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**'LOGICAL FRAMEWORKS': A CRITICAL ASSESSMENT
MANAGERIAL THEORY, PLURALISTIC PRACTICE**

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Abstract

Logical frameworks (LFs), product of a managerialism which emphasises hierarchically ordered and quantified objectives, are often rife with logical confusions. The paper identifies problems common in specifying "vertical logic" and "horizontal logic". LFs can support systematic thinking about choices in a pluralistic and uncontrollable world, but hinder us if they suggest that difficulties are minor, or commit us to crude indicators or outdated targets. This "good servant, bad master" theme is deepened by considering whose servant the LF is or can be: a tool for central control, as has commonly been the case, but potentially also an opener up of negotiation about purposes and assumptions. The paper traces the evolution from LF's USAID origins, through the more logical and somewhat less centralist ZOPP, to recent more sophisticated and/or democratically oriented versions. It differentiates aspects (e.g. objectives-setting, objectives-hierarchy, measurement to various degrees, the project approach), that are separable and have different implications. Outcomes with LFs depend on which aspects are emphasized, on when and how intelligently they are employed, and whose servant they become.

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Acronyms

CIDA = Canadian International Development Agency

DANIDA = Danish International Development Agency

DFID = (UK) Department for International Development (from 1997)

EC = European Community(/Communities; now European Union)

GTZ = Agency for Technical Cooperation, German government

INTRAC = International Research & Advisory Centre (for NGOs), Oxford

LF = Logical Framework = PM = Project Matrix

LFA = Logical Framework Approach

MBO = Management by Objectives

MDF = Management for Development Foundation (Ede, Netherlands)

NORAD = Norwegian Agency for Development

ODA = (UK) Overseas Development Administration (to 1997)

OOIP = Objectives Oriented Implementation & Planning = ZOPP

PCM = Project Cycle Management

PLA = Participatory Learning Approaches

PM = Project Matrix

PPBS = Planning, Programming and Budgeting System

PRA = Participatory Rural Appraisal

SIDA = Swedish International Development Agency (now Sida)

USAID = AID = Agency for International Development (US government)

ZOPP = Zielorienterte Projektplanung = objectives oriented project planning

1. THE LFA AND ITS RANGE OF POTENTIALS

1.1. Great capacity for growth and adaptation, yet widespread fundamental doubts

The "logical framework" has become an enormously widely employed and influential tool in project planning and management, especially but not exclusively in development aid work. It is used by nearly all development aid agencies, and therefore by thousands of client organizations around the world. In many cases its use is obligatory. Its spread continues: even Swedish Sida and the World Bank have now adopted it, as have numerous NGOs either of their own volition or because funders require it. Logical frameworks (LFs) – also known as logframes, project frameworks, or project matrices – have thus become a foremost example of the rise in public and development work of the type of modern managerialism which emphasises statement of hierarchically ordered and, as far as possible, quantified objectives.

At the same time, the logframe is resented and mistrusted by many who are forced to use it, and misunderstood and misused by some of its devotees. Often the 'logical framework approach' (LFA) is reduced to filling-in the boxes of a standardized pre-set project matrix. While sometimes still useful, 'box-filling' is subject to many dangers and distortions. Even the term 'logical framework' can then become misleading; whether a project matrix is logical depends on how it is filled. Illogic is not prevented by a magic in the format. So-called logical frameworks of projects and programmes are often rife with logical confusions. Section 2 of this paper will identify and probe some of the major common errors in specifying logframes' 'vertical logic' and 'horizontal logic'. Other frequent problems include 'lock-frame', the tendency for frameworks to not be updated; and tunnel vision, blindness to effects other than the stated objectives.

Various suggested advances beyond the blueprint, matrix-centric, 'lock-frame', versions of LFA will then be examined in Section 3. We need a more broadly conceived LFA, including prior analysis of the problem situation and a probing of assumptions, to produce a framework that is more logical, useful and understood. A logframe should be a product and summary of a systematic situation analysis, and cannot substitute for that. The German ZOPP variant of LFA rediscovered, systematized and popularized this richer approach, and thus generates more realistic hierarchies of objectives. Work by for example the Management for Development Foundation has tackled several other areas of weakness, notably around the neglect of the assumptions column. Similarly, work at and for ODA/DFID (the British aid ministry), and elsewhere has refined the handling of indicators to better fit the needs of learning-process projects. Whereas in the 1970s 'the logframe appeared to represent everything the majority of voluntary agencies [in the USA] did not: scientific exactitudes in a world of amorphous imponderables' (Sommer, 1977:82), and the veiled enforcement of a power centre's views, by the 1990s in Europe some NGOs even suggested that the LFA can be the kernel of 'a genuinely local dynamic of learning, exchange and organisation which could lead to a process of people driven development' (INTRAC & South Research, 1994a:iii).

LFA has certainly shown capacity for growth and adaptation, to an extent that surprised many of us. How far can it grow? Does it have deeper limitations? Review of its theoretical assumptions and design, and of the experience with both its narrower and broader versions, should be informed by awareness of the history of modern managerialism and wider debates

about problems and possibilities in specifying project and policy objectives. This I essay in Section 4. Like much project and programme analysis, LFA derives from work in engineering, military and business contexts. In public policy and human development, goals tend to be less simple, clear, accepted, and comparable with each other, and knowledge of causal links is weaker. Logframes can help if they encourage systematic thinking about issues and problems in a pluralistic and uncontrollable world; not if they give an illusion that these problems are unimportant, or bring rigid commitments to what are merely indicators or to mistaken or outdated targets.

Central too is Michael Patton's question: what is the goal of goals? What are the objectives behind specifying objectives? The superiority of the ZOPP approach has lain not only in fuller analysis, but in coming closer to seeing any statement of project objectives as itself guided by, and subject to, certain objectives, such as team building, and systems as operated by people not machines. Some post-ZOPP versions (e.g. NORAD's) see indicators too as means, not ends, and as ineffective when certain social and other prerequisites are not met.

A 'good servant, bad master' theme must be deepened by considering whose servant LFA is, or can be. Is it a tool of hierarchical control from a centre, or one that permits an opening-up of negotiation about purposes, or - depending on circumstances - either? Why is LFA apparently most at home in aid projects, where power imbalances and existential distance between parties are so marked?

Finally, we should differentiate between the elements of LFA, including objectives-setting, objectives-hierarchy, measurement, the project approach, and other typical features; they are separable and have different implications (Section 4 below). LFA has a range of potentials, good and bad. Outcomes depend on which aspects are emphasized, on how intelligently and in what conditions they are employed, and whose servant they become.

1.2. Strengths and weaknesses - ODA and Sida reports from the mid-80s and mid-90s

Much literature reviews typical problems found in statements of objectives in public policy and planning:- vagueness and ambiguity; little or no attempt to relate and balance inconsistent objectives; problems of incomparability; divergence of stated and real objectives; and listing of numerous objectives without respect to level as well as priority.¹ Logframe work attends mostly to the problems of vague and ambiguous statement and to conflation of levels. This last problem particularly vexes orderly thinkers: very often in project documents means and ends are conflated. For example: 'the objective of the project is to send three fisheries experts to country X to promote fishery development' (an illustration used in ODA). Inputs (the three experts), activities (their operations in country X), outputs (any direct outcomes from their operations) and purpose (fishery development) of the project all blend into one statement.²

¹ See e.g. Waterston (1965), Caiden & Wildavsky (1974), Killick (1981); Hogwood & Gunn (1984); Parson (1995).

² An example from a mid-90s project proposal runs: 'The long-term objective of the project is [1] to co-operate with four institutes in the [XYZ] countries on sustainable development indicators, in order [2] to develop a common methodological system that [4a] can assist national decision-makers, by [3] providing information on developments in, and interaction of the various areas relevant for sustainable development.... [and: 4b/5] at the same time the system must also be useful for discussions at the international level and in international organizations.' I have added numbers

When ODA concluded in the mid 1980s that a method to improve analysis of objectives in its projects must be adopted, its head of evaluation (Cracknell) and a colleague (Rednall) studied many governmental and inter-governmental aid agencies' experiences with logical frameworks, to decide whether to recommend their adoption. Besides reviewing documents they visited several agencies in Europe and North America -- but no recipients. The report summarized donor views and remains a valuable empirical source in this respect (Cracknell & Rednall, 1986). It proposed adoption of LFA (by which they meant the project matrix) for the following major reasons, substantially based on users' conclusions.

(i) *A synthetic overview*

Analysis of objectives had typically been scattered in bits across large documents. Use of LFs helps both readers and writers, by requiring consolidation and synthesis of the analysis. It forces an integrated approach to project planning, including attention to purposes, surrounding conditions, and the needs of later M&E; and gives a concise and clear overview, which is particularly useful for busy (especially senior) officials and those new to a project. It acts as a basis for exchange of views between all involved in a project.

(ii) *Administrative viability*

Unless principles of analysis are incorporated into compulsory administrative routines, they are unlikely to have widespread and sustained impact. Cost-benefit analysis has become widely required and incorporated, partly because it involves relatively clear instructions and requirements; whereas other techniques were talked about, sometimes tried, and then largely disappeared. The project matrix's clear format gives it a similar administrative viability. The parallel here with cost-benefit analysis does not imply that the two techniques have the same tasks. CBA is primarily an appraisal tool, while LFA is for planning, screening, and monitoring. LFA might serve for appraisal of small or simple projects, but is inadequate for larger and more complex appraisals. No manual purports otherwise, though some organizations have forgotten the manuals.

(iii) *'Something is better than nothing'*

Cracknell and Rednall admitted that defining and measuring outputs and objectives is much easier in some types of projects than others. (They placed in rising order of difficulty: 1 - construction and public utility projects; 2 - renewable natural resources projects; 3 - "people-centred" projects.) It is also harder at the higher levels of objectives. But there was so much room for improving the analysis of objectives in ODA projects that project matrices would surely help, they advised.

Thus the case for logframes emphasized, amongst other matters: the needs of higher managers; workability and usefulness in practice, not just in ideal conditions; and a pragmatic incrementalism. It was accepted by ODA. This was partly to avoid imposition on them of some fiercer variant of management by objectives, even the reward and promotion of individual officers according to the gross achievements of 'their' projects.

Looking around a decade later, the approach has made further major inroads and broadly the same reasons are cited, but also others that we will see. It is now thoroughly incorporated in most of the work of ODA (called from 1997 the Department for International Development). INTRAC & South Research claim more generally 'unambiguous indications that... use of the

to show the presence of four or five levels of objectives, conflated under the label of 'The long-term objective of the project'.

LFA has been instrumental in improving the performance of both governmental and non-governmental development administrations' (1994a:7); notably in more realistic definition of objectives and better internal communication and cooperation. Wiggins & Shields add that while any planning tool can be used badly, 'What the LF helps prevent is omission by oversight' (1995:11).

Strikingly, even Swedish SIDA (now titled Sida), the most independent minded donor and the most resistant previously to LFA³, decided in 1993 to fully adopt it – 'last in the line of donors' (Sida, 1995:7). This case deserves further attention, for it illustrates the potentials for the approach to be used rigidly and as an instrument of attempted control of dependent others, even by such a donor. It also indicates the substantive difficulties and hidden complexities in how to conceive and apply LFA: Sida themselves were at sea.

Sida's adoption was not purely self-generated, but triggered by a government-wide directive in Sweden to adopt management by objectives. At the same time, the spread of aid-fatigue in aid-agencies may bring growing resort to managerial control measures. In parallel to increasing talk of local ownership, building local capacity and so on, low-trust management imposes more and more, time-consuming, even humiliating, compulsory procedures upon recipients.

As with managerialism in public sectors more generally (Pollitt, 1995, 1996), we can see that there is not a single package triumphantly spreading worldwide, even if English-language governments and government funded publications might give that impression. After 25 years of use, LFA has no standard version and no standard terminology. Almost every major funder has spawned its own variant and usages, and demanded that recipients follow these. Sida was no exception, other than in later making open some critical internal reflections on its own behaviour:

'ROPPS [result-oriented planning and project management; the Sida version] thus became one of many methods and systems which different donors have more or less forced on recipient countries' (Sida, 1995:6).

'Donor coordination, or rather lack of coordination, in the application of LFA is a great problem for the partner countries', for aid agencies are unwilling to let recipients use other agencies' versions, and their power position has meant that they do not have to (Rylander & Bergstrom, 1996:6).⁴

Despite over 20 years previous worldwide experience of LFA, including some within Sida, the first two to three years of its quasi-compulsory use in Swedish aid projects proved messy and painful.

³ Other than, for different reasons, the World Bank (see e.g. Cracknell & Rednall, 1986). The Bank deemed cost-benefit analysis superior, as more precise and able to systematically balance different factors towards an overall assessment. Aart van de Laar adds that whereas for example the United Nations system required a simple tool to harmonize and discipline its diverse and unruly component organizations, the World Bank has always had a strong cohesive organizational culture and line, and that the Bank has been overwhelmingly staffed by engineers, economists and financiers, keen to monetize.

⁴ While 'Sida is the last donor which started to use its own version of LFA, i.e. ROPPS [, this] was done without taking note of the experience of LFA of other donors and without making any effort to adapt concepts and guidelines for the use of the method to the systems of other donors' (ibid.:16).

'In some cases [it] led to marked delays and frustration for the staff at the embassies and the [recipient] ministries. Where this happened cooperation has been seriously disrupted...' (ibid.:5).

Further:

'In some of the examples...it is clear that Sida's attitude has not been characterised by respect for its Zambian and Zimbabwean partners in cooperation... there does not seem to be a "corrective mechanism" which comes into action when unreasonable requirements have been made... a lack of respect for the development aspirations of the partner countries can be a "killing factor" for the LFA method' (ibid.:18).

'One person put it this way: "Is it really right to demand that others do something one cannot do oneself?"... ' (ibid.:14).

After the rushed introduction in 1993-4 of an entire complex system, unpiloted and unmastered in Sida itself, and unused in planning its own internal operations, LFA in Sida is subject to continuing painful experimentation, as an agency officially committed to co-determined learning-process projects struggles to 'manage' these. To reduce confusion it has now re-labelled ROPPS, to call it by its already well-known LFA component. Proposals circulate for much more training and back-up for LFA users.

Sida's case is not a solitary outlier. Five years after introducing a version of ZOPP, entitled OOIP (objectives oriented implementation and planning), the Belgian aid agency still had considerable difficulties:

'Real OOIP "success stories" however are not known... There is also evidence of an enormous potential for improving OOIP-practice. This is illustrated with [an imposing, seven level] tree of problems constraining effective OOIP practice' (Dewint, 1994:2).

Not least amongst the problems: 'OOIP, however useful, is a time-consuming and expensive method... OOIP methodology is not perfect... [and] there is a tendency to "accept" any dossier that has been conceived according [to] OOIP', without serious checking (ibid.:5).

It is not enough to say: 'The logframe tool itself is good; problems with it are from misapplication by its users' (Solem, 1987:26). I proceed from a hypothesis that funding agency publications on LFA probably contain an optimistic bias; agencies are frequently neither told, nor ask, about the real problems, let alone then highlight them. Critical observations remain controlled and/or marginal, for example in some pieces of satirical doggerel. On the other hand, it seems that contemporary LFA best practice can now fairly often be enlightening and rewarding; also that LFA is administratively routinizable and absorbable by many development organizations, for we have examples of long sustained and large-scale use. But which sort of LF work is routinized and absorbed -- good or weak practice? For is good practice by its nature situationally flexible and professionally demanding? *We would like to know whether sustainable routine use, in sustainable ordinary conditions, offers enlightenment and worthwhile returns on average, and for which purposes, situations, and stakeholders.*

2. THE PROJECT MATRIX - SERVANT OR MASTER? 'LOGFRAME', 'LACKFRAME', OR 'LOCKFRAME'?

2.1. Components and variants

The LFA is an attempt to think in an integrated, systematic and precise way about:

- a) project objectives, distinguishing between various levels;
- b) the causal linkages between these different levels;
- c) the assumptions about the other factors that are needed for the connections between the different levels to be valid;
- d) how to assess the degree of fulfilment of the various levels of targets and objectives.

Element a), a hierarchy of objectives, is the heart of the exercise; the other elements try to operationalize and rationalize it. Elements b) and c) constitute the so-called 'vertical logic' of the resulting matrix, and part d) concerns the 'horizontal logic'.

Specifying objectives and trying to measure them, i.e. roughly elements a) and d), are longstanding emphases in modern management and administration. LFA adds stresses on clarifying what are the different levels and their connections, and on the role of environmental factors: i.e. vertical logic.

The original and best known version of the matrix stems from work for USAID in 1969-70, led by Leon Rosenberg, first at Fry Associates and then at Practical Concepts Incorporated (Solem, 1987). This matrix is 4x4. The lefthand column specifies four levels of objectives (Inputs-Outputs-Purpose-Goal); the second and third columns respectively specify corresponding sets of 'objectively verifiable indicators' and 'means of verification' (sources of information on the indicators); and the final column specifies key assumptions concerning factors affecting the links between the various levels of objectives. The first and last columns concern the *vertical logic*, the relations between levels of objectives; and the rows across the first three columns concern the *horizontal logic*, the relations between objectives and operational measures.⁵ **Figure 1** gives a USAID version of this 4x4 matrix.

There are thus several components in the approach, and they can receive different degrees of emphasis and be operationalized in various ways. A mass of grey literature elaborates variants according to the preferences and concerns of different agencies, countries and sectors. For example, versions vary in the relative emphasis they put on indicators for measuring performance, and in particular on quantitative indicators. SIDA long used the hierarchy of objectives but not the matrix (Cracknell & Rednall, 1986); it downgraded quantified targets and indicators, on grounds of its preference for long-term, responsive, institution-building programmes. The NORAD version has only one column for indicators and means of verification, not two. **Figure 2** shows this version, which draws on work in the UN and GTZ and includes an Activities level between Inputs and Outputs. So its matrix is 5x3 not 4x4. Due to further simplifications it becomes drawn as a 4x3 rectangle, but does use five levels of objectives.

⁵ Coleman says "the columns indicate how the achievement of these objectives can be verified (the horizontal logic)" (1987:252); this is only correct for the middle two columns.

Figure 1: The USAID project matrix (as cited by Coleman, 1987; with minor modifications)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<i>Goal</i>	Measures of Goal achievement	- Sources of information - Methods used	Assumptions about factors affecting Purpose-Goal linkage
<i>Purpose</i>	End of project status	- Sources of information - Methods used	Assumptions about factors affecting Outputs-Purpose linkage
<i>Outputs</i>	- Magnitudes of outputs - Planned completion date	- Sources of information - Methods used	Assumptions about factors affecting Inputs-Outputs linkage
<i>Inputs</i>	- Nature and level of resources used - Necessary cost - Planned starting date	- Sources of information	Assumptions about factors affecting project start-up

Figure 2: NORAD's version of the project matrix (NORAD, 1990:17)

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

We will see throughout how the differing emphases amongst the multiple components give LFA many different faces, and reflect different foci of work. However, while noting the many variants, Wiggins and Shields (1995)'s thoughtful sifting found that all remain recognisable as cousins. Perhaps the most easily accessed introduction to LFA, Gilroy Coleman's 1987 article in the journal 'Project Appraisal', presented only the USAID 4x4 matrix, whose emphasis on means of monitoring matched his own orientation to monitoring and ex post evaluation with a managerial control flavour.⁶ Indeed, suggests MacArthur (1994:96), USAID's main purpose in establishing LFA had precisely been to pin non-commercial projects down for evaluation, by enforcing the original objectives as criteria.

For a given type of matrix, and a given project, different people typically fill in the boxes differently. Partly this reflects and helps to surface differing views on cause-effect links and priorities. But it also reflects procedures used. If LFA is just a pre-specified standard set of boxes which one looks at and tries to fill up, more or less carefully, then the resulting framework is unlikely to be logical: the boxes will not be properly interlocked.⁷ The project matrix is all too easy -- 'deceptively simple' (Coleman) -- to fill in thoughtlessly, adding no insight. Typically, and worst of all, this happens with projects that have already been designed (Cracknell & Rednall, 1986; MacArthur, 1994). 'Logframe' becomes 'lackframe'.

For CIDA, GTZ and those influenced by them, LFA is instead a systematic overall process of analysis, beginning from problem formulation and project design, not only for later appraisal, monitoring and evaluation. The German version is a set of procedures called ZOPP (the German acronym for objectives-oriented project planning). NORAD, DANIDA, and in the early 90s the European Community (EC), amongst others, have adopted it (Section 3 below). The elements of this broader approach -- analysis of problem structure and of the corresponding structure of objectives sets -- were familiar to LFA's originators;⁸ but such a package was too demanding for USAID as judged by its priorities then. LFA was operationalized in USAID and elsewhere in the 1970s generally only as the project matrix. This restriction reflected -- besides aid donors' growing concern for monitoring and evaluation -- pressures for simplification, for routine use and central supervision and control in large bureaucracies; as did the standardization around a 4x4 matrix for all cases.⁹

⁶ Despite a broader orientation, INTRAC & South Research too (1994a) equate LFA to the 4x4 matrix.

⁷ In describing the USAID version, Coleman noted that "the LFA is not an integrated set of procedures" (1987:252; also p.259).

⁸ For example, Delp et al. (1977)'s well known manual, which summarized various early 1970s systems analysis tools in project planning, pointed out (pp.49, 262) that preparation of a logical framework would be helped by completion first of an objectives tree and perhaps an interaction matrix diagram (on input-output links).

⁹ A 1973(?) USAID study offered a series of helpful, optional modifications to the 4x4 matrix; e.g. a column to the right of that for indicators of progress towards planned benefits, for indicators of benefit incidence between different social groups. But none caught on or were promoted widely, except for the addition of an Activities row.

2.2. Issues in "vertical logic"

From 15 years of USAID work with the LFA, the officials whom Cracknell & Rednall (1986) interviewed highlighted five typical problem areas in 'vertical logic':

- a - the meanings of the levels are often difficult to distinguish and apply;
 - b - the meaning of the links between levels is obscure;
 - c - the Assumptions column, perhaps the most important, tends to be the least used;
 - d - there are special problems at Goal level, in trying to clarify links to broad societal purposes while retaining a realistic connection to the project;
 - e - over-aggregation often occurs at Output and Purpose levels.
- These headings remain a helpful checklist.¹⁰

a. Meanings of levels...

A minor issue concerns labels. Some people found the terms Goal and Purpose unhelpful, and instead adopted, e.g., Impacts and Effects; or Overall Program Mission and Sub-system Goals (Patton, 1986:100); or, most commonly, Development Objective and Immediate Objective. More important, what are the meanings? how can we distinguish them?

The core problem area concerns the meaning of 'Purpose' or 'Immediate Objective'. Purpose proves to be the linchpin level in LFA, closest to the interface of the project with its policy environment, and where ambiguities over the project's degree of influence will be reflected. Proffered definitions and identifications of Output and Purpose are found typically to be interchangeable (Eggers, 1992; Cordingley, 1995): LFA contained 'no clear distinction' (Eggers, 1994:63).

The USAID guideline to the distinctions was that Outputs and Inputs should be seen as the

¹⁰ Nearly all the problems can be found in the logframe produced for a large USAID Manpower Planning & Training project in Jamaica, recorded in a case study in a UNESCO collection on evaluation in Latin America and the Caribbean.

1 - The Goal of the project was pitched at the very high level of 'to increase the employment level and productivity of the Jamaican labour force' (Davies, O., 1986:152), things powerfully affected by many other factors (interactively, not only additively - see our later discussion). The indicators chosen ('reduced rates of unemployment and underemployment') are completely unreliable given this mass of other factors.

2 - The Purpose was specified as 'the establishment of an integrated and improved manpower development and utilization system responsive to [&c.]...' (loc. cit.); in other words as a system, to provide certain services, not as the use of the services themselves. In effect the Purpose was a packaging of the Outputs, under a 'system' umbrella. 'System' is a favoured term for throwing together diverse elements whose interaction is not understood.

3 - In fact some of the four specified Outputs could belong at a higher level than the stated Purpose: they are outputs of the system, either in terms of activities or of delivered services. Further they are themselves at diverse levels, with some (e.g. (b) '[government] departments...regularly supplying the National Planning Agency with data and feedback needed for manpower planning', serving as inputs to others, e.g. (c) 'the National Planning Agency developing manpower forecasts and sector guidelines'. Unless perhaps these 'Outputs' are seen as pilot activities which build skills and organizations and thus build a system; but in that case the link to increasing employment and productivity becomes more attenuated and longer-term.

A four-level log frame proved completely inadequate to analyze such a complex project. At least an activities level was required too; and, more fundamental than the number of levels, an approach to establish logical sequence and connections is required, rather than just a filing of an existing project into an externally given set of boxes. Arguably, logical framework analysis can help one to identify these problems, the sorts of confusions in treatment of objectives that go on anyway; but evidently LFA has not brought a high assurance in practice of avoiding them. Closer analysis of the case, distinguishing sequences of activities and corresponding objectives, shows at least three and perhaps four or six, separate but linked projects: a) manpower planning, b) training, c) job advice and placement, and then d) institution/capacity building in each area or perhaps in all together.

project itself, and Purpose and Goal as the objectives towards which the project is a means. Various complementary projects are then needed to fulfil the Goal, which is at a programme or macro-programme level (i.e. beyond the project but not very much higher). Unlike Purpose and Goal, Outputs are supposed to be very largely under project control.¹¹ The NORAD version even calls Outputs 'the results that the project management should be able to guarantee' (1990:17). But this is not a reliable dividing line: Outputs too are rarely completely – or even nearly completely – under development project control (see e.g. Bowden, 1988, on findings from ex post evaluation).¹²

Seeking a sharp distinction, Eggers instead radically elevates the generality of the Purpose level: 'The project purpose...must differ by its very nature from the last output in the input-output chain. It must coincide with a lasting improvement of people's quality of life' (1994:63). Yet as we will see shortly, other authors have sought to radically downgrade the generality of the Goal level, to avoid over-condensed hierarchies; and most continue to act as if distinctions between levels are contextual, not inherent. Inputs in one context could be Purposes in another.

b. ...and meanings of linkages

If Outputs did automatically follow from Inputs then it might not be worth treating them separately. A lower level must not automatically imply the higher. The USAID version did not treat Activities separately, because it presumed that Activities do or can follow unproblematically from Inputs, and Outputs from Activities, at least such that Input-to-Output problems do not need two stages of attention. This better fits cases of simple or well-standardized activities, as in some physical infrastructure projects.¹³ Most users instead now add an 'Activities' level between Inputs and Outputs, since projects cannot be treated as 'black boxes' in which inputs automatically lead to intended outputs. Coleman suggests indeed that

¹¹ (1) Kijne, the EC's Project Cycle Management advisor, similarly offers: outputs concern services provided, whereas purpose 'must be stated in terms of benefits to the beneficiaries.. [and thus] in terms of the utilisation of these "services"' (1994:2). (2) MacArthur (1994:110) refers only to capital investments and advises that 'Output is.. 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 procured outputs and benefits that are the justification of the project'. Yet (Coleman (1987:252) gives end-of-project status as the indicator for the Purpose level. (3) The EC manual is puzzling, but possibly through poor translation: 'Results: "products" of the activities undertaken, the combination of which will achieve the purpose... results achieve the project purpose' (1993:24); but then why distinguish them? (4) Wiggins & Shields are vague at first, wondering where to subdivide the time continuum: 'Purpose.. what the project is expected to achieve upon, or shortly after, its completion... Outputs.. the specific results arising during the project life from successful implementation (1995:3). Later they advise that Outputs be results achievable within a year or so (p.8).

¹² Coleman's own example (1987:255) seems wrong and illustrates the point. He gives 'if the schools are built and the students are trained then the level of education of population X will be increased' as an example of a 'Development project hypothesis', concerning the link from Outputs to Purpose. To indicate associated assumptions, he gives the question 'Is there sufficient effective demand for education, can potential students be released from their other activities (which may include substantial inputs to family labour)?'. But this, possibly 'killer', assumption, applies to lower levels: if children do not come to school then they cannot be trained. Not everything outside project control will impinge only above the Output level.

¹³ 'With sound design, this conversion [of Inputs to Outputs] was [seen as] largely a management task not heavily influenced by uncertainty from outside assumptions' (MacArthur, 1994:92). The same belief in near fully understood activities underlies the advice (e.g. Coleman, 1987:252-3) that it is not worth evaluating results at higher levels if plans at lower levels have not been fulfilled. But if activities could lead towards higher objectives in unexpected ways then evaluation of the higher results remains worthwhile, even if pre-specified Outputs were not achieved.

'everything that can go wrong will go wrong' is a better general implementation hypothesis than 'everything will go to plan'. This fits what we know about most types of development project (Gasper, 1986; Honadle & Cooper, 1989). For we tend to underestimate the cumulative implications of the facts that: many different things can go wrong; there are many occasions when any of them can go wrong, so that the chance of problems rises exponentially with time; and there are knock-on effects of any one malfunction.

c. The marginalization of assumptions analysis

Assumptions concern the conditions that are needed for fulfilment of objective(s) at one level to lead to fulfilment of objective(s) at the next higher level.¹⁴ Judgement is required to select which of the numerous possible impinging factors (e.g. whether the sun will rise tomorrow) one should state assumptions about; we should only highlight those which really are significant uncertainties. Factors confidently expected to be seriously adverse should not enter an assumptions column, but instead lead to project redesign.

One often sees, both in training and real cases, sketchy and superficial attention to assumptions (Hageboeck, 1983). Commonly stated as assumptions are: 'proper implementation', or condition-less project hypotheses (like: 'if the inputs are provided, this will lead to the outputs'), or -- nothing at all. We can say at least that LFA helps to show up this casualness about assumptions, and to prepare the way for more serious treatment.

However, LFA literally marginalizes assumptions analysis, by its mis-location as the final column of a project matrix. 'The fourth column is the second one to be defined when constructing a logical framework', record INTRAC & South Research dutifully (1994a:4), without commenting on the incongruity. Relatedly, assumptions analysis is misallocated by many authors and students to horizontal logic rather than vertical logic. Users who leave the fourth column to be filled fourth have often become tired, and on too different a mental track, when they reach assumptions after an arduous traverse of indicators.

Some layout modifications can reduce the marginalization, literal and figurative: (a) reduce the two middle columns to one, as NORAD do; (b) make the assumptions column the first, and place the objectives hierarchy ('narrative summary') where it belongs, in the middle (perhaps ringed in bold), with assumptions analysis prominent on its left and indicators analysis to its right; (c) provide an extra column next to the assumptions column, in which assumptions are explained, assessed and considered (USAID 1973's modification #1).¹⁵

Physical marginalization of assumptions analysis reflects relative neglect, more than it causes it. To give a motivated group the responsibility and access to check assumptions will be more effective than changing matrix layout. Neglect may arise because assumptions analysis is so often disturbing for the project approach, where the implicit assumptions are frequently instead Hirschman's 'Hiding Hand' (that unexpected problems will call forth unexpected efforts

¹⁴ Since assumptions always concern links between levels, rather than a level in isolation, USAID (1973)'s optional modification #4 to the project matrix format presents this visually: the assumptions column boxes each span two levels in the other columns.

¹⁵ ODA (1995) achieves the same effect while retaining the hallowed 4x4, by adding a comments row at some point. across the first three columns, when many assumptions require attention. One could also have separate columns for 1. matters beyond the project's control but not beyond its influence, and 2. those beyond its influence. Wiggins & Shields present this possibility, but seem to confuse the categories by taking farmers' attitudes as beyond managerial influence (1995: Fig.6).

and learning) and 'it'll be all right on the night'. The assumptions column was devised in a late 1960s American engineering and management milieu where conditions could be assumed broadly favourable: the assumptions to be highlighted were relatively rare, though significant, contingencies. Where the operating environment is overwhelmingly unfavourable -- in terms of economic decline; low staff commitment and skills and replaceability; weak support services, and more -- then the assumptions column might be overwhelmed, overwhelming, and reduced to ritual use.¹⁶ Vacuous use of the assumptions column gives a false but pleasing sense of security, and/or aids managerial legitimation (Porter et al., 1991).

Assumptions analysis is useful at design stage, for if one is not rushing to raise and 'shift' funds one can still respond to questionable assumptions by redesign; but at appraisal stage it becomes threatening, to both project timetables and peace of mind. At review stage, vested interests in the project might have grown but could now welcome advice on how to survive.

d. Higher levels

LFA has striven to link project activities to broad social goals. It long tended to see the Goal level as concerning national-level and/or universal and humanitarian values. In a few strides, the project design shows us the way from standard means to uplifting developmental ends. But this incorporation of very broad societal goals in the logframe sometimes snaps the links to mundane activities: too many levels become 'jammed' together and as a result clear and logical connections are not made. In USAID jargon, 'jamming' occurs.

Responses have included the following:

- a - Some authors omit the Goal level as tending to over-extend the analysis (see e.g. Bridger in his 'Rapid Appraisal').
- b - Some instead add when required a level between Purpose and Goal (see e.g. USAID, 1973 - modification #2; DANIDA 1990a).
- c - A combination of a and b is in effect what Wiggins & Shields report and recommend; specifications for Goal level should become humbler.
- d - In doing policy analysis we may need or want to analyse Goals more extensively, restoring the link to broad social goals, but distinguishing several levels above Purpose, not just one or even two. Brown (1977) offered USAID a method of Goal-hierarchy analysis to extend project framework analysis; but ten years later Solem was still calling for the same.

One approach on these lines that has shown workability and staying power is the Fischer model of policy evaluation (e.g. Fischer, 1995) which is easily linked to logframes (Gasper, 1996). It avoids one fundamental limitation that afflicts much Goal-analysis and its generalization through logframing: the assumption that there is only one Goal (Chambers, 1995), and indeed even only one Purpose (MacArthur, 1994:89-90; DFID, 1997); in other words, that the normative and operational systems we deal with are simply pyramidal.

e. Numbers of levels

Four has been treated as a magic number: it gives two levels within the project and two levels

¹⁶ 'In the vast majority of circumstances project designs that appeared to have adequately addressed the goal/purpose/output/input linkages... have come up short', because only one linkage has to fail... In short, A.I.D. must continually review the assumptions upon which the linkages are dependent, and adjust its game plan accordingly. Logical? Yes. Common practice? No!' (Solem, 1987:28-9, 31).

outside, and is the minimum necessary to reflect (i) a project-non project division, plus (ii) some complexity within both. Sometimes one can effectively summarize one's analysis into four levels of objectives; but sometimes not. More levels may be needed. To retain clarity though about linkages, and avoid 'jamming', it is often better to have a set of linked diagrams, rather than greatly expand a single one. This particularly applies to multi-part projects or programmes (NORAD, 1990; Wiggins & Shields, 1995; and see footnote 10 for an example). The Immediate Objectives of each component project can correspond to the set of Outputs in the programme/ multi-part project.

In general, the 4x4 matrix should be seen as a prototype (in the words of the Collins English Dictionary: an original model from which improved types can be made or that has analogies at a later period; a thing that serves as an example of a type), and not as an archetype ('a perfect or typical specimen').

2.3. Issues in "horizontal logic"

a. Logistics and the availability of indicators

Cracknell & Rednall's interviews in aid agencies again surfaced several issues, although this time less incisively. They focused on how high should targets be set, and especially on how feasible and cost-effective it is to devise indicators and collect corresponding data. For there is no adequate standard list of indicators that can be simply issued and applied. Often much time and effort are required to establish indicators which yet remain rather questionable; it can be still worthwhile if the indicators are not given absolute authority. Past M&E experience shows the dangers of generating mountains of information on many indicators, very little of which is then processed or used. Rapid appraisal and similar work now give us valuable suggestions on more cost-effective approaches. But before considering feasibility other matters require attention.

b. What is one trying to measure at Purpose and Goal levels?

Trying to establish a 'horizontal logic', with operational indicators, makes one think more precisely about the meaning of the objectives, and hence about the vertical logic. At Purpose and Goal levels one has a choice between measuring (a) (gross) levels and changes in some desired variable, and (b) the effect of the project on that desired variable. The latter is more relevant, when there are many other factors with significant influence besides the project; but it is also more difficult. Typically sector- and national-level indicators of little relevance are ritualistically listed and projects claim credit for achievements due to other factors (yet cite other factors as adverse when gross achievements are poor). No one objects where evaluation is anyway a ritual and if aid projects are the pawns of foreign policy.¹⁷

¹⁷ To use common evaluation terms: should Purpose and Goal be interpreted as (net) Effects and Impacts? We can illustrate this from the Jamaica manpower planning project's Goal (O. Davies, 1986). The indicator specified was 'reduced rates of [national?] unemployment and underemployment' (ibid.:152); but these are influenced by many more powerful factors than the project, so are not reliable indicators of project impact. The implication perhaps is that we need, at Purpose level, an objective of increasing employment amongst those dealt with by the project, to be measured by comparison of their employment record (obtained by tracer studies) with that of (a comparable sample of) the people not dealt with. Clements (1995:585) is one author who highlights such issues seriously. Yet only if we evaluate net not gross effects, i.e. those attributable to the project, does the repeated claim make sense that 'There is... little value

Un-jamming logframes, in other words reducing the leaps made between levels, could help reduce the discrepancy between (a) and (b), gross and net effects. But jamming allowed the brandishing of imposing Purpose and Goal statements and offered legitimacy, through the promise of fast results in a simple, relatively easily manageable world.

The 'other factors' fall into three sets. *Case 1: where the project's influence on the desired variable is separable from other factors* then in principle we can seek to screen out those factors' influence, to get valid indications of project effects. This is the situation assumed in most LFA discussion of these matters. But many factors' influence is not separable from that of the project (cases 2 and 3); how the project works and what it leads to depend on the levels of those factors. *Case 2: factors which are necessary conditions for the project to have some impact*; these are to be covered in LFA under 'assumptions'. *Case 3: factors which affect the project's own level of influence, but not as necessary conditions, instead interacting more subtly*, as non-separable influences. They too might be discussed in an Assumptions column, but are more problematic for the rationale of indicators as assumed in LFA, which has tended to consider only cases 1 and 3, the simpler examples of causation.¹⁸

c. To what degree should one measure?

We must distinguish at least eight degrees of specification of objectives. In rising order of focus on measurement, these are: (1) identification of types; (2) refinement of meanings; (3) hierarchical ordering in terms of degree of generality and/or importance; (4) ordinal measurement of their degree of attainment (including the special case of binary measurement - yes/no); (5) cardinal measurement, in own-units; (6) setting of achievement targets, in terms of the measurable indicator variables; (7) making the various variables comparable, on some scale; (8) monetization of measurement.

We can have performance indicators without setting performance *targets*, but frequently the two are issues are not distinguished. USAID (1973) presented the option of a separate column for specific targets, rather than conflating that question with choice of type of indicator. Similarly of course one can have indicators which are not quantified.

Targets raise the danger of rigidity, especially if staff are evaluated on the basis of fulfilment of original targets. While creating incentives for rigidity, they may not build the attitudes required for adaptability and learning. High specificity about the future may also be pointless in highly unpredictable environments; though indeed, up to a point, benchmarks are needed for ideas to be tested and to avoid a looseness in which nothing that happens is surprising and hence nothing is an occasion for learning.

in evaluating a particular stage unless the objectives of the previous stage have been largely achieved' (cited in Coleman, 1993:254), i.e. unless the project has been satisfactorily implemented. If we evaluate gross effects at higher levels then non-implementation may not matter.

¹⁸ Possible illustrations from the Jamaica manpower planning case. Case 1 applies if the project's influence on employment is separable from that of other economic forces, like levels of domestic and international demand. Case 2 applies if there are necessary conditions for the project to have any influence, such as: the number of jobs is not fixed, and employers are not hostile. Case 3 applies if project influence is importantly increased by the support and commitment of key officials and leaders 'outside' the project; but where in fact do a project's boundaries lie, and if this support doubles project impact does one say that the project's own contribution was only the half? - surely not.

2.4. A preliminary assessment - more experiences from USAID and ODA

The conventional logframe has assumed simple project systems, having simple causal structures and simple (additive, separable) external influences; plus simple, pyramidal, normative structures (so for example projects are permitted but one Goal).¹⁹ The record of this impressively versatile, but highly simplified, model is mixed.

USAID's internal reviews of their experience with LFA have special interest, since they piloted it and have used it far longer than others. Hageboeck (1983) recorded 'jamming', overcasual assumptions analysis, and unfulfilled promises concerning information to be collected and used; as well as, to use my terms, 'box-filling' and 'lock-frame'-ism. Solem (1987) reported: 'Despite [a] generally positive scenario, serious problems with logframe applications continue to plague A.I.D.' (p.3), and 'the use and prestige of the logframe matrix as a formal [i.e. obligatory] tool for design and evaluation appears to be eroding' (p.12). Reasons included the growth of program aid and budgetary support, often overwhelmingly politically determined, at the expense of project aid; but also 'grave inadequacies which, left uncorrected, threaten to discredit the logframe approach altogether' (p.39).

Box-filling and lock-frame-ism remained rife:

'The great disappointment of the Logframe is that it is so often improperly used. People tend to dwell on how to fill in the boxes rather than on the linkages themselves.'

'Logframes are also often improperly viewed as "blueprints" - something that once made cannot be changed. This is a serious misuse of the instrument that gives an unfairly bad reputation.'

(Solem, p.23, quoting from two interviews with AID Bureau Evaluation Officers.²⁰)

Is this 'lockframe-ism' superficial or deeper rooted? Does the LF have a tendency to build flexibility of thought? or instead to freeze it, psychologically by providing a bastion or refuge to hold to, and politically by providing a control tool for a centre that fears losing its control? Can one stop the frame for thinking from becoming a prison?

When Cracknell evaluated the first year of ODA experience with LFA (Cracknell, 1989), he reported problems and benefits similar to those he had summarized earlier for other aid agencies (Cracknell & Rednall, 1986). Senior officials were especially pleased with this concise tool; but -- a dark lining -- he noted an important need for intensive training based on real cases, to gain the potential benefits of the approach. Cracknell & Rednall had already stressed that LFA will only be beneficial if used in a trained, thoughtful way that is clear on its purposes and dangers, and if it influences project identification and design from the start, rather than only being added on at the end.

By 1994 an ODA official drew a gloomier picture. Besides limits to training and coordination

¹⁹ Perhaps paradoxically, NORAD (1990:6) suggests that use of LFA is especially important for large or experimental projects; DANIDA (1990:2) propose it is especially useful for socially oriented projects prone to vague and unrealistic objectives.

²⁰ MacArthur (1994:95) cites similar findings.

in ODA, the system had been 'introduced by edict', 'the benefits of the technique were not realised... the LogFrame was not being used as a planning tool. Instead it had become [DG: or stayed] a desk exercise, a set of boxes filled in, usually at the last minute, to secure funding' (V. Heard, in INTRAC & South Research, 1994a:26); in other words, 'lack-frame-ism' prevailed. ODA launched a further upgrading operation.

Solem's dictum that 'The genius of the logframe is its ability to help ordinary people not given to seeing far beyond their immediate actions a tool for projecting consequences well into the future' (1987:27) seems, unfortunately, to be to a large extent conditional on high levels of training, motivation, and judgement. A simplifying model requires sophisticated handling.

3. THE PROJECT MATRIX IN A PLANNING PROCESS PERSPECTIVE

3.1. ZOPP - theory and practice

While the project matrix has typically been used as a tool of control, it and LFA also contain potentials for participation, debate and questioning. ZOPP and subsequent work have brought these out more fully. The aspiration is to make LFA, in Wiggins & Shields (1995)'s terms, a tool to ensure sufficient structure in process planning.

After the German development aid apparatus became interested in LFA in the late 1970s, its technical cooperation agency GTZ commissioned further studies by the original designers, 'Practical Concepts Incorporated' (Steigerwald, 1994). The outcome in the early 80s was ZOPP, a restored or upgraded LFA, with:

- 1) more attention to stakeholder identification and participation in the planning process,
- 2) derivation of the project objectives hierarchy from a systematic problem-tree exercise and consideration of project alternatives; all implemented through
- 3) a workshop methodology, which
- 4) is applied at each of a series of (five) stages, to detail and update the project designs.

The first ZOPP stage, 1. Participation Analysis or 'stakeholder analysis', identifies the different groups and viewpoints involved in a problem area. There then follow linked stages of: 2.1. defining a Problem Tree; 2.2. converting it into an Objectives Tree; 2.3. identifying and assessing Alternative Actions concerning those factors over which one has control or much influence; 2.4. converting the Objectives Tree into a Project Matrix, including by considering those (important) external influences which one cannot control. In some cases the external influences are so negative ('killer-factors' in LFA jargon) for the action which one has selected that one needs to redesign or drop the proposal.

The recommended method of carrying out these stages is, thirdly, guided group discussion amongst relevant persons and parties -- an 'LFA/ZOPP workshop' -- to mobilize information, cross-check ideas, and build the acceptance, commitment, good working relations and shared ideas that are important for successful implementation. Visualization techniques are used to help communication; comments and suggestions are written up where everyone can see and refer to them. An external moderator facilitates the discussions. However, there are deeper socio-political preconditions than this for participatory debate and probing.

Recent accounts of ZOPP's record, from within GTZ, parallel the stories from USAID and ODA concerning their narrower versions of LFA : firstly, 'something is better than nothing'; secondly, the ZOPP 'something' was -- in practice, on average -- still seriously problematic (see e.g. Steigerwald, 1994; Goebel et al., 1996).²¹ So first, many argue that ZOPP often improved project planning and management, bringing clearer and better inter-related objectives, increased transparency and wider communication and involvement. But, secondly:

- 1 - stakeholder analysis is often omitted, or if done 'the results are usually not used' (Breitschuh, 1996b);
- 2 - the problem analysis remains simplistic, ahistorical, and negativist (ibid.; Duetting, 1994); the starting focus on 'what is your problem?', rather than what are your potentials and aspirations, is limiting, even disempowering;
- 3 - ZOPP workshops become overweighted, treated as sufficient and ends in themselves, a ritual which nearly always lacks genuine broad participation (see also Magura, 1988; Cordingley, 1995; Forster, 1996); the vital first workshop is liable to be manipulated or arbitrary if not preceded by a long phase of open exploration and user-aider interaction (Gagel, 1996);
- 4 - ZOPP has thus tended to generate oversimplified plans (the project matrices), which have been given too much weight and taken as bibles and blueprints.²² Rethinking is not normal: people are afraid to appear as admitting to error, shy away from the tedious work of requesting approval from higher levels and facing new inspection missions, and have become tied in to certain partners (Gagel, 1996).
- 5 - Use of ZOPP methods typically does not outlive donor funding and the presence of TC personnel, due to poor links to local staff and local management approaches, and a complexity that often requires even the foreign TC staff member to import a specialized ZOPP moderator (ibid.).

Participation from the recipient country, let alone from disadvantaged groups within it, has been subject to this condition: the supposedly co-operating donor has assumed that it must dictate the form of the planning process, the same worldwide regardless of the partner. And the first and second stage ZOPP workshops were held in GTZ. After a decade of extensive use GTZ had to declare: 'process should not be designed from the GTZ/German perspective alone' (Steigerwald, 1994:6). Within workshops, comments and suggestions are written up where everyone can refer to them, but this hardly means that everyone comments, let alone comments uninhibitedly. Breitschuh (1996b) and Chambers (1996) warn that the ZOPP workshop style can be dominated by the more powerful and confident, including the workshop

²¹ Here is one example by a German consultant, from several similar reports presented at the 'ZOPP marries PRA?' workshop.

'There have been many difficulties when projects attempted to use the over-complex ZOPP for village or group level planning, a situation in which PRA methods would have been more appropriate... ZOPP has been applied too rigidly and some long recognised weaknesses have been difficult to overcome.... During its introduction phase, ZOPP has inspired peoples' visions and their creativity, but this has been largely lost as rules and regulations in its application were considered essential... ZOPP could benefit greatly, if it could be used flexibly. There have been instances when project management either not noticed [sic] a changed situation or stuck to long obsolete activities.' (Beier, 1996:72)

²² '...planning has been seen as a rigid directive and unbending administrative rule which frequently stood in the way of targeted project implementation', admitted GTZ (1996:15), as lower level target rigidity became seen as a hindrance to higher level achievements.

moderator. In contrast, PRA (Participatory Rural Appraisal) type work often uses images rather than words, and cards placed on the ground not on a board or wall. In the PRA style, officials (especially senior ones) who otherwise are liable to dominate verbally and in writing, lose some of the advantages from their advanced literacy; and even become at a disadvantage if inhibited about crouching on the ground to create and arrange images.

We noted earlier that both the Swedish and Belgian aid agencies too have discovered in recent years how demanding and costly it can be to try to execute ZOPP satisfactorily.²³ Chambers sums up:

In its classic form, ZOPP has been a top-down process in which professionals' realities, needs and priorities have tended to dominate and be imposed. This has occurred through the descending sequence of ZOPPs [starting with project concept, leading to progressively more detailed stages of design and implementation, each constrained by the ones before], the [imposed] imperative of consensus, the reductionism of the method [all situations must be expressed in the same simple form], the use of outsiders' languages, the physical and social isolation from poor women and others, and perhaps at times the assumption that 'we know best'. (Chambers, 1996:17).

GTZ has now officially downgraded LFs and ZOPP, relaunched them in 1996 within a broader perspective of project cycle management, and underlined that they are tools, one set of tools amongst many, which like any others have strengths and limitations. More fundamental than the details of workshop style, but reflecting the same imbalance -- funder dominance -- ZOPP's continuation of classic LFA's emphasis on pre-stated targets at input, activity and output levels brought a bias against more fundamental objectives: of learning and of building capacities. GTZ has toyed with the idea of 'A minimum planning framework, limited to strategic goals and input ceilings and leaving as much as possible to a joint learning process during implementation, [which] might lead to much better results'.²⁴ But it has stuck instead to detailed, centrally approved, binding specification of intended activities and inputs -- albeit now somewhat more flexible and with greater focus on assessing and building projects' own management capacity.

3.2. ZOPP-LFA in the new aid project cycle management - new decade, new acronym, new panacea ?

[After] its slide into disrepute for inflexible and ritualistic use [and] a general overhaul in response to massive criticism [in GTZ] in 1995, the new flexible and reformed ZOPP became the core of a Project Cycle Management (PCM) approach. Prized by managers as a solid tool, it was often used and abused in a dilettante way in practice. (Schubert,

²³ Likewise, Vannoppen (1994) reports from prolonged work by a Belgian NGDO (COPIBO) in Zimbabwe that: i) all participants of an OOIP planning seminar should have been through all the preceding situation analysis, otherwise some participants would dispute the problem tree and prioritizations from the earlier work; ii) having many farmer representatives in the seminars was important, to counteract domination by officials and ensure realism.

²⁴ From GTZ's new directives for 'Managing the Implementation of German Technical Cooperation Activities', cited by Kievelitz (1996:39). Beier similarly advised: 'To improve ZOPP as a project planning tool probably requires directing it more towards impact by [emphasizing] outputs and purposes higher, instead of the present concentration on activities and inputs' (1996:72).

1996:33)

The 1990s extension of LFA is 'Project Cycle Management', due in part to the Netherlands based Management for Development Foundation (MDF), and propagated in GTZ and the European Union's aid programme. This new generation of LFA -- illustrated also by for example the DANIDA handbook prepared by MDF -- adds some realistic warnings on problems of use and misuse, and tackles a series of blind-spots in conventional logframe work. For example, it gives more systematic attention to unplanned impacts and to the assumptions column, with attempts to quantify requirements concerning external factors and to identify and respond to killer assumptions. The European Commission is positive, especially for the future: PCM has helped make objectives clearer, more realistic and more measurable (Snelder, 1994:27) -- even though proposals continue to confuse output and purpose, outputs and impact, and so on (Eggers, 1994:64).

Most importantly, PCM embeds LFA in stronger organizational analysis: to consider, first and before work on a logframe, who should be involved in planning a project and how; and second, after log-framing, who should do what in implementation, with distinct attention to a) operational activities, b) coordination and control activities, and, critically, c) capacity-building activities (Snelder, 1994). In the 1990s previous mainstream project planning and management methodology has been belatedly recognized as mis-focused: excessively oriented to short-term delivery of benefits rather than to sustainability and longer-term building of capacity and commitment. LFA has been part of this. But, chameleon-like, it can be used to facilitate attention to more fundamental, longer-term concerns. In practice, the intensive donor involvement that continues tends to compete with local capacity building (Gagel, 1996).

Some PCM work goes further, and tries to touch all bases. Project Cycle Management is to become Participatory Cooperation Management (Gagel, 1996).

[Work on PCM at times] seems almost schizoid in the language used. It has some of the old and some of the new, some of what fits with things and some of what fits with people... ..participants should [say PCM's proponents] be involved from the start... [with] participation by all affected [and] transparent decision-making and analysis ... On the other hand... [PCM says] there should be a solid plan.... [Development] should be clearly target-oriented. There should be pre-defined analysis and planning steps [and so on]... (Chambers, 1996:11)

In effect GTZ and others are now examining:

whether participatory learning approaches are compatible with the constraints of a management and steering system which is essentially based on the logical framework approach. (Forster, 1996:1-2)

3.3. Open-system uses and attempts to socialize LFA

The most interesting 1990s work on LFA does not concern the attempts to tidy up terms, matrix layout, and linkage between project cycle phases, deft though some of it is. The project matrix emerged as part of a project approach which attempts to establish near-control in small enclaves. That approach has not fared well in many cases in a real world of open systems and turbulent environments. Whether LFA can become a tool of adaptation in this real world depends on the use of the assumptions column and the range of inputs brought into discussion.

With a wide range of inputs then the project matrix may be put in proper context, as just a means towards ends of communication, negotiation, teambuilding, learning and deeper reflection.

Social planners at and working with ODA in the 1990s have led the way here. One might have expected them to mistrust logframe's simplifications and heavy emphasis on quantification. But outweighing that, they have found in logframes a way to institutionally insert themselves into project analysis, and ensure attention to questions of societal process. The logframe's step-by-step objectives hierarchy can help us (perhaps especially if it has an Activities level) to get beyond conventional 'black box' plans prepared by engineers and other technical specialists without serious involvement of others and then converted to monetary terms by economists (often with manipulation to produce desired conclusions; Gasper, 1987). The obligation to specify causal chains and associated assumptions can open project design, appraisal and review to the scrutiny and suggestions of anthropologists, organizational analysts, gender specialists, and others. The assumptions column in particular gives social analysts a legitimized, bureaucratized, officially compulsory channel by which to question others and present their own insights, which earlier could be marginalized by the engineers and economists. This is even more important than, and underpins, work to refine and legitimize non-numerical indicators (section 4.4 below) and make updating of logframes routine.

That the LF offered a channel for greater transparency and debate, thanks to its compactness and visual linkages, was recognized earlier (see e.g. Cracknell & Rednall, 1986), but with reference only to exchanges within a funding agency -- as in the ODA/DFID work we have just mentioned. ZOPP extended the circle of participants, to include some from recipient agencies. Now seeking broader participation, in reality as well as rhetoric, GTZ organized a recent workshop entitled "ZOPP marries PRA?".

Most of the workshop's discussion groups remained sceptical about the proposed 'marriage' (Schubert, ed., 1996:37-65). ZOPP-ers and GTZ staff tended to be keen; but PRA- and PLA-ites were not (Forster, 1996b). Schubert ascribes the lack of marriage interest at the workshop to inflated hopes at present for a self-sufficient strength of PRA, and underestimation of its requirements for institutionalization and for ordered action after community activation. He argues that the two methods have inverse strengths and weaknesses. The question remains: does complementarity imply compatibility?

Many other participants inclined to the view that the heavyweight ZOPP mechanism almost inevitably remains dominated by the monied and powerful; and that no fixed, standard planning and management approach is valid.

ZOPP and PRA are suited for application in different situations and by different users (Augustin, 1996:51).

Standardised solutions must become a thing of the past (Goebel et al., 1996:26)

ZOPP and PCM represent basic conceptual frameworks. Their suitability for application should be reflected upon in each situation (Recommendations to GTZ from the workshop; Forster ed., 1996:29).

...planning for, and within, such social changes [viz., in environments that are constantly changing] can hardly be done in the way that planning for technical implementation has been done up until now... laying down technical details in advance by means of a few

external experts... (Kievelitz, 1996:39-40).

Instead, after broad framework planning, periodic action planning should be left to implementers on the ground. ZOPP's defenders argue that, sensitively and imaginatively used, it can help in both stages (Schuster, 1996), for example in statement of qualitative indicators of process. But in order to do all this, 'the "planning culture" within GTZ needs to be changed substantially' (Kievelitz, 1996:41), with its assumptions of a lack of capacity and/or trustworthiness of others, and of the masterful technical expertise and moral superiority of the auditor-funder on the other side. There is talk in some parts of GTZ now of giving overriding priority in PCM to involving intended beneficiaries in all stages of decision-making (Goebel et al., 1996:22); but 'target group' talk continues (e.g. in the same article) and 'colleagues at HQ or in projects are often not aware of these policy changes... [and] still operate in unchanged institutional environments...' (Forster, 1996b:64).²⁵

The proposal of 'OOIP/LFA as a tool for people driven development' at a rather similar 1994 workshop (INTRAC & South Research, 1994) raised the question of how far it then remains LFA. In the series of advocated amendments and extensions to conventional ZOPP/OOIP (ibid.:19-22), even problem analysis is rendered optional, 'If local groups have [already] successfully analysed their own problems and designed their own project to solve these problems' (p.18; successful by what criteria?); and for objectives analysis, 'Analyse whether this step is really necessary' - ! (p.20).

Sizoo (1994) and some others at the INTRAC workshop argued further that LFA conceals conflicts of interest, and that its conceptual approach is too distinctively Western and culture-specific -- with particular notions and attitudes concerning time, effectiveness, rationality, etc. - - for it to serve bottom-up management in the South. Before turning to some of these deeper issues in Section 4, we can remark that much of the proponents' commentary remains prescriptive and predictive as yet -- from the good intentions of the revised methods, regardless of constraints, and from model cases under favourable conditions -- rather than reporting actual sustained widespread success. We can be sure that just as conventional LFs and ZOPP in practice far from fulfilled all promises, the same will apply again.

²⁵ One study group hoped to 'Find ways to overcome reservations from BMZ [the German aid ministry] and partner countries against open orientation phase... [and] Convince BMZ to accept more flexibility and honest planning' (Breitschuh, 1996a:60-1).

4. LFA IN THE PERSPECTIVE OF THEORIES OF ORGANIZATIONS, OBJECTIVES, AND DEVELOPMENT

4.1. Towards fuller diagnosis

LFA contains at least the following elements or tendencies:

- 1 - Objectives-ism: a strong emphasis on explicit, unified, statements of project and policy objectives.
- 2 - Means-ends-ism: organization of these objectives into a hierarchical, and pyramidal, system, in which some are clearly and simply means and others are ends.
- 3 - Indicator-ism and target-ism: strong emphases on measuring the attainment of objectives, as an unequivocally and universally valuable activity; and further on setting targets to guide and assess performance.
- 4 - Project-ism: integration of the above elements in the notion of a project, a largely separable, manage-able, plannable zone for physical and/or social engineering.

(We could perhaps add to the list: standardization and the claim of universal relevance.) We need to examine each of these components further, and also the type of 'scientific management' background from which they derive and the mythologizing and boss-talk often employed to enforce them.

Literature on LFA appears remarkably innocent of work from organizational studies, political science, systems analysis, and many strands of development theory, which could seriously delimit its areas of applicability. From systems analysis, we must ask how often such simple and tidy pyramids of objectives can be an adequate representation -- even as a self-consciously simplified working tool, and even for individuals, let alone inter-agency projects. From organization studies, we must ask what and whose are organizational objectives, and what are the objectives of objectives. From political science, we may hardly have to ask why the LF is particularly used in inter-national aid work, where domestic political balancing can be put aside, yet even there is often *not* used in plan preparation (Wiggins & Shields, 1995:11), where it would limit donor political discretion.²⁶ And from development theory, we have to face the criticisms of the project mode of development. According to Biggs & Neame,

.. the 'project mentality' ... ignores the complex historical, political, economic and cultural processes and power structures at work... Similarly, it fails to acknowledge the heterogeneity of the social and ideological commitments of individuals and interest groups (1994:2).

In other words it presumes existing or attainable consensus on goals and on how to reach them: 'we know what we mean by "development" and what interventions are required to achieve it' (1995:31). Biggs & Neame suggest this remains true for the more open-system, flexible, process-oriented examples of LFA planning that we have just seen. In their view these proffer blue-prints for being flexible, and are unwilling to face the reality of ongoing disagreements and conflicts.

²⁶ Clements (1995) for example puts USAID spending decisions into their overridingly political context.

4.2. Objectives-ism; whose objectives?

A central theme in public management theorizing, advice, and reforms has been that objectives and criteria should be stated clearly, precisely, and operationally, and preferably or even necessarily in a quantified or quantifiable form. We can call this belief and movement 'managerial' or 'managerialist'. They come originally from the private profit-making sector.²⁷ There the general objective is relatively clear, simple, and measurable: financial profit. Lower-level objectives are therefore also easier to establish. Part of the managerialist agenda in public planning and administration is to adopt this private sector style of objective-setting and management-by-objectives (MBO) (Pollitt, 1992). Objective-setting typically comes under the supervision and control of a central management or financial controller. One can draw a clear line from conventional business management theory, which stressed 'a clear determination of objectives as the starting point' (Self, 1972:65); through the school of 'scientific public administration'; on to 1960s and 70s formats like PPBS (Planning, Programming & Budgeting System) and logframe.²⁸

Experience with objectives-ism is mixed, not overwhelmingly favourable (ibid.; Deutscher, 1976). Even for the private sector, Hofstede tells how MBO's American cultural background required its modification for use even in Germany (1991; Pugh & Hickson, 1989). At least three deep-rooted sources of difficulties exist concerning statements of programme and project objectives:

- (a) *intellectual* - problems in knowing what is attainable, and therefore worth focussing on, and whether it really would be satisfying once attained; these difficulties exist even for individuals;
- (b) *intra-organizational* - organizations consist of many sub-groups and individuals, with their own beliefs and objectives, and public and development programmes typically involve many organizations; if consensus or acquiescence to common objectives is established, often it is through use of grand and vague language;
- (c) *inter-organizational* - objectives serve not only for intra-and inter-organizational coordination, but for inter-organizational defence and negotiation; public statements of objectives are typically with an eye to obtaining resources or acceptance or forestalling criticism.

The LFA responds to some of the intellectual problems, not all; and gives us much less help with the socio-political difficulties, of which it may be hardly aware. In addition:

- (d) *tunnel-vision* can arise as a by-product of the whole process of stating the desired objectives

²⁷ '...managerialism.. [the notion of] professional management based on private sector management experience which sets explicit standards and measures of performance and emphasises output controls' (Rhodes, 1995; cited in Robinson, 1997). The other half of the New Public Management is the new ('public choice') institutional economics, to which LFA, descendant of an older managerialism, has no necessary connection.

²⁸ Some managerialist techniques also have roots in military planning. Much Operations Research dates from World War Two; the RAND Corporation, grew out of contract research for the U.S. airforce, and was the womb for the PPBS that was introduced to the U.S. Defence Department in 1961 and thereafter attempted in the whole U.S. public service. Not coincidentally, military organizations are marked by clear hierarchy and relatively simple objectives.

of action: negative effects are often downgraded. Recent work tries to insert questions about negative effects into LF manuals' checklists, as a counterforce.

MBO and its offshoots like PPBS and LFA fit a mechanistic approach to organizations (Morgan, 1986:29 & 350). Organizations (and people) are treated as machines for execution of the intentions of a unitary central intelligence, or as happy communities of like-minded folk. The European Commission's PCM manual exudes unjustified optimism:

A gathering of these representatives [of concerned groups and organizations] will arrive at a shared analysis... These methods... will lead to a single "image of reality" (1993:18).

GTZ similarly insist:

The target groups must reach a consensus on the planned improvement in their life situation (which will be the development goal) and the measures necessary to achieve this goal (1996:10).

The quasi-Stalinist language reads oddly besides commitments to democracy, diversity, and markets. Markets, amongst other means, further cooperation between those who do not agree; somehow LFA proponents assume that projects must and can have detailed and extensive agreement.

We should instead always ask: whose objectives?²⁹ 'Consensuses' that appear from such gatherings tend to be the choices of the powerful, the experienced, the European language speakers (Chambers, 1996); choices which representatives of the weak, if present, will politely or prudently not openly gainsay, in order not to jeopardize their access to resources. One participant recalled though the helpless rage of a large group of Jamaicans herded into a hall by a donor organization and forced to fill-in a pre-fixed single project matrix set of boxes, as a requirement for funding.³⁰ Thus some Southern NGOs have more than one set of goals and indicators on file: one for themselves (insofar as united), others for different funders. 'An artificial agreement on only one interest should be avoided' (Kievelitz, 1996:40).

Fuller, more precise specification of objectives (see section 2.3 above, on degrees of measurement) becomes more feasible and satisfactory according to:

- the degree of knowledge and/or control possessed; the stronger are uncertainty, change, novelty, and variation between cases the less feasible is precise specification;
- the content of the sector and project concerned; a project to raise incomes lends itself more to specification than does one to strengthen policy-making;
- the degree of centralization of authority, and staff- and client- dependence and alienation; the higher that any of these are, the more that the central authority will consider close specification to be possible and necessary.

Thus detailed specification might emerge more readily in authoritarian organizational contexts (e.g. in the military, or inside a corporation, or with a rich confident donor and a weak client); in some types of physical infrastructure and industry projects, less exposed to natural or human vagary; and for routine performance of administrative services. Yet, strikingly, LFA in fact

²⁹ MacArthur (1994:92) explains how we obtain a different LF according to whose viewpoint is used; e.g. depending on who is the viewing party, the assumptions stated about other parties' behaviour will necessarily differ. But he does not stress that the objectives column itself may vary.

³⁰ A Jamaican at the 1997 IDPM Manchester conference on Public Sector Management for the 21st Century.

seems to work better in aid projects when preparation of project plans is decentralized to offices and staff from the recipient country: plans become better informed and better accepted.³¹ More strength is shown and produced by empowerment than by domination, for the game is not zero-sum.

So we must concomitantly ask: what are the roles of objectives? If objectives statements are precariously negotiated simplifications, in the face of complex changeable imperfectly known environments, we should consider how different contexts, different negotiations, will lead to use of different criteria and result in different simplifications. Around the time of LFA's creation, experience with PPBS, a related managerialist approach, led Schick amongst others to warn of the ossifying presumption that there exists 'a unique configuration of objectives -- the "program structure" -- serving all analytic purposes', which can be captured in an organizational charter and enforced by the rational analyst. 'In reality there are many different purposes, perspectives and classifications' (Schick, 1973:569-70).

One role, that emphasized by LFA, is to point us in a good direction. In addition, whatever the direction, having objectives can provide a sense of purposefulness and encourage mobilization of energies and focusing of efforts. Individuals and groups typically work harder with targets and goals. But who are 'us', who is the group? We should note at least four cases, progressively less conducive to detailed consensus on objectives: 1. within an agency marked by clear vertical lines of authority; 2. within an agency where parallel divisions each have their own sources of autonomy and authority; 3. the interaction of more than one public (not necessarily only State) agency; 4. the interaction of a plurality of agencies and publics.

Within groups and organizations, statements of objectives can also help integrate, coordinate, and motivate the activities of many individuals.³² Finally, objectives provide criteria for assessing performance and identifying when adjustment is needed. This final role suggests that objectives be as clear and precise as possible. Some of the other roles, such as motivating and integrating, sometimes work better with vague broad statements. Precision is not always either necessary or desirable. Room for manoeuvre is reduced by high specification of objectives; yet effective action can require ongoing networking, manoeuvring and coalition forming (see e.g. Biggs & Neame, 1995). Manoeuvre relies on general sense-giving principles of orientation, rather than on detailed, choice-denying, specifications.

4.3. Means-ends-ism

Exercises in 'vertical logic', orderly hierarchical analysis of objectives, are often extremely helpful. We see this again and again, in individual projects and in more general conceptualization, such as of efficiency and effectiveness, different types of equity, levels of 'needs', and much more. But pitfalls abound.

LFA has adopted the following principle: 'Good project design should, if it was realised, make

³¹ The British Council's experience in its large India programme provides an example.

³² Motivation here refers to inspiration given by the nature, the content, of a particular indicated path; in contrast to the purposefulness provided by having any path, whatever its direction.

clear from the outset exactly what objective was to be the main one, the principal determinant of project design and implementation management' (MacArthur, 1994:89). It treats a project as if it were an academic paper with a single author, a single audience, and a short time horizon for influence. Underlying this insistence on a single fundamental objective is what has been called the *tree-model* of objectives systems: one or a few more general and fundamental objectives, to which are connected a proliferation of progressively more specific means. The system is like a tree (banyans excepted), though it is inverted and hence pyramidal in outline. Much work from systems analysis, value theory and related fields, including pragmatist philosophy and institutionalist economics, indicates the limits of this sort of simple system model, and elaborates richer forms of value system, including what Michael Scriven and Paul Kress call *webs*.

Two observations can be made here, on the idea of hierarchy and then the idea of convergence. Hoksbergen (1986), in the course of a critique of 1970s and 80s USAID ex post evaluations including many that used logframes, argues that attempts to sharply separate means and ends lead to downgrading of process objectives (such as participation as a higher objective in its own right). Recent work tries to provide direct indicators of process quality plus 'process-integrating indicators' (4.4 below). Concerning convergence, a point-apex pyramid model taken as a model of *values* presumes a single denominator of value (the economists' utility or money). If used as a model of *causation*, a danger perhaps arises of sometimes conflating two types of analysis: (1) of causal linkages in time, where the end-points are not necessarily more general, and (2) of value hierarchy, where we move from means to general valued ends. Conflation could occur because of the influence of a capitalist model of organizations and calculation, in which resources are mobilized and weighted in light of their contribution towards the unitary, unifying goal of financial profit.

4.4. Indicator-ism and target-ism

'Indicators favour a down-to-earth thinking', observes Breitschuh (1996b:93). But practicality can degenerate into tunnel-vision (again), fetishism - the elevation of means into ends, and self-interested manoeuvres; in sum, indicator-itis. Seen at its most virulent in the former command economies, where a welter of State-set performance indicators tried to substitute for market signals, indicatoritis flourishes elsewhere too.

- Tunnel-vision means the exclusion of other aspects of the objectives than those covered by the indicators, or the downgrading or exclusion of objectives which do not fit the prescribed form of indicator.³³
- Fetishism means to forget that an indicator is only that, a more or less valid indication for something else, not the thing itself; and that its validity should be reexamined regularly (at least once a year suggests Breitschuh). So should be the validity of the underlying objective itself, but this too can be impeded if consistency of data series becomes treated as more important than their relevance. Indicators can easily become symbols, badges of managerial practicality, substitutes for observation, thinking and judgement.
- Further, if indicators embody incentives then unrestrained self-interest rather than forgetfulness can lead to these results and worse; 'it is relatively easy to manipulate the

³³ Hoksbergen (1986:291) provides some examples from USAID evaluation reports.

information presented in these documents' warns Kijne (1994:6) about logframed reports. The inevitable trend in countries where higher education under budgetary pressure has become ruled by crude (output-level) indicators -- pass-rates, drop-out rates, proportion of higher grades, etc. -- has been the veiled decline of standards of achievement: it becomes difficult to fail, and easier to shine. Indicators such as proportion of crimes solved have helped to corrupt some police forces, which found the invention and solution of crimes on paper a more manageable and rewarding activity than genuine investigation or prevention (N. Davies, 1986).

The desiderata for indicators -- validity, cost-effectiveness, broad appeal, difficulty of abuse, and the like -- are in reality very demanding. They often necessitate extensive and extended consultation and experimentation, to build sufficient technical strength and a broadly accepted balancing of the various factors involved (Innes, 1990). Also necessary will be user commitment to the underlying objectives, and robust mechanisms for checking on use and abuse.

Recent work on qualitative and process indicators can help to reduce tunnel vision and - as seen in the following example - fetishism.

'Indicators of the type "100 craftspersons used 1,200 person/day courses in accounting; representatives of 40 groups completed courses to combat illiteracy; craftspersons from 50 groups have received loans" [a real example] ... enforce a supply orientation of the project implementation' (Gagel, 1996:95)

The project and its staff become preoccupied with ensuring that recipients receive these pre-set means. In contrast a 'process-integrating' indicator like 'At least 60% of the support activities were proposed by the craftspersons themselves' [another real example] retains and reinforces a flexible demand-orientation. Indicators should be such as to encourage users to participate in identifying factors not already seen at the beginning of the project (ibid.); they should promote involvement and learning rather than suppress them.

Much LFA discussion of indicators refers in fact to targets: not merely categories to measure performance but specific target levels such as in Gagel's examples. Related to the search for process-integrating indicators, process-approach social planners at ODA/DFID have de-emphasized precise time-bound output targets in favour of process 'milestones', such as that consultations have been held or agreements reached.

Target-ism is quintessentially American management, not self-evident and universal wisdom; it fits some situations better and others less so. Morgan (1989) cites a report of a Japanese bank operating in the U.S. The American vice-presidents expressed their satisfaction with their organization and employers, with one caveat: 'These Japanese don't understand objectives'. How can one 'go for it' if one hasn't been told exactly what 'it' is? - such as the targets for acquisition and lending for particular types of clients. The Japanese president of the bank expressed his satisfaction with his American subordinates: loyal, capable, hard-working. But he had one reservation: 'These Americans don't understand objectives. They keep asking me to give them targets. My role is to give them our philosophy of banking, our way of dealing with clients, general guidance; they have the skill, commitment and more detailed knowledge of cases to then make their own decisions.' The more capable and trusted are one's co-workers, and the more variable the environments and the more individual the cases that they

must deal with, the less appropriate is it to specify targets. Kievelitz (1996) calls for ZOPP-PCM to seek only agreement on general objectives and 'target corridors', not precise targets.

4.5. Project-ism

The sharply defined, calibrated, targeted 'ladder to heaven' has been LFA's version of: 'The project mode of development, sometimes called "the blueprint approach", [which] assumes that it is possible to pre-determine a set of cause-and-effect relationships that will turn resources, knowledge or technology into desired and sustainable human change' (Fowler, 1995:145). Extending Fowler's treatment, Figure 3 summarizes some limits to the dream of planning-as-prediction and development as a blueprint-able process. As usual the LFA chameleon can be found both serving project-ism and helping to highlight its futility in many cases.

Figure 3: Limits to blue-print planning

CAUSES OF UNPREDICTABILITY	EFFECTS
1 - Large numbers of human actors; and, more generally, 2 - Huge numbers of internal and external factors influencing the work of a project or organization, including 3 - Interactive, not merely additive, influences, 4 - Operating over extended periods. 5 - Human and organizational variability (not only reflecting 2 and 3 and 4). 6 - Human ability to innovate. 7 - Surprising emergent properties from the interaction between evolving complex systems.	Limits to: A - our knowledge; B - our ability to control; C - hence, our ability to predict; D - our ability to identify or attribute influence to one factor separately from others (even under conditions of controlled experimentation; given cause 3).

MDF admit that:

The LFA, if applied too rigidly, can promote the idea that the social sector can be planned and implemented in the form of precise and determined patterns of inputs and outputs.

That is not so. (DANIDA, 1990: I-9)

What does 'too rigidly' mean here? 'Very rigidly'? - so that merely 'rigidly' is not a problem? Or does it just mean 'rigidly', which is how LFA has mostly been used, valued as a disciplining force?

In Chambers' simplified but accessible language:

what has been appropriate and fits when dealing with things is not appropriate and does not fit when dealing with people, society, and social processes. (Chambers, 1996:8)

For such cases he suggests that we 'think of an ALP (Action Learning Process) rather than a "project"' (1996:13). For example, whereas the executors of infrastructure projects build-and-go, projects for longer term activity very often find problems even to retain staff; their successful and trained staff move elsewhere. To try to plan and evaluate such projects in terms of fixed output targets for within the project enclave might become an exercise in irrelevance. One response to the problems of blueprint projects is however to increase the project thrust: ever more conditions, measures, indicators, reports, restrictions. This brings no net gains when operating in peripheral dependent economies and societies beset by macro crises. To

manage is not to control, warned Landau & Stout (1979), even in the more favoured settings they wrote of.

Extending Uphoff (1995) and Edwards & Hulme (1995a), Figure 4 summarizes the damage caused by then still attempting to blue-print.

Figure 4: Causes and effects of blue-print planning

DEEPER CAUSES	DIRECT EFFECTS	DEEPER EFFECTS
<p>1 - Presumption of the predictability and controllability of social change (Fig.3 above).</p> <p>2 - External pressures for accountability.</p> <p><i>A more proximate cause:</i></p> <p>3 - 'projects, communities and enterprises are treated as closed systems' (Uphoff; this is related to both 1 and 2).</p>	<p>A - Preoccupation with assessment by reference to pre-specified objectives</p> <p>B - Focus on more demonstrable and measurable effects</p> <p>C - (Relative) Neglect of co-generated benefits and costs and of indirect effects</p> <p>D - (Relative) Neglect of external benefits and costs; focus on own organization or project.</p>	<p>I. Typically, rigidity: reference to outdated objectives.</p> <p>II. Typically, neglect of many of the real effects, including some of the most important.</p> <p>III. Neglect of the more elusive, longer run, and (Uphoff) wider spread effects that critically influence sustainability.</p>

Added to the fundamental limits to measurement and to attribution of influence -- typically more serious for the more important objectives -- come other considerations: the divergences and limits to agreement on values and some basic concepts; commitment to democracy; and the expectation that discussion can lead to proposals which are better informed, more widely accepted, and therefore more sustainable, and contributes to long-run strengthening too by diffusing information and building capacity. Together these, optimistic democratic, arguments suggest to Fowler, Edwards & Hulme, and various others that:

accountability must be a process of negotiation among stakeholders rather than the imposition of one definition or interpretation of 'effectiveness' over another (Edwards & Hulme, 1995a:12).³⁴

We would then assess the versions of LFA by how far they recognize, accommodate and facilitate this principle of 'structured multiple stakeholder involvement' (Fowler, 1995:150). Some are trying to do so, others not at all.

More novel in technocratic development appraisal and evaluation, this line of argument is well known in other fields. Moral philosophers have extensively considered 'the limits to consequentialism' (Scheffler, 1982, 1988). One limit, the problem of attribution of influence, is that we frequently cannot predict or retroactively identify consequences with a degree of reliability to justify moral judgement on that basis. Alisdair MacIntyre showed the damaging

³⁴ Edwards & Hulme themselves (1995b) seem in two minds on the implications of the limits to authoritative means-ends programming and subsequent mirror-image evaluation. They repeatedly (pp.222, 224) call for more work on performance measurement and tracking impact; while calling also for a more "open systems" mode of thinking and acting' (p.227). An assumption that accountability must always be based on authoritative performance indicators, rather than on agreed procedures of negotiated review, underlies the mistaken view of Rondinelli which they cite: 'accountability has to be restricted to the ways in which NGOs and others use their resources rather than the long-term impact of resource use on development' (p.222).

implications of this and similar limits for economic cost-benefit analysis.³⁵ Discussions in moral philosophy and jurisprudence then go further than only talking of negotiation. They consider principles for structuring negotiations and conducting arguments, and also assess the claims of possible, non-negotiated yet binding, 'deontological' principles. The Universal Declaration of Human Rights for example claims to be a set of such principles, concerning rights which one does not gain or lose through negotiation, though certainly negotiation is required in interpreting, applying, and balancing the different purported rights.

Similarly, the work on multi-criteria plan assessment methods has arisen as an alternative or complement to economists' cost-benefit analysis, for situations where uncertainty is high, and yet decision-making has to be relatively open, participatory, and demonstrably reasoned and socially equitable, because multiple, different, stakeholders are mobilized and influential (Nijkamp, 1990). The prevalence, in contrast, of blue-print, top-down and non-dialogical variants of LFA in aid projects reflects the power relations extant: funders are not accountable to recipients (Fowler, 1995:149). The fundamental limits noted above mean however that evaluation of the projects or programmes by comparison with pre-set indicators reduces typically to a focus on the outputs level, with the several dangers noted earlier.

5. CONCLUSION: SERVANT OR MASTER?

Any algorithm, any fixed set of rules for handling problems, has both attractions and dangers: it is intended to help people think about cases and conditions, but may lead them to not think. The balance of the costs and benefits depends on various factors: how much faith one has in people's independent thinking; how important are the variations between cases and hence the dangers of standardization; and how rigidly people will use LFA, when operating in conditions where they should keep on learning and adapting. Figure 5 summarizes several arguments from earlier sections. Its format hopefully reflects one of the logframe's own great strengths, an ability to summarize many ideas and their interrelations in a brief and readable way.

We found it important to differentiate aspects of LFA, including objectives-setting, objectives-hierarchy, measurement, the project approach, and other typical features, as separable and having different implications. Measurement, the 'horizontal logic', is a more perilous but also less central aspect. 'the basic power of the logframe remains... its ability to show causality in the Project Structure Column, and dependency on exogenous variables in the Assumptions Column' (Solem, 1987:17) - in other words, the vertical logic. This too contains conundrums and limits, but its capacity usually to help clarify and communicate issues makes it a potential ally both of authoritarian management and of democratic debate.

³⁵ Some economists are aware of the possible limit set by 'fungibility' to the validity of their estimates: the impact of resources at system level may be different from their apparent effects at project level, because of system-wide reallocations induced by their availability. This remains though in the view of most of them a purely technical problem, resolvable in theory by system-level controlled comparisons.

Figure 5: Overview of some strengths and weaknesses in LFA

DEBATES ABOUT THE LFA	OBJECTIVES AND POTENTIAL STRENGTHS	COMMON PROBLEMS	POSSIBLE DANGERS
<i>About vertical logic</i>	1) A synoptic, integrated view - relatively thorough yet concise - of project objectives and activities and their links to environments 2) Encourages examination of interconnections and assumptions	a) In clarifying and gaining consensus on objectives b) Interpreting and applying the terms for different levels c) In reducing objectives to a linear chain d) Over-aggregation, especially at higher levels	i) Oversimplification of objectives ii) Rigidification of objectives iii) Ignoring or downgrading unintended effects iv) Hides disagreements
<i>About horizontal logic</i>	To give measurable, operationalized reference-points for use in appraisal, management, & evaluation	a) To obtain practicable, valid, quantified indicators, especially for higher levels and for 'social' types of project b) To separate out the influences of complementary factors	i) Downgrading of less quantifiable objectives ii) Rigidification of targets iii) Disproportionate work required iv) Invalid use of gross outcomes as indicators v) Mishandling of co-determined effects v) Distorted incentives
<i>About format and application</i>	1) Visually accessible; relatively easy to understand 2) Matrix can (and should) be systematically linked to situation analysis (e.g. as in ZOPP) 3) Can be applied in a participatory way (e.g. in ZOPP and its derivatives)	a) Prepared too late b) Pressure to use a pre-set format, at risk of distortion of the case c) Assumptions analysis is marginalized d) High demands for training, judgement and motivation	i) The same fixed format is applied to all cases ii) Can deaden thought and stifle adaptation iii) Mainly used for one-way accountability only iv) Can alienate staff v) Becomes a fetish, rather than a help

I have referred to LFA as a chameleon, able to take on various appearances. 'One basic strength of the LFA is its adaptability to differing situations.. [and] adaptability to the needs of different organisations', say Marleyn & Van Esbroeck (1994:1). Not only can an organisation use LFA as a standardized procedure to help guide and integrate work in widely differing cases, but different organizations handle the approach in different ways, reflecting their own priorities and ideologies.

Evaluation of such a protean entity must beware of an essentialism which seeks to find LFA 'basically good' or 'basically bad'. In the former case while credit is given for positive contributions, all limitations are excused. For example: 'Use of this term ["disadvantages"] implies seeking in the matrix attributes which, though essential to planning and analysis, the LogFrame was never intended to possess'; MacArthur, 1994:100.) Another standard escape hatch (Bernard Schaffer's term) is training-ism: X is basically good, we only need more (and

more) training. Let us refer back to the dense problems tree drawn by Dewint for the introduction of OOIP into the Belgian aid administration. In OOIP/ZOPP terms, the method's complexity and high requirements (if it is to generate gains) is a non-reformable parameter; and correspondingly, ability to meet those requirements -- for time, skills, organizational commitment and effective demand for careful analysis -- must be posited as an assumption in any 'project' to introduce it. Sometimes it proves to be a 'killer assumption', when the requirements for fruitful large-scale use cannot be satisfied. Fundamentally we should accept that, like any objectives statement or any project plan, a standardized format like LF is at best a simplification; and that each of these, like the methods used to generate them, are merely *possibly* useful means, not ends in themselves.

We require more subtle, non-essentialist, assessment, distinguishing different contexts, versions and criteria. Of particular concern is: under which conditions does LFA help to counter Michels' warning, cited by Uphoff, that 'organization means oligarchy'? and in which cases does it instead promote that? To date, LFA has predominantly been a tool of the powerful. Funding organizations' manuals extol its virtues, 'properly used'. The difficulties and puzzles that ordinary users encounter tend to be downgraded by the normal mechanisms of centralized authority: the organization apex consciously and unconsciously softens critical reports, which anyway have limited circulation and mostly derive only from agency staff rather than from (yet more critical) recipients; and juniors and recipients mark their words carefully, and can assume that their problems must reflect incompetence or misfortune, since they read -- in attractive, purposeful, confident manuals -- of smooth and successful applications elsewhere.

The log-frame rose, spread, and declined in USAID during the 70s and 80s; ZOPP rose, spread and became ritualized in GTZ in the 80s and 90s. Whatever are the sustainable fruits of the improved 1990s variants will in due course be ready for assessment. The 'something is better than nothing' criterion remains valid, but we will be looking also for more than that, both in LFA performance and in the situational refinement of its assessment.

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