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Joint ECA/FAO Agriculture Division

REPORT ON
WORKSHOP ON PROJECT ANALYSIS

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Addis Ababa

I. INTRODUCTION

1.1 Background

1. Africa is predominantly rural and the economies of most member countries rely on the agricultural sector which is still plagued by intractable problems including the inadequate organization of the post-production systems and more particularly problems of commodity marketing and input distribution.

2. Efforts to develop the sector have included research, adoption of improved technologies, development of the extension system in order to boost production and attain food self-sufficiency. Also, with regard to the marketing system, most countries have established states' parastatals which has proved quite costly and inefficient in terms of providing the right incentives to producers and preventing or reducing the magnitude of food losses.

3. In compliance with the recommendations of the Lagos Plan of Action (1980) the Africa Priority Programme for Economic Recovery (1985) and the Medium-term Plan 1985-1989 of the United Nations Economic Commission for Africa (ECA), the Joint ECA/FAO Agriculture Division elaborated a programme for the biennium 1987-1989, which included activities aiming at improving the operations and management of food marketing institutions and in parallel; geared to preventing and reducing post-harvest food losses at households, traders, co-operatives and central stores levels. In tackling this preoccupying issue, the Commission, in close collaboration with the United Nations Food and Agriculture Organization (FAO), conducted subregional surveys which confirmed the high magnitude of losses at all levels but more especially at central stores level. The surveys were followed by a number of actions including seminars to sensitize decision makers; to promote inter-country co-operation in terms of research and exchange of information and to train the technical personnel practically involved in the preservation of agricultural commodities and guiding the small farmers. In doing so, the Commission has been supported by a number of donor countries including the Federal Republic of Germany. With regard to the improvement of commodity marketing and inputs distribution, the Commission implemented a number of activities. However, in other aspects of the development of the agricultural sector, efforts have yielded far less than the expected results due mainly to the fact that development programmes and projects were poorly planned with objectives not precisely defined and their implementation inadequately monitored. In order to rationally address the agricultural marketing problems, the Commission integrated training activities in project analysis and planning, into its agricultural marketing programme for the biennium 1990-1991.

1.2 Objectives of Workshop

4. The present workshop on project planning and analysis was therefore intended to provide senior agricultural staff with rigorous methods of analysis and planning in general with emphasis on projects aiming at the improvement of agricultural commodities marketing and food security planning. Although several methods have been applied in many programmes and projects, the effective analysis of the participation including the interest of the millions of small farmers contributing to the bulk of the aggregate agricultural output, and clearly defined objectives and proper ways of solving existing problems, have often been ignored. Therefore, this workshop also aimed at familiarizing senior agricultural staff with the objectives oriented Project Planning Method. Also in order to benefit from the increased possibilities offered by computer science, the workshop included a presentation of an agricultural project planning software developed by FAO.

1.3 Preparation and Programme of Work

5. The preparation of the workshop by ECA included defining the programme of work, inviting participants and preparing a background paper for the workshop. Also, ECA bore the expenses relating to the travel and subsistence of participants and the honoraria and subsistence of resource personnel. The background paper was on the development of the rural sector through the expansion and improvement of the co-operative movement.

6. The meeting facilities, lodging of participants and other utilities for the workshop were made available by the International Centre of Insect Physiology and Ecology (ICIPE). The programme of the workshops as implemented is attached to this report as Annex I.

1.4 Participation and Opening of the Workshop

7. The workshop was attended by 10 senior staff of the Department of Agriculture of member countries and 4 professional staff of ICIPE. The list of participants is attached to this report as Annex II.

8. In his opening address, Dr. S.C. Nana-Sinkam, Director of the Joint ECA/FAO Agriculture Division welcomed participants on behalf of the Executive Secretary of the ECA and the Director-General of FAO. He explained that the meeting was opening in the afternoon instead of in the morning as scheduled due to delays in the arrival of some participants. Dr. Nana-Sinkam then noted the valuable support received from the Federal Republic of Germany which funded the ECA project including the organization of the workshop, and identified a qualified expert to present the objectives oriented project analysis method. Concerning the importance of the workshop, the Director of JEFAD mentioned that according to the World Bank, an institution involved in several projects in Africa, 68 per cent of agricultural projects

implemented in member countries failed mainly due to poor planning and lack of well defined objectives. He mentioned that although the agricultural sector in Africa benefited from a small share of loans made to member countries, the sector contributed to the repayment of the overall debts of the countries. As a result of such massive outflow of resources to meet debt repayments, little resources were left for re-investment into the sector. However, he mentioned that the sector must be given the right importance and dynamism as it will remain the engine of the expected economic growth and social welfare. Dr. Nana-Sinkam concluded his statement by noting that the workshop will without doubt contribute to enhance the skills of participants in project analysis and planning.

II. SUMMARY OF WORKSHOP PROCEEDING

9. As per the attached programme (Annex I) the workshop included the following three parts:

- Objectives Oriented Project Planning;
- Introduction to DASI; an agricultural Project Planning Software; and
- Discussion on specific Elements of Agricultural Projects Analysis.

II.1 Objectives Oriented Project Planning

2.1.1 The Background Paper on the Case Study

10. The background paper entitled "Co-operatives and Rural Development in Eastern and Southern Africa: A case study of Co-operatives in Botswana, Kenya and Lesotho" was primarily meant to serve as a practical case study for use in the presentation of the ZOPP method during the workshop and not to deal in depth with the co-operative movement. The paper comprised the following five main sections. The introduction examined the importance of the co-operative movement to agricultural development in Eastern and Southern Africa, the objectives, data sources and plan of the paper. The second section reviewed the growth and development of co-operatives in Botswana, Kenya and Lesotho; while the third section analysed the constraints to cooperative development in these countries. The fourth section then made proposals for improving the co-operatives; while the last section presented a summary of the paper and the conclusions.

11. A bibliography, and the relevant tables and figures were also annexed to the paper.

12. Before the workshop, the paper was sent to the expert selected for the presentation of the ZOPP method in order to allow him build the practical illustration of the theoretical components of ZOPP. It was also distributed to participants and presented at the beginning of the workshop before the presentation of the method.

2.2 Introduction to ZOPP (Ziel Orientate Project Planning) or (Objective Oriented Project Planning)

13. The Expert who made the presentation of the method (Mr. Christoph Przybilka) defined the method and made introductory remarks on the general background and the steps involved in the ZOPP method. These steps are:

- Participation Analysis;
- Problem analysis and construction of the problem tree;
- Objectives analysis and construction of the objective tree;
- Analysis of alternatives; and
- Project Planning Matrix.

14. Besides the steps, participants were familiarized with the visualization by card system which is the backbone of the method and presents the advantage of making the exercise flexible as a contribution can be removed or reformulated following group discussion or after a certain level of comprehension of the various steps. Also, the basic rules of the method which include the following were presented:

- One idea is written on one card;
- A maximum of three lines per card brings about a clear expression of an idea;
- The same color of cards is used for a given step.

2.2.1 Participation Analysis

15. This step is meant to define a framework of overview of:

- persons
- groups
- institutions; and
- organizations connected with the project.

It also allows drawing implications or consequences for the project planning. The main steps of the participation analysis include:

- collecting
- categorizing; and
- analysing data or information.

16. The analysis process is undertaken, defining the following characteristics:

1. General Characteristics

- Social characteristics (members; social background; relation; cultural aspects);
- Status (formal. informal; etc.);
- Structure (organisation; leaders; etc.);
- Overall situation.

2. Interests (+)/Fears (-)

- Needs, wishes
- Interests (openly expressed; hidden)
- Motives; hopes, expectations
- Fears
- Attitudes (in general; towards other groups).

3. Strengths (+)/Weakness (-)

- Resources, rights, monopoly power or influence
- Shortcomings, main problems
- Potential contributions to hinderances of the project.

4. Implications/Remarks

- In which way should the group be considered ?
favourable, non favourable
- How should the project react towards the group
(basic ideas)?

17. Following the presentation of this method, participants were divided into two groups to practically apply each step to the case study. The first Group dealt with the case of Kenya and the second Group with the case of Botswana. For ease of reporting, only the findings of the first group (case of Kenya) are presented in this report.

- a) Categorization of Participating parties (see fig.1);
- b) Analysis of a participant (in this case the Kenya Grain Growers Co-operatives Union (KGGCU) (see fig. 2).

Participant's View of the Participation Analysis

Pre-amble

18. These comments should not be taken as a critique of the participation analysis, rather it should be taken as general observations arising from my own - perhaps subjective - opinion.

Presentation

19. The style of presentation of the topic by the lecturer was good. However, one could observe that, as the exercise got underway, the course participants were initially confused because they knew what to do but were not sure why they were doing it. The question that was silently begging an answer was: why is this participation analysis necessary? In other words, what purpose was it intended to serve? It would have therefore been a good idea if the lecturers explained not only what is to be done but also why. To serve this purpose; perhaps more than one example would have been ideal.

Content

20. In analysing the groups that would directly or indirectly participate in the project that is being planned, it is important to do a detailed analysis. By including General characteristics, there is danger of including assumptions in the planning process. This would reduce the chances of the projects success. Furthermore, implications and Remarks are too vague. It does not clearly indicate what is required. At this initial stage of planning it is too early to formulate implications of the participants attitude towards the project. Again there is a lot of conjecture, assumption and guesswork in trying to formulate these implications.

General Remarks

21. The information obtained from Participation Analysis is important at the stage of planning where Assumptions and Risks are being analysed. Yet this point was not brought out clearly during the presentation. Most course participants therefore may not see the immediate relationship between Participation Analysis and the Assumptions and Risks in the PPM.

22. Lastly, the title "Participation Analysis" is as misleading as inappropriate. Participation of what? Are all those analysed going to participate in the Project? Should we not say "Analysis of":

1. Possible participants
2. Socio-economic and political environment or something like that?

2.2.2 Problem Analysis

23. The exercise includes the following steps:

- identification of a given inadequate aspect of the actual situation;
- analysis of the main problem related to the actual situation;
- visualization of cause-effect relationships;
- definition of the core problem.

24. The process of analysing the problem leads to the problem tree. The theory was first illustrated by an example, using information related to a public bus transport system for which the core problem was the high frequency of bus accidents caused by careless drivers, bad roads and lack of maintenance with effects including frequent hurting of passengers, delays etc.

25. The core problem was seen as a mixture of several facts but was generally at the centre of the problem tree. Also, the level in the problem tree did not imply the relative importance of a given problem. As problems are negative aspects of the actual condition they do not include "lack of possible solution".

imaginary on future problems or hidden solutions.

26. Applying the problem analysis to the case study, participants came out with the result shown on fig. 3.

Participant's View of the Problem Analysis

27. In the ZOPP Method, problem analysis describes the pre-project situation as seen by participants after a thorough analysis of the parties concerned. Because the parties concerned are known together with their characteristics, potentials, fears and interests, their problem can easily be derived from a thorough participation analysis.

28. The most beneficial tenant of ZOPP problem analysis is that all the interested parties identify a core problem which is acceptable to all. The concerned parties then derive the causes and effects of the core problem in a think-tank session. Thus it is quite beneficial if the project beneficiaries, the executing agencies and the donor identify the problem together and agree on what the problem to be tackled is. The ZOPP method therefore superceeds the versions where problem identification is solely the work of an individual donor or NGOs which may have preconceived ideas of what the problem to be addressed is. Indeed by formulating the problems in the problem tree as negative conditions the next ZOPP method follows logically by turning them into positive conditions.

2.2.3 Objectives Analysis

29. Contrary to the problem analysis which deals with negative conditions of the existing situation, the objectives analysis consist of identifying potential objectives which are favourable conditions of future situation. Although the objective tree is not the mirror image of the problem tree translated into a positive formulation (negative in the case of problems) an easy approach is to reformulate all problems identifies (negative) into a favourable conditions (positive). The objectives should be:

- desirable, and
- realistically achievable (using criteria including financial and timeframe of the project).

30. If necessary, add new objectives, revise statements or keep formulation for situations a project cannot change (i.e. problems of extreme temperature, very high altitude etc.). Alternatives for such problems exist (in case of extreme temperature, it is possible to set as objective the availability of cold storage trucks for the transportation of perishable goods). Also, one should be very careful if entering the domain of cultural or religious beliefs of participating groups.

31. The objectives tree elaborated by participants (Kenya Group) is reproduced in fig. 4 and 5 (causes and effects).

A Participant's View of Objectives Analysis

32. This is one of the five steps in fact the third one in the "ZOPP" method. At this stage of project analysis the planner or project team gives emphasis to four major points. These are:

- description of future situations
- identification of potential objectives
- visualization of means-ends-relationship
- formulation of objective tree.

33. In contrast to problem analysis, (where planners treat or identify the existing problems) the objective analysis deals with description of a future situation. In other words we restate the negative reach conditons in to positive reach conditions.

34. Since only those plans which set up attainable goals, taking into account the available resources and possible obstacles have a chance to be carried out, the second important point in objective analysis is identification of potential or reasonable objectives for the project.

35. Once potential objectives are identified what is of equal importance in project planning and analysis is identification of means and visualization of means-ends-relationship. This is the very important aspect of objective analysis and, in fact, for any plan document.

36. Based on step three, the fourth and final step in objective analysis is formulation of an objective tree. What is required at this stage is drawing diagrams of means-ends-relationship. In objective tree the top ends of objective is what the project needs to achieve while the lower ones are means to achieve the ends.

2.2.4 Analysis of Alternatives

37. The alternative solutions for achieving an objective are derived from the objectives tree. The process by itself includes two basic steps:

- defining different "means ladders" to achieve the objective aimed at solving the core problem;
- using criteria to ensure that the choosen alternative(s), are achievable. Such criteria include time frame for the project, cost-benefit ratios, risks and side effects, political priorities, social risks, policy of donor agencies, environmental compatibility, emphasis on women or pressure groups (children, resource-poor farmers, urban poor etc.).

38. Using the case study, the Group selected the means ladders related to "farmers" and "co-operatives" and left aside "inputs" (see fig. 6). This choice was selected based on the fact that if farmers' productivity is significantly increased through a limited number of activities and if they are organized into co-operatives, the co-operation movement can be further expanded to tackle the problem of efficient distribution of inputs at cost affordable to farmers. Based on the time frame (hypothetical duration of five years) and the priorities set by the group, the following achievable objectives were retained:

- Production is more market oriented;
- Individual farmer has access to credit;
- Farmers know-how is improved;
- Yields have increased;
- Individual marketed supplies have increased;
- Produce quality is improved;
- Farmers' bargaining power has increased;
- Salary structure is improved;
- Trained managerial manpower is available;
- Co-operatives' management is more efficient;
- Level of production has increased;
- Shortage of marketed surplus is reduced;
- Productivity has increased;
- Family planning is introduced;
- Rural populations are better nourished;
- Farmers income has increased;
- Rural populations are better-off.

A Participant's View of Alternatives Analysis

39. I thought it was a good session, especially in its technical aspects of the ZOPP method.

40. Our group had conceptual problems in disengaging ourselves from the original participation analysis, target group choosen (cattle producers), what project we are trying to design, who "we are", etc. in deciding what "we" can do and what should not be done by our project. With these issues not being clearly understood, there was a certain feeling of being lost in the jargon.

41. Nevertheless, we agreed that we could not change climate, weather and government-related issues. Using the internal logic of ZOPP, which is quite clear, definite areas of ends-means-ladders were successfully demarcated. In our case, this seemed to leave us with possible alternatives in two areas:

- (a) training and raising the knowledge base;
- (b) limited provision of inputs and services to increase production;

that still leaves the question: who are we?

42. One hopes that at the end of it all, things will fall into place, so that the participants take away a real, understandable tool to use in actual planning.

2.2.5 Problem Planning Matrix (PPM)

43. Besides the summary of the expected results and activities which can contribute to their achievement, the PPM includes indicators which are verifiable, the means of verification and important assumptions which are related to the impact of external factors.

a) The first column of the PPM

44. The column contains a summary of the elements analysed, including:

- an overall goal (projective goal of project);
- a project purpose (impact of project when it ends);
- results (important achievements);
- activities (detail of most tasks which will contribute to the result).

45. The overall goal is one, the project purpose is also one but the results are multiple. Filling the first column is made by going from the activities to the overall goal, using the means/ends relationship.

46. The activities and the results depend solely on the project and these levels are called "the manageable factors".

47. The project purpose and the overall goal cannot be controlled 100 per cent by the project. They are intended goals but can be affected by factors outside the control of the project and are called the "development hypotheses".

48. Usually, results as well as activities are limited to a maximum of 10 elements depending on the importance of the project. Also, some elements within the objectives tree can be used to define results and activities, reformulated or not.

49. In the first column, elements are formulated as follows:

- activities in the form of action (i.e. train, build, initiate, establish, etc.);
- results are in the form of affirmative formulation of what is achieved;
- project purpose and overall goal are formulated in a form of an improved situation compared to the situation without the project.

50. It is important that, at the results level, the planners put the question of "who are we" so that they are sure that they cannot modify the general law or the physical or political environment of a country. Also, if the overall goal is too ambitious and has no direct linkage with the project purpose, there is still the possibility of defining a super goal (priority policies of governmental authorities) and bring the overall goal to an intermediary level of aims directly linked with the purpose.

51. The outcome of the group in filling the first column is reproduced in fig. 7.

b) The fourth column of the PPM

52. This column is dealt with after the first column because of the interlinkage of the two.

53. The fourth column includes important assumptions related to external factors which are:

- necessary for project success,
- outside the direct control of the project.

54. Using the background of the public bus service as illustration, the workshop discussed some important assumptions. The process is to question if the activities planned for achieving an expected result (1st column) are completed, which factor (5) could further contribute to the achievement of the given result although not being controlled by the project.

55. For example after the curriculum for training bus drivers is developed and the drivers have been trained, the condition of effectively obtaining the services of trained bus drivers (within the bus company in question) is the assumption that the drivers will stay in service within the company.

56. The important assumptions are positive form of external factors which can, if they have negative impact, jeopardize the achievement of result, project purpose or overall goal. They are determined going from the bottom level to the top (activities to overall goal if the first column is used as reference).

57. The interlinkage between the first and fourth columns is called the "vertical logic". The following chart illustrates this element.

First Column

Overall goal
Project purpose
Results
Activities

Fourth Column

Assumption(s)
Assumption(s)
Assumption(s)
Assumption(s).

58. It is not a must that an assumption is defined at each level. When there is no external factor to affect results or the purpose on the overall goal, an important assumption is not defined.

59. The formulation of assumptions is made in the following manner:

- formulation as a positive condition (thus, an assumption can be derived from the objectives tree and more particularly from objectives contained in ladders-means not selected at the time of choosing alternatives);

- assessment of each assumption according to their characteristics:

- importance
- probability to occur
- chance to be influenced by the project (when an activity of the project can reduce the risk that the assumption occurs). An assumption will be included or not in the fourth column according to the following assessment:
 - important
 - no, not to be included
 - yes
- Probability to occur
- Almost certain not to be included
- Quite likely to be included and to be monitored
- Influence (possibility of being influenced by project)
 - Yes to be included with provision of activity to influence it
 - No killer assumption (objective to be reformulated).

60. If an assumption can be influenced, the first column must include an activity to alleviate its adverse effect. In some cases, killer assumptions can be influenced.

61. The Group defined the assumptions listed below for the case study on Kenya.

First Column

Fourth Column

Overall goal	Political stability prevails in the country
Project purpose	Taxation system is favourable to agriculture
	Exchange rate is favourable to farmers

Results

Prices offered to producers by the co-operatives are competitive

The crop pests and disease outbreaks are controllable

Weather conditions are favourable

There is no major animal disease outbreaks.

c) The Second column of the PPM

62. This column, contrary to the narrative way of setting objectives in the first column, stipulates the performance standards of the defined objectives. Therefore its elements are formulated taking into account the following specifications:

- quantity
- quality
- time, and
- location

in order to determine objectively verifiable indicators. For a given objective, it is possible to set one or several indicators. Also for the improvement of the situation of a given target group, it is possible to set an indicator for each category of the group (if the improvement degree is not equal to all categories).

63. The following example (theoretical) illustrates the way of formulating an indicator.

<u>First Column</u>	<u>Second Column</u>
(General description of objective)	(indicator)
Extension workers	quantity
Trained	At least 200 students in the extension training
	Quality
	Finish Course and pass qualifying exam
	Time
	By December 1991
	Location
	In the Western Province

64. If the time frame is determined (i.e. 5 years) more than one indicator can be defined to allow for the monitoring of progress (i.e. instead of 200 students by December 1989, the indicators could be 50 students in 1989, 75 students in 1990 and 75 students in 1991).

65. The indicators should be independent from one level to another, thus the indicators for results must be different from those of project purpose.

66. Using the case study on Kenya, the Group set the following indicators for the levels of overall goal, project purpose and results.

Overall Goal From year 0 (without project) to the end of project (year 5), the following social facilities and infrastructures have been established in the District

<u>Year</u>	<u>Schools</u>	<u>Houses with corrugated iron roofs</u>	<u>Bore Holes</u>	<u>Health Centre</u>
0	1	10%	-	1
1	2		5	2
2	3		20	3
4	4	40%	30	4
5	5		35	6

Project Purpose: Before the project, the monetary income (average) of a farmer was estimated at 3,000 ksh and 8,100 ksh in year 2 and 18,900 ksh in year 5

Result: Out of 20,000 farmers (target group) in South Nyanza District, the membership involvement is as follows:

<u>Year</u>	<u>No. of Co-operatives</u>
70	750
1	800
2	1500
3	10000
4	12000
5	16000.

In the district, the numbers of farmers' co-operatives evolves as follows:

<u>Year</u>	<u>No. of Co-operatives</u>
0	1
1	3
2	5
3	6
4	8
5	10

The yield of maize in the District which was at an average of 0.8t/ha is now the following:

<u>Year</u>	<u>% of Farmers</u>	<u>Yield</u>
0	100	0.8 t
1	5	1.5 t
2	15	1.7 t
3	50	2.5 t
4	60	3.5 t
5	70	5.0 t

Farmers in the District are able to cultivate the following hectarage per day.

<u>Year</u>	<u>Hectarage</u>
0	0.2 ha/day
1	0.3 ha/day
2	0.5 ha/day
3	1.2 ha/day
4	1.5 ha/day
5	2.0 ha/day.

d) The Third Column of the PPM

67. It provides an indication of the means of verification of the indicators set under column 2 of the PPM. The defined sources must exist (or be established under project) and must be reliable and valid. For the case study, the following means of verification have been defined as source of verifying the set indicators:

First Column

Overall Goal
Project Purpose

Results

Third Column

District Development Office
Central Bureau of Statistics
(Provincial Office)
- Files of the District
Commissioner's Office (South Nyanza)
- Progress reports of the Project
- Co-operatives Stores Records
- Office of the Commissioner for Co-operatives.

Participant's View of the Project Planning Matrix

68. The idea is new to me.

69. The theory behind the Matrix was presented very well and became very interesting. However the following were my observations:

- Elaboration of activities could be easily followed and the formulation of activity was consequently easy;

- The formulation of result was perhaps not allocated enough time since there was a mix-up of the activities and the results. To start with, the formulation of results was taken as a summary of activities which turned out to be wrong and I do believe more examples would have helped in the formulation of results;

- The problem of project purpose formulation in the Botswana group became more evident since the group had come up with so many results and an overall project purpose was not easy;

- From the presentation it was not clear how far or what the limitations are, for the activities one can come up with on a specific project.

Column IV

- The idea of assumption was clearly understood but the assessment of the importance/influence of assumption was very difficult in relation to the project chosen;

- More practical examples would have been of much help;

- The group could not decide on some assumptions and these were left debatable. Some relevant points which could have been of help were left out;

- The clarification of preconditions and assumptions did not come out very clearly and more examples could have clarified the situation.

70. Following the explanations given on the contents of the four columns of the PPM, the expert went to an introduction to the plan of operations which deals with elements derived from the activities. As illustration, the result "Membership of the Co-operatives has increased" was used (refer to column 1 of PPM to see related activities) see fig. 8.

71. It is noteworthy that under responsibility column, one person should be assigned with the responsibility of a given sub-activity. Also, for monitoring, although the activity is continuous, the manpower requirement for this task is in fact far less than the period of monitoring and must be defined.

72. The manpower expressed in man-months should not exceed 10 months for a given staff because of provision for leave. Also, if the total man-months required is more than that available, there should be a feedback at the PPM level to adjust the objectives accordingly. For the procurement costs, the currencies entered should allow a distinction to be made between local and outside purchases. The plan of operation which is done for each result can be framed for a year, a term or a month.

according to the details required for plan implementation.

Summary of the Various Steps of ZOPP

73. Following the presentation of the plan operations, the moderator went again through the various steps of ZOPP and commented on the project planning matrix. He also explained that at the German Agency for Technical Co-operation (GTZ) the projects submitted for funding go through 5 ZOPP exercises including the following:

- ZOPP 1 or "Pre-ZOPP" being a formal preliminary step which lasts 1 day;

- ZOPP 2 or "Appraisal ZOPP" allows the definition of the terms of reference for the appraisal. It lasts 1 day and half;

- ZOPP 3 or "Partner ZOPP" leads to the analysis and co-ordination of major recommendations of appraisal staff. This exercise is important and crucial as it is done with the partners who identified the project and with the people who will be actively involved in the implementation phase. It lasts 3 to 5 days depending on the complexity of the project.

- ZOPP 4 or "Start ZOPP" is meant for the elaboration of the plan of operations. It allows up-dating the planning.

- ZOPP 5 or "Replanning ZOPP" leads to the preparation of adjustments of the planning of the forthcoming project phases.

74. In general, for each project, ZOPP replanning exercise is done every two years (depending on the duration of the project).

2.3 Participant's Overall Appraisal of the ZOPP Workshop

75. Following the completion of the presentations of the method, participants were requested to objectively and independently express their views on the method, how useful it would be in their professional tasks, the way the subject was presented and the organization of this part of the workshop. Their assessment is presented below:

Evaluation of the "ZOPP Method" by the Workshop Participants

76. The method is relevant and useful in project planning and this is evident in the following areas:

- It encourages team approach to project planning and it is able to combine ideas from different people of different professional backgrounds, hence project planning is strengthened. It eliminates personal bias, hence it is a democratic method.

- The ZOPP Method opens up many alternatives within the framework of the project under plan and this broadens the scope for plans of operations of the project leading to more rational

decision.

- The method is flexible and is applicable to different situations. It is a simultaneous process with a well in-built feedback system.

- The method can be used in situations where other sophisticated planning aids like the computers are lacking.

77. A hinge of the ZOPP Method is that its applicability is best in a group of people who have mastered the procedures thoroughly. It can therefore be applied only on a limited scale by individuals. Those persons who are not well trained may not use it as a planning tool effectively.

Organization of the Workshop

78. In order for the participants to benefit fully from the workshop, the training should have been more intensive and more time should have been given. This would have given the participants more time to master the method and be more effective in the practical application of the method.

79. It was felt that follow-up on participants is necessary to find out whether the participants have gained from the workshop to be effective planners or whether they have forgotten the method all together.

80. The participants felt that the complete course on the ZOPP method should have been given to them to have full appraisal of the method instead of only an introduction to the methodology of ZOPP.

81. Invitations to participants to the workshop were received late by some participants. It was felt that enough time should have been given to participants.

82. The number of English speaking African countries attending the workshop was few and participants felt that many other countries could have been represented so that they too might benefit from the workshop.

The Course Moderator

83. The course/workshop moderator presented the subject very well. He knows the subject and undoubtedly satisfied the participants.

84. The course was practically oriented and this allowed individual participation at all levels of the methods, hence ease of grasping the method.

85. However due to limitation in time, some steps were not well understood by participants leading to inaccuracy in the formulation of the levels.

Applicability of the Method

86. Participants have gained from the ZOPP Method and they hope to apply the method and also expand it if possible in their respective countries.

2.4 Concluding Remarks

87. The expert/moderator found that participants have been really interested in the workshop as he noticed the quality of the work they achieved throughout. His impression is that all participants have gained a clear understanding of the principles guiding the method and could master its use if they continued applying it. He also mentioned that the session had been conducted in a very friendly atmosphere which contributed to the success of the workshop.

88. Dr. Nana-Sinkam, Director, Joint ECA/FAO Agriculture Division expressed his gratitude, on behalf of ECA and FAO to Mr. Christoph Przybilka for the excellent contribution he made. He hoped that participants would continue applying the method in their professional tasks and noted that, upon official request, ECA and FAO could consider assisting in the organization of similar workshops at national level. He expressed the gratitude of ECA to GTZ, the donor which financed the organization of the workshop. He finally expressed again the gratitude of ECA to ICIPE for its collaboration and for having contributed to the success of the workshop by making available the required facilities.

Fig. 1

CATEGORIZED PARTICIPATING PARTIES

Government Parastatals	Government Authorities	Financial Institutions	Associations	Private Entrepreneurs
Phyrethrum Board	Office of the President	Kenya Central Bank	Kenya Co-operative Creameries	Private traders
	Department of Co-operatives	Co-operatives' Bank	Agricultural Co-operatives	Private Wholesal
	Department of Commerce	Commercial Banks	Kenya National Federation of Co-operatives	Small Farmers
		Co-operatives' Savings Schemes		
		International Development Agencies	Kenya Grain Growers Co-operatives Union	Large Farmers

Fig. 2

ANALYSIS OF THE KENYA GRAIN GROWERS CO-OPERATIVES UNION
(K. G. G. C. U)

General Characteristics	Interests/Fears	Strength/Weakness	Implications for Project
Advisory institution	To increase its membership +	Generate employment +	Contribution to the mobilization of scarce resources +
Country-wide institution	To control the co-operative movement +	Improve or facilitate financial arrangements for its members	
Centralized decision making	To improve production +		Support the expansion of co-operatives
Markets farmers' produce	To offer better conditions to its members +	Capable of training its members +	Required strengthening its management
Educate farmers	To be overtaken by the development of the movement -	Lacks autonomy - Honesty and integrity are questionable -	Loss of membership occurs -
Members are shareholders		Inadequate management capabilities -	
Members' interest			
Provision of inputs at cost			
Promotion of Large-scale production			

Fig. 3

PROBLEM TREE (CAUSES)
Under-developed
Rural Economy

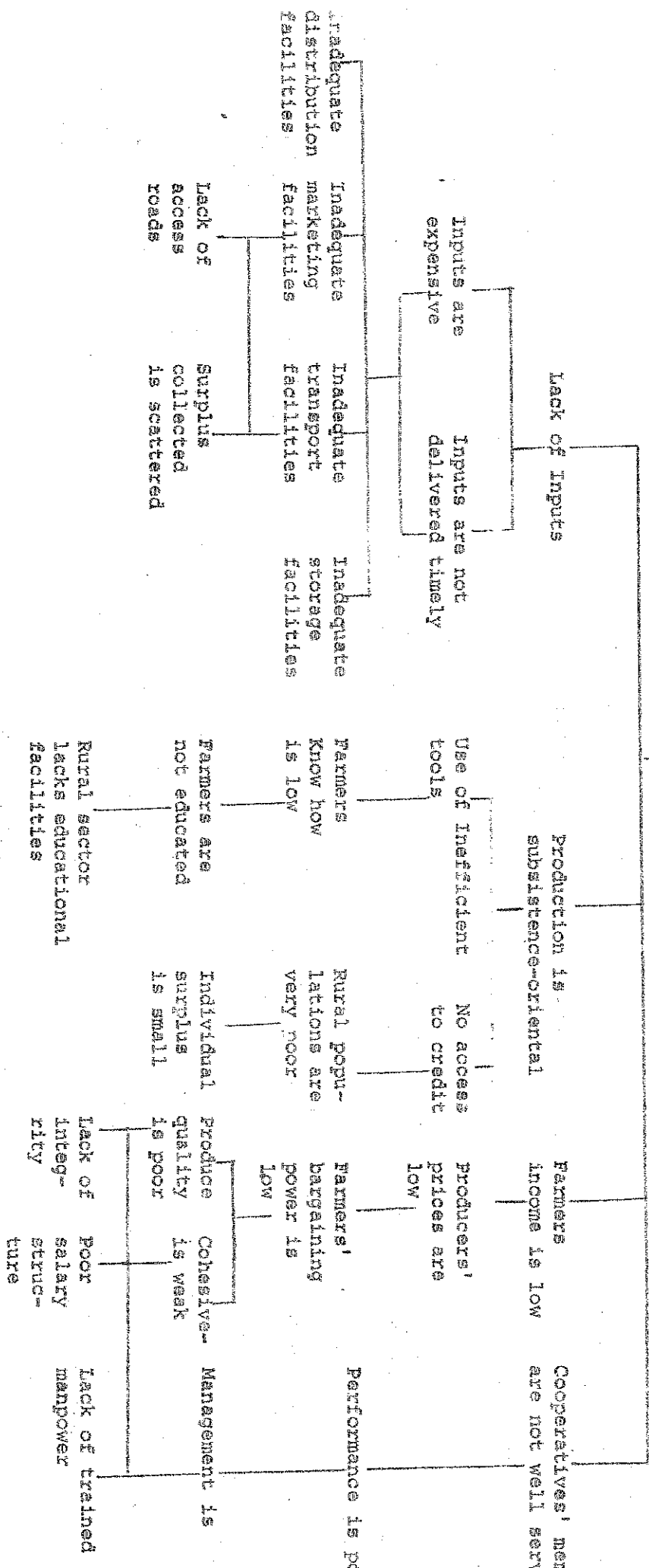


Fig. 4

PROBLEM TREE (EFFECTS)

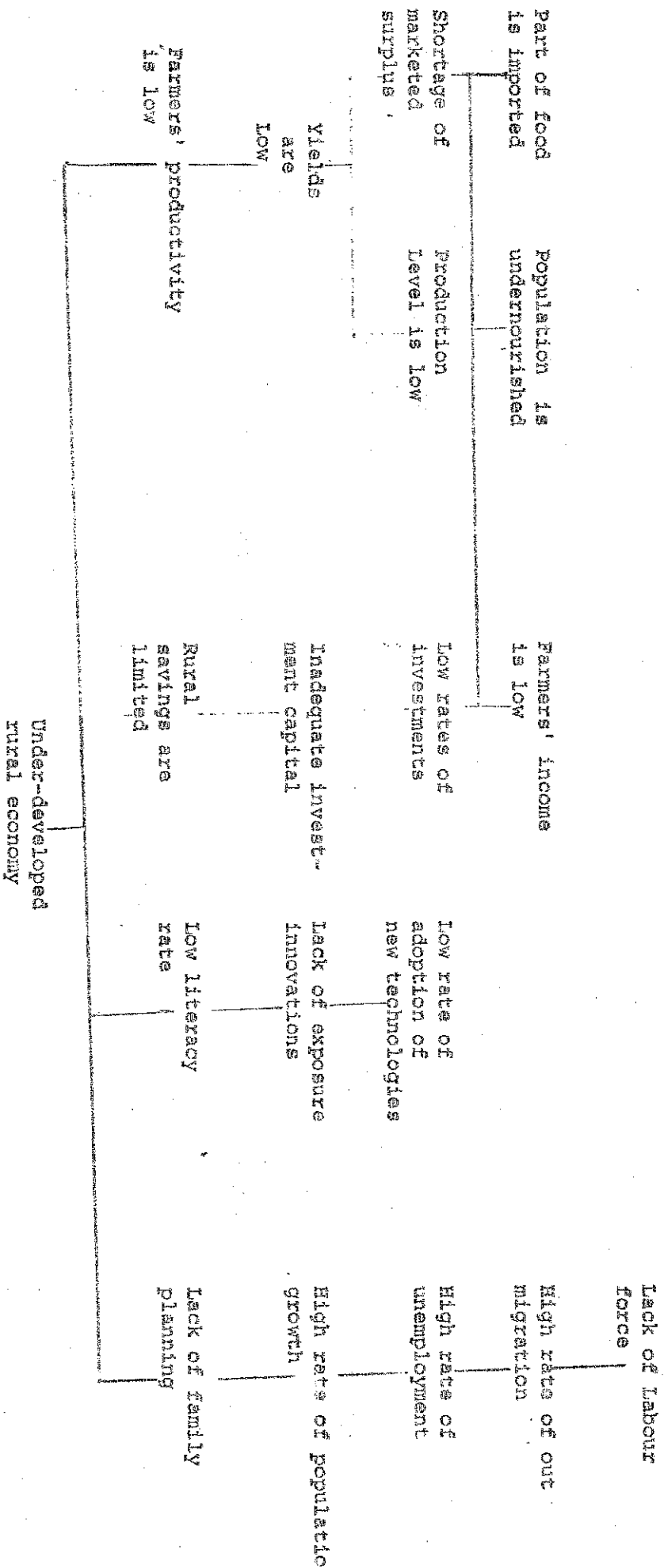


Fig. 5

OBJECTIVE TREE (ENDS)

INPUTS

FARMERS

COOPERATIVES

Department of Rural Economy Improved

Increased use of inputs

Inputs costs reduced

Delay in supply of inputs reduced

Distribution infestation improved

Market- Easy-
ing collec-
infrastruc- tion of
impro- indivi-
ved dual
supplies

Storage facilities expanded

Access to and available

Improvement transport facilities

Production is more market oriented

Increased adoption of improved Tools

Individual Farmers have more access to credit

Improved level of know-how

Rural populations are better off

Farmers are more educated

Individual surplus production increased

Educational infrastructures established

Farmers income significantly increased

Private Traders give better to farmers

Farmers bargaining power strengthened

Produce Cohesive-
quality ness of
improved farmers
strengthened

Cooperative Mem are better serv

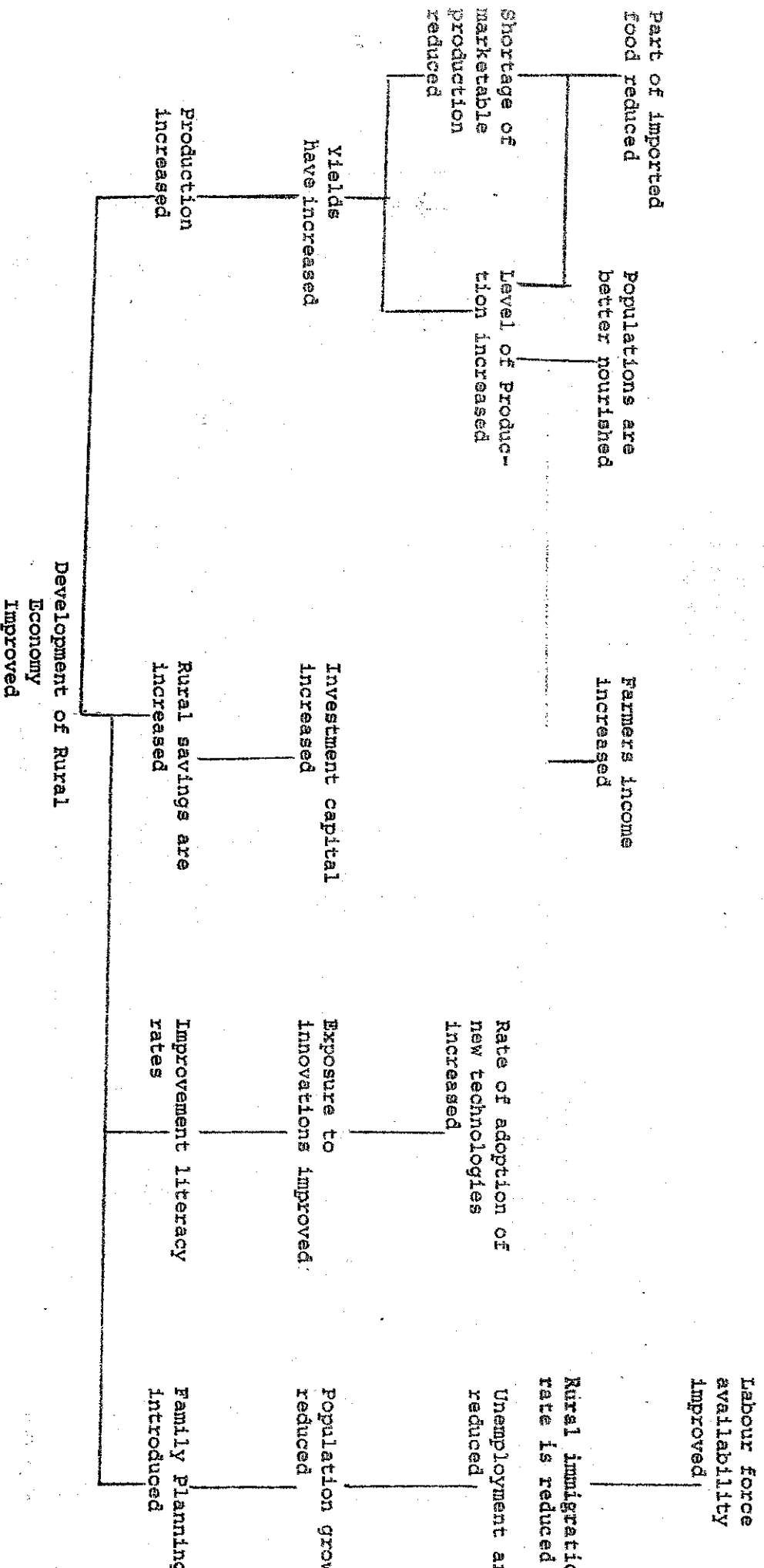
Performance of tive system imp

Management effi is improved

Integ- Better Tr
ration salary ma
pre- struc- av
vails ture

Fig. 6

OBJECTIVE TREE (MEANS)



III INTRODUCTION TO DASI: AN AGRICULTURAL PROJECT ANALYSIS SOFTWARE

3.1 Presentation

89. After the completion of the ZOPP method of project analysis and planning an FAO consultant Mr. R. Ascari introduced DASI - a project "Data Analysis and Simulation Programme Developed by FAO Policy Analysis Division Training Service. This is available on 2/3 Floppy Disks and can be installed on IBM mainframe, IBM PC and PC=1mm compatible.

90. Dasi is a training tool as well as an effective tool for project analysis especially in the preparation and evaluation of agricultural projects. According to the consultant, it can be used to determine the financial and economic viability of a project and also for monitoring the economic viability of a project.

91. The introduction to DASI was organized along the following:

- the logical framework;
- an application: NGAMO Project;
- a short computer demonstration.

3.2 Overview of the Use of Dasi in Project Analysis

92. In presenting an overview of the use of DASI, the consultant said the procedure involved in using DASI computer programme for project analysis consisted of the following steps.

Step 1 - Definition of commodities, activities and plans

93. In this step the data of the project are organized into the form required by DASI. All the inputs and outputs of the project have to be defined in terms of the following four categories: Commodities, Investments, Activities and Plans.

94. A commodity is any item consumed or produced by the project. Consumed items include seeds (e.g. sunflower seed, sesame seed etc.), fertilizer (urea, manure) land tax etc. Produced items include the crop production (Paddy, Sesame etc.). A price is given to each item.

95. The commodities are consumed and/or produced in activities which, in the case considered during the workshop are four crops: HYV Paddy, LYV Paddy, Sesame and Sunflower. The plan represents the farm model and includes the crop activities as well as general costs and taxes.

96. The project is therefore seen as a bunch of activities grouped into plans as shown in the diagram below:

The Logical Sequence and Data Structure

<u>Commodities</u>	<u>Activities</u>	<u>Plans</u>
A		
B	/1/	
C		/Plan 1/
D	/2/	
E		/Plan 3/
C		
D	/3/	
F		/Plan 2/
A		
	/4/	
D		
	/I1/	
Investments	/I2/.	

Step 2

97. In this step, the information given on the crop requirements, production, farm size and cropping patterns is used to fill out the data formats. In the example used, one commodity format, four activity formats (i.e. one for each of the categories defined above) and one for the plan (to represent the single farm type) are required.

Step 3

98. The data which are now in the required form are fed into the computer using the DASI option "EDIT A DATA FILE". As an exercise in the use of DASI, the workshop analysed data of NGAMO Project and created a file called "NGAMO 1 DAT". The data of the project was then entered and stored on the format following the instructions given in the DASI Users guide.

Step 4

99. The data bank is created and the data is printed by using the first option of the DASI programme "CREATE THE DATA BANK" and "PRINT THE DATA BANK" options respectively. At this stage any errors in data entry are identified.

Step 5

100. The quantities and values of a single specific plan are computed and then printed. To do this, the "COMPUTE THE QUANTITIES" and "COMPUTE THE VALUES" instructions are used.

101. In using the option "COMPUTE THE QUANTITIES", the programme requests the user to select a plan among those entered when the data bank was created.

Step 6 - Entering the Aggregates into the Computer

102. With the project data in the bank and the quantities and values of each plan computed, it is possible to carry out the analysis further using computer results.

103. This requires the preparation of another file called "NGAMO AGR" using instructions given in the users guide. In this file the aggregates, switching values, the sensitivity tests and the credit and tables that need to be performed are specified.

104. DASI will then compute and printout:

- | | | | |
|---|------------------|---|--------------------|
| - | Aggregates | - | IRR |
| - | NPV | - | Benefit/Cost ratio |
| - | Switching values | - | Cash flow. |

105. To compute switching values, we have to specify the variables needed in order to get the net benefit (the costs with a weight of minus one (-1) and the incomes with a weight of one (1)). A discount rate is also given (12 per cent for example).

106. Sensitivity tests can also be computed. What happens when the production of one of the commodities e.g. rice decreases 40 per cent? To do this "sensitivity" and the variable "Paddy" (computed aggregate) are specified.

Step 7 - Computing the Aggregate and Project Indicators

107. Using the option 'project indicators' and the information in NGAMO 1 AGR file, the aggregates and the project indicators can be obtained.

108. At this stage certain special computations can also be done:

- introduction of the credit element and cash flow analysis before and after financing;
- analysis of project profitability at economic prices i.e. by using economic prices/opportunity cost;
- analysis of different project alternatives and comparison between the with and without project situations.

Step 8 - Questions to be answered

109. The following problems were given as examples of problems considered in the feasibility and financial analysis which should be answered with the output of DASI:

- a) determine the labour requirements and verify that family labour is enough;
- b) determine the draft animal requirements and make suggestions if there appears to be potential constraints;
- c) on the basis of the farm inputs and outputs check the storage and transport capacity available at farm level;
- d) compare the benefit/land and benefit/labour ratios at the beginning of the project with the one at full development;
- e) what is the evolution of costs and receipts?

3.3 Computer Demonstration

110. After the presentation, participants were split into three groups of 4-5 persons in order to demonstrate the use of DASI on the computer. Exercises were carried out to analyse two farm models:

1. A farm plan (animal farm) utilizing no investments: NCAMO 1;
2. A farm plan (mechanized farm) introducing investment in the form of tractor: NCAMO 2.

111. For each plan hypothetical data on the farm production were used i.e. (i) development of cropping pattern; and (ii) input-output data per ha by crop. Prices of inputs, products and other farm costs were specified and used and their viability (profitability) was analysed. The following were computed:

- Aggregates
- NPVs
- Switching values
- IRRs
- Benefit/cost ratios
- Cash flows.

112. Both farm plans were profitable but the first plan was more profitable.

3.4 Conclusion

113. After the exercises the consultant held a short session to wrap up the introduction to DASI. In particular he brought out the similarities and analogies between the DASI and ZOPP methods. These are that in both methods:

1. The analysis can be conducted at different levels:

- the activity: e.g. maize vs wheat;
- the plan (1): e.g. farm models;
- the plan (2): the project.

2. Possible alternative means to achieve a given goal can be assessed:

- the farm cropping pattern;
- the project structure.

114. Both DASI and ZOPP were also assessed as to whether they were alternative tools in project analysis or were an integrated approach.

115. The following were their advantages:

	<u>DASI</u>	<u>ZOPP</u>
Institutional analysis	-	xxx
Social analysis	-	xxx
Financial analysis	xxx	x
Economic analysis	xxx	-

116. The contributions of DASI were again reiterated. These were contributions to:

The project monitoring: it enables the calculation of the cash flow and project indicators when changes in input/output quantities/prices occur;

Important assumption: the measure of possible effects by means of sensitivity analysis;

The project data base: data organization on time series leading to cash flow analysis and ultimately to the financial issue.

117. In conclusion it was stressed that both methods were complementary and should be employed in project preparation and analysis.

3.5 A Participant's View of the Method

118. This is a practical based lecture on the use of DASI computer programme in project analysis. The presenter has a lot of exposure in this field having worked for a number of governmental and private organizations.

119. His presentation was quite good. As an economist he stressed the need for both economic and financial analysis of projects using computer before embarking on such projects. Because he does not have an agricultural background, he had some initial

problems trying to explain some terminologies and definitions to some participants, vis-a-vis those terms used in agricultural projects. Perhaps, this could be attributed to the fact that some of the participants did not have a formal background in computer-programming. However, following interventions from some participants and ECA officials, the misunderstandings were resolved and cleared.

120. Having said that, the lecture was quite interesting, although time was a great constraint and there were not enough computers for participants to try their hands on. The lecturer also handled the practical aspects quite well which all participants appreciated. This underscores the need for developing countries of Africa to acquire such facilities' as DASI in project formulation, planning, analysis and monitoring. It is a good complement to the ZOPP. By the end of the day most participants were satisfied for this awareness created. But whether the participants are capable of using the DASI package on getting home is another problem. This highlights the need for ECA to provide adequate time for such seminars/courses or run a refresher or follow-up one in future.

IV. SPECIFIC ELEMENTS RELATED TO AGRICULTURAL PROJECT ANALYSIS

4.1 Introduction

The Macro and Sector Context (Session 1)

121. At the end of the DASI presentation, an Expert from the Investment Centre, FAO, Rome made a presentation on specific elements related to agricultural agricultural project analysis. Six sessions of the workshop were devoted to this.

122. In session 1, the consultant considered the macro- and sectoral contexts of projects that is, the important elements within a sector and the economy that are important and require consideration when planning and analysing a project. Session 2 was devoted to a presentation of and discussion on the project cycle and project guidelines while in session 3, Domestic Resource Cost Analysis was presented and used as one of the methods for analysing projects. This method was utilized in the consideration of conservation projects. Session 4 was devoted to Women in Agricultural Project Planning and Session 5 examined Project Design problems and major issues of project design. Finally, Sessions 6 and 7 were used for practical exercises to review BTORs*/ and discussions.

123. Before examining the sector and macro contexts of projects, the consultant made a few comments on the weaknesses and

*/ Back-to-Office Reports of Project Formulation missions mounted by the Investment Centre, FAO, Rome.

strengths of the ZOPP and DASI methods of project analysis and planning. The ZOPP method he said was good especially in problem identification and project management. However, it was weak in costing and making detailed estimates which are needed for calculating important indicators of economic and financial analysis. The ZOPP method was also ethnocentric as it assumes that democracy is absolutely essential in project planning. DASI, on the other hand had its limitations and strengths but was however not the best method available for project analysis.

124. Concerning planning within the macro and sectoral context, it was stressed that planning is a complex and important task involving several and often conflicting objectives, various alternative ways of achieving them and a host of limiting factors. In Africa, planning agriculture tantamounts to planning over 70 per cent of the economy. It was therefore essential to identify when planning a project the important elements not only in the sector but in the macro economy that are likely to influence or be influenced by the project. In this regard it was important to understand the sectoral and macro-economic framework and dynamics **/, the participants involved and their problems and contributions, the characteristics of the economy etc. (see diagram 1). In some countries certain strategic factors also exist such as the existence of hostile neighbours, isolation from other countries etc. which must be taken into account in planning. The importance of price and marketing policy in influencing production was stressed and this must also be taken into consideration in planning.

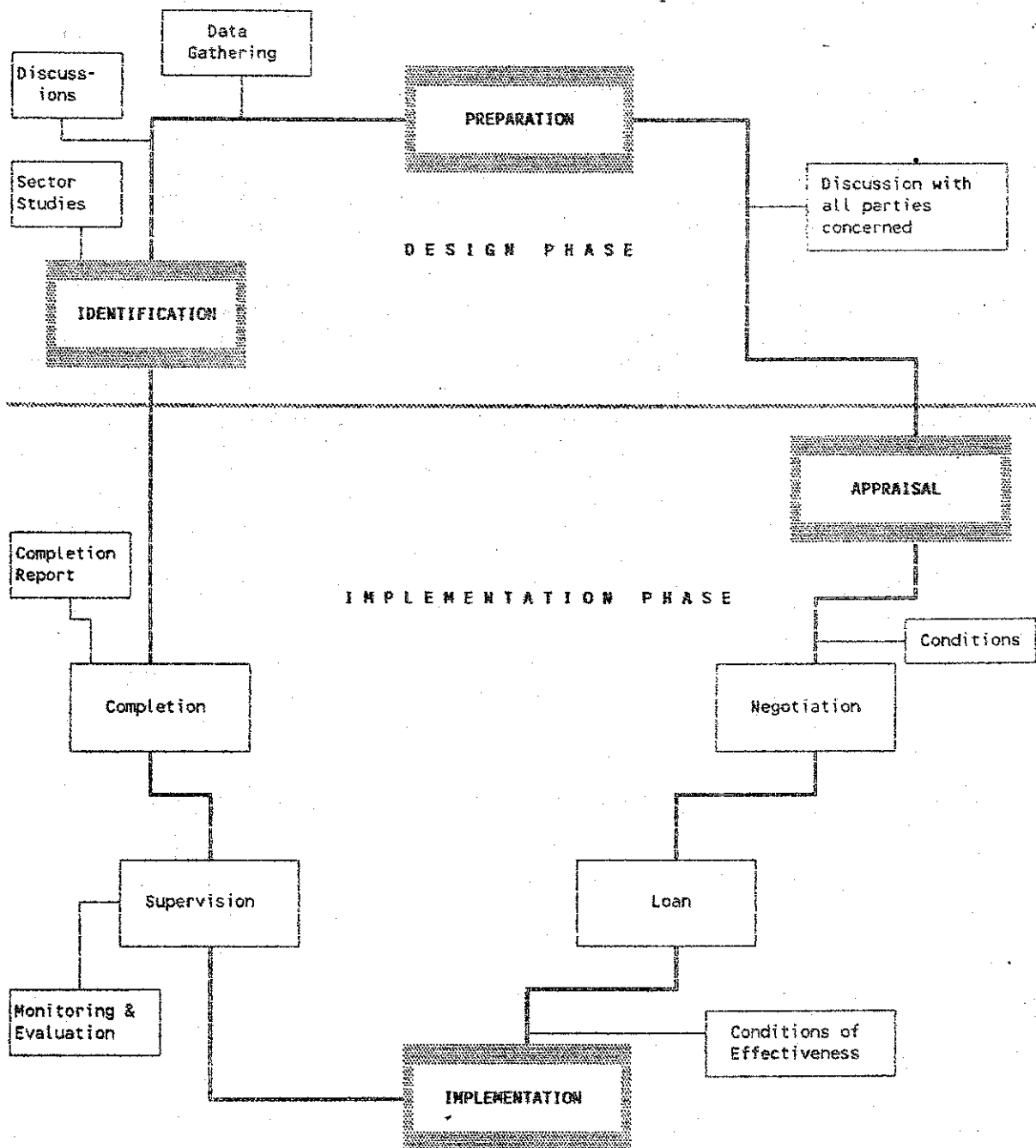
4.2 The Project Cycle and Project Guidelines (session 2)

125. In Session 2 which was devoted to the project cycle, the project was defined and the need to plan it as a package was stressed. In planning a project certain guidelines were important to increase the chances of success. These include: the absorptive capacity, its overall foreign exchange earning capacity, technical packages needed, priorities to be addressed and whether they are feasible (both technically and economically), size and scope of project, target groups to be addressed etc.

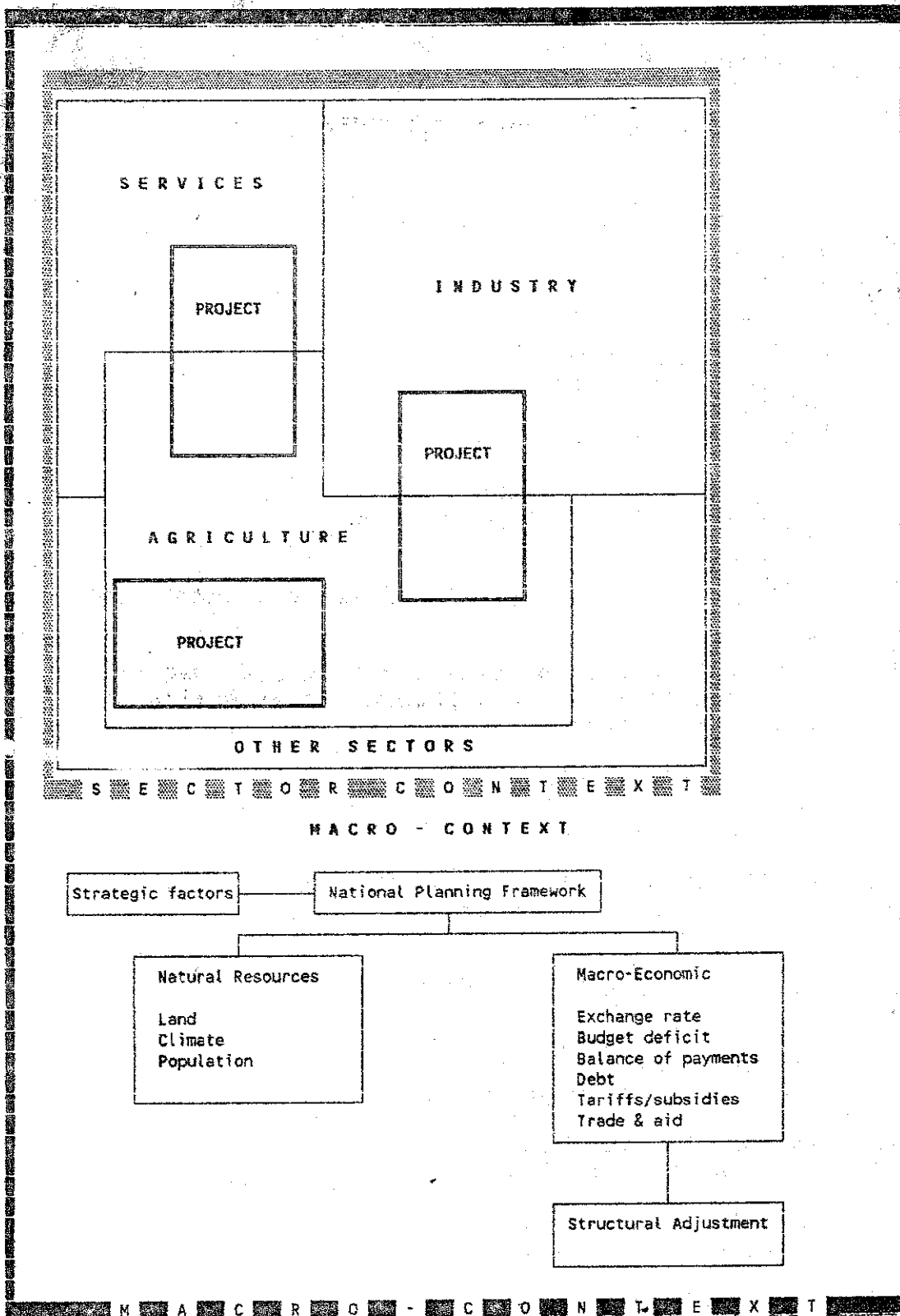
126. The important components of projects and the project cycle were then discussed and these are presented in diagram 2.

**/ Exchange rates, budget deficits, balance of payments debt, population, natural resources etc.

THE PROJECT CYCLE



THE CONTEXT FOR AGRICULTURAL PROJECT PLANNING



127. Finally the structure of the project report was also discussed. This is presented as below:

PROJECT REPORT STRUCTURE

Summary and Conclusions

- I. INTRODUCTION
- II. BACKGROUND
 - Economic Situation
 - Agriculture
 - Social Objectives
 - Income Distribution
 - Institutions
 - Projects (existing/proposed)
- III. PROJECT RATIONALE AND DESIGN
 - Rationale, Design Considerations
- IV. PROJECT AREA
 - Physical, Agricultural, Institutional and Social
- V. THE PROJECT
 - General Description, Detailed Features, Project Disbursement Period and Phasing, Cost Estimates, Financing, Procurement
- VI. ORGANIZATION AND MANAGEMENT
 - General
 - Specific
- VII. AGRICULTURAL DEVELOPMENT AND PRODUCTION
 - Agricultural Development
 - Production
- VII. MARKETS, PRICES, FINANCIAL RESULTS
 - Markets and Prices
 - Financial Results
 - Cost Recovery
 - Impact on Government Budget
- IX. BENEFITS AND JUSTIFICATION
 - Non-economic Benefits
 - Economic Benefits
 - Sensitivity Analysis
 - Environmental Impact
- X. ISSUES AND FOLLOW-UP
 - Issues
 - Follow-up

ANNEXES

XI. SUSTAINABILITY

(This should also be considered as it is important).

4.3 Analytical Techniques: Domestic Resource Cost Analysis

128. During Session 3 dealing with analytical techniques, some of the various methods used to screen out projects which for various reasons were not viable were discussed. These included cost/benefit analysis, IRR and the domestic resource cost analysis.

129. In using the various techniques it was important to understand the environment in order to identify (a) where the interventions are needed or not needed, and (b) what crop or livestock or combination of both enterprises should be produced.

130. The rules for selecting appropriate projects were discussed in the various techniques namely the IRR and NPV.

131. Domestic resource cost analysis technique was discussed at length. The DRC as a measure of efficiency assumes foreign exchange as an important component of cost and is given as:

DRC (in local currency) =

$$\frac{\text{Non trade input cost} + \text{factor remuneration}}{\text{F.O.B value of output} - \text{Cif value traded inputs.}}$$

132. This measures on the one hand the net foreign exchange earnings (i.e. compares what is earned in net foreign exchange from the output of the project with what is spent in foreign exchange on inputs) and on the other hand the cost of domestic resources used in earning one unit of foreign exchange net. In effect, it indicates on which side of the foreign exchange parity the project stands.

133. An exercise was carried out using trade statistics on Seychelles to calculate the DRC.

134. The example used is shown below:

Costs of production (per ha)

Fertilizers	3,600
Implements	500
Marketing margins	2,500

Foreign Exchange (%)

Fertilizers	100
Implements	10
Marketing margins	0

Adjustment to foreign
exchange 30%

Traded Inputs

Fertilizers	2,769
Implements	38

2,807

Non-Traded Inputs

Implements	450
Marketing margins	2,000

F.e amount $\times \frac{130}{100}$ = Traded value

e.g. Fertilizer $3,600 \times \frac{130}{100} = 2,769$

Values

- | | | |
|----|-------------------------------------|---------------------------|
| 1. | F.o.b value of output | 6,600 |
| 2. | Traded inputs | 5,000 |
| 3. | Non-traded inputs | 21,500 |
| 4. | Factor remuneration | 29,000 |
| 5. | Social profit | 10,500 |
| 6. | International value added | 61,000 |
| 7. | Domestic Resource Cost | 50,500 (in 61,000-10,500) |
| 8. | Cost competitiveness
(DRC ratio) | 0.83 |
- or using the DRC formular

$$\frac{21,500 + 29,000}{66,000 - 5,000} = \frac{50,500}{61,000} \text{ (i.e. domestic Resource cost)} \\ \text{international value added}$$

= 0.83

Interpretation:

If DRC = 1, the project would spend exactly what it would
earn in foreign exchange

>1, it would spend more than what it would earn in
foreign exchange

<1, it would spend less than what it would earn.

135. Projects with DRCs less than 1 therefore have a comparative
advantage than those with DRC >1 or = 1 and should therefore be
supported.

136. The importance of conservation in any project was discussed and stressed. Conservation, it was emphasized, was important in order to reduce the adverse effects of the project on the environment. Therefore the different elements involving conservation must be identified and included at each stage of a project.

137. An example was used to show how the incremental costs and incremental benefits and therefore the benefit/cost ratio change when conservation is included into the project. The results are as shown in the crop budgets below:

Crop Budgets

	<u>Base</u>	<u>Model 1</u>	<u>Model 2</u>
Seed	8	18	18
Fertilizers	-	160	160
Pesticides	-	50	50
Conservation	-	-	100
Total variable cost	8	228	328
Returns	400	1,200	1,200
Gross margin	392	972	872
Incremental costs	0	220	320
(due to conservation)			
Incremental benefits	0	800	800
IBCR	-	36:1	28:1.

138. It was stressed that the benefits of conservation were long-term i.e. they take a long time to materialize. Apart from conservation other factors that should be taken into account by the project include the risks involved, technology etc.

4.4 Women in Agricultural Project Planning (session 4)

139. Given the importance of women in agriculture and especially in food production, they cannot be ignored in any project planning and design as a target for the project.

140. Women, as a target group must be considered with respect to their problems and needs so that they can have access to and benefit from those things they need through the project. These include credit, technology, marketing facilities, land, extension services, training and other essential services. The project should however not ignore other components or groups in the farming system such as the men. Ideally therefore projects should be targeted to small farmers without ignoring women. This means that such projects must include or focus on areas of need and assistance to women.

4.5 Review of Project Design Problems and Major Issues of Project Design (session 5)

141. The presentation and discussion in this area focused on the performance of projects financed by the IBRD and other organizations over the years. A serious decline in the success rate of agricultural projects was reported from 83 per cent to 67 per cent world wide between 1970 and 1980. In Africa, the success rate is reported to be only about 48 per cent. According to information provided, design problems were the major reasons for the failure or lack of success of most agricultural projects. The data available to the workshop showed that institutional problems accounted for 31 per cent of all the categories of problems in Rural Development Projects, 26 per cent of problems in irrigation, 50 per cent in services, 27 per cent in livestock, 37 per cent in forestry, 26 per cent in fisheries and 31 per cent of all projects. The incidence and severity of design problems are presented in tables 3 and 4.

4.6 Practical Exercise Reviewing BTORS

142. Finally participants were given Back-to-Office Reports of project formulation missions mounted by the Investment Centre, FAO, Rome to Zimbabwe, Kenya, and Nepal to comment upon in light of what was discussed at the workshop with respect to the organization, planning and analysis of projects. The comments and discussions were very interesting and useful and reflected a high understanding and appreciation of the concepts stressed during the workshop.

143. In particular, participants stressed the need for such missions to be well planned, for all parties concerned especially the host government to be well informed in advance, for concerned staff to be available to receive and adequately brief the mission and for all relevant information and data to be made available to the mission.

V. CLOSURE OF THE WORKSHOP

144. The workshop came to an end at 12:30 pm on Friday 30 June 1989. In his closing remarks, the Director thanked the participants for their attendance and contribution to the workshop and hoped that they would receive the report of the workshop, soon and they would read it and send their comments so that the report would be enriched and finalized. He hoped that the workshop would be of benefit to their countries and advised that if the need arose, they could request ECA or FAO to organize similar workshops at the national level in order to strengthen their project planning and analysis capabilities.

145. He thanked the resource person Mr. M.L. Wales for his excellent presentation and hoped that the participants would keep in touch with the Division.

PROBLEMS IN AGRICULTURAL PROJECT DESIGN

PROBLEM CATEGORIES AND TYPES

INSTITUTIONAL

LAND ACQUISITION
DIFFICULTIES

INEFFECTIVE
OR
INSUFFICIENT
T/A

WRONG
ORGANISATION

POOR
USE

PROCUREMENT
DIFFICULTIES

BAD
MANAGEMENT
STAFFING

CONCEPTUAL

UNDESIRABLE

NON-
SUSTAINABLE

TOO BIG

TOO MANY
COMPONENTS

SCHEDULE
TOO TIGHT

TECHNICAL

POOR
ENGINEERING

PRODUCTION
SHORTFALL

FINANCIAL

REV. BUDGET
SHORTAGE

LOW OUTPUT
PRICES
&
REVENUES

UNDER-
ESTIMATED
COSTS

SOCIAL

SLOW ADOPTION

UNEQUITABLE
BENEFIT
DISTRIBUTION

POLITICAL

WAR & TURBULENCE

INSUFFICIENT
GOVERNMENT
COMMITMENT

ENVIRONMENTAL

DEGRADATION
NATURAL
DISASTERS

OTHER

MISCELLANEOUS

Notes: 1. Problem types are classified by primary category. for secondary categorisation, see Table 4.

2. Height of box indicates incidence/severity score attributable to each problem type.

VI. CONCLUSION

146. The two day lectures delivered were very educative, crisply understandable and relevant to the needs of most of the participants. The teaching style was unique while the subject matter was down-to-earth which made the various discussions by participants more interesting and incentivating.

147. The lectures were indeed a back-up for the earlier lectures delivered on ZOPP and DASI, thus providing a better approach and appreciation. More importantly, clarification of problem types into categories was appropriate and to the point which actually brought out possible solutions for successful project implementation especially in agriculture.

148. From discussions with participants, it was evident that such seminars were very useful. Participants expressed the wish that ECA and other UN organizations should organise more of such seminars which highlight key problem areas in project analysis and planning and provide the relevant tools for analysing them.

149. In conclusion, the entire seminar was very fruitfull and successful.

Table 4

PROBLEMS IN AGRICULTURAL PROJECT DESIGN

CLASSIFICATION OF PROBLEM TYPES INTO CATEGORIES

P R O B L E M T Y P E	P R O B L E M C A T E G O R Y						
	I N S T I T U T I O N A L	C O N C E P T U A L	T E C H N I C A L	F I N A N C I A L	S O C I A L	P O L I T I C A L	E N V I R O N M E N T A L
SCHEDULE TOO TIGHT	□	■	*		*		
UNDERESTIMATED COSTS			□	■			
PRODUCTION/YIELD SHORTFALL			■		□		
BAD MANAGEMENT/STAFFING	■					□	
POOR ENGINEERING			■				
PROCUREMENT DIFFICULTIES	■		□				
POOR MONITORING/EVACUATION	■						
WRONG ORGANISATIONAL STRUCTURE	■	□					
INEFFECTIVE TECHNICAL ASSISTANCE	■					□	
TOO MANY COMPONENTS	□	■					
LOW OUTPUT PRICES/MARKET PROBLEMS				■			
TOO BIG	■	■		□			
NON-SUSTAINABLE	■	■	*	□	*	*	*
INEQUITABLE BENEFIT DISTRIBUTION		□	*		■	■	
SLOW ADOPTION	*		□	■	■		
INSUFFICIENT GOVERNMENT COMMITMENT		■		□		■	
RECURRENT BUDGET SHORTFALL	■	*		■		□	
NATURAL DISASTER			□				■
POLITICAL TURMOIL/WAR					□	■	
LAND ACQUISITION DIFFICULTIES	■		□			*	
INFLEXIBLE		■		□			
RESOURCE DEGRADATION		*	□		■		■

NOTES: 1. Problem types listed in decreasing order of severity

2. Classification into categories as follows:

■ = Primary category □ = Secondary category

■ = Tertiary category, and * = also related

Table 5

PROBLEMS IN AGRICULTURAL PROJECT DESIGN

INCIDENCE AND SEVERITY OF IMPLEMENTATION PROBLEMS
AND EXTENT TO WHICH THEY MAY BE
ATTRIBUTED TO DESIGN ERRORS

ORDER OF SEVERITY	PROBLEM TYPE	EXTENT ATTRIBUTABLE TO DESIGN		
		HIGH	MEDIUM	LOW
1	SCHEDULE TOO TIGHT	*		
2	UNDERESTIMATED COSTS		*	
3	PRODUCTION/YIELD SHORTFALL	*		
4	BAD MANAGEMENT AND STAFFING			*
5	POOR ENGINEERING	*		
6	PROCUREMENT DIFFICULTIES		*	
7	POOR MONITORING AND EVALUATION		*	
8	WRONG ORGANISATIONAL STRUCTURE	*		
9	INEFFECTIVE TECHNICAL ASSISTANCE		*	
10	TOO MANY COMPONENTS	*		
11	LOW OUTPUT PRICES/MARKET PROBLEMS		*	
12	TOO BIG	*		
13	NON-SUSTAINABLE		*	
14	INEQUITABLE BENEFIT DISTRIBUTION		*	
15	SLOW ADOPTION	*		
16	INSUFFICIENT GOVERNMENT COMMITMENT		*	
17	RECURRENT BUDGET SHORTAGE		*	
18	NATURAL DISASTER			*
19	POLITICAL TURMOIL/WAR			*
20	LAND ACQUISITION DIFFICULTIES		*	
21	INFLEXIBLE	*		
22	RESOURCE DEGRADATION		*	