

Short - Term Consulting

on

Land Use Planning  
and  
Management of Natural Resources

*Mission Report*

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## Acronyms

IFMP	Integrated Forest Management Project (GTZ/Ministry of Agriculture)
ISDP	Integrated Sustainable Development Project (SCF/SNV)
LUP	Land Use Planning
LUPP	Land Use Planning Project (DANIDA/Ministry of Agriculture)
MoA	Ministry of Agriculture
NRM	Natural Resources Management
NRTI	Natural Resources Training Institute
PLUP	Participatory Land Use Planning
PPM	Project Planning Matrix
PRA	Participatory Rural Appraisal
RGOB	Royal Government of Bhutan
RNR	Renewable Natural Resources
ROPP	Regionally Oriented Programme Planning
SCF	Save the Children Fund
SNV	Netherlands Development Organisation

## **1. Objective of the Mission and Specific Tasks**

The objective of the mission was to brief and give advice to the project team and planning officers within the Ministry of Agriculture on the present state of art in land use planning and management of natural resources.

In detail, the following points have been treated (cf. TOR Annex 1):

- Review, in collaboration with the project team, the expected outputs of the first phase of the project
- Discuss and give advice on relevant issues of the project concept related to the organisational set-up of the project, multi-sectoral coordination, participatory land use planning and participatory management of natural resources
- Prepare and conduct a one-day working session related to participatory land use planning, participatory management of natural resources and regional oriented programme planning
- Assist in the conceptual preparation of the project's ZOPP 4 planning workshop
- Prepare a mission report in English with recommendations for the implementation of project activities related to land use planning and management of natural resources

The mission was carried out between 21. and 28. November 1994 (cf. Time schedule Annex 2), the contents of the activities accomplished during this time included the points 1 - 4 of the TOR.

## **2. The Project Activities Within the Context of Natural Resources Management (NRM) and Land Use Planning (LUP)**

NRM, according to the concept of sustainable development as defined in Agenda 21, includes amongst others an integrated approach to planning and management of land resources via an effective participation of people in the development process involving e.g. decentralisation of decision making.

The seventh Five Year Plan of RGOB (1992 - 1997) shows a remarkable consenting with the objectives set out in Agenda 21. Related to LUP, the 7 th Five Year Plan aims at the following measures:

- Increasing community and non - governmental involvement in the planning and implementation of environmental activities (p. 29);
- Developing an integrated land use planning capability to provide the necessary information for the planning of a sustainable development in the agricultural sector (p. 29 and 144);
- Building on existing resource management practises, rather than adaption of new control mechanisms (p. 29).

The 7 th Five Year Plan analyses rather critical the existing experiences in the field and states that: "One of the main weaknesses of the MoA has been the fragmented nature of its planning and implementation activities,....." etc.

Considering globally the Objectives and Strategies as well as the critical analysis of the RNR - Sector and sustainable development in Bhutan, the consultant does consider the project purpose of the IFMP and the results as defined in the PPM (9.12.94) as a vital contribution to improve the situation in the project area and beyond. Discussion in the project area and in Timphu (e.g. LUPP staff) showed however that the concept of RNR, which is based on the principles of decentralisation and intersectoral cooperation between crop, livestock and forestry, is not really applied in the project area. Due to the fact that the forest management sector is not decentralised the project has to intervene on different levels.

In the project area the IFMP could play an integrative role in order to operationalise the RNR concept via:

- the concertation of all institutions intervening in the region around the Regionally Oriented Programme Planning and Land Use Planning (compare 4);
- the concertation on and planning of joint training activities in all fields related to RNR (compare 7).

To bridge the gap between the cooperation needs on national and decentralised level, the project could either work from the bottom (Lobesa) upwards or intervene on two levels. During the first phase of the project, it seems advisable that the "two level approach" is followed in order to guarantee the introduction of the RNR concept in a comprehensive way. During the next project control, the "organisational set - up" should be reviewed.

A major issue in the execution of the project will be the development of harmonic interlinkages between the proposed project results, the activities leading to the different results and the development of a strategy to link planning to implementation and vice versa.

### **3. Planning and Implementation (P&I)**

#### **3.1 P&I - the conceptual set up**

As set out in the PPM the interlinkages between the different results/activities are not readily visible. That means also that P&I may or may not be interlinked. In the PPM, different levels of planning are set out which should be dependent one from another and lead to sustainable RNR management. Planning, in any case, should be seen as a tool to achieve sound management of RNR and should not be considered as a purpose of the project.

In the project context, the necessity for the execution of a participatory land use planning exercise in certain areas (R.01) or the identification of priority areas for a social forestry plan implementation

(A 02.01 ) or the research on specific identified topics (A 03.06), etc... should be deducted from a Regionally Oriented Programme Planning (ROPP) or any other type of frame planning for the project area! If we consider the experiences which we gained with ROPP we can say that ROPP leads not only to sound objective and strategic planning but also ensures the efficient use of all existing information.

- a.) In a first step, the *inventory of frame conditions* is carried out. This step is already in part completed by the project. Information on the regional context, institutions intervening in the project area, population, gender, economy, infrastructure, resources etc. should be checked on their completeness and if necessary special studies should be carried out.
- b.) This information should be used to undertake a *problem and potential analysis*. In matrices suitability and handicaps are related and key problems and key potentials are identified. This step could help to widen or narrow the spectrum of intervention possibilities of the project or of other in the region intervening institutions.
- c ) The *objective planning*, where one determines what should be done and where, is the logical follow up of the results of the problems/potentials analysis. This step starts with the identification of the objectives. By this the project could define/verify/modify decisions concerning all results/activities to be carried out. The objectives framework should lead to a development model for the project area. Within this context prioritization is very important in order to develop a clear picture of what comes first.
- d.) Now the project is able to identify a strategic approach concerning all implementation aspects, methods and instruments. *Strategic planning* which defines: who is doing what and how, should produce a strategic model; this leads to a programme design where all aspects concerning linkages and impacts are clearly described.

### **3.2. P&I - institutional aspects (& finance)**

The planning results should become the accepted frame for the implementation management and all necessary advising activities. Therefore, at a very early stage of planning, i.e. during the completion of the inventory of the frame conditions, all in the Dzongkhas Punakha and Wangdi intervening institutions and target group representatives should be "called into" this process in order to have the possibility to participate in this continuing process of harmonisation and to clearly define their roles which they would like to play during the innplementation (including procurement of finance).

This process is a continuum. With permanently new facts and interpretations of the present situation coming up from the *iterative process* of planning and implementation, a mechanism of objectives oriented towards the development of a region will be created. In this framework all ongoing activities as well as *confidence - building measures* can be linked in, using objective oriented methods. The importance of a certain activity can increase or diminish as decided upon during the iterative process of planning and implementation .

This way the necessity of financial resources can also be defined at an early stage in order not to endanger the implementation.

#### **4. Regionally Oriented Programme Planning (ROPP) as a frame for Land Use Planning (LUP) as well as for other project results and activities**

Within the IFMP context the results R 01 - R 04 should be clearly deductible from the ROPP.

##### Example:

Linking R 01 (= Participatory land use plans are initiated in selected areas) into the overall development picture of the project region: on the basis of the completed inventory of frame conditions and the problem and potential analysis it should be possible to determine where in the project region participatory LUP with which focus should be carried out. The concertation platforms for this process are sufficiently described in R 05 and R 06.

Since ROPP per se does not appear in the PPM it might be worth while to "transform" activity 01.06 into ROPP. Not necessarily calling it ROPP, activity 01.06 could remain under the same heading but incorporate the ROPP characteristics. ROPP should not become a super planning exercise! With about 10% of the projects time budget as input and closely linked to M&E and in general to R 05 and R 06 a sufficient working platform could be established. The project could produce within 12 months a 30- 40 pages document with annexes (existing sector and/or detailed studies) summarising and processing all available information which could also be used as major input for the preparation of the next project phase.

#### **5. Land Use Planning (LUP)**

Since 1992 the RGOB is cooperating with the Danish Government in order to establish LUP in Bhutan. Until to date the Land Use Planning Section of the Ministry of Agriculture trained personnel (institutional development) and produced:

- 1: 50.000 Land use working maps,
- 1 :100.000 Land Cover maps (Dzongkhag level) and
- 1:250.000 Resource awareness and planning at national level

Further on, Gewog data sheets were produced. In a next step LUP on Gewog level will be initiated in pilot areas, the training, especially on district level, will continue, and work on policy level will increase. For the IFMP this is an ideal starting point for cooperation in their proposed fields of activities of:

- Participatory LUP
- Social Forestry, ... and
- Forest planning.

In case the project decides to have some kind of ROPP, a lot of information could be drawn from the LUPP. In the IFMP context the ideal situation would be to deduct any need for LUP from ROPP. This would mean that the selection of area and problem would have been done in a way which is easy to understand.

Since the LUPP will concentrate in its present phase on Gewog - LUP, a straight cooperation between IFMP and LUPP is mandatory. This cooperation should especially concentrate on the development of a sound methodology of PLUP. A proposal for a definition of PLUP as well as a short listing of principles of LUP as shown in Table 1 might be helpful in this discussion. In Table 2, the elements of participatory, implementation - oriented LUP are presented. This stresses especially the fact that planning and implementation are iterative processes and that LUP is just a tool for NRM.

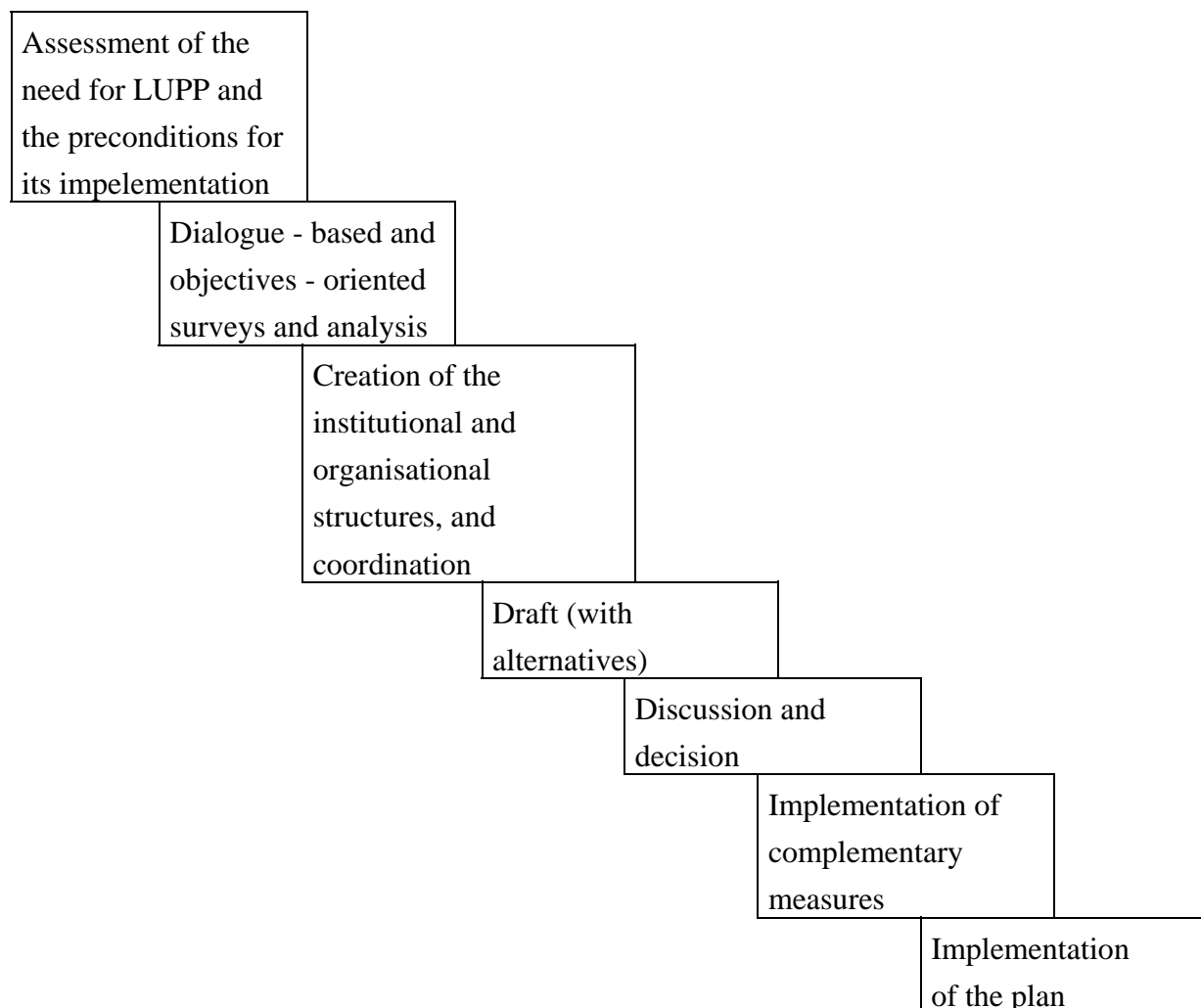


**Table 1: What does Land Use Planning mean in the context of Technical Cooperation?**

*Land Use Planning is an iterative process based on the dialogue among all participants aiming at decisions towards a sustainable form of land use in rural areas*

Principles of Land Use Planning

- \* Participatory planning
- \* Gender - specific perspective
- \* Transparency
- \* Counter - current principle
- \* Flexibility
- \* Solutions adapted to the region
- \* Implementation - oriented perspective
- \* Iterative planning process
- \* Inter - disciplinarity

**Table 2: Elements of participatory, implementation - oriented Land Use Planning**Some practical aspects:

To start work on LUP in the project area, the first step will be to decide (deducted from ROPP) on which problem/situation to work, what could be the ideal site of area of intervention, and how can this iterative process of planning and implementation be installed. Since the Gewog areas are rather large and vary considerably in size as shown in table 3, it would probably be advisable to work just on one section where there is a certain need for LUP as derived from ROPP.

**Table 3: The minimum, maximum and average Gewog size, per District**

District	Minimum Size (km <sup>2</sup> )	Maximum Size (km <sup>2</sup> )	Average (km <sup>2</sup> )
Gasa	148	2.955	1.103
Punakha	20	414	118
Wangdi - Phodrang	31	1106	272

An ideal scale for PLUP in the project context would be 1:10.000 with some enlargement of special situations up to 1:5.000.

Until present the available base information for planning is in many cases outdated.

In order to arrive at an up - to - date planning document, it might be advisable to procure recent aerial photographs. If this is desired and feasible the Consultant could work out additional recommendations for the preparation of a survey flight mission or procure the necessary contacts where more detailed information on this issue can be obtained. Besides being used as information base for mapping, aerial photographs could be used as easily understandable instrument for furthering communication around natural resources on village level.

Since the interpretation of large scale photographs is rather easy and since on aerial photographs of 1:5.000 - 1:10.000 even single trees can be seen, aerial photographs are used in many project situations as sensitization instrument, as base for monitoring spatial phenomena and of course as base for planning any spatial relevant activities.

Experiences have proven that after a familiarisation of about 2 hours any farmer is able to handle aerial photographs of areas where he/she is familiar with.

#### Information needs/situations to be covered by LUP:

Discussions with the project team showed that a clear link between social forestry and PLUP has to be established. Ideally social forestry intervention areas should be "PLUPed". The following points could play an important role:

- determination of areas which should be preserved
- delineation of alternative areas for forestry production (site, access, etc.)
- accessibility of areas
- ownership of land
- user rights
- pasture - forestry linkage
- forestry - agriculture linkage etc.

The different steps of PLUP using PRA and other techniques will reveal a wealth of information, potentials and problems. In order to use this information judiciously in the PLUP process, it will be mandatory that problem and potential analysis, objective planning and strategic planning, as described above with ROPP, will be used in the PLUP context on target group level.

In the medium term planning, the project has to think about the use of GIS on district level. The GIS should be linked to the LUPP (if possible) and should provide services to all decentralised projects. Experiences of results of GIS in similar environmental and administrative conditions can be discussed with ICIMOD (A consultant report on the issue from a project in Tunisia will be forwarded to the project upon termination).

## **6. Implementation of Participatory Land Use Planning (PLUP)**

In the IFMP context implementation will probably be part of the wider planning process. The start of intervention in a pilot area could be some type of confidence building measure. Setting up this measure will imply certain basic planning, implementation and M&E aspects. The confidence building measure would ideally be the nucleus of a widely concerted and planned intervention. Where in a first instance physical measures form the central part of intervention, complex normative aspects could follow and lead to a change in local NRM habits.

Prerequisites: In order to allow meaningful long - term effects in NRM on village level via participatory planned interventions a minimum of legal framework has to exist and sufficient sensitization has to take place.

The "plan" consists normally of a number of physical-, administrative- and institutional measures and activities geared towards changes of attitude. All aspects are intricately interlinked .

In view of the physical-, administrative- and institutional measures the project together with the local concertation body has to agree on the following aspects:

- who implements
- where and how is the extension of the plan controlled
- how is the organisation of the inputs
- how is the implementation organised
- what is the time scale
- how are the future responsibilities organised
- what are the synergetic aspects of the measures

The implementation of the parts of the "plan" which are geared towards changes of attitudes are often closely linked to physical measures. They imply however long periods of sensitization and "success" is often difficult to ascertain. In view of their implementation it has to be clearly determined:

- to whom the change of attitude apply; this implies in most cases a thorough target group analysis in order to direct the measures adequately;
- who is following up (controlling) these changes of attitude;
- what sanctions/incentives could be applied;
- what are the motivations for the present way of doing things (attitude), and which actions might change this pattern;
- which factors favour/hinder the desired changes in attitude.

In order to implement these activities which are geared towards changing the attitudes of users of natural resources, certain prerequisites as mentioned above have to be in vigour beforehand, e.g. sufficient sensitization, felt necessity for the measures proposed, minimum legal framework.

### Implementation Strategies

The widespread implementation is only and alone the task of the governmental and non - governmental institutions intervening in the project region. The task of the project is to assist in the planning activities, to assist in the development of implementation strategies, to assist in pilot implementation, to assist in the development of concepts for financing the implementation and to develop and introduce implementation process accompanying M&E concepts. Implementation strategies should be developed step by step in a participatory way. The following elements play an important role:

- *decentralised implementation*: which does not exclude that laws, by - law incentives etc. are issued/determined on higher level, in order to guarantee participatory implementation
- *participatory implementation*: ideally the institutions and target group representatives which planned the measures on local level together with the people directly concerned jointly implement these measures. This does not exclude that special measures are carried out by machinery or specialised labour contracted outside the project area
- *local control mechanisms*: the only way to guarantee the success of any implementation is that local control mechanisms are built up
- *incentives and compensations* which are agreed upon and known to all who are concerned are other elements
- *conviction and voluntariness* play already an important role in the sensitization phase
- *a minimum accepted legal framework* has to exist in order to guarantee the "institutional sustainability" of the measures.
- *concertation and coordination* with other plans and measures is of paramount importance especially for the project. Via R 05 and R 06 intersectoral coordination/management is part of the PPM. The FAO community forestry activities near Punakha (Dawakha) have to be duly considered when the project talks about social forestry and PLUP. Training and extension activities have to be concerted with NRTI, FAO and IFMP actions! Concertation and coordination

should also take place with all projects/institutions working in the MR sector e.g. ISDP which is jointly carried out by SCF/SNV in Shemgang District.

## **7. Training and extension.**

Different institutions offer training in the MR sector, either on project level or on regional or national level. The project should actively concert its proposed training activity with all these institutions in order to create synergy effects on local level. The information which was made available to the consultant showed a rather low level of consideration of training for multisectoral project implementation needs. Also the whole planning sector especially PLUP seems not to be adequately covered. Either NRTI or LUPP in collaboration with IFMP should try to cover this in a concerted task oriented way. The task of extension as integrative force for any NRM activity was discussed widely during the field excursions, topics dealt with were organisation contents, specific target group requirements, timing, extension as major tool making a Dzongkhag concertation body work etc.

If there are still information needs the consultant could arrange for contacts with similar projects or discussions during visits at the GTZ head office.

## **8. Recommendations**

In order not to repeat what was said before, the consultant would like to draw the attention of the project just in few words to the most pressing issues which should be considered for the Planning activities in the project:

- interlinkages between project results/activities should be rediscussed
- the possibility of using PRA as tool in the PLUP and social forestry sector should be considered (1. class GTZ resource person in Kathmandu)
- selection of planning and implementation units according to pragmatic, demand driven aspects
- use of planning supports (e.g. aerial photographs) which allow easy access for the target group to planning
- concertation should be supported by joint M&E, training and planning exercises
- the project should actively participate in the LUP and ROPP development discussion of the GTZ Working Group on Integrated LUP

## 9. ANNEXES

### Annex 1: Terms of Reference

- Review, in collaboration with the project team, the expected outputs of the first phase of the project
- Discuss and give advice on relevant issues of the project concept related to the organisational set-up of the project, multi-sectoral coordination, participatory land use planning and participatory management of natural resources
- Prepare and conduct a one-day working session related to participatory land use planning, participatory management of natural resources and regional oriented programme planning
- Assist in the conceptual preparation of the project's ZOPP 4 planning workshop
- Prepare a mission report in English with recommendations for the implementation of project activities related to land use planning and management of natural resources

### Annex 2: Time Schedule

Short - Term Consulting on Land Use Planning and Management of Natural Resources.

<b>Date</b>	<b>Time</b>	<b>Activities</b>
Mon, 21.11.94	16:30	Arrival in Paro
Mon, 21.11.94	18:30	Thimphu, Programme Discussion
Tue, 22.11.94	09:00 - 12:00	Study of documents and relevant material, administration
Tue, 22.11.94	12:30 - 14:00	Preliminary discussion on field excursions
Tue, 22.11.94	14:00 - 18:00	Travel from Thimphu to Lobesa
Tue, 22.11.94	Evening	Discussion with project team on LUP, Extension, GIS
Wed, 23.11.94	09:00 - 21:00	Field excursion Lobesa-Punakha-Tashitang Discussion on ROPP, extension strategies, LUP in forestry
Thu, 24.11.94	09:00 - 12:00	Discussion with LUPP team leader and staff
Thu, 24.11.94	13:00 - 24:00	Preparation of the working session on ROPP and LUP
Fri, 25.11.94	10:00 - 13:00	Presentation at the Ministry of Agriculture on NRM, ROPP and LUP
Fri, 25.11.94	14:00 - 16:30	Discussion on LUP experiences with LUPP staff and others
Sat, 26.11.94	13:00 - 22:00	Preparation of IFMP ZOPP 4 - Workshop, with project staff
Sun, 27.11.94	07:00 - 18:00	Field excursion to Lobesa, Wangdi, Gasello, Tashi La Ropeway, Punakha
Sun, 27.11.94	19:00 - 24:00	Final discussion with IFMP staff, Exchange of relevant documents

Mon, 28.11.94	05:30	Departure for Paro/New Delhi
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**Annex 3: Material used during the presentation on 25.11.94 at the MoA**

Hand-out prepared for the Working Session on ROPP and LUP



#### **Annex 4: Selection of important documents consulted**

##### **GTZ:**

Offer to the Federal Ministry for Economic Cooperation and Development/Bonn for the implementation of the project "Integrated Forest Management in Gasa, Punakha, and Wangdi - Phodrang Districts, Bhutan"

International Fund for Agricultural Development: Punakha - Wangdi - Phodrang Valley Development Project. Appraisal Report, Nov.1988.

##### **Ministry of Agriculture of Bhutan:**

- Master Plan for Forestry Development. Main Report. Thimphu, 30.11.1991.

- Punakha - Wangdue Valley Development Project, Lobeysa. Report on Project Extension. Bhutan, June 1994.

##### **RGOB:**

Seventh Five Year Plan 1992/93 - 1996/97, Vol 1, Main Document. Bhutan.

##### **Natural Resources Training Institute (NRTI):**

NRTI - Syllabus. Bhutan: Sept. 1991 .

##### **Royal Government of Bhutan and Federal Republic of Germany:**

Integrated Forestry Project in Punakha, Wangdi and Gasa (Bhutan).  
Appraisal Report. Bhutan: 1992.

##### **Royal Government of Bhutan and Helvetas Swiss Association for Development Cooperation:**

Dzongkhag Renewable Natural Resources Extension Program Bumtha/Trongsa.  
Program Document "Phase 1", 1 July 1993 - 30 June 1995, Bhutan: July 1992.

##### **United Nations Development Programme (UNDP):**

Punakha - Wangdi Valley Development Project. Supervision Mission Report.  
11. - 31. May 1994. Bangkok 1994.

Zhemgang Dzongkhag Administration, Save the Children Federation - USA, and SNV:  
Integrated Sustainable Development Programme - Zhemgang District, Bhutan. Project  
Document. Bhutan: 1993.

**Annex 5: Project Planning Matrix 1994/96**