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THE LOGICAL FRAMEWORK - A TOOL FOR THE MANAGEMENT OF PROJECT PLANNING AND EVALUATION

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1. INTRODUCTION

It has often been said that the simplest ideas and tools are the best. This finding applies as strongly to the planning and management of development planning as to other areas.

This paper is a literature review of Logical Framework ideas for the management of the cycle for the planning and implementation of development projects - the "Project Cycle" (MacArthur 1994) The ideas and nature of the LogFrame (as it is generally called) are deceptively simple, with all the thinking and targets for a project represented in a simple 16 cell worksheet, which it is intended should be written on one or at the most two sheets of A4 paper.

The underlying intention of this approach is for the objectives of a project or any other intervention to be explicitly defined from an early stage, so as to strengthen the logic of the planning at different levels of a project's performance, and the evaluation of progress when the plans are implemented. A summary matrix for the presentation of all this was first proposed in the US Government in 1970, and the idea not only soon took firm root there in AID, but has been adopted in original or modified form by a very large proportion of Development Assistance Agencies. The appeal of the simple logic behind the LogFrame idea has been very strong, and the ideas are an established part of all the set of tools of all development planners working at the micro level.

The Logical Framework is a tool and administrative requirement of the official donor agencies. As a result, not much academic research on it has been undertaken and published. The literature consists mainly of official documents, and a few published commentaries on use of the method by these agencies, written by insiders who have reviewed its nature and use.

The second section of this paper outlines the background to the introduction of LogFrames, and their basic structure of thinking and presentation. Two sections then discuss particular features and areas of debate on the shape and use of the LogFrame and its Matrix. A fifth section describes the use of the approach in various agencies, and the extent to which the thinking behind it is used in other organizations that have not adopted the LogFrame worksheet itself. Points from reviews by two of the main users of the Framework in operation then follow, and a note on the importance of training for its proper application. A major direction of modified use of the LogFrame (ZOPP) by some European agencies is then described, before some conclusions are drawn.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

PROJECT TITLE:_____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Programme or Sector Goal: The broader objective to which this project contributes:	Measures of Goal Achievement:		Assumptions for achieving goal targets:
Project Purpose:	Conditions that will indicate purpose has been achieved: End of Project:		Assumption for achieving purpose:
Outputs:	Magnitude of outputs:		Assumptions for achieving outputs:
Inputs:	Implementation Target (Type and Quality)		Assumptions for providing inputs:

Source: CIDA (1980)

Figure 1 The Basic Logical Framework Matrix

2. ORIGINS AND BASIC CONTENT.

The origins of the Logical Framework (LogFrame) as a summary proforma in project proposal documentation were in the US Agency for International Development during the late 1960s and the early 1970s[1]. The need was felt for some systematic linkage between on the one side the processes of project design and on the other the requirements for subsequent evaluation - the process of reviewing activities over a period of years, and comparing what had occurred with what was intended at the time of project planning and approvals. The basic four-by-four matrix, on which all LogFrames and their derivatives are still based, was designed by consultants (Practical Concepts Incorporated, PCI) to meet this need, and was immediately taken up by the Agency in 1971 for adoption.

2.1 The Four-level Vertical Structure

The basic format has often been described. (See especially AID 1973, CIDA 1980, Coleman 1987) It is shown in Figure 1. It has both vertical and horizontal dimensions. The vertical series of proposed effects is described in the Narrative Summary column, which has the Goals (the highest objectives) at the top. These are the national or sector objectives of a policy nature to which the project or other intervention is intended to contribute. At the foot of the column are the Inputs - the additional resources (mainly applied through the project budget) that the project will be based on. If successfully applied, these Inputs will combine to produce the Outputs - the new resources or capacities that are to be created through combination of the specified Inputs.

Creating these Outputs, such as the fixed assets installed, the strengthened institution, and the skilled staff trained, is not the whole of what was proposed in the project. The long term benefits of the project will arise during the Operation Phase[2] of the project, when the generation of benefits from the created capacity allows the Purpose of the project to be achieved - the production year after year of goods, crops, traffic or whatever.

These are the four levels of the LogFrame: Inputs, Outputs, Purposes and Goals.[3] Typically for an investment project, the Inputs are combined under competent management to create the Outputs, the investment assets ready for use. Use of these Outputs to generate benefits allows the attainment of the Project Purpose of of increased production say, which contributes to meeting a higher level Goal, possibly reducing imports increasing incomes for a target group somewhere.

Separating out these four different levels of project activity and effects was an important tool for the clarification of project thinking that LogFrame practice introduced, especially in relation to planning. It removed any bias towards the purely “engineering” view of projects, whereby inputs are converted to outputs (as in road building, for example) without further justification. What the roads would

be used for became a necessary part of the logic to be explained in project planning - specifying their Purposes - while the planner also has to say what objective of importance meeting the Purpose was expected to help achieve. A logic of planned affects ran from the Inputs at the base of the diagram to the Goals at the top.

Specification of the hierarchy also helped to clarify precisely what the objectives of the project intervention were intended to be. Frequently, Outputs could be generated through project implementation whose Purpose was never precisely specified. As a result, they might be claimed to be meeting a variety of objectives, some of which were in conflict with each other. Good project design should, it was realised, make clear from the outset exactly what objective was to be the main one, the principal determinant of project design and implementation management. For clarity in project formulation, it was also necessary that the number of objectives for each intervention should be limited. Guides and training materials emphasise this point. Although the need for strict limits is not emphasised in the early AID materials, there was a strong implication that only one Goal and only one Purpose should be specified (see for example Turner 1977). Sometimes the strict limitation was stipulated in very severe terms, especially in the CIDA Guide of 1980.[4]

2.2 Assumptions about External Influences

Specification of the four levels of effect, and explanation of the hypothesised planned causal links between them was an important step. It was, nevertheless, recognized as illusory to expect that the fulfilment of effects at any level could be guaranteed, either to occur as planned or to give rise to the planned effects at the next level up. However good the design of the project and the management of its implementation, success in achieving what was intended depended on the fulfilment of expected behaviours and effects created outside the project itself. The attainment of the project effects at every level was conditional on the satisfactory occurrence of several factors outside the control of project management. Planning had to assume that these would be fulfilled. Thus, for the Inputs to be combined to form the Outputs might depend mainly on actions within the project itself, but it also rested on a number of Assumptions about finance, suppliers, contractors, land allocation and the like. Despite good project design and management, the Outputs might not be created, either at all or within budget or on time, unless Important Assumptions about external factors were fulfilled.

The same pattern of proposed effects being conditional on outside factors is true at every level. The higher up the LogFrame hierarchy, the more important these assumptions become.[5] They also become increasingly outside the scope of the project managers and participants to control.

PCI and AID recognized therefore that the need existed at the planning stage to specify the Important Assumptions on which results at each level were based. A

column in the LogFrame was provided for this, part of whose function was to "establish the practical limits of project responsibility. Identifying the project planning assumptions in explicit and operational terms permits a clearer separation between manageable interests and those factors which appear to be beyond the control of the project management team." (AID 1980)

2.3 Measuring Achievements

The remaining half of the LogFrame matrix - two columns of four cells each - was devoted to indicating how the effects at each level could be measured. Both for Monitoring and for subsequent Evaluation, it was necessary at planning to indicate for each level exactly what results were expected, and how the attainment of these results would be measured and reported when the project was in operation. One column was devoted therefore to the detailing of Objectively Verifiable Indicators (OVIs), while a companion column showed for each column the sources from which the OVIs might be derived. It was important that clear statements should be made of the extent of the effects intended at different levels, each with dates by which the different levels would be reached. Specification of the Means of Verification and their sources allowed certainty at the outset of where measures of achievement would come from. If no obvious source could be found for Indicators needed to show the proper achievement of the project, the provision for resource to allow for their generation needed to be built in to the plan for the project.[6]

2.4 The Complete Framework Matrix

The LogFrame thus had four columns: the Narrative Summary of what was expected would occur at the different levels; a statement of the most Important Assumptions about outside requirements affecting the attainment of the planned effects at each level; a detailed statement of the Objectively Verifiable Indicators of attainment which could be objectively measured; and a statement of data and document sources that allowed the Indicators to be found.

This format is illustrated in Figure 1. In practice, because the Narrative Statement and the OVIs were so closely related, these two columns were placed together, with the Assumptions listed in the right hand column of the LogFrame summary matrix. Each of the sixteen cells needed to be completed before the end of the project planning phase.

From 1971, the inclusion of a summary matrix table became a requirement in AID documentation for technical assistance projects before the full set could be submitted for final review and authorisation by the Secretary of State.

The value of the LogFrame in project design was expressed in the following terms by Turner (1977), the Chief of the Division of Program Design and Evaluation Systems in AID at the time when the method was adopted.

> *"The logical framework assists the designer to structure the project design in the following manner.*

1. *To define a causal hierarchy of project inputs, outputs, purposes and higher goals in measurable or objectively verifiable terms.*

2. *To hypothesize the causal (means-end) linkages between inputs, outputs, purpose and goal.*

3. *To articulate the assumptions about external influences and factors which will affect the causal linkages.*

4. *To establish the progress indicators which will permit subsequent measurement or verification of achievement of the defined outputs, purpose and goal*." (See also Turner 1979)

The four levels of the framework, the causal relationship that they are planned to have to each other, and the appreciation of Assumptions combine to constitute what has been seen as the "Vertical Logic" of the LogFrame. CIDA (1980) characterised this logic as a succession of hypotheses. At the base of the matrix were a set of "Initial Assumptions" governing the provision of Inputs. The "Implementation Hypothesis" concerned the links between Inputs and Outputs. With sound design, this conversion was largely a management task not heavily influenced by uncertainty from outside assumptions. The "Development Project Hypothesis" concerns the link between Outputs and meeting the project Purpose, where more uncertainty exists. Finally, the link between the Purpose and the Goal constitutes the "Development Program Hypothesis". Great uncertainty exists here, the achievement of objectives at this level probably depending more on influences outside the project that on factors that could be controlled through internal actions.

2.5 Assumptions from Different Viewpoints

Consideration of the assumptions about the different linkages brings to the fore an important aspect of the viewpoint from which a LogFrame might be prepared. We are aware that the method is still, very largely, the preserve of some donors, especially the bilaterals, who are going to use the matrix as part of the presentation of documents to their own decision-making bodies. In this process, it is inevitable that they may feel obliged to list some assumptions about the behaviour of the host government, aspects over which some uncertainty remains. Were the LogFrame to be prepared by the government, it may be making assumptions about the donors and about different groups within the country - what farmers will do, what the

private sector will provide, etc. - which may not be so much the concern of donors. A LogFrame written from the viewpoint of the project recipients (farmers, employees, utility users, etc.) might also have its own quite separate agenda of assumptions regarding the behaviour of other groups about which they could not be certain.

The significant issue here is that there is no "neutral" formulation of a LongFrame, which regards matters from the project-centred point of view. The Important Assumptions of one group would differ from those of another, as also would the objectives at different levels.

Recognizing this, authors of the donor manuals emphasise the importance of having the matrix written from their own viewpoint. CIDA (1980), for example, mentions that Inputs of the host country are placed as Important Assumptions[7], not as part of Inputs in the Narrative Summary, where only CIDA resources are listed. This position is exceptional, and probably only applies in a small number of situations, since it is most common for total project budgets from all sources to be shown as Inputs, though assumptions about the contribution of some funding or resource-providing parties may nevertheless be listed.

The four-by-four matrix described is the basic LogFrame worksheet still used by many donors, more than 20 years after it was first taken up in Washington.[8] Experience in its use and academic consideration have provided ideas for its variation. A major change in approach is represented by the alternative format called "ZOPP"[9], which is discussed in a later section. However, some variations to the PCI model may be considered first.

3. THE NUMBER AND TYPES OF LEVEL IN THE NARRATIVE SUMMARY

The original AID LogFrame had four levels in the matrix: Goals, Purposes, Outputs and Inputs. Several possible departures from this arrangement were discussed in an early AID review paper (AID 1973, Famiyeh 1991). The Agency's training volume (AID 1980) includes eight possible variations, and actively encourages their use by field personnel in appropriate circumstances. These included the insertion of additional columns, for the verification of assumptions, the insertion of specific quantified targets, and information on benefit incidence. Also suggested was the insertion of up to two more rows, one of "Intermediate Output" to lie between Input and Output, and a second, "Subsector Goals" to occur between the Purpose and Goal levels. However, these were not for regular use, and early exponents of the LogFrame, including AID and CIDA (1980), stuck mainly to the four by four pattern.[10]

3.1 The addition of Activities

During the early 1980s, renewed attention was given to the suitability of the four "traditional" levels in providing a summary of the logic of the project and its objectives. Attention was paid especially to the relationship between Inputs and Outputs. Perhaps influenced partly by increased attention being given to project management and Network Analysis, it was recognized that the transformation of Inputs into Outputs took place in projects through a series of separate "Activities''. The goods and services provided under a project budget would be managed in project implementation as a number of individual sets of actions, each quite possibly under its own management structure. These Activities are seen as a crucial step in the logic of project design. When planning defines what outputs are required, the next planning stage is to divide the creation of the outputs into a series of Activities.[11] Each of these is the subject not only of its own workplan, but is also the basis for quantity estimation and project costing.

Some LogFrame thinkers thought that this part of the logic should be included in the matrix, and in 1986 teaching courses in FAO explained LogFrame ideas[12] as including Activities as a level of project description between Inputs and Outputs. (FAO 1986a and 1986b). These activities were to be defined as elements of the "Workplan" for the project. An Activity was described as "the necessary action to transform given inputs into planned outputs over a specified period of time" (FAO 1986a). Each Activity should have at least one Output.

This addition of the Activity level has a strong logical appeal, and it has been adopted as an integral feature of the ZOPP approaches that are reviewed later. Increasingly, new proposals for the adoption of LogFrame procedures in planning (under what tends increasingly to be called "objectives based planning") excludes the Inputs level, and has Activities as the base of the matrix.[13] The argument here is that the Activities are the crucial feature of the logic of actions based on specified objectives. They should be included in the summary, the Inputs being sufficiently well specified elsewhere in the project documentation to justify excluding them at this stage, except perhaps through a very cursory mention.

3.2 Intermediate Objectives

The introduction of the Activities as the base of the matrix has divided LogFrame practice into two schoo1s, the one recognizing this as the basis and the other staying with Inputs. Rather less divergence has occurred at the higher levels of the format. Like in the 1973 AID outline of alternative frameworks, FAO training papers (FAO 1986b) allowed for the insertion of a row for "Intermediate Objectives" where this was helpful to indicate the logical connection between the immediate objective (Purposg) and the development objective (Goal) if this was not obvious in a single step. Clearly in certain circumstances this extension of levels in the logical sequence can be valuable.[14]

3.3 Effects and Impacts - their importance in Evaluation

Discussion of a rather different nature has occurred regarding the value of distinguishing different levels of Objective above the Output level. Agencies that don't use the LogFrame matrix but follow the thinking of objective hierarchies (including UNDP, IBRD, FAO and IFAD) often use a four-tier description, preferring the words inputs, outputs, effects and impacts.[15] Clayton (1984) has suggested that, from the viewpoint of the monitoring and evaluation of agricultural projects, this four level hierarchy is unhelpful. Clayton's preference is for three levels: to regard the management of Inputs and Outputs as "Project operation", to regard what would be called Purposes elsewhere as "Project performance", and to call "Project impact" the effects on local people which would elsewhere be part of the Goals.

This alternative terminology from the viewpoint of project monitoring and evaluation is valid, and these terms are widely used in the literature of these essential project processes. However, as Honny (1993) has pointed out, measuring the Impact on farmers of project effects must be undertaken with some care. Schemes for agricultural and rural development take a long time to mature, and during their lifetimes many other features of the economy can change, in addition to the innovations brought by the project. In monitoring the impact of a project, it is essential that a clear distinction is made between those effects or impacts which were intended - as were or would be specified in the LogFrame - and those that occurred, but were not part of the project plan. Valuable as they may be, it can be overgenerous in evaluation to ascribe them to the existence and performance of the project.

4 AMENDMENT OF THE LOGFRAME DURING PROJECT IMPLEMENTATION

The LogFrame is part of the essential documentation of agencies that use the method. In USAID it is part of the Project Paper, the document submitted for final approval by the Secretary of State. It is a formal requirement that it be prepared, and filed as part of the project papers.

Debate has arisen about whether the initial LongFrame worksheet should later be altered.

Bittner (1986) refers to a 1984 internal AID review of 263 project evaluations, in which it was found in many cases that after a few years the original assumptions were no longer relevant, but had not been changed.[16]

It is probably sensible now to accept that the assumptions that were realistic at the time of planning, and on which the project approval was based, are likely to

change with time, especially the assumptions linking Output to Purposes, and those relating Purposes to Goals. Because of this, it is wise that the LogFrame be reviewed from time to time, especially when implementation takes a long time, and the project's progress is subject to considerable uncertainty.

This factor is becoming increasingly recognized in ODA's approach to projects of different kinds. Eyben (1991) has outlined the features of what is nowadays called a "Process" project, a title that distinguishes it from the other stereotype, the "Blueprint" project. The latter type would be exemplified by a classic engineering scheme, for the construction of a building say. Once the design is agreed and funds are sanctioned, architects draw up blueprints, and the problem of project implementation is getting the structure completed according to these detailed and unchanging specifications, hopefully within budget and on time.

However, it is recognized that in some types of project a detailed specification of what should happen month by month, year by year, cannot always be made at the outset with any degree of credibility. This is especially the case with social sector. human development and institutional projects, where a key element in the progress of the project will be the reaction of local people and institutions.[17] In these cases, little more than an intended general direction towards meeting the immediate and wider objectives can be indicated at the outset Especially when innovations are being introduced for the first time, it is not possible to specify ex ante in what manner people will react, to what extent and how many will respond. It is necessary therefore to recognise from the outset that the original project design may need to be changed. Built in to the plan for projects which develop by "process" are periodic evaluations, when past progress is reviewed and future activities are planned. Replanning is thus built into the project plan, and this replanning can include changing the LogFrame, together if necessary with other elements of the project plan and document.[18] (McCulloch 1986, ODA 1988a)

On the occasion of this replanning, it is unlikely that changes would be made to the Goals or Higher Level Objectives. It might be hoped indeed that something close to the original Purposes/Immediate Objectives could also be adhered to. However, the project Outputs and the composition of the Inputs might be changed, as the strategy for achieving results at the different levels was modified in the light of actual experience in the project situation.

5. THE LOGFRAME IN USE

5.1 From Evaluation to Planning as the Main Justification

The essential LogFrame purpose when it was designed and adopted was to provide a basis for the subsequent evaluation of the project, if this took place.[19] If, as was growing practice in the early 1970s[20], the progress of projects was to be monitored and reported on. it was important to establish at the outset precisely what it was

intended should occur at the different levels, especially at the levels of Purposes and Goals. Without a systematic method for defining the expected effects at these levels, they were often left unspecified in project documents, which often largely emphasised the conversion of Inputs into Outputs. (Rondinelli 1983, Cracknell 1987) Furthermore, a statement that included both a Narrative Statement of intentions, Indicators to measure them, and a summary of the main Assumptions would allow evaluators to distinguish, in the case of non-fulfilment of the planned outcomes, the extent to which this was attributable to poor planning (unrealistic targets or time expectations) or to the non-occurrence of external actions about which Important Assumptions had to be made. Both Internal and External causes of outcomes could be considered.

It was very soon found that, valuable though it was for these things to be stated as a record in anticipation of Evaluation, the discipline of having to specify them made for much better planning. The processes of having to specify as a part of project design and formulation what the Goals, Purpose and Outputs of the project would be was found in principle to be a very sound basis for rational planning of each Project. So, from a very early stage, modification of the logFrame purposes occurred, for it to become a Planning tool. This is now its main function.[21],[22]

5.2 Users and Non-Users

The LogFrame was accepted rapidly in AID (1987b), initially for technical assistance projects, but from 1974 for all types of foreign assistance projects. (Hageboek 1984). It has had a profound impact there.[23] It has since been taken up by very many donors and other international agencies. Initial popularisation arose as a result of joint work between the US Agency and other donors on project design tasks, but also through the formal involvement of staff from other agencies in the massive programme of training in evaluation methods that AID embarked on from 1971. Although Rondinelli (1983) referred to the method only in terms of its use by USAID, AID (1987b) referred to "its adoption by most of the Western donor agencies in one form or another".[24] Cracknell and Rednall (1986) refer to use of the method in several multi-lateral and bi-lateral aid agencies.[25] Adoption of the Project Framework by ODA in 1985 has been described by McCulloch 1986.[26] In 1989, Cracknell (1989b) reported that ISNAR had adopted the method, and published a manual on its application to agricultural research (McLean 1988).

A notable non-user is the World Bank. Cracknell and Rednall (1986) reported the Bank's view "that the logic of the hierarchy of objectives underlies its way of thinking". However, it was "reluctant to adopt what it would regard as a "recipe" style of approach which could easily become an intellectual straight-jacket".

Regarding the use of LogFrame by these agencies in planning, a distinction may be made between two types of system. On the one hand are those, like in USAID, CIDA and ODA for example, where the LogFrame is an important but associated

part of the planning process. At the other extreme are the situations where it has become quite central to the process, in methods characterised by the ZOPP approach of the German aid agency GTZ. In these systems of “Objective Oriented Planning”, the specification of Objectives in the LogErame manner is the fundamental building block of project planning, objectives themselves having been based on an analysis of the problem to be addressed or ameliorated by the project. These approaches are discussed more fully in a later section.

5.3 When to start preparing a LogFrame, and at which Level

When the LogFrame is used in project planning other than the ZOPP approach, two questions about starting sometimes arise. Firstly, at which stage in the project sequence should the LogFrame first be drafted? And secondly, in preparing a LogFrame from scratch, at which of the Narrative Framework levels is it best to begin?

The general response to the first question is to say that the earlier the better. An outline framework might be drafted at the Identification stage, when the proposal for action of a defined kind first has form as a tangible, limited, crudely costed specific proposal for actions. The central point here is that it is important to be clear at the outset exactly what Purpose the project is to achieve, what Goals it is intended to contribute to. Being clear about these things then will have a basic effect on the project design, at that stage and subsequently.

It is, for example, not sufficient to propose a project whose justification may be the increased production of a basic crop - wheat say. There may be many ways of producing more wheat. Is the intention to increase production of the crop because it is one that is mainly grown by small producers, and the underlying wish is to increase the incomes of small farmers? Alternatively, it might be to allow a sharp increase in the supply of wheat to the growing urban market, in which case, large scale production may be the preferred technology. Another objective may be to reduce the volume and cost of cereal imports, in which case production methods would be preferred which have a low foreign exchange requirement.

Meeting each of these higher level objectives or Goals might best be done through quite different types of project. The most crucial decision in the life of most projects is the one taken to proceed with the detailed planning of projects have been Identified and described in a crude summary project outline or fiche. (MacArthur 1994) It is consequently important that questions of underlying objectives and purposes should be clarified at the outset. The danger is that a commitment will be made to a form of production that is not the one most preferred to meet what emerges during the planning and decision-making processes as the desired objective. Getting the objectives clearly specified first is the prescription of all planning agencies. In LogFrame situations, that means making

the first draft Narrative Summary at the earliest opportunity, and confirming that the objectives specified are acceptable to all of the parties to the project.[27]

When the LogFrame should first be drafted relates to the internal procedures of the agency using the method. However, the CIDA (1980) position represents the most sensible practice, which is for the Vertical Hierachy in the Narrative Summary to be defined first at the time of Project Identification. A simple format can be included in the Project Identification Memorandum. The full and detailed LogFrame would be prepared as part of the project formulation processes drafts being discussed in the planning team and with clients, both as a means of clarifying the logic and scale of the project and as development of the framework itself. This finalised version would be included in the Project Approval Memorandum, and also in the Plan of Operations. That would complete its use in the processes of planning, though it would be taken up for review during mid-term and post-implementation evaluations.

Although this is the ideal rationality of LogFrame drafting, it is frequently found that generally the matrix was completed only in the latter stages of appraisal. (See Cracknell 1987 and 1989a for special comment on this problem in ODA.) This tended to be the practice amongst people who are unconvinced of the values of using the approach, especially where they have not received training, or where they work in a system that doesn't emphasise or require use of the method at earlier stages. In this "minimal" use of the method, the procedure is to complete the format at the end of the project report preparation stage, drawing only on information on the project report to complete the form that is a required part of the documentation. As Cracknell (1989b) states, if this minimal use is all that is achieved, then the method is not worth being employed, and "it would be better discarded altogether". By the time that appraisal is undertaken, most of the important decisions about the project have been taken, so the LogFrame is unlikely to make much practical difference to the quality of the project design.

Regarding starting point, one would ideally say that the proper level to begin is at the top, the Goals of the project or intervention. However, in some cases, this is neither possible nor necessary. Often the levels of Purpose of Outputs are the best place to consider LogFrame preparation. Where the Goals are fairly obvious - they may for example have been the basis for the identification of the project in the first place, as in schemes for local development, infrastructure expansion, or for target beneficiary groups - the main planning, need is to specify what the physical dimensions of the project will be. The same is true of resource-based projects, where the origins of the scheme lie in the wish to turn to economic use underutilised resources of obvious potential. Transport and service sector schemes are likely also to be of this kind - local roads, primary education, etc. - where the projects come up in programmes where the underlying objectives have already been defined.

In these cases, the size of facility and throughput are the crucial planning parameters. Capacity size will be defined either in terms of the Output, the dimensions of the road, school or health centre to be constructed, or in the Purpose of the scheme - the amount of traffic to be carried, the numbers of pupils to be handled each year, the number of patients of various kinds to be handled. In these cases, the correct level at which to begin the thinking for the project is in the middle to define the total Output or Purpose size. The Goals will either be predetermined or very limited in nature, and will not be the driving consideration in the design of the scheme.

What is certain is that the Inputs level would normally be the one to be completed last. The specification of resource requirements and cost generally is the outcome of Output planning not the cause of it Of course, budget constraints can mean that project design has to be modified down from the first ideas, but this is a case where iteration in project design and LogFrame drafting will be required, rather than a situation where the level of Inputs is a major determinant of the project design.

6. REVIEWS OF THE LOGFRAME IN USE

Since the LogFrame is essentially an element of internal donor procedures, examples of it in use that have reached the public domain are very few.[28] Nor have many reviews of the device been prepared by those agencies that use it. However, two sets of review papers are available, based on the experiences of AID, originator of the format, and ODA, relative latecomers to its use but an enthusiastic employer of the Project Framework, as the logFrame is known in London.

6.1 AID Reviews

One level of discussion has concerned the place of the LogFrame in project planning and review. Various aspects of planning and appraisal that the LogFrame does not perform have been seen on some occasions (AID 1987b for example) as Disadvantages. However, use of this term implies seeking in the matrix attributes which, though essential to planning and analysis, the LogFrame was never intended to possess.

What the LogFrame is not was well expressed in an AID (1980) teaching material. Under a heading “Limitations”, it says

> *“The logical framework methodology is programmatically and technically neutral. It does not assure that the project is the most effective means for achieving sector goals. It gives no guidance on equitable income distribution, employment opportunities, access to resources, popular*

participation in decision making, proven strategies and techniques, cost and feasibility of replication, or effects on the environment. It is merely a systematic device for making explicit the key elements of the project, as conceived by the project's designers."

Hageboek (1984), writing from the viewpoint of evaluation studies in AID, emphasised the fundamental importance of the LogFrame as the basis for ex post studies. Common problems from this viewpoint that she reported relating to the formulation of the LogFrame were

- (i) completion of the LogFrame only as the last step of appraisal, after the completion of project design, rather than as part of the process;

- (ii) a casual treatment of assumptions, greatly undervaluing the importance of these factors during planning, when in practice they are a major source of difficulty during implementation; and

- iii) the single distinction between Goals and Purposes was often insufficient, and additional rows for intermediate objectives were often required and justified, to avoid "jamming", attempts to put too many objectives into too few stages of logic in the project design.

6.2 The ODA Review.

In 1986, a year after it was introduced in ODA as a mandatory feature of the final project submission to the PEC[29], a review of the Project Framework in use was undertaken by Cracknell. (Cracknell 1987 and 1989a). The format had been introduced rather hurriedly, and frameworks had been prepared by some officers before there was time to give them training. As a result, impressions of the value and correctness of the formats was mixed. At first, some had been tacked on to projects at the final stages of appraisal, though the need for their early use was being both emphasised and appreciated. The benefits of this early thinking were becoming evident to some staff, as was the act of identifying key assumptions and seeking ways to reduce the risks involved. The processes of quantifying performance targets were either neglected or undertaken cursorily, whereas the need to do this was being shown to have value to the design of schemes, and brought a sense or realism to the planning process, and to the preparation for monitoring.

Difficulties were also found in deciding what should be reported at the Output and Purpose levels, and how the distinction between the two could best be made.[30] Also, when the LogFrame had to be made up after planning had been completed, it was difficult sometimes to enter anything very specific in the Wider Objectives (i.e. Goals) row. This difficulty emphasised the potential value of the method - where Goals had not been specified early in the project planning process, it was

sometimes difficult to be sure later exactly which higher objectives it was intended to contribute to.

The relation of the LogFrame to monitoring was especially brought out in this review. The point emerged that, where monitoring or in-implementation evaluation indicate that this is necessary, features of the project plan should be changed, and a new LogFrame prepared as part of the evaluation process. This procedure, which resolves the problem reported for AID projects (Hageboek 1984, AID 1987b), was quickly adopted, and is the basis for the continuous planning and replanning of "process" projects to which ODA is increasingly committed. The concept of the completed project having several successive LogFrames in the file is quite happily accepted. (McCulloch 1986, ODA 1988a).

Cracknell's evaluation emphasised the value of the LogFrame to the PEC, the committee reviewing the appraisal of the project. As a summary, it outlined the main features of the project: the logic behind its design; the arrangements proposed for measuring whether what was intended was being achieved; and a concise statement of the main assumptions and risks to which the project was open. This is not all that they needed to know, but it was clearly valuable for these points to be available in concise form early in the documentation. However, even after only one year's use, the value of the approach as a mode of thinking was becoming appreciated, and it was decided that all projects should have a LogFrame table, even those Technical Cooperation schemes that had relatively low budgets.

An interesting reflection on the ways that thinking about the LogFrame had evolved over the years was mentioned in the Cracknell (1987) review of ODA experience. A finding of the study was to show up, as a secondary benefit, the potential value of the framework in monitoring and eventual ex post studies. This comment is a far remove from the intentions of PCI nineteen years earlier, where the main intention was to find a means of making adequate preparation for evaluation. The switch of emphasis from evaluation planning to project preparation might, through this comment, be said to be complete!

7. THE IMPORTANCE OF TRAINING IN THE LOGFRAME APPROACH

The underlying ideas of the four-by-four matrix are attractively simple. However, for their full use, and for the preparation of adequate matrix proformas, those responsible for their use and preparation need closely focused training.

The need for training was appreciated in AID from the earliest days. As soon as the PCI proposals had been assessed and adopted, training in LogFrame was included in the week-long training in evaluation that was undertaken within the agency by its Evaluation Department. (AID 1987b) This training was primarily based on the Evaluation handbooks, though specialised training texts were developed, of which AID (1980) is the main example. In the early days of

LogFrame use, some "Generic Logical Frameworks" were developed in AID, for use as models in the types of item that might appear in LogFrames for projects of specific types.[31]

The importance of training was also appreciated by CIDA, after it introduced LogFrame methods in 1974, and their use became common in 1975-76. Initially the training was done by PCI, but by the late 1970s it became the responsibility of the Evaluation Division, who produced their Guide as the basic training instrument. (CIDA 1980).

Reviews of the LogFrame in use in the two agencies (AID 1987b, CIDA 1980) both refer to the fact that full use of the method was not being taken because large numbers of officers in key positions had not received training. In AID this was because of a widespread reduction in training which dated from the beginnings of the Reagan administration, while in CIDA it was the result of a hiatus between the end of PCI involvement and the establishment of in-house training of the kind that AID had followed for almost a decade.

No formal training programmes were organised in ODA when the method was adopted there in 1986, and the first practitioners had to be self-taught. However, the need for training was emphasised by Cracknell and Rednall (1986) when they proposed the method for ODA adoption, and Cracknell re-emphasised the point in his 1987 review of the first year's experience. Training in LogFrame methods is now a regular feature of ODA's in-house programmes. This is also the case in The British Council, ODA's agent in many technical cooperation projects.

8. THE ZOPP PLANNING METHOD, AND ITS DERIVATIVES

8.1 Zielorientierte Projektplanung

ZOPP is the (German Language) acronym for this method. The title means "Objectives-oriented Project Planning". It was developed and adopted by the German aid agency GTZ, which is responsible to the Federal Ministry for Economic Cooperation for technical cooperation projects. (GTZ 1987) Introduced by them in 1983 and compulsory since 1986, the method includes a number of systematised steps before a Project Planning Matrix (PPM) is drawn up. This PPM has most of the features of the LogFrame, though with some modifications.

The ZOPP approach consists of a number of formalised steps, which are described as follows. (GTZ 1988)

1. *Participation Analysis - analysis of the project target group and all other persons, institutions etc. participating and involved in the project.*

2. *Problem Analysis - identifying the Core Problem.*

3. *Problem Analysis - analysing the causes and effects of the core problem.*

4. *Objectives Analysis - the hierarchy of problems (problem tree) is transformed into a hierarchy of objectives (objectives tree) and the set of objectives are analysed.*

5. *Discussion of alternatives - identifying potential alternative solutions.*

6. *Project Planning Matrix - we develop an overall description of the project.*

7. *PPM - determine the important assumptions.*

8. *PPM - wording our indicators.*

9. *PPM - describing the means of verification.*

10. *PPM - analysing how relevant the assumptions are, what risks they entail; incorporating this into the project concept.*

11. *PPM - checking whether the project management can guarantee the results/outputs.*

12. *PPM - determining the specifications of quantities and the costs for each individual activity.*

This description emphasises how the ZOPP approach starts with an identification of who is affected by the problem that a technical cooperation project might be seeking to address. Formal discussion sessions involving the different parties - individuals, groups, institutions - analyse the core problem in view, which is defined as a "negative state". Those involved then list the causes of the problem, and the effects of it, and express these in the form of a problem tree, with the core problem the lynch-pin between the causes below and the effects above.

This analysis of the problem becomes the basis for planning the project. The negative aspects identified so far are transformed (Step 4) into a set of positive objectives, a hierarchy that reaches from changing the causes to changing the effects through solving or ameliorating the core problem. Alternative approaches to meeting these objectives are then discussed, and the best one selected. This becomes the basis for developing the PPM, in a series of Steps (6 to 9) which follow the same kind of sequence as was outlined earlier for the basic LogFrame worksheet.

The resultant PPM has four levels and four columns. The lowest level is for Activities, though the Inputs are listed as the Indicators for that level, in the second

column. This point apart, the terms used for the matrix headings are broadly the same as those used by AID, and illustrated earlier in Figure 1.

The essential difference between this approach and the LogFrame method as used by AID, CIDA and ODA is the systematic analysis of the problem before the Matrix is developed. This formalises into a rigorous procedure the various steps that project planners in other agencies may be following in a less structured way. However, discussion of the problem with the agencies involved, and the arrival of a consensus with them on problems, causes and effects, is a major feature.

Exposition materials on the ZOPP method (GTZ 1988), indicate the sequence in which the sixteen cells of the PPM may be completed - first down the summary of objectives and activities(l-4); then up the assumptions column (5-8); next, down the indicators column to the level of results/outputs(9-11); then down the means of verification(12-14); and finally the specification of Inputs/costs (15) and how they will be measured in the centre of the lowest line(16). Associated with the Matrix, but not in it, are a set of preconditions for implementing the activities. In comnon with CIDA, the ZOPP papers insist that each project should have only one Overall Goal and only one Project Purpose.

Descriptions of the ZOPP method in use have not been found. However, it has been in regular use by GTZ for ten years now, and is obviously valued in their procedures. Because of the many steps involved, each of which can benefit from various management and operational techniques, training in the ZOPP approach is very necessary, and is regularly undertaken.[32]

Although the ZOPP method is mainly seen in terms of the planning of a project or other intervention from a very early stage, the papers (GTZ 1988) allow for no fewer than five ZOPP Workshops during the life of a project: in preparation, to help decide whether a full appraisal should be made; as a preparation for the project appraisal; with the project partners in the project country, before detailed planning of inputs and services; in the preparation of the plan of operations; and finally during replanning, which can occur more than once during project implementation.

8.2 The NORAD Logical Framework Approach.

Based on the methods of GTZ and UN organizations, this Norwegian variation “is an analytical tool for objectives-oriented project planning and management”. The eventual outcome is a Project Matrix (PM), which is developed in the second phase of the step-by-step LFA process. Before PM drafting, the steps are: participation analysis; problem analysis; objectives analysis; and alternatives analysis. The PM is then drafted in three steps, which cover project elements; external factors; and indicators. (NORAD undated)

The NORAD Project Matrix is illustrated in Figure 2. A principal difference between the NORAD PM and all of the others is the existence of only three columns. The central column is for the listing of measures at each of the three upper levels, with the means of verification to be specified also in each cell. As in the ZOPP matrix, Inputs are specified in the centre column at the lowest level, in line with the Activities described.

As with the other uses of the LogFrame approach, the Norwegian Handbook (NORAD undated) emphasises the use of the LFA in project preparation and design. However, it is also made clear that it should be used throughout the project sequence, the emphasis being on different sections of the twelve-cell matrix during identification; feasibility study; project design; detailed planning; monitoring; project review; and evaluation.

8.3 The Prospective EC Model.

In 1993, the DG VIII in the European Commission was preparing to introduce its own Logical Framework method. The submission by consultants (MDF 1993) that was said to be near the final form required follows basically the same pattern as the ZOPP Matrix. However, the preconditions for implementation are proposed to be systematically written in as a fifth line in the Assumptions column, with no corresponding entries at that level.

9. CONCLUSIONS

The Logical Framework is both an approach to planning in a systematic way and a matrix worksheet that defines the thinking behind and the main features of a development project. In one or both of these forms, it has had a profound effect on development thinking and procedures over the last twenty years, and especially since the early 1980s. Aspects of the features of the approach are reflected in the definitions and descriptions presented in the Annex.

The basic form first formalised by PCI is still valid. Experience in its use at various levels in the planning and operation of projects has indicated areas where the first structure might valuably be modified, and the process of evolution of the summary presentation would appear to be still proceeding.

The underlying ideas are now almost universal in their acceptance and use. Levels of formal adoption range from the position of the World Bank, who like the approach but shrink from the rigidities of the format, to the ZOPP approach, where the matrix is part of a highly formalised series of steps for the analysis of development problems and the diagnosis of project steps that can be taken to improve them.

Figure 2 The NORAD Project Matrix

1. DEVELOPMENT OBJECTIVE The higher-level objective towards which the project is expected to contribute (Mention target groups)	**1. INDICATORS** Measures (direct or indirect) to verify to what extent the development objective is fulfilled. (Means of verification should be specified.	**1. EXTERNAL FACTORS** Important events, conditions or decisions necessary for sustaining objective in the long run
2. IMMEDIATE OBJECTIVE The effect which is expected to be achieved as the result of the project (Mention target groups)	**2. INDICATORS** Measures (direct or indirect) to verify to what extent the immediate objective is fulfilled. (Means of verification should be specified)	**2. EXTERNAL FACTORS** Important events, conditions or decisions outside the control of the project which must prevail for the development objective to be attained.
3. OUTPUTS The results that the project management should be able to guarantee (Mention target groups)	**3. INDICATORS** Measures (direct or indirect) which verify to what extent the outputs are produced (Means of verification should be specified)	**3. EXTERNAL FACTORS** Important events conditions or decisions outside the control of the project management, necessary for the achievement of the immediate objective
4. ACTIVITIES The activities that have to be under-taken by the project in order to produce the outputs	**5. INPUTS** Goods and services necessary to undertake the activities	**4. EXTERNAL FACTORS** Important events, conditions or decisions outside the control of the project manage-ment necessary for the production of the outputs

Source: NORAD undated.

The strength of the underlying purposes of LogFrame thinking are reflected in the adoption of the approach by some authorities outside the narrow interests of development planning and administration. Cracknell and Rednall (1986) referred to the widespread use of the approach in many parts of the Government of Canada, and recent changes in the UK Government have drawn on this basic thinking for planning in departments of many kinds.

Some steps have also been taken to extend the method to planning at the sector level (Famiyeh 1991), though this appears to call for further significant modifications, especially at the level of Inputs.[33]

It is unquestionable that LogFrame ideas have been one of the new approaches in public administration for development management in the last few decades whose impact was lasting, and will persist. In view of its importance, it is necessary that its use in planning and in evaluation should be better known and understood. Since its use is largely the preserve of the official development assistance agencies, it is essential that they sponsor and finance further study of the method in application. Major bilateral players like AID, CIDA, GTZ and ODA have a special responsibility to develop further understanding and application of the method.

Notes

1. At the Development and Project Planning Centre, University of Bradford. Acknowledgement is made to the many students and post-experience trainees with whom ideas about the LogFrame have been argued and discussed over several years, especially Joseph Famiyeh.

2 The background is described in AID (1987b), and is summarised in Famiyeh (1991).

3 For a detailed discussion of project phases, see MacArthur (1994).

4 In all presentations of the LogFrame matrix, Goals come at the head of the diagram, and Inputs at the foot. However, a departure from this standard pattern was made by ISNAR (1988) in the format they propose for the planning of projects for agricultural research. Inputs come first, with Goals at the end of the matrix. Some people have found this configuration more logical - it will be interesting to see whether it is adopted by other agencies.

5 CIDA (1980) insists in its text that each project should have only one Goal, and only one Purpose. This appears to be very restrictive, especially the second element. The many illustrative CIDA LogFrames included in the Guide show that this stipulation was generally adhered to, though a couple of matrices have 2 Goals and one has 4 Purposes. Where the limitation was observed, ingenuity on the part of some writers had devised single Purpose definitions which were either very broad or which amounted to more than one, albeit in a single sentence.

6 "The methodology embodies the concept of causality. The concept of causality rests on the premise that each level can be shown to be not only necessary but also sufficient to cause the next higher level to be achieved. Each causal linkage is subject to external factors beyond the control of project management." An extract from AID (1978)

7. CIDA (1980) links the Narrative Summary and the two Indicators columns in a "Horizontal Logic". "The objective of the Horizontal Logic is the measurement of the resources and results of a project through the identification of Objectively Verifiable Indicators and Means of Verification for these indicators".

8 CIDA (1980) suggests that, although in some cases the local Inputs to a project are regarded as a separate project (being outside the control of CIDA managers),the two may be juxtaposed in the same Framework. This view, which is what would generally be regarded as normal practice, may

reflect a preponderance of projects up to that time that were funded almost entirely by CIDA itself.

9 The Project Framework adopted by ODA in 1986 is almost identical, though some of the row and column headings differ from the North American versions. See McCulloch (1986).

10 The acronym ZOPP refers to the German term "Zielorientierte Projektplanung", the name of the modified LogFrame planning approach adopted for all projects by the German Technical Assistance Agency GTZ in 1983. It is discussed in more detail in section 8.1 of this Paper.

11 CIDA's 1980 Guide to the Logical Framework Approach copied the salient parts of the variations outlined in AID (1973) as an appendix, indicating their willingness to contemplate these variations, if it was thought valuable.

12. The procedure here is very similar to features in the preparation of "Work Breakdown Structures" as applied in project management planning. Majumdar (1994) is a recent reference to this practice.

13 The structure was described as a "Summary of the Project Logic".

14 An example here is the Manual on these matters currently (early 1993) being prepared for the European Community. (MDF 1993) The latest draft version (available to us only in French) envisages these four levels: Activities, Resultats intermediares, Objectif specifique, Objectif global. Moyens (the supply of Inputs) is depicted as a lateral input to the Activities level, the physical and non-physical means needed to undertake the activities.

15 Another interesting variant was mentioned by Cracknell and Rednall (1985), who say that, in association with adding a row for Activities, IPPF and UNIDO omit the Goal level, thus retaining just four levels in the hierarchy.

16 This terminology is embodied in the FAO training materials FAO (1986a), the terms "effects" and "impact" being offered in the matrix chart as alternatives to "immediate objective" and "development objectives"

17 The same point was emphasised the following year in AID (1987b). "The problem AID practitioners are up against is that project designs, and the logical frameworks through which they are framed, are treated like blueprints which cannot be changed."

18 "In recent years it has increasingly been recognized that institutional development and some other types of project require much more of a

process approach, recognizing the importance of local participation and commitment and the need for flexibility within projects to reflect imperfect understanding at the start of the project and changes in opportunities and constraints during implementation." K. Sparkall, Principal Adviser in ODA, private communication, 1993.

19. Sparkall (private communication) states that one of the three roles of the Project Framework in ODA was, "…in the course of implementation as a framework for monitoring, review and, where appropriate, redesign." This indicates how the Process Project approach explained here has become established practice, where relevant.

20 "AID installed the logical framework system in 1971 as a response to a long-felt need for more effective evaluation of substantive project impacts." Extract from AID (1987b).

21 The Evaluation Department of the World Bank was established in 1973, one of many being created in the International and Bilateral Donor Agencies at that time.

22 "The logical framework is primarily a project planning device". Comparing this extract from AID (1978) with the quote in footnote 19 shows how the perspective in Washington had changed in just a few years.

23 Despite the present importance of LogFrame ideas in project planning, it remains the case that the responsibility for LogFrame matters - format, use, training, etc. - often remains with the Evaluation Section of development assistance agencies.

24. "The logframe vocabulary is now AID's vocabulary". AID (1987b).

25 "An early acceptor was CIDA. It was not long before the logframe spread to the whole of the UN system." Extract from AID (1987b).

26 In addition to AID and CIDA, Cracknell and Rednall (1985) mentioned UNIDO, GTZ, IPPF and "Australia" as users of the matrix, while it had "spread to the whole of the UN development system". SIDA was said to use the idea of the hierarchy of objectives but not the matrix. FINNIDA and the Belgian Overseas Development Ministry were also said to be users or likely to take it up soon.

27 McCulloch (1986) emphasised the importance in ODA's adoption of a (slightly) adapted form of the LogFrame worksheet of wider changes in government. There was, in the 1980s, "growing interest in the use of quantified and time-bound targets in the management of government financed programmes".

28 ODA (1988a), the internal Policy Guidance Note on the Project Framework, expresses the position thus: “The PF analysis should be used from the time the project is first formulated or considered, through the appraisal and approval stages, to the subsequent monitoring, Project Completion Report and possible ex-post evaluation”.

29 Coleman made this comment in his 1987 paper. Apart from the subsequent notes by Cracknell, (1989a and 1989b) the same remains largely true, certainly in the British literature.

30 The Project and Evaluation Committee (PEC), the senior committee in ODA that reviews all projects after the appraisal stage. It recommends to the Minister for Overseas Development projects that should be accepted for final negotiation and financing. A summary of the full standard contents of the PEC submission is given in ODA (1988b).

31 This is a very common area of difficulty for students and others trying to make a LogFrame for the first time. A common early fault is to write the same effects twice, at different levels. The distinction between the levels is made in ODA (1988a). A simple rule to apply for investment projects is that the Output is what is produced during the Investment Phase of the project - what is there and handed over at Project Completion. The Purpose of the project is to use the installed fixed productive capacity to generate the produced outputs and benefits that are the justification of the project - the main feature of the Operation stage of the project. (For a description of these different stages and phases of a project, see MacArthur 1994.)

32 During a visit to the Program and Policy Evaluation Division of AID in 1974, the author was given Generic LogFrames for the following sectors: Major Surface-Water Irrigation Project; Integrated Research/Extension Project; Storage and Marketing Projects; Small-Scale Local Projects. Regarding the earlier discussion of the numbers of Goals and Purposes to be mentioned, it is notable that all of these models included only one of each type of objective. Sometimes these were expressed in long and fairly complex expressions, and generally they were accompanied in the OVI column by quite a range of measures, especially at the Purposes level.

33. A very detailed guide for Moderators in the training courses was published in 1990. (GTZ 1990)

34. At the level of sector planning, the inputs are policy changes, brought about through various Policy Instruments, each of which has its own Instrumental Objectives - something considerably different from the normal project inputs of resources and funds. See Famiyeh (1991).

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ANNEX

Some definitions and descriptions of the Logical Framework or its Derivatives.

PCI 1979 Quoted in CIDA (1980): "…a set of interlocking concepts which must be used together in a dynamic fashion to develop a well-designed, objectively-described and evaluable project…"

Hageboek, 1984: "The 'Logical Framework' is an approach that AID uses during project/programme design to specify the objectives in a project/programme, articulate its development hypotheses, the key assumptions upon which project/programme success depends, verifiable indicators of project/programme performance and means of verifying whether the target levels for these performance indicators have been realised. The 'Logical Framework' is expressed in a simple matrix once the elements of the project logic have been thought through. It is also used as the basis for subsequent evaluation work."

Bittner (1986): "The LogFrame is a summary worksheet for presenting the development hypothesis and analyzing a project design. It Summarizes the project paper. It does not provide the specificity to implement a project."

ODA (1988a): "The Project Framework (PF) approach is a means of thinking logically and systematically about a project from the earliest stages of appraisal through to approval, implementation, monitoring and evaluation. It is a basic tool to be used in all project design, formulation and appraisal."

"McLean (1988) Quoted in Cracknell (1989b): "The Logical Framework is simply a tool which provides a structure for specifying the components of an activity, and the logical linkages between a set of means and a set of ends. It places the project in its larger framework of objectives within the programme. It serves as a useful tool for defining inputs, time-tables, assumptions for success, outputs and indicators for monitoring and evaluating performance."

Sparkhall, ODA 1993 (private communication): "The project or logical framework is both a design tool and a management tool. It has a threefold role in ODA. Firstly, it is an analytical design tool; secondly, it provides a summary picture of the project and its internal and expernel linkages linkages at the time of approval; thirdly, it is used in the course of implementation as a framework for monitoring, review and, where appropriate, redesign".

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