn. 1990. Qualitative Evaluation and Research Methods. Newbury Park, California: Sage Publications, Inc.

Patton, Michael Quinn. 2002. Qualitative research and evaluation methods. 3rd edition. Thousand Oaks, California: Sage Publications, Inc.

Prennushi, G., G. Rubio and K. Subbaro, 2001, Monitoring and Evaluation, in: World Bank, Poverty Reduction Strategy Sourcebook, Draft for comments, April http://www.worldbank.org/poverty/strategies/sourcons.htm

(This chapter of the Poverty Reduction Strategy Sourcebook aims to assist countries in developing an outcome monitoring and impact evaluation strategy).

Ravallion, Martin. 1999. The Mystery of the Vanishing Benefits: Ms. Speedy Analyst's Introduction to Evaluation. Policy Research Working Paper 2153, World Bank, Development Economics Research Group, Washington, D.C. http://wbln0018.worldbank.org/research/workpapers.nsf/View+to+Link+WebPages/D5110D85CA03F8F1852567E00055E66C?OpenDocument
(This is an entertaining introduction to the concepts and methods of impact evaluation - as seen through the eyes of Ms. Speedy Analyst. It assumes readers are familiar with basic statistics up to regression analysis (as covered in an introductory text on econometrics).

Rietbergen-McCracken, Jennifer, and Deepa Narayan, comps. 1998. Participation and Social Assessment: Tools and Techniques Washington, D.C.: World Bank. http://poverty.worldbank.org/library/view/3578/
(This resource kit aims to share information and experience on participatory methods in order to support the adoption of participatory approaches in development projects and studies. The materials included have been selected to provide the core essential information about the different methods and applications, with the primary focus on providing practical guidance and examples.)

Roche, Chris, 1999, Impact Assessment for Development Agencies: Learning to Value Change, Oxfam, Oxford

Roche, Chris, 2000, Impact assessment: seeing the wood and the trees, in "Development in Practice", Vol. 10, Nos. 3 & 4, August

Rossman, Gretchen B., and Bruce L. Wilson. 1985. "Numbers and Words: Combining Quantitative and Qualitative Methods in a Single Large-Scale Evaluation Study." Evaluation Review 9(5): 627-43.

UNDP (United Nations Development Program). 1997. Who are the Question-makers?: A Participatory Evaluation Handbook. OESP Handbook Series, Office of Evaluation and Strategic Planning, New York, NY.

USAID Center for Development Information and Evaluation, 1996, Performance Monitoring and Evaluation, Selecting Performance Indicators, TIPS, No. 6. http://www.dec.org/usaid_eval/

USAID Center for Development Information and Evaluation, 1996, Performance Monitoring and Evaluation, Preparing Performance Monitoring Plans, TIPS, No. 7. http://www.dec.org/usaid_eval/

USAID Center for Development Information and Evaluation, 1998, , TIPS, No. 12. http://www.dec.org/usaid_eval/

USAID Center for Development Information and Evaluation, 2000, Performance Monitoring and Evaluation, Building a Results Framework - TIPS, No. 13. http://www.dec.org/usaid_eval/

USAID Center for Development Information and Evaluation, 2000, Monitoring the Policy Reform Process, Recent Practices In Monitoring and Evaluation - TIPS, No. 14. http://www.dec.org/usaid_eval/

Vahlhaus, Martina, 1999, Monitoring impacts - a participatory approach, in CEFE magazine, published by GTZ and CEFE International, Issue 1/99, Eschborn, April

Vahlhaus, Martina, Kuby, Thomas, 2001, “Guidelines for impact monitoring in economic and employment promotion projects with special reference to poverty reduction impacts - Manual on participatory monitoring of employment-creation projects” Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), http://www.ids.ac.uk/eldis/poverty/guidegtz2.htm

Valadez, Joseph, and Michael Bamberger, eds. 1994. Monitoring and Evaluating Social Programs in Developing Countries: A Handbook for Policymakers, Managers, and Researchers. EDI Development Studies. Washington, D.C.: World Bank. http://www-wds.worldbank.org/servlet/WDS_IBank_Servlet?pcont=details&eid=000009265_3970716143510

Weiss, Carol H.. 1998. Evaluation: Methods for Studying Programs and Policies. Upper Saddle River, New Jersey. Prentice Hall.

World Bank, OED, 1996, Designing Project Monitoring and Evaluation, http://www.worldbank.org/oed/ecd/

World Bank, 2002, Monitoring & Evaluation - Some Tools, Methods & Approaches, Washington D.C., http://www.worldbank.org/oed/ecd/doc_list.html

World Food Programme, Office of Evaluation (OEDE), 2001, Monitoring and Evaluation Guidelines, draft, October

2. Relevant web-links

FAO http://www.fao.org

FAO Evaluation: http://www.fao.org/pbe/pbee/default.asp

FAO Participation Homepage: http://www.fao.org/participation/

GTZ http://www.gtz.de

GTZ Project cycle management (PCM), Objectives-oriented project planning (ZOPP) and Monitoring documents: http://www.gtz.de/pcm/download/english/zopp_e.pdf

IAIA (International Association for Impact Assessment): http://www.iaia.org/

IFPRI (International Food Policy Research Institute): http://www.ifpri.org/

SAGE Publications offers a wide range of relevant publications on monitoring and evaluation: http://www.sagepub.co.uk/shopping/catalogue.asp?catalogueid=231&domainid=5

USAID Center for Development Information and Evaluation: http://www.dec.org/usaid_eval/

World Bank's Operations Evaluation Department: http://www.worldbank.org/oed/

World Bank's Poverty Net: http://www.worldbank.org/poverty/impact/index.htm

FAO/GTZ Training Manual on MONITORING POLICY IMPACTS

Annex 3:
Glossary of Key Terms

Evaluation is a specific review and assessment of the performance of projects, programmes or policies done at certain points of time and covering certain time periods (e.g. ex-post, mid-term). Often conducted as basis for decisions on extension, expansion, modification and/or replication of interventions.

Impacts are effects of interventions (policies, programmes, projects) which are assessed with reference to objectives at higher aggregate level (overall objectives and long-term goals). There are different types of impacts: Direct and indirect, short- and long-term, intended and unintended, positive and negative. The nature of impacts manifesting themselves at higher aggregate level implies that they can usually not be attributed to one specific intervention only, but are co-determined by many other factors, too. This distinguishes impacts from outputs and outcomes, which are more immediate and directly attributable results of an intervention.

Impact monitoring traces and assesses effects of policy / programme / project interventions, along with implementation, with regard to defined objectives and possible unplanned side effects, providing early information for →real-time adjustment in policy / programme / project design and/or implementation. See also Implementation monitoring, Indicators, Monitoring.

Implementation monitoring helps to keep track whether the implementation of projects, programmes or policies – in terms of inputs used, activities performed and outputs achieved - is according to the plan, and to take corrective measures if there are deviations from the plan. Furthermore, implementation monitoring serves the purpose to inform →stakeholders (e.g. government/ financing/ donor organisations, target groups) about the progress in projects, programmes or policy implementation. See also Monitoring

Indicator	Quantitative or qualitative parameter in terms of which effects of interventions are measured to ascertain and assess objective achievement, changes induced by interventions, and/or changes of critical conditions.
Monitoring	is a continuous observation of phenomena related to the implementation and performance of projects, programmes or policies. Monitoring is primarily a management instrument and is usually organised and carried by the very institution which is also responsible for implementation.
Policy measures	Means and instruments of policy implementation through which objectives shall be realised. Distinction is made between regulatory measures, i.e. setting of rules and conditions under which institutions, organisations and individuals have to operate, and operational measures, i.e. all types of planned activities which are implemented with public involvement in varying degrees. Typical operational measures are projects and programmes launched under a certain policy.
Projects and Programmes	Specific interventions in a certain area which address a specific problem, policy issue or target group, ideally an element / instrument of the policy implementation strategy which may be composed of different programmes and projects, all serving the same overall policy objective. A programme may be composed of several projects. See →Policy measures.
Real-time	Current, immediate, simultaneous with the process of implementation; used in connection with real-time data, real-time information and real-time adjustments, all particularly relevant issues for impact monitoring.
Stakeholders	All institutions, organisations, groups and individuals who are concerned with or affected by a policy and/or play a role during the process of policy formulation, implementation and/or monitoring.