Activity design

3.3 The Logical Framework Approach

Associated guidance on ‘Activity design’

Part 3A Identification & assessment of initiatives

Part 3B Selecting forms of aid

Part 3C Appraisal and approval

AusGuideline 3.1 Principles of activity design
AusGuideline 3.2 Selecting forms of aid
AusGuideline 3.4 Undertaking a prefeasibility study
AusGuideline 3.5 Undertaking a feasibility and design study
AusGuideline 3.6 Preparing draft scope of services and basis of payment
AusGuideline 3.7 Preparing activity schedules
AusGuideline 3.8 Designing and using Flexible Funding Accounts

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# Contents

1 **Introduction**  
1.1 Overview of the Logical Framework Approach (LFA)  
1.2 Use in activity design  
1.3 The Logical Framework Matrix (LFM)  

2 **Analysing the situation**  
2.1 Problem analysis and the problem tree  
2.1.1 Overview  
2.1.2 Preparatory steps  
2.1.3 Conduct the analysis  
2.2 Stakeholder analysis  
2.3 Analysis of objectives  
2.4 Analysis of alternative strategies  
2.5 Link to the Logframe matrix  

3 **The Logframe matrix**  
3.1 Format  
3.2 Vertical Logic  
3.2.1 If-then causality  
3.2.2 Activity components  
3.2.3 Management influence  
3.3 Assumptions and risks  
3.4 Horizontal logic  
3.4.1 Indicators  
3.4.2 Means of verification  

4 **The LFA and different forms of aid**  

5 **Implementation, resource and cost schedules**  

A **Steps in conducting problem tree analysis**  

B **Stakeholder analysis tools**  

C **Reference numbers, flow charts & contractible outputs**  

D **Logical Framework Approach Terminology**  

E **Indicators and the link to M&E**
1 Introduction

1.1 Overview of the Logical Framework Approach (LFA)

The Logical Framework Approach (LFA) is a long established activity design methodology used by a range of major multilateral and bilateral donors, including Australia. It is based on a systematic analysis of the development situation, particularly key development problems, and of the options for addressing those problems.

It can be applied in a range of circumstances and to a range of types of aid activity. Although mainly used in the past for the well-established forms of AusAID activity, it can also be used for new forms of activity such as program support and macro-policy support.

The LFA is an analytical, presentational and management tool which can help planners and managers

- analyse the existing situation during activity preparation
- establish a logical hierarchy of means by which objectives will be reached
- identify the potential risks to achieving the objectives, and to sustainable outcomes
- establish how outputs and outcomes might best be monitored and evaluated
- if desired, present a summary of the activity in a standard format, and
- monitor and review Activities during implementation.

LFA can be used throughout AusAID's management of aid activities in

- identifying and assessing activity options
- preparing the activity design in a systematic and logical way
- appraising activity designs
- implementing approved Activities, and
- monitoring, reviewing and evaluating activity progress and performance.

LFA is best started early in activity design. (It is more difficult to use the LFA to review and/or restructure ongoing activities which were not designed using LFA principles and practices). As LFA is an ‘aid to thinking’, it has widespread and flexible application.

Activity planning and management should always be approached as a team task. This means that adequate opportunity should be given to colleagues and key stakeholders to provide input to the process and product of LFA. This can be supported by
• taking time to explain the principles of LFA and clarifying the terminology used
• integrating effective team work and adult learning methods into meetings with stakeholder groups, and
• ensuring that stakeholder groups are involved in situation and/or problem analysis, particularly in early design.

However, LFA is not a tool that all participants should necessarily be expected to understand or use. While ‘logical’ in concept, its effective application poses many challenges, even to the experienced user.

1.2 Use in activity design

During activity design (including identification, preparation and appraisal and approval) the purpose of the LFA is to produce and soundly document an activity design for a proposed new development activity which includes both

• an activity description, which clearly specifies what the proposed activity is to do and how, and

• a systematic and soundly based activity rationale, which clearly states the case for implementing the proposed activity from the perspective of both the Australian Government and other development partners who would participate in implementation.

The activity description typically specifies

• the activity components, and what is to be done in each component
• roles and responsibilities of all the main participants in implementation, and
• the proposed management and administrative arrangements for the activity, particularly including the part to be played by each of the partners to implementation.

The activity rationale

• outlines the nature of the development situation, particularly the causes and effects of the key development problems which the activity is designed to improve
• outlines the cause/effect logic of the proposed activity design, and the expected results of implementing the activity, and
• justifies the use of Australian and partner resources in terms of the expected benefits of activity implementation (that is, those expected results of implementation which are benefits relative to the policies and priorities of both Australia and the development partners with whom we work, particularly other partner governments).

In this way the activity design makes explicit the means by which the desired ends of the activity are to be attained. That is, it outlines the means-end relationship between what the
activity actually does and the attainment of its objectives, and between the attainment of the lower level objectives of the activity and its higher level (or ultimate) objectives. (For example, as explained later, the relationship between its immediate Purpose, and its ultimate Goal).

1.3 The Logical Framework Matrix (LFM)

One standard analytical product of the LFA is the Logical Framework Matrix (LFM). It consists of a matrix with four columns and a number of rows, which summarise selected aspect of an activity design, namely

- what the activity will do, and what it will produce (Activity Description)
- the activity’s hierarchy of objectives and planned results (also Activity Description)
- the key assumptions that are being made (Assumptions), and
- how the activity’s achievements will be measured, monitored and evaluated (Indicators and Means of Verification).

The general structure of a Logframe Matrix is shown in Figure 1 below.

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Indicators</th>
<th>Means of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal or Impact – The long term development impact (policy goal) that the activity contributes at a national or sectoral level</td>
<td>How the achievement will be measured – including appropriate targets (quantity, quality and time)</td>
<td>Sources of information on the Goal indicator(s) – including who will collect it and how often</td>
<td>Assumptions concerning the Purpose to Goal linkage</td>
</tr>
<tr>
<td>Purpose or Outcome – The medium term result(s) that the activity aims to achieve – in terms of benefits to target groups</td>
<td>How the achievement of the Purpose will be measured – including appropriate targets (quantity, quality and time)</td>
<td>Sources of information on the Purpose indicator(s) – including who will collect it and how often</td>
<td>Assumptions concerning the Purpose to Goal linkage</td>
</tr>
<tr>
<td>Component Objectives or Intermediate Results – This level in the objectives or results hierarchy can be used to provide a clear link between outputs and outcomes (particularly for larger multi-component activities)</td>
<td>How the achievement of the Component Objectives will be measured – including appropriate targets (quantity, quality and time)</td>
<td>Sources of information on the Component Objectives indicator(s) – including who will collect it and how often</td>
<td>Assumptions concerning the Component Objective to Output linkage</td>
</tr>
<tr>
<td>Outputs – The tangible products or services that the activity will deliver</td>
<td>How the achievement of the Outputs will be measured – including appropriate targets (quantity, quality and time)</td>
<td>Sources of information on the Output indicator(s) – including who will collect it and how often</td>
<td>Assumptions concerning the Output to Component Objective linkage</td>
</tr>
</tbody>
</table>

Work program (not usually included in the matrix itself)
In order to help avoid common problems associated with the use of the LFM, AusAID managers should

- ensure their colleagues and partners have a common understanding of the key analytical principles and terminology used
- emphasise the importance of the LFA process at least as much as the matrix product
- ensure it is used as a tool to promote stakeholder participation, dialogue and agreement on activity scope, rather than impose ‘external’ concepts and priorities
- avoid using the matrix as a blueprint through which to exert external control over the activity
- treat the matrix as a presentational summary (keep it clear and concise), and
- refine and revise the matrix as new information comes to light.

2 Analysing the situation

Prior to beginning work on activity design and the construction of a Logframe matrix it is important to undertake a structured analysis of the existing situation. LFA incorporates four main analytical elements to help guide this process

- problem analysis
- stakeholder analysis
- objectives analysis, and
- selection of a preferred implementation strategy.

Each element is described further below.

Remember that effective development planning should be approached as an iterative process, not as a linear set of prescribed steps. For example, while stakeholder analysis is presented in these Guidelines as coming after problem analysis, in practice, stakeholder analysis is ongoing throughout the design process, and does not neatly fit in to any one step. These Guidelines should not be seen as prescribing a formulaic approach to activity design.

The process of applying the analytical tools of LFA in a participatory manner is as important as its products. This is particularly so in the context of development activities, where ownership of the idea by implementing partners is often critical to the success of implementation and to the sustainability of benefits. Effective coordination and cooperation (including teamwork) is critical.
Ideally, the main analytical tools should be applied in a workshop setting with key stakeholders, so that the initial LFA analysis, and the initial findings are developed truly jointly. However, it needs to be recognised that there will be a range of design studies where consultations with counterparts may be extensive, but do not extend to joint design analysis in a workshop setting.

In these circumstances, the design team may need to itself apply the main principles and practices of the LFA to information and input provided by counterparts and stakeholders. In these cases, the emerging conclusions of the team's analysis need to be iteratively checked against the knowledge and understanding of our partners through successive consultations.

### 2.1 Problem analysis and the problem tree

#### 2.1.1 Overview

Development Activities are usually proposed as a response to addressing development situations, and overcoming identified development problems in those situations. Problem analysis involves identifying what the main problems are and establishing the cause and effect relationships which result in, and flow from, these problems.

The key purpose of this analysis is to try and ensure that ‘root causes’ are identified and subsequently addressed in the activity design, not just the symptoms of the problem(s). A clear and comprehensive problem analysis provides a sound foundation on which to develop a set of relevant and focused activity objectives.

One main tool used in problem analysis is the ‘problem tree’, a simplified example of which is shown in Figure 2. This example presents the causal structure of problems impacting on poor budget execution by the national Government of a developing country, and therefore the inadequate delivery of key public services.
Figure 2 Example problem tree structure (national budget execution)

Adequate and timely resources not available to deliver critical public services

- Financial decision making/approval is not timely
  - Centralised decision making authority
  - Limited budgeting & accounting capacity in line departments
- Low levels of budget execution
  - No performance incentives
  - No clear service standards or benchmarks for finance & procurement functions
- Expenditure management systems and processes are inefficient
  - Complex cash payment voucher approval process
  - Financial regulations labyrinthine and restrictive
  - Planning & finance staff not clear about responsibilities
  - Line agencies unclear of processes

Underlying constraints
- Weak national audit authority
- Nascent public service ethic – attitudinal and behavioural constraints
- Top down management systems and culture
- Limited HR capacity – knowledge and skills

Effect
- Limited communication & teamwork

Cause
Important points to note about using the problem tree tool are

- There are two main approaches that can be used to help give focus to the problem analysis, namely: (i) the ‘focal problem’ method, whereby development problems (or constraints) are brainstormed by the group, a core or focal problem is identified, and the cause and effect analysis then pivots around the focal problem; or (ii) the ‘objectives oriented’ method, whereby a broad/high level development objective is specified at the start of the analysis, and constraints to achieving this objective are then brainstormed, analysed and sorted in to a cause and effect logic. Both approaches are equally valid, and which to use is largely up to individual preference and circumstances.

- Ideally, problem analysis should be undertaken as a group learning activity involving stakeholders who can contribute relevant technical and local knowledge. A workshop environment (involving groups of up to 25 carefully selected participants) is an appropriate forum for developing problem trees, analysing the results, and then proposing solutions.

- As noted, however, some design teams will need to apply the LFA - and its tools, including problem analysis - outside a workshop setting, based on information and feedback provided by counterparts and stakeholders in some other way.

- It may be appropriate to undertake a number of separate problem analysis exercises with different stakeholder groups, to help determine different perspectives and how priorities vary.

- The process is as important as the product. Where a workshop is possible, the exercise should be presented as a learning experience for all those involved, and as an opportunity for different views and interests to be presented and discussed. However, one should not necessarily expect full consensus among stakeholders on what the priority problems are or what the causality of these problems is.

- It is important to recognise that - however produced - the product (the problem tree diagram) should provide a simplified but nevertheless robust version of reality. If it is too complicated, it is likely to be less useful in providing direction to subsequent steps in the analysis.

### 2.1.2 Preparatory steps

Before starting work on preparing a problem tree

- Clarify the scope of the investigation or analysis. If you are participating in an activity preparation mission, others (perhaps including other donors) will have already identified (at least to some extent) the main development situation they are concerned with, or opportunities they have seen. Understanding this will help you focus and structure the direction of the analysis. You will not want, or be able, to deal with a limitless range of
problems. This information should thus help you to identify either an appropriate objective, or focal problem, to help give focus to the problem tree analysis.

- Inform yourself further. Collect and review existing background information on the main issue(s) of concern and/or on the geographic area(s) you will be working in. Are you clear what the main issues are, or are likely to be?

- Identify the relevant stakeholder group(s). Who needs to be involved to ensure the workshop group (and/or design team) is well informed and can help to analyse and discuss the main issues that the analysis will focus on? For example, if you are looking at a health and sanitation problem which may require a water supply as part of the solution, make sure that you have available to join you a water supply engineer and an environmental health officer (among others). Also, be sure to involve community representatives that you believe would be willing and able to contribute to this kind of exercise. A representative and technically competent reference group is required to help effectively identify, analyse and organise ideas.

Participants need to be informed to be useful and productive. They should know why they are doing the analysis, what the process involves and what information they are expected to contribute.

### 2.1.3 Conduct the analysis

A description of the main steps to follow in conducting a problem tree analysis using the focal problem method is provided at Annex A to these Guidelines. For a workshop situation, cards, marker pens, wall space for display and some means of sticking and moving cards on the display area are essential to undertaking this exercise successfully.

Once a workshop group is generally happy with the main elements of the problem tree, move on to investigating and documenting possible solutions through using stakeholder analysis, the objective tree, alternatives analysis and finally the LFM itself. Remember that planning is an iterative process and that elements of both problem analysis and stakeholder analysis will need to be revisited on an ongoing basis as new information and ideas come to light.

### 2.2 Stakeholder analysis

Having identified the main problems and the cause and effect relationship between them, it is then important to give further consideration to who these problems actually impact on most, and what the roles and interests of different stakeholders might be in addressing the problems and reaching solutions.

On some occasions it may be advisable to undertake the stakeholder analysis (or an initial stakeholder analysis) before embarking on the problem analysis. For example, if it is likely
that there are strong competing interests within or between stakeholder groups that may influence their input into the analysis of the development problem, then this should be known beforehand so that the problem analysis can ensure such divergent views and interests are appropriately ‘captured’ and factored into the analysis.

The main purposes of stakeholder analysis are to

- understand the interests of different groups, and their capacities to address identified problems, and
- design activities that appropriately address institutional capacity, distributional and social issues.

Stakeholder analysis is about asking the questions: “Whose problem” and, if an activity is then designed: “Who will benefit?” Stakeholder analysis is thus an essential element of both poverty and gender analysis. Stakeholder analysis also helps to determine who needs to change the way they operate/work in order to address problems and thus achieve desired objectives.

The main steps in stakeholder analysis include

- identifying the principal stakeholders (these can be at various levels, eg local, regional, national)
- investigating their roles, interests, relative power and capacity to participate
- identifying the extent of cooperation or conflict in the relationship between stakeholders, and
- interpreting the findings of the analysis and defining how this should be incorporated into activity design.

When looking at who the stakeholders are, it is useful to distinguish between the ‘target group’ and the ‘final beneficiaries’. A summary of the terminology used in these Guidelines is provided below.

<table>
<thead>
<tr>
<th>Stakeholders:</th>
<th>Individuals or institutions that may – directly or indirectly, positively or negatively – be affected by or affect an Activity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beneficiaries:</td>
<td>Are those who benefit in whatever way from the implementation of the Activity. Distinction may be made between:</td>
</tr>
<tr>
<td>Target group(s):</td>
<td>The group/entity who will be directly positively affected by the Activity at the Activity Outcome level. This may include the staff from partner organisations;</td>
</tr>
<tr>
<td>Final beneficiaries:</td>
<td>Those who benefit from the Activity in the long term at the level of the society or sector at large, e.g. “children” due to increased spending on health and education, “consumers” due to improved agricultural production and marketing.</td>
</tr>
<tr>
<td>Partners:</td>
<td>Those who implement the Activity in-country (who are also stakeholders, and may be a ‘target group’).</td>
</tr>
</tbody>
</table>
It is important to see stakeholder analysis as part of the iterative process of activity planning. As both problems and potential activity objectives are analysed in more detail, the stakeholder analysis should be reviewed and updated to account for the new information which comes to light.

Annex B provides information on some specific analytical tools that can be used to support stakeholder analysis.

### 2.3 Analysis of objectives

Objective trees should be prepared after the problem tree has been completed and an initial stakeholder analysis has been undertaken.

In its simplest form, the objective tree uses exactly the same structure as the problem tree, but with the problem statements (negatives) turned into objective statements (positives). However, the results of the stakeholder analysis may have helped to give better focus to priority problems and not all of the original problem statements may therefore need to be translated into objective statements.

While the problem tree shows the cause and effect relationship between problems, the objective tree shows the means-end relationship between objectives (i.e. the means by which desired ends – or results – will be achieved). This leads directly into developing the activity’s narrative description in the LFM.

Once the negative statements from the problem tree have been re-worded to positive statements, you should then check

- are the statements clear and unambiguous?
- are the links between each statement logical and reasonable? (Will the achievement of one help support the attainment of another that is above it in the hierarchy?)
- is there a need to add any other positive actions and/or statements? More detail may be required.
- are the positive actions at one level sufficient to lead to the result above?
- do the risks to achieving the objectives and also having sustainable outcomes appear to be manageable?
- is the overall structure simple and clear? Simplify if possible or necessary.

Once these main points have been checked, the proposed objective tree structure can be circulated for further comment and feedback.
2.4 **Analysis of alternative strategies**

During the process of analysing the problems, stakeholder issues and developing a draft objective tree, views on the potential merits or difficulties and risks associated with different possible interventions should have been developed and discussed. These options then need to be further scrutinised to help firm up the likely scope of the activity before more detailed design takes place.

The type of questions that might need to be asked (and answered) could include:

- should all of the identified problems and/or objectives be tackled, or a selected few?
- what is the combination of interventions that are most likely to bring about the desired results and promote sustainability of benefits?
- what are the likely capital and recurrent cost implications of different possible interventions, and what can be realistically afforded?
- which strategy will best support participation by both women and men?
- which strategy will most effectively support institutional strengthening objectives? and
- how can negative environmental impacts be best mitigated?

To assess alternative interventions in a workshop setting, it is useful to identify and agree on a number of assessment criteria against which alternative interventions can be ranked or scored. Criteria that may be used to help make a broad assessment of different intervention options could include the expected:

- benefits to target groups – level of benefits, equity and participation
- sustainability of the benefits
- ability to repair and maintain assets post-activity
- total cost and recurrent cost implications
- financial and economic viability
- technical feasibility
- contribution to institutional strengthening and management capacity building
- environmental impact, and
- compatibility of activity with sector or program priorities.

An activity design should demonstrate that the main alternative options have been assessed and considered. There is always more than one way to solve a development problem. The aim is to find the best way.

However, it is important to emphasise again that activity planning is not a linear process. One does not move mechanistically from one step to the next, always in a forward direction, and
arrive automatically at the best solution. Planning is an iterative and creative process, and selecting a design option often involves significant leaps in thinking which cannot be neatly slotted into a ‘stage’ in the planning process.

### 2.5 Link to the Logframe matrix

Figure 3 shows how the objective tree can be used to start framing the objectives hierarchy in the first column of the Logframe matrix. Objectives at the top of the tree should help frame goal and purpose statements, while further down the tree component objective and output statements can be identified. However, it should not be expected that the objective tree can be transposed directly, without further adjustment, into the hierarchy of the activity description in the matrix. Further adjustment and refinement of statements is usually required and checking of the ‘means-ends’ logic should be ongoing as the matrix is developed.

A Fiji Police Training Project is used as an example.
Figure 3 Objective Tree – link to Logframe objective hierarchy

**To improve the level of police performance and increase community satisfaction with the service provided by the Fiji Police Force (FPF)**

- **To upgrade professional skills throughout the FPF**
  - To increase the quantity and quality of training delivered to force members
  - Targeted advanced training delivered.
  - Program of detective training established.
  - A series of special courses delivered
- To establish an effective institutional capacity to support the training function within the FPF
  - Training strategy developed.
  - FPF academy restructured.
  - Trainee selection procedures established.
- To establish a sustainable capacity to develop and manage the provision of quality training
  - TNA carried out.
  - New courses designed.
  - Annual training calendar produced.
  - Quality control systems established

**Logframe Vertical Logic**

- **Goal/Impact**
- **Purpose/Outcom**
- **Component objectives/intermediate results**
- **Outputs**

**Means**

**Ends**
3 The Logframe matrix

3.1 Format

The results of the logical framework analysis can be presented, and further analysed, through the development of a Logframe matrix. The matrix should provide a summary of the activity design and, when detailed down to output level, should generally be no more than three or four pages long.

Tasks which are part of the activity work program may be listed in the logframe matrix itself. However, it may often be better to describe ‘indicative’ sets of tasks (required to produce each output) in the main narrative of the activity documentation. The implementation and resource schedules should be used to further detail when key elements of the work program are expected to be undertaken, as well as the division of work responsibilities between the various partners to implementation.

The Logframe matrix has four columns and usually four or five rows, depending on the number of levels of objectives used to explain the means-ends relationship of the activity.

The vertical logic (reading up and down columns 1 and 4 of the matrix) clarifies the causal relationships between the different levels of objectives (column 1), and specifies the important assumptions and uncertainties beyond the activity manager’s control (column 4).

The horizontal logic (reading across the rows of the matrix) defines how the activity objectives specified in column 1 of the Logframe (e.g. Goal, Purpose, Outputs) will be measured (column 2) and the means by which the measurement will be verified (column 3). This provides a framework for activity monitoring and evaluation.

Figure 4 shows the structure of the matrix. The Activity Description is completed first, then the assumptions, indicators, and finally the means of verification. However, completing the matrix must be approached as an iterative process. As one part of the matrix is completed, there is a need to look back at what has been said in previous parts to review and test whether or not the logic still holds. This process will often require the modification of previous descriptions.
The option of whether or not to include both an overall activity outcome and intermediate results/component objectives should be left open to the activity designers, depending on the scope and complexity of the activity. For example, in some cases it may be sufficient to have a goal, outcome and outputs, and to leave out intermediate results/component objectives.

It is recommended that in most cases the matrix itself should not include a listing of the work program of tasks required to produce outputs. The main reason for this is to keep the matrix as a concise summary of what the activity aims to do, rather than specifying in too much detail how it will do it.

The work program required to deliver outputs (if this detail is needed) can instead be separately detailed in an implementation schedule format, using reference numbers to link each group of tasks to a specific output. It can also be presented as narrative description in the main body of the design documentation.

Where different elements of the envisaged work program are allocated to different implementation partners, this is also presented in the resource schedules. (The detailed use of implementation and cost schedules is described separately in AusGuideline 3.7 Preparing activity schedules).

It is important to keep firmly in mind that the Logframe matrix produced during design is essentially a draft. It provides a snapshot in time. The activity design summarised in the matrix will need to be reassessed, refined and updated on an ongoing basis once activity implementation starts.

There is a careful balance to achieve. On the one hand it is important to provide enough detail in the design matrix to provide a clear and logical plan of action (which can be appropriately costed and, if required, contracted). On the other hand it is important to avoid being too prescriptive and establishing too rigid a structure that is more likely to constrain than facilitate activity implementation.
3.2 Vertical Logic

3.2.1 If-then causality

Constructing the Activity Description in the matrix involves a detailed breakdown of the chain of causality in the activity design (and the associated means-ends relationships). This can be expressed in terms of

- if inputs are provided, then the work program can be undertaken
- if the work program is undertaken, then outputs will be produced
- if outputs are produced, then component objectives will be achieved
- if component objectives are achieved, then the purpose will be supported, and
- if the activity purpose is supported, this should then contribute to the overall goal.

Each level thus provides the rationale for the next level down: the goal helps justify the purpose, the purpose the component objectives, and so on down the hierarchy.

3.2.2 Activity components

Constructing the Activity Description may also involve disaggregating the work to be undertaken into a number of ‘Activity Components’. An activity component consists of a subset of inputs, activities and outputs that serve a single component objective/intermediate result. Components may be identified on the basis of a number of possible variables, including

- technical features (i.e. a health activity may have components focusing on malaria control, diarrhoeal disease, and acute respiratory infections)
- geographic locations (i.e. a census support activity focusing its capacity building activities on different provinces or regions and at the national level)
- beneficiaries (i.e. an HIV aids activity focusing on raising awareness among schoolchildren, sex-workers, injecting drug users and health workers)
- management/organisational structures (i.e. an agriculture activity divided into extension, training, research and credit components to reflect the local structure of the Department of Agriculture), and
- phasing of key activities (i.e. a rural electrification activity which requires a feasibility study, pilot testing, implementation and maintenance stages.

Identifying appropriate component ‘headings’ or ‘foci’ will thus depend on a number of context specific factors. Agreement on what the components should be is best determined through a consultative process with key stakeholders.
3.2.3 Management influence

The Logframe helps to indicate the degree of control the partners to activity implementation might have over the various levels of the activity. In a project context, the partners should have considerable direct control over inputs, activities and outputs, but can only be expected to exert influence over the achievement of the activity’s component objectives and outcome through the way in which outputs are managed. Activity implementers usually have no direct influence over achieving the goal, and can only be expected to monitor the broader policy and program environment to help ensure the activity continues to be contextually relevant and the benefits likely to remain sustainable.

The necessary and sufficient conditions within the vertical logic indicate that

- achieving the purpose is necessary but not sufficient to attain the goal. This is because an aid activity (particularly a stand-alone activity) is but one of a number of initiatives that contribute to the goal;
- producing the activity outputs is necessary but may not be sufficient to achieve the component objectives. Other factors beyond the activity’s control are again likely to have an influence on achievement of the intermediate results; and
- carrying out the program of work/tasks within the activity plan should be necessary and sufficient to produce the required outputs (although some risks will always remain).

In defining activity outputs it is also necessary to remember that there is often no single agency or manager who has complete control over their delivery. In the case of AusAID funded activities, many outputs will be the result of the endeavours of both a local implementing agency(s) and a contractor. In terms of contracting an activity, a distinction then needs to be made between an activity output and a contractible output (outputs that AusAID can contract a consultancy firm to deliver). This issue is further discussed in Annex C and AusGuideline 3.6 Preparing draft scopes of service and basis of payment.

However, in the design of a Policy or Program support activity, where the activity manager is in effect the partner government (or at least its responsible agencies), then the scope of ‘management influence’ needs to be considered much more broadly. Unlike stand-alone project support, where there is usually limited influence over the broader program and policy context, the program and policy based activity is primarily about influencing that context – working from within.

3.3 Assumptions and risks

Any activity is subject to influence by factors that are difficult to predict and over which no-one has direct control. Like life in general!
The fourth column of the matrix is used to highlight assumptions about the external conditions that need to be fulfilled if the vertical logic of the activity description is to hold true. It is also used to highlight key assumptions about the relationships between, and respective inputs of, the partners to activity implementation.

The relationship between assumptions and the activity description is shown in Figure 5.

Understanding and assessing the nature of these assumptions is an essential part of good design. Failure to realistically identify and address assumptions is a common source of activity failure.

Some Logframe users prefer to talk about ‘risks’ in this fourth column - the primary distinction being that risks are negative statements about what might go wrong, whereas assumptions are positive statements about the conditions that need to be met if the activity is to stay on track. Whether assumptions or risks are used, the purpose is the same, namely to assess and address external impacts on the activity and improve where possible, the robustness of the design.

The primary difference between the assessment of risks for a policy or program support activity and for project support or once-off TA relates to the issue of ‘manageable interest’ (or ‘who is in control’). Because a policy or program activity works primarily through or within partner government institutions and systems, the partner government has greater control over the activity ‘environment’ than might be the case for a stand-alone activity.
Thus, some risks that a project support activity might face can be more explicitly brought within the planned scope of the policy or program based activity, if they are (reasonably) within the control of partner government institutions. Conversely, projects may be chosen as a preferred form of aid specifically because it is considered too high risk to work through or within government systems. Assessment of the operating environment on a case by case basis is therefore required.

A decision tree to help analyse the importance of potential risks, and decide what should be done about them, is shown in Figure 6 – Assumptions Decision Tree.

**Figure 6 Assumptions Decision Tree**

1. **Is the assumption important?**
   - **Yes**
     - Will it be realised?
       - Almost certainly
         - Do not include in the Logframe
       - Likely
         - Include as an assumption
       - Unlikely
         - Is it possible to redesign the Activity and influence the external factor?
           - Yes
             - Re-design the Activity, eg add activities or outputs or reformulate purpose statements
           - No
             - High risk activity which should probably not be funded by GoA
   - **No**

The difference between the assumptions documented in the Logframe matrix, and the risks analysed in the Risk Management Matrix, are thus that while the Logframe highlights those events/issues that remain outside the activity manager’s control, the Risk Matrix provides further analysis of how the design has been informed/modified to mitigate identified risks during the design process.

The Logframe provides a starting point for further risk assessment, stakeholder consultations on risk, and the preparation of a risk management plan (refer to AusAID Risk Management Policy, AusAID Circular No. 29 of 8 November 1999).

For further information refer to AusGuideline 6.3 Managing Risk, and AusGuideline 6.4 Promoting practical sustainability.

**3.4 Horizontal logic**

**3.4.1 Indicators**

Indicators specify how the achievement of activity objectives will be measured and verified. They provide the basis for monitoring activity progress (completion of work program tasks, delivery of outputs and progress towards outcomes).

Indicators are established in response to the question: ‘How do I know whether or not what has been planned is actually happening or has happened?’ We look for indications or signs to help us. For example: ‘How do we know that more teachers have been trained this year? What would tell us that the training had had an impact on classroom performance? How do we measure progress towards the objective of strengthening community management capacity?’ How do we know if these benefits are likely to be sustainable?’

There are no absolute principles about what makes a good indicator of physical achievement, however the SMART characteristics listed below (Specific, Measurable, Attainable, Relevant, Timely) are useful.

**Specific** – Key indicators need to be specific and to relate to the conditions the activity seeks to change. Cement delivered to a site is not a good indicator of the number of houses constructed. Likewise seedlings distributed from a nursery may not be a valid indicator of plants established. The horizontal logic of the Logframe matrix helps to test these criteria.

**Measurable** – Quantifiable indicators are preferred because they are precise, can be aggregated and allow further statistical analysis of the data. However, development process indicators may be difficult to quantify, and qualitative indicators should also be used.

**Attainable** – The indicator (or information) must be attainable at reasonable cost using an appropriate collection method. Accurate and reliable information on such things as household
incomes and crop production from small-scale dryland farming are, for example, notoriously difficult and expensive to actually collect.

**Relevant** – Indicators should be relevant to the management information needs of the people who will use the data. Indicators must also be selected to meet the management and informational needs of all partners to implementation. Field staff may also need particular indicators that are of no relevance to senior managers, and vice-versa. Information must be sorted, screened, aggregated and summarised in different ways to meet different managers’ needs. *(However, the Logframe matrix itself should not attempt to contain this detail. Rather the detail should be incorporated in the monitoring and evaluation framework, which is a key element of the final activity design.)*

**Timely** – Information on an indicator needs to be collected and reported at the right time to influence many management decisions. Information about agricultural based activities, for example, must often come within specific time periods if it is to be used to influence events in the whole cropping and processing cycle. There is also no point choosing indicators that can only tell you at the end of an activity whether you succeeded or failed in meeting certain objectives. They may be lessons learned but the information comes too late for personnel to act on.

Where possible, indicators should incorporate elements of **quantity, quality and time**. This is about setting targets for implementers to work towards and against which progress can then be measured. As the saying goes, “what gets measured gets managed”.

Caution should nevertheless be exercised when specifying quantified targets in the Logframe (rather than just the indicator or unit of measurement), particularly for Activities which focus on process/capacity development outcomes. Two issues are important here

- the Logframe should provide a summary of the activity and not contain more detail than is necessary. Details of the proposed management information system should be documented separately, using the Logframe as a guiding framework, and
- targets may be indicated during design, but the detailed assessment of what is really feasible needs to be undertaken and agreed upon by the implementing agencies once the activity starts. Setting targets is an important part of good planning, but the quality and usefulness of such targets depends very much on when and by whom they are set. Design teams may not have adequate information to confidently propose specific targets, particularly for process-oriented Activities implemented in partnership with local agencies.

Two particular limitations associated with specifying indicators using the Logframe structure also need to be recognised
• the indicators selected may be relevant to some, but not all, stakeholders. It cannot necessarily be assumed that all stakeholders have common interests and information needs, and

• even within one agency, information needs will vary between levels of the institutional hierarchy. As the level of management changes, so do the level of detail required and the nature of indicators.

The indicators selected for inclusion in the Logframe are usually focused on meeting the information needs of selected stakeholders and at specific management level, eg policy makers, program managers, AusAID. The point of view reflected in the hierarchy of objectives summarised in the Logframe may therefore need to be broken down into sub-sets of objectives, indicators and targets for each level of management once activity implementation starts.

3.4.2 Means of verification

The different means (and costs) of collecting information must also be considered when choosing appropriate indicators. Some indicators may give the information you would ideally like to have, but when the means of getting this is carefully considered it might become impractical, eg too complex or expensive. The Logframe matrix is a useful analytical and presentational structure for systematically identifying and assessing appropriate ‘means of verification’ for each indicator that is chosen.

Once it is clear what information managers might require (the key indicators) it is then necessary to consider how this might be obtained.

The following questions should be asked and answered

• how should the information be collected, eg sample surveys, administrative records, national statistics (as in the census), workshops or focus groups, observation, PRA or rapid rural appraisal techniques?

• what source is most appropriate? eg Who should be interviewed? Does the Bureau of Statistics already collect the required information? Is the source reliable?

• who should do it? eg extension staff, supervisors, an independent team?

• when and how often should the information be collected, analysed and reported? eg monthly, annually, according to seasonal cropping cycles?

• what formats are required to record the data being collected?

When developing answers to these questions, one of the main issues to keep in mind is the resource and capacity constraints that will be faced by those responsible for collecting the information. There is no point designing procedures which are too complex or costly as this
will merely lead to frustration and disappointment in the outcomes. A balance must therefore be struck between what would be desirable in an ideal world and what is feasible in practice.

Staff working on an activity may need to collect some primary information specific to their work, but should aim to use existing sources where these are available. Where local systems are failing or inadequate, rather than build parallel systems, it may be more effective in the long-run to support the development and use of local systems. The main point is to build on existing systems and sources (where possible and appropriate) before establishing new ones. Check what’s already there before assuming it isn’t.

A further note on the link between indicators and means of verification and Monitoring and Evaluation (M&E) is provided at Annex E.

4 The LFA and different forms of aid

While the LFA has traditionally been used to support project planning, the analytical approach and basic tools (e.g. problem analysis, stakeholder analysis, objective setting, risk analysis and establishing a monitoring framework) can also be applied to different forms of aid, such as program and macro-policy support activities. Using different forms of aid is more about ‘how’ donors can effectively contribute to development outcomes (particularly the management and financing arrangements used), not so much what those outcomes should be.

The main difference between the traditional ‘project’ and these other forms of aid relates primarily to the nature of the partnership strategy that donors wish to pursue with the partner government, and the type and level of detail that is included in a ‘design’. Policy and program approaches are often more explicitly focused on capacity building – given that they work primarily within or through partner institutions and systems rather than ‘outside’ – and usually focus more on broader policy and programmatic issues that the partner government wishes to address.

A Logframe Matrix for a policy or program support activity is therefore likely to focus on desired impacts, outcomes and indicative outputs (to be delivered by government) – while the matrix for a more traditional project would focus more on the expected outcome, outputs and indicative activities (to be delivered by the project).

Figure 7 summarises the main differences in analytical focus between policy or program support Activities and the more traditional project/TA approach.
Figure 7 – Differences in analytical focus between LFA Element

<table>
<thead>
<tr>
<th>LFA Element</th>
<th>Macro-Policy and Program Support</th>
<th>Projects and Stand Alone TA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem and Stakeholder Analysis</strong></td>
<td>Focus more on: Macro-economic framework, status of the aid ‘market’, national development/poverty reduction strategies, sector program strategies, public finance management systems, institutional framework, organisational capacity, donor coordination, etc</td>
<td>Focus more on: Overview of institutional and organisational context, then with greater attention paid to specific technical constraints or problems within the focus area of ‘intervention’</td>
</tr>
<tr>
<td><strong>Objectives Analysis</strong></td>
<td>Focus more on: Partner Government priorities, higher level policy and program level objectives, development outcomes/results, strategies for achieving results</td>
<td>Focus more on: Project-based objectives, technical outputs, activities and input requirements</td>
</tr>
<tr>
<td><strong>Strategy Options</strong></td>
<td>Focus more on: Analysis of options for working through or within PG systems, coordination arrangements with other development partners, aid effectiveness considerations, etc</td>
<td>Focus more on: Choosing between technical alternatives, considering appropriate parallel management and financing arrangements, considering Australian comparative advantage</td>
</tr>
<tr>
<td><strong>Performance Indicators and MOVs</strong></td>
<td>Focus more on: Higher level indicators of impact and outcome (results), use of MDGs or similar, using (or building on) existing PG systems, harmonisation with other donors, accountability to ‘beneficiaries’</td>
<td>Focus more on: Project specific indicators, output focus, contract milestones, reporting to GoA, attribution of benefit to Australian contribution, accountability to Australian tax payers/authorities</td>
</tr>
<tr>
<td><strong>Assumptions/Risks</strong></td>
<td>Focus more on: Assumptions from the perspective of the partner government and their ‘program managers’</td>
<td>Focus more on: Assumptions from the perspective of the ‘project managers’ and the donor(s) - as well as on those from the perspective of the partner government and their ‘program managers’</td>
</tr>
</tbody>
</table>

More extensive information on the analytic framework for designing Australian Government aid initiatives across a full range of forms of aid is provided in AusGuideline 3.2 Selecting forms of aid.
5 Implementation, resource and cost schedules

Once the Logframe matrix is considered sound, the structure can then be used as a framework for preparing implementation, resource and cost schedules. These schedules should be clearly and logically linked to Logframe components and outputs through the use of appropriate reference numbers.

Activities leading to outputs can (as appropriate) be specified in more detail and scheduled on a Gantt chart format (implementation schedule). The inputs required for each set of activities and/or outputs can then be specified and also scheduled over time. Finally, the cost of inputs can be determined and an activity budget estimate and cash flow calculated.

Guidelines on preparing these schedules are available in AusGuideline 3.7 Preparing activity schedules.
A  Steps in conducting problem tree analysis

A.1  Identifying and listing the main problems

- Explain the purpose of the exercise and the context within which it is taking place, eg preparation of a primary health care activity. Explain the problem tree method and the input expected from the participants. Provide some examples of the cause and effect relationship before starting, emphasising the importance of identifying root causes.

- Using contributions from the group, list all the negative statements about the situation you are analysing. This can be undertaken as a brainstorming session.

- Print each problem statement in clear language on a card and display this on some suitable wall space.

A.2  Identifying core problems

- Through discussions, identify a consensus core problem - the one(s) which appear to be linked to most negative statements.

- Print a precise definition of the core problem on a card (if the existing statement requires further clarification).

- Display the card on a wall (or on the floor) so that the whole group can clearly see it.

A.3  Identifying cause and effect

- Begin to distribute the negative statement cards according to whether they are ‘causes’, i.e. leading to the core problem, or ‘effects’, ie resulting from the core problem. Do this until all causes are below the core problem and all effects are above the core problem. At any stage in the exercise, those statements that are considered to be unclear should either be more clearly specified or discarded. Problems that are clear but very general in nature and which affect not only this issue but would apply to almost any development problem can be treated as ‘overall constraints’ and moved to the side of the main problem tree. This helps keep the core problem tree focused and manageable. You can be guided in this by considering whether or not the problem is likely to be one which can be addressed by an activity based solution. If not, it is a constraint.

- Then the guiding questioning for further structuring the statements into a problem tree becomes “What leads to that?” Choose any negative statement printed as a problem on the cards and ask: “What leads to that?” Then select from the cards the most likely cause of the problem, and place it below the chosen statement.

- If there are two or more causes combining to produce an effect, place them side by side below the resulting effect.
• After you have placed the card or cards for each relationship, pause to review. Then ask the group if there are more causes leading to that problem.
• Similarly you must ask if there are any more effects resulting from that problem.
• If there are multiple effects resulting from a cause, place them side by side and above the cause(s).

A.4 Checking the logic
• At each stage you should invite participants to move the cards, i.e. to suggest or hypothesise other relationships.
• When you have placed all cards, review the structure to ensure that related streams of cause and effect are close to each other on the problem diagram.
• Choose one of the cards at the top line of your Problem Tree, then work back through the diagram according to the guiding question: “What leads to, or causes, that?” in order to check the logic or completeness of your cause-effect structure.

A.5 Drafting the problem tree diagram
• Then draw in vertical links to show cause-effect relationships, and horizontal links to show joint causes and combined effects; and
• Copy your diagram onto a sheet of paper and distribute it for further comment and variations within an appropriate time period.

A.6 Dealing with overall constraints
Overarching development problems that are identified during the analysis, but which cannot be addressed directly by an activity based intervention, should be taken out of the main problem tree diagram and considered as overall constraints. Examples might include: institutional corruption, lack of government revenue, high population pressure. These overall constraints should then be considered as part of the risk and sustainability analyses undertaken later in the preparation process.
B Stakeholder analysis tools

There are a variety of tools that can be used to support stakeholder analysis. Some suggested options are described below, namely

1. stakeholder analysis matrix
2. SWOT analysis
3. Venn diagrams, and
4. spider diagrams

In using any of these tools, the quality of information obtained will be significantly influenced by the process of information collection. In this regard, the effective use of participatory planning methods and group facilitation tools can help ensure that the views and perspectives of different stakeholder groups are adequately represented and understood.

B.1 Stakeholder analysis matrix

Both of the matrix formats shown (Figures B1 and B2) can be adapted to include different or additional information about the main stakeholder groups depending on the scope and focus of the issues being addressed.

<table>
<thead>
<tr>
<th>Figure B1 Stakeholder analysis matrix 1 – problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Figure B2 Stakeholder analysis matrix 2 – impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

The type of information collected, analysed and presented in the columns of such a matrix can be adapted to meet the needs of different circumstances. For example, additional columns could be added to specifically deal with the different interests of women and men. Also, when analysing potential activity objectives in more detail (at a later stage in activity
planning), greater focus should be given to analysing the potential benefits and costs of a proposed intervention to different stakeholder groups.

**B.2 SWOT analysis**

SWOT analysis (strengths, weaknesses, opportunities and threats) is used to analyse the internal strengths and weaknesses of an organization and the external opportunities and threats that it faces. It can be used either as a tool for general analysis, or to look at how an organization might address a specific problem or challenge.

The quality of information derived from using this tool depends (as ever) on who is involved and how the process is managed – it basically just provides a structure and focus for discussion.

SWOT is undertaken in three main stages, namely

1. ideas are generated about the internal strengths and weaknesses of a group or organization, and the external opportunities and threats
2. the situation is analysed by looking for ways in which the group/organisation’s strengths can be built on to overcome identified weaknesses, and opportunities can be taken to minimize threats, and
3. a strategy for making improvements is formulated (and then subsequently developed using a number of additional analytical planning tools).

An example of a SWOT matrix, (analysing the capacity of an organisation to deliver effective staff training) is shown in Figure B3 below:

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior management commitment to HRD</td>
<td>No comprehensive training strategy in place</td>
</tr>
<tr>
<td>Suitable infrastructure available</td>
<td>Lack of appropriate written policy and criteria for selection of trainees</td>
</tr>
<tr>
<td>Reasonable budget allocation for training</td>
<td>Budget allocation processes not linked to analysis of priorities/needs</td>
</tr>
<tr>
<td>Cadre of trained trainers and training managers available in-house</td>
<td>No defined and structured process for training needs analysis and training course design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing pressure from public and from politicians to address police service training needs</td>
<td>National fiscal outlook not promising – threat of budget cuts</td>
</tr>
<tr>
<td>Public Service Training Institute starting to offer broader range of generic management skills training</td>
<td>Risk of growing institutional corruption</td>
</tr>
<tr>
<td>Regional interest in joint/collaborative security issues resulting in increased sharing of resources for training</td>
<td>Country commitment to regional and international peacekeeping are stretching overall resources</td>
</tr>
</tbody>
</table>
B.3 Venn diagrams

Venn Diagrams are created to analyse and illustrate the nature of relationships between key stakeholder groups. The size of the circle used can help indicate the relative power/influence of each group/organization, while the spatial separation is used to indicate the relative strength or weakness of the working relationship/interaction between different groups/organizations. Venn diagrams are commonly used as a participatory planning tool with target groups, to help them profile their concept of such relationships. An example of a Venn Diagram is shown in Figure B4.

Figure B4 – Venn Diagram

Venn diagram of stakeholder relationships in the ‘justice sector’ – from a community perspective

Preliminary analysis indicates that:
Community consider themselves close to Village Elders and to village courts, but distant from ‘official’ justice organisations. Police are viewed as distant but powerful, and closely linked to the judiciary and public prosecutor. The ombudsman is particularly distant and seen to be aligned with other “official” interests.

Venn diagrams can also be used to analyse and highlight potential conflicts between different stakeholder groups.

B.4 Spider diagrams

Spider diagrams can be used to help analyse and provide a visual summary of institutional capacity.

The collection of relevant information can be undertaken using a variety of tools, including inspection of administrative record and management reports, interviews with staff and clients, and observation of operations/activities ‘on the ground’.
An example of a spider diagram is shown in Figure B5 below. This indicates that

- the agency has relatively strong technical management skills/capacity, and that its policy and planning systems are also fairly robust, but
- the agency has some critical shortcomings in terms of transparency and accountability, its relationship with its clients and learning and evaluation mechanisms.

This suggests that the critical constraints to the capacity of this agency are therefore related more to organizational culture and management priorities than to either technical skills or basic management competencies.

A key requirement in undertaking this type of analysis is to include all the relevant characteristics of the organisation(s) being studied as a ‘segment’ of the spider diagram.

**Figure B5 – Spider Diagram**

Key:
- 0 = Undesirable: dramatic improvement needed.
- 1 = Poor situation: significant room for improvement.
- 2 = Satisfactory: some scope for improvement.
- 3 = Highly effective.
C Reference numbers, flow charts & contractible outputs

C.1 Reference numbers and flow charts

Using reference numbers is a useful device to help the Logframe user negotiate around the logic of the matrix, particularly when the matrix is presented on more than one page. This helps the reader understand which activities, outputs and outcomes are linked and also provides a clear reference point when preparing more detailed implementation plans using implementation, resource and cost schedules linked to the Logframe matrix.

Use of a flow chart format to present a summary of outputs, component objectives, outcome and the goal is also a useful device. Such a structure is shown below in Figure C1.

Figure C1 Activity components flow chart

```
Goal
   ↓
Purpose
   ↓
Component 1
    ↓
Objective
    ↓
Output 1.1
    ↓
Tasks
    1.1.1
    1.1.2
    1.1.3

Component 2
    ↓
Objective
    ↓
Output 1.2
    ↓
Tasks
    1.2.1
    1.2.2
    1.2.3

   ↓

   ↓

Output 2.1
    ↓
Tasks
    2.1.1
    2.1.2
    2.1.3

Output 2.2
    ↓
```
C.2 Activity outputs and contractible outputs

In preparing the Logframe matrix, the focus should be on defining the outputs that the activity aims to produce. However, these outputs may not be the same as the outputs that a contractor may be directly contracted to deliver. This is because the activity outputs usually require that actions be taken by other stakeholders that the contractor has no direct control over, e.g., partner government implementing agencies.

Where necessary/appropriate, the distinction between activity outputs and contractible outputs should be defined and reflected in the scope of services and the memorandum of understanding, rather than being detailed in the Logframe matrix itself. The main reasons for recommending this approach are:

- the Logframe matrix should remain a summary of the development logic and rationale, rather than include detail of different stakeholder responsibilities or contractual issues
- the activity design and the Logframe matrix should represent what the partner government, AusAID and other development partners have jointly committed to
- the scope of services (what AusAID contracts a provider to deliver) and the memorandum of understanding (what the partner government agrees to contribute) indicate the respective responsibilities for contributing to the delivery of activity outputs, and
- the exact specification of contractible outputs needs (to some extent) to be negotiated between AusAID and the firm selected to implement.

AusGuideline 3.5 Undertaking a feasibility & design study provides further guidance on documenting the respective responsibilities of key stakeholders in delivering activity outputs.
**D  Logical Framework Approach Terminology**

A brief description of key LFA terms is given below.

**Activity description** provides a narrative summary of what the activity intends to achieve and how. It describes the means by which desired ends are to be achieved (the vertical logic). That is, it describes what the activity will actually do in order to produce the planned outputs and outcomes.

**Activity component:** Constructing the activity description may involve disaggregating the work to be undertaken into a number of ‘activity components’. An activity component consists of a sub-set of inputs, work program tasks and outputs that form a natural whole, and can be considered as a separate part of the overall activity.

Components may be identified on the basis of a number of possible variables, including
- technical features (e.g. a health activity may have components focusing on malaria control, diarrhoeal disease, and acute respiratory infections)
- geographic locations (e.g. a census support activity focusing its capacity building activities on different provinces or regions and at the national level)
- beneficiaries (e.g. an HIV aids activity focusing on raising awareness among schoolchildren, sex-workers, injecting drug users and health workers)
- management/organisational structures (e.g. an agriculture activity divided into extension, training, research and credit components to reflect the local structure of the Department of Agriculture)
- phasing of key tasks (e.g. a rural electrification activity which requires a feasibility study, pilot testing, implementation and maintenance stages.

Identifying appropriate component ‘headings’ will thus depend on a number of context-specific factors. Agreement on what the components should be is best determined through a consultative process with key stakeholders.

**Goal/Impact** refers to the sectoral or national objectives which the activity is designed to contribute to, eg increased incomes, improved nutritional status, reduced crime. The goal helps set the macro-level context within which the activity fits, and describes the long-term impact that the activity is expected to contribute towards (but not by itself achieve).

**Purpose/Outcome** refers to what the activity itself is expected to achieve in terms of sustainable development results, if the relevant assumptions of the activity design are correct. It is the positive developmental change which the activity would produce if it were completely successful (and the assumptions were fully accurate). Examples might include
increased agricultural production, higher immunisation coverage, cleaner water, or improved legal services.

**Component Objectives/Intermediate Results:** Where the activity is relatively large and has a number of components (output/work program areas) it can be useful to give each component an objective statement. These statements should help provide a logical link between the outputs of that component and the overall purpose/outcome.

**Outputs** refer to the tangible products (goods and services) produced by undertaking a series of tasks as part of the planned work of the activity. Examples might include: irrigation systems or water supplies constructed, areas planted/developed, children immunised, buildings or other infrastructure built, policy guidelines produced, and staff effectively trained. The delivery of outputs should be largely under activity management’s control.

**Work program** refers to the specific tasks to be undertaken as part of the planned delivery of the activity to achieve the required outputs. Examples for a new community water supply might include: establishing water users committee and maintenance procedures, site preparation, collection of local materials, tank construction and pipe laying, digging soak pits, and commissioning. However, the Logframe matrix should not include too much detail on work program otherwise it becomes too lengthy and potentially prescriptive. If detailed specification is required, this should be presented separately in a work schedule/Gantt chart format and not in the matrix itself.

**Inputs** refer to the resources required to undertake the work program and produce the outputs, eg as personnel, equipment, and materials. However, inputs should not be included in the matrix format.

**Assumptions:** Assumptions refer to assumptions made about conditions which could affect the progress or success of the activity, but over which activity managers may have no direct control, eg price changes, rainfall, land reform policies, non-enforcement of supporting legislation. An assumption is a positive statement of a condition that must be met in order for objectives to be achieved. A risk is a negative statement of what might prevent objectives being achieved.

**Indicators:** Indicators are measure of progress or lack of progress used to assess progress towards meeting stated objectives. An indicator should provide, where possible, a clearly defined unit of measurement and a target detailing the quantity, quality and timing of expected results.

**Means of verification:** Means of verification should clearly specify the expected source of the information we need to collect. We need to consider how the information will be collected (method), who will be responsible, and the frequency with which the information should be provided.
E  Indicators and the link to M&E

The horizontal logic of the matrix helps establish the basis for monitoring and evaluating the activity. The link between the Logframe and monitoring, review and evaluation is illustrated in Figure E1.

<table>
<thead>
<tr>
<th>Logframe/results hierarchy</th>
<th>Type of monitoring and evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>Ex-post evaluation</td>
</tr>
<tr>
<td>Outcome</td>
<td>Evaluation at completion</td>
</tr>
<tr>
<td>Intermediate Results/Component Objectives</td>
<td>Ongoing review</td>
</tr>
<tr>
<td>Outputs</td>
<td>Monitoring and review</td>
</tr>
<tr>
<td>Work program, Inputs</td>
<td>Monitoring</td>
</tr>
</tbody>
</table>

This is of course a simplified framework, and needs to be applied and interpreted in a suitably flexible manner. For example, ex-post evaluation will include some element of assessing whether or not the purpose, component objectives and outputs have been achieved, and review will also assess performance in output delivery.

E.1  Testing the activity description

Once the activity description and assumptions have been drafted (columns 1 and 4 of the matrix), the next task is to identify the indicators that might be used to measure and report on the achievement of objectives (column 2), and the source of that information (column 4). Because one reads across the matrix when analysing indicators and means of verification, this is referred to as the ‘horizontal logic’.

In considering how the achievement of objectives might be measured/verified, one is required to reflect on the clarity of objective statements, how feasible they will be to achieve, and how they might be more specifically defined. This is part of the iterative nature of the analysis. Each part of the framework may need to be revisited as new tests of logic are applied.

E.2  The level of detail

In most cases, the specification of indicators and means of verification should focus on the output, intermediate result and outcome levels of the hierarchy. It is usually not appropriate to specify indicators for every element of the work program (if these are included in the logframe), as this tends to clutter the matrix with too much detail. Activity and input monitoring systems are often better defined and established during implementation by the management team. If the goal is a broad statement of development intention at the national/policy level, and the activity itself is providing only a modest contribution, it may not be necessary (or useful) to include indicators and means of verification for the goal.
At the design stage, the level of detail that can be realistically expected in both the indicators and MOV columns will depend on (among other things)

- the type of activity
- the information available at the time of design
- whether or not the design work has had the input of individuals with monitoring and evaluation design skills, and
- how much time the design team has to do the work.

For example, a three person design team which is in the field for three weeks to help prepare a complex institutional strengthening activity, should not necessarily be expected to prescribe the activity monitoring and evaluation arrangements in great detail. Rather, the horizontal logic of the matrix should be used as a means by which to

- test the clarity of objective statements
- indicate the type of information required and how it could be collected
- provide a framework within which activity implementers can design the detailed elements of the monitoring and evaluation system once implementation commences, and
- help determine the scope and scale of resources that will be required to establish and maintain an effective monitoring and evaluation function, and then include these resources in the activity design and budget.