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**Developing supportive policy environments for
improved land management strategies - Nepal**

Working Paper 2:

‘Engaging with the Policy Process in Nepal’

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Glossary

APP	Agriculture Perspective Plan
ALM	Actor Linkage Matrix
CBNRM	Community-Based Natural Resource Management Network
CBO	Community-based organisation
CCM	Conflict-Complementarity Matrix
DFID	Department for International Development (UK)
DLS	Department of Livestock Services (MoAC)
DoA	Department of Agriculture (MoAC)
FAO	Food and Agriculture Organisation of the United Nations
FFTC	Food and Fertiliser Technology Centre (Taiwan)
GIS	Geographical Information System
HARP	Hill Agricultural Research Project
HGMN	His Majesty's Government of Nepal
IBSRAM	International Board for Soil Research and Management
ICTs	Information and Communication Technologies
IDRC	International Development Research Centre
IFPRI	International Food Policy Research Institute
I/NGO	International non-governmental organisation
IPNMS	Integrated Plant Nutrient Management System
LMS	Land management strategy
LRMP	Land Resource Mapping Project
MoAC	Ministry of Agriculture and Co-operatives
MoF	Ministry of Finance
MoFSC	Ministry of Forests and Soil Conservation
MoLR	Ministry of Land Reforms
NARC	Nepal Agricultural Research Council
NGO	Non-governmental organisation
NPC	National Planning Commission
NRSP	Natural Resources Systems Programme
SLMNET	Sustainable land management network
STSS	Soil Testing and Service Section

1. Methodology

This section provides a theoretical and methodological background to R7958 project Objective 1 fieldwork to engage in dialogue with policy makers in Nepal influential in the design of policy for land management issues in agriculture. R7958 Inception Report July 2001 cites the following key questions to guide dialogue with policy makers:

- ◆ How is policy made?
- ◆ Who is involved?
- ◆ What types and sources of information come into process?
- ◆ What are the strengths and weaknesses of the process?

Three theoretical models of the policy process; 'linear', 'courses of action', and 'political technologies' (Keeley and Scoones 2000), and reasons for the adoption of an interpretive approach within R7958 empirical work with policy makers, are presented. Methods available for dialogue, and to discover entry points into future policy for project data on land management strategies, are outlined. The section continues with a preliminary discussion of the policy making process in Nepal.

1.1 Modelling the policy process

The linear policy model

The modernist linear model is a uni-directional dichotomous sequence from formulation to implementation (Clay and Schaffer 1984¹). It is implicit in the model that policy is transmitted from the political level down to a lower level of administration. The split between policy formulation and implementation allows 'escape hatches through which policy-makers can avoid responsibility' (Lindblom 1980¹). But, in reality the separation of 'decision' from 'action' is blurred by the 'Street Level Bureaucracies' of civil servants (Lipsky 1980¹), which determine the success or failure of policy (Juma and Clarke 1985¹).

Policies for rural development, agriculture and natural resource management are not easily understood within a linear cause and effect relationship and are better interpreted as a 'a series of more or less related activities than a discrete decision', this requires a wider understanding of factors affecting implementation (Israel, 1989¹).

Interpretive approaches

Adopting a post-positivist epistemology, interpretive approaches explain implementation puzzles and the webs of multiple and overlapping decisions that emerge incrementally.

The courses of action model, is founded on the structuration theories of Bourdieu (1977¹) and Giddens (1984¹), which propose negotiation as the motor of institutional evolution. Policymaking grows within an actor-network in which an actor is both part of the network and transforms the network. Actor-network theory focuses on the micro-detail of how networks emerge and the way in which they establish knowledge in the process. Drawing on Habermas' (1971¹) theory of *communicative rationality*, networks engage in the joint production of understanding of a problem. Policy makers and implementers are both actors. Interaction can be a creative 'forward and backward mapping' between problem definitions and assessments of policy solutions that can

¹ Cited in Keeley and Scoones 1998

produce fresh insight into a problem and new directions for policy. From this perspective, formulation and implementation overlap and interact and implementation becomes *communicative action* between policy actors and their target groups.

The model emphasizes individual agency and actor autonomy (Long 1992¹) but is nevertheless based on the ability of actors to reach consensual agreement, through communication, which hides no bias towards the position of any one interest within the group. This fails to recognise that though actors have a degree of choice in their actions, actor-networks are embedded in social and cultural settings imposing limitation on innovation. Interaction between actors represents a critical point of intersection or interface between the realities people construct or their 'lifeworlds' (Long, 1992¹).

A third model, political technologies, recognises that 'epistemic and policy communities' arise from shared, scientific or political, lifeworlds, and shape policy through strategic positioning in national bureaucracies. Whilst also employing an actor orientation, the model sees policy as an inherently political process rather than simply the instrumental execution of rational decisions and focuses instead, after Foucault, on the webs or circuits of power embedded in social routines and discourses² that link actors within networks (Clegg, 1997¹). Terms such as *peasant* and *landless* carry the shared concepts of discourse and build narrative-based theories (Legendijk and Cornford 2000¹) that, subjected to frequent repetition, grow from a small number of scientific findings to the status of dominant ideology (Shankland 2000); macro level policies have traditionally reflected the ideologies of national governing parties or donor agendas.

Policy elites that arise from shared identities of class, gender and ethnicity are likely to straddle the formulation-implementation boundary (Grin and de Graaf 1996). Individuals, 'policy entrepreneurs', also deliberately influence the policy process; projecting images and promoting ideas to fill policy spaces much as commercial entrepreneurs fill gaps in the market (Grindle and Thomas, 1990¹). External Interest groups also exert pressure on the policy process, often creating spaces for entrepreneurs to fill. This interplay of internal and external pressures through which the policy direction is dictated is likened to the fluid movement of an amoeba (Garrett and Islam 1999).

Both individual agency and political technologies are important concepts. But, policy-making is subject to the inevitability of contingency and chance and in reality often results from 'chaos of purposes and accidents' (Keeley and Scoones 1999).

1.2 Informing the policy process

Whether or not policy reform results from pressure on resources, policy decision-making involves choosing between alternative aims, objectives and actions. Maximising the informational component at each stage of the policy process is essential. Post-implementation evaluation is vital to inform policy makers and underpins the policy process. Evaluation recommendations feed into policy reviews and provide evidence on which to formulate new policies (Box 1). Evaluations use multiple methods for analysis—stakeholder, organizational, institutional, discourse and narrative (Shankland 2000). Impact assessment makes up part of this evaluation process but can also be used before policy is implemented—ex ante—to provide a definition of desired impact (Goldsmith 1993³) and set parameters for what can be achieved. The use of economic, environmental, social

² First order discourses, 'reflection-in-action', evaluate costs and benefits (technical verification), and attribute meaning to problems and solutions (situational validation). Second order discourses—discursive formations, 'appreciative systems and overarching theories', or tacit knowledge—provide background theories and worldviews that embody modes of thought and values (Holmes, T. and I. Scoones 2000).

³ cited in Sutton 1999

and institutional indicators, preferably linked in some causal relationship and validated through intersubjectivity adds objectivity to the informing process. For example, 'reach' is an important concept that can be used to measure the spread and range of groups affected by policy and the distribution of benefits. To be useful, data may need to be monitored over a period of years.

Box 1: Guidelines for policy evaluation

Relevance – is the policy still appropriate?

Efficiency – could better outcomes be achieved at reduced cost?

Mechanisms – are the most appropriate policy instruments brought to play?

Additionality – to what extent is an outcome the sole result of the policy?

Side-effects – are there unforeseen or undesirable consequences?

Costs and benefits – how are these distributed?

Performance – what measurable indicators of policy outcome are available?

Source: (Shankland 2000)

Knowledge, decision-making and decision support

Knowledge is a prominent focus of in agricultural, rural and regional development debates in both developed and developing countries. The concept of the 'knowledge economy' points to a central role for knowledge management within policy reform (Sabatier, 1986³).

Policy decisions in developing countries are often made on the basis of limited knowledge. All too often policy making depends on generalisations either from poorly interpreted statistics or policy narratives that at once simplify and set an agenda for action (Sutton 1999). In the agricultural sector, practical knowledge of how sub-sectors function and respond to change is poor and there is a shortage of biophysical and socio-economic data. A recognized need for decision support mechanisms incorporates two objectives:

- ◆ Transform available data into useful information; and
- ◆ Manage information in order to maximize knowledge potential.

How decisions are reached depends on the cultural context of decision-making. Policy networks are sources of information and vehicles for information management but in the absence of practical insights and understanding, political forces hold sway over economic analysis (Salinger 2001) and decisions reflect the interests of dominant stakeholders (Hall 2000). External constraints on resources can trigger reflection on restrictive beliefs and stakeholder interests become important to achieving multiple and overlapping objectives. Knowledge and policy can be understood in terms of four underlying principles (King and McGrath 2000),:

- ◆ Strategies and structures to manage knowledge;
- ◆ Relationships based on coordination, cooperation, partnership;
- ◆ Learning strategies; and
- ◆ Dissemination and awareness activities.

Decision support systems at the supranational level clarify issues for national level policy makers. Mathematical modelling has been important; 'limits to growth' models from the 1970s paved the way for 'gap deficit' development models encapsulating the wood fuel and soil nutrient 'crisis' narratives. Highly sophisticated models for climate change are increasingly institutionalised amongst the global professional community (Keeley and Scoones 1999) but village communities cannot be expected to mobilize around abstract issues unless there are discernable benefits for them and their children. Policy objectives need to be translated into meaningful messages.

The inherent complexity of globalisation and sustainability has led to greater reliance on expert opinion for policies on agriculture, environment and poverty where debate is infused with uncertainty. Yet the 'science' behind the experts no longer produces the universal and absolute truth or 'facts' it once did. Instead, 'a range of qualified understandings (are) woven through layers of academic and social construction' (Latour¹). 'Deterministic uncertainty' holds that through continuous trial and adjustment, science can retain the ability to predict and control, which was taken for granted under the 'mechanistic reductionism' paradigm. But, others seek alternative paradigms, such as Beck's (1992¹) risk society in which science *creates* rather than *controls* uncertainties, or adopt ecological analogies that advertise inherent and potentially irremediable uncertainty.

Expert opinion no doubt reduces uncertainty but policy makers must adopt a critical approach, be selective, and aware of the limitations of data. Decision takers in the field also require a general understanding of data, models and relational structures. But human resources for interpretation of complex data in developing countries are deficient and capability for decision-making has not advanced in parallel with technologies for data production. Immediate training needs centre on capacity to conceptualise frameworks, ask pertinent questions of the policy environment, understand the importance of reliable data, and the need to decentralise policy analysis. But little effort has been spent on transforming raw data into useful information for decision-making.

Indicators

Indicators are tools for communicating scientific and technical information and can transform information into action by facilitating access to information for user groups (Winograd et al 2000). But an indicator is a one-dimensional measure and care needs to be exercised when complex knowledge is transferred through 'knowledge bites'. Critical thresholds are meaningful only when measured against a reference value, target or benchmark. The flag evaluation method employs expert opinion to define the range for indicators (Lancker 2000) whilst OECD's and FAO's Pressure-State-Response model employs an explanatory framework to identify causal loops (Morton 1999).

Balance is needed between too many indicators, which reduce clarity, and too few indicators, which are not representative of complex reality (Lancker 2000). For sustainable development there are no universal indicators since different balances between interlocking systems of income, education, social structure and ideology are possible.

Qualitative indicators are valuable for transmitting information from local level; indigenous knowledge is a composite of facts often incorporating elements of uncertainty. Qualitative local knowledge can substitute for quantitative cause-effect data where this is lacking. *Participation* becomes a tool for gathering information and identifying local level indicators nevertheless it is important that central intellectual capacity is not sacrificed.

E-communication and databases

ICTs can be powerful tools for providing information to policy-makers. 'Soft' decision support systems are practical aids to decision making. Examples relating to land management strategies include:

- ◆ FAO's Livestock Toolbox links agricultural practices and technologies with positive and negative environmental impacts and policy options covering information and education, finance, property-rights, regulations, voluntary standards and institutions (Morton 1999);
- ◆ IBSRAM's Sustainable Land Management Network (SLMNET), is a free list server for research and policy dialogue (IBSRAM/FFTC); and
- ◆ IDRC's Humus Network encourages interdisciplinary collaboration and exchange of information relating to land management strategies, provides Decision Support for Land Management in Developing Regions (biophysical and socio-economic data sets), and develops software support applications with easily interpreted graphics for group decision making at all levels (IDRC 1998).

Participation

Participation and partnership embody positive norms and practices in current development literature but are nevertheless value-laden terms. Power relations between different stakeholders cannot simply be wished away, and make non-dependency-driven participation difficult to achieve (Johnson and Wilson 2000⁴). The Agenda 21 remit to engage stakeholders at local level has been translated in various guises but 'lay' people often defer to the opinion of professionals and those in authority (Sanderson 1999⁴). Multiple perspectives need to be expressed and perceptions of what policy 'success' depends on compared, to map out activities that stakeholders can engage in separately and jointly (ESRC, 1998⁴), through 'inclusive deliberation' by either:

- ◆ Popular participation, such as public hearings and local appraisals where citizens participate directly, voluntarily or by invitation, in the of policy options; or
- ◆ Stakeholder participation, usually by invitation, of representatives from NGOs and CBOs.

Such mechanisms challenge institutional but not individual or radical civil groups' power structures (Tewdwr-Jones and Allmendinger 1998¹) and remain vulnerable to domination by 'self-appointed advocates of a community's interest' (Sanderson, 1993¹); in participatory research it is important to be aware of the subtle difference between 'standing for' and 'acting for'. True representation of multi-ethnic and religious communities is requires negotiation and agreement amidst plurality (Johnson and Wilson 2000).

1.3 Policy process research methods

Policy process research has rightly become an important donor-funded activity in recent years. Traditional approaches are constrained by the changing policy environment, lack of, and low demand for, information, and organisational structures. Policy process research unravels the complexity of factors underlying poorly conceived policies and well-conceived but poorly implemented policies. Policy process analysis looks beyond content and the problems policy addresses to the institutions where policy is made and that interact with livelihoods and at the tools available to policy makers to deal with the problems.

There are significant differences in the way policy is made. In some sectors, the scientific argument plays a key role. In others, the lobbying power of professional bodies or other interest groups predominate; the powerful donors' agendas tend to dominate national policymaking processes. To understand the policy process is to go beyond identifying departments and decision-makers with formal responsibility for a given area of policy and discover the networks that support and challenge a policy initiative and at the transaction costs inherent in implementation and

⁴ cited in Holmes and Scoones 2000

enforcement. The challenge is to link soft infrastructures for deliberation with hard infrastructures for regulation and planning.

Sustainable Livelihoods (SL) framework

Policies are not remote from people's lives. The SL approach is an anthropocentric framework within which policies are depicted as 'transforming structures and processes' mediating access to livelihood resources, viewed from the household perspective (Carney, 1998; DFID, 2000). Some livelihood strategies straddle multiple policy sectors; others such as 'migration' are not specifically targeted by policy. This leads to a 'messy matrix' of policies and policy gaps (Hobley and Shield 2000). A five-stage process for identification of underlying factors determining micro level impacts of macro policy is recommended.

- ◆ Livelihood context: the identification of household and community needs and priorities;
- ◆ Policy context: the identification of entry points into the policy process and stakeholder analysis;
- ◆ Policy measures: identification of strategic policy targets and building management capacity and links between stakeholders;
- ◆ Local context: constraints on policy implementation and assessment of targeted vs. broader support, such as decentralization; and
- ◆ People and Policy: identification of perspectives and resources poor people can draw on to influence policy.

Institutional factors

Institutional factors contribute to policy-making and policy impact under two major influences: the institutional environment—the operational norms or 'rules of the game'; and the institutional arrangements, or contractual negotiations (Davis and North, 1971⁵). Access to resources depends on institutional arrangements, which in turn depend on the institutional environment. A sophisticated institutional environment is a prerequisite for specialized and complex exchange but often lacking in developing countries. The institutional environment offers scope for opportunistic behaviour but choice of institutional arrangements also depends on risk aversion. It is important to understand the costs of building efficient institutional arrangements; 'the inability of societies to develop effective low-cost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment'. Governance structures contribute to the institutional environment and a shift in power offers scope for changing institutional arrangements whilst decentralisation leads to a diversification of institutional levels.

Institutional dynamics describe the procedures and cultures of large public organisations and their relationships with outside organisations—groups, associations, offices, agencies, companies or firms (Uphoff, 1992⁵). Information is an important, often hidden, transaction cost that can be turned into a positive asset; 'effective information flow and use are important for the development of the institutional environment'. Such a goal requires investment in human resource and communications infrastructure and a culture of openness and information sharing. This is lacking in institutional environments such as large bureaucracies that are slow to change and informal institutions that are deeply embedded in cultural norms and social hierarchies. To facilitate institutional change and create a task culture that brings resources and people together at the right level, goals must be achievable, and regular feedback and creative reflection must accompany the process (Hobley and Shields 2000). Benchmarking can be used to screen existing institutions for effectiveness (Morrison et al, 2000).

⁵ see reference for IIED/IDS

Research methods

Table 1 provides an overview of methods currently employed to illuminate the processes by which policy is formulated, implemented and evaluated. The review is divided between methods primarily concerned with understanding impact and those emphasising the process that makes policy.

Table 1. Methods used in policy process research

<i>Impact analyses</i>	Impact analysis can be conducted from the top-down through an examination of policies or from a bottom-up or livelihood perspective.
Policy Inventory and Analysis (Ender 2001)	An account of inflation, GDP growth, trade and commodity balances, nominal and real exchange rates, public and private investment, unemployment and remittances underpinning major economic, technological, socio-cultural and political linkages. Matrix analysis of policy objectives by sector reveals key relationships and impacts not previously considered. Frequent stakeholder workshops and document reviews build consensus for policy reforms. Depending on resources and information available an inventory can be conducted as a freestanding exercise or focus on one particular issue or commodity as part of a sector assessment. Parameters must be clarified early on, for example whether impact variables (employment, investment, exports) will be included.
<i>Livelihood-centred methods</i>	
Conflict-Complementarity Matrices	CCM identify gaps between perceptions held by different stakeholders and set out the interactions between different pairs of stakeholders as conflicting (CX), complementary (CM), no apparent relationship (OO) and unclear (UC). Environmental, economic and social parameters are identified. Organisational strengths and weaknesses of the various stakeholders can also be analysed to gauge the institutional feasibility of policy options. CCM are useful for consultative planning to document community perspectives for officials.
Participatory Impact Methodology	PIM assesses the efficacy of participatory approaches to livelihood security and natural resource management in different sociocultural and ecological locales by building an historical picture of the role of participation as an agent of change in policies and institutions.
Livelihood matrices (Hobley and Shields, 2000)	Categorise policy by sectors and livelihood strategies pursued by different groups. Policy impacts can be identified and relevance of policies to livelihoods cross-referenced
<i>Institutional and organisational analyses</i>	
Action research	Real-time case study methodology to assess the dynamics of institutionalising and scaling-up participatory approaches using a variety of policy, stakeholder, organisational and impact analyses. Senior government officials sign a memorandum of agreement with national and local 'learning groups' made up of key informants from bureaucracies and external organisations. Progress towards memorandum objectives is reviewed in workshop settings.
Policy histories (CBNRM; Shankland 2000).	<p>Particularly useful for assessing potential constraints on the implementation of a policy and future requirements to make policy measures effective. in-depth interviews with policy-makers summarise key points of existing policies according to:</p> <ul style="list-style-type: none"> ◆ Contextual factors—geographic and demographic specificity of the policy; ◆ Initial situation—before the policy was introduced and reasons why the situation was unsatisfactory, how long the problem had been apparent and to whom, and who or what would continue to suffer if the policy had not been introduced; ◆ Policy formulation—how the problem emerged onto the public agenda, key stakeholders in the policy, which actors were involved in formulation, what their interests in the policy were, and who took initiative and responsibility; ◆ Policy implementation—who was or is responsible for implementation and how was or is it achieved; ◆ Monitoring & Evaluation—transactional and opportunity costs, benefits, previous and ongoing impact analysis responsibilities and output, indicators and other measurements and their interpretation; and ◆ Institutional reform—of any stakeholder organisations that have accompanied formulation or implementation.

Institutional analysis (Lusthaus, Anderson and Murphy 1995)	<p>Assesses management performance through a combination of qualitative and quantitative indicators and decision-making tools such as benchmarking, expert opinion and statistical measurement. Performance stems from dimensions of motivation and capacity. Positive motivators are mission statements relating to key values and beliefs, and goals shared with partner institutions. Capacity is measured through evidence of leadership, human, technological, and financial resources, and infrastructures such as process management. Because institutions are 'grounded in societies and difficult to understand outside their context', there is no blueprint for the 'learning partnership that evolves' between researchers and organisation, but analysis is structured according to six 'environments':</p> <ul style="list-style-type: none">◆ Policy or administrative: national and sectoral support programmes;◆ Legislative: stability, functionality and degree of arbitration in national legal systems;◆ Technological: organisational needs and infrastructure in the wider environment;◆ Political: capability of government bureaucracies and basis for resource allocation;◆ Sociocultural: potential for the culture to support free exchange of ideas; and◆ Stakeholder: understanding of niche in local, regional, national and international environments, and connecting networks.
Institutional profiles	<p>Map institutional norms, operational procedures and organisational structures through in-depth review of strategy documents, policy papers and consultants' reports before, during and after participation. As for organizational analysis, stakeholders are invited to review preliminary findings.</p>
Information flow charts (IFPRI)	<p>Indicate direction of information flow between actors and can be supplemented with details of frequency and format of communication such as meetings, memos, personal networking etc.</p>
Actor Linkage Matrices (Biggs and Matsuert 1999)	<p>Describe flows of information and identify points of 'communicative dissonance', where perceptions of the value and extent of communication are likely to differ. Lines of communication between interviewed key policy actors are scored (such as by subjective positive and negative ranking). Triangulation with reference to a number of stakeholders ensures consensus concerning linkages. Each cell can also be depicted separately as a causal diagram showing underlying reasons. ALM is used in research and planning, contemporary historical analysis, situational assessment, scenario creation, and facilitated learning to present qualitative information systematically, identify strengths, and develop meaningful, observable, location-specific indicators. Over ambitious matrices and politically sensitive relationships limit the scope of ALM.</p>
Organisational analysis	<p>Documents the actions and relationships of the principal actors in the policy process (policy makers, managers, field level staff, community mobilisation agents and local people), and refines the analysis through critical appraisal from stakeholders.</p>
Organograms	<p>Depict the structure and hierarchy of management within an organisation or department, roles and responsibilities, and lines of command, accountability, and budget control.</p>
Documentary analysis (ADE/ODI 2000)	<p>Reviews court records, training courses, staff numbers and qualifications, and previous commissioned research to assess consistency and potential effectiveness for reform of policy instruments.</p>
Resource analysis (Holt 2000; Kraus, 1999; Carney, 1998; DFID 2000)	<p>For the management and implementation of change in businesses, drawing on health and safety 'auditing' and reflecting the Sustainable Livelihoods approach at organisational level. The following resources are of interest:</p> <ul style="list-style-type: none">◆ Human: staff training operating within the policy administration system, gender and class issues;◆ Technical: ICTs and dissemination methods such as broadcasting and their perceived effectiveness;

- ◆ Financial: budget allocation and authorisation of expenditure;
 - ◆ Social/ infrastructure formal meetings, trust based alliances and informal networks for decision-making and conflict resolution;
 - ◆ Physical: accessibility of agencies, departments and buildings; and
 - ◆ Informational: availability, accessibility and relevance of technical information
-

2. Report of findings of land management policy survey and consultation meeting in Nepal

2.1 Methodology

A survey of important stakeholders involved in land management was conducted to study policy-making process and policy affecting land management strategy (LMS) in Nepal. Two methods were used to gather information and elicit the perceptions of the important stakeholders. They were (i) key informant interviews (ii) consultation meetings. Firstly, key informant interview was conducted to have preliminary understanding of the land management policy issues and policymaking process from individual stakeholder perspectives. Then the consultation meeting of important stakeholders was held to have broader information and understanding of the policy issues including further probing and triangulation of the information obtained from interviews. This report summarises the major findings of the key informant interviews and the consultation meeting.

Key informant interviews

Stakeholders from important public sector institutions such as Fertiliser Unit-Ministry of Agriculture and Co-operatives (MoAC), Department of Agriculture (DoA) –Soil Section, Soil Science Division of Nepal Agricultural Research Council (NARC) and Environmental Division (Biodiversity Unit) of Ministry of Forest and Soil Conservation (MoFSC) were interviewed using a specific guided checklists. The list of personnel interviewed is given in Annex 1 and checklists in Annex 2. The brief summary of the finding of the interviews is listed in the Appendix 1. The objectives of the interview were to:

- ◆ Collect preliminary information on the LM policy issues and policy making process
- ◆ Elicit individual perception of the stakeholders on key LMS issues.

Consultation meeting of stakeholders

A half-day consultation meeting of important stakeholders was held in Kathmandu on 18 June 2002 to explore key policy issues affecting LMS and land management policy formulation process. The list of stakeholders who participated in the consultation meeting is given in Annex 3. The specific objectives of the meeting were:

- ◆ Discuss and conceptualise LMS from the perspectives of different stakeholders
- ◆ Identify state of key LM policy issues and gaps
- ◆ Explore flow of information among LM policy stakeholders to get insights of the policy making process.

Based on the above mentioned objectives a participatory approach was employed to brainstorm on key land management issues and land management policy making based on the specific guided discussion points (Annex 4). During the meeting, each of the participant stakeholders was allowed to put his or her perception and knowledge on the issues. Meta cards were also used in the process.

2.2 Survey Findings

Context of LM policy

The boundary of land management policy is broad and vague. It involves complex policy areas such as land-use, land reform, land zoning and land revenue, soil conservation and management etc. that involves diverse ministry and sectors such as agriculture, forestry, physical

and urban planning, land reform, environment etc. However, the boundary of land management policy in this study has been limited to the management of soil, plant nutrients and water management at the farm and landscape level in view of enhancing agricultural productivity of the land.

Management of land according to land use plan, based on geographical features, diversity, structures, capacity and quality and its effective utilisation is still a widely ignored issue in Nepal. People are still not sensitive to importance of land-use planning (agriculture, forestry, pasture, urbanisation, and industrialisation) nor the government is sufficiently responsive to these issues. The lack of conducive land-use policy and planning, weak institutional arrangements and a rapid population growth are exerting enormous pressure on land resources.

Nepal presently lacks systematic integrated land management policy to enhance the productivity of agriculture. Some national (e.g. Ninth Five Year Plan) and sectoral policies (e.g. Agricultural Perspective Plan, Fertiliser Policy and Forest Policy) exist in the country. However these policies are not properly implemented and are not coherent and consistent. There are no agro-ecological zone-specific land use and management policy that address land related problems and potentials of each specific agroecozone in the country. In many cases there is a policy but no clear strategies, action plans, programmes and responsibilities that make poor implementation of the policies. Therefore, proper mechanisms for linking technological information to policy decision-making are lacking.

Ministry of Agriculture and Co-operatives (MoAC) and Ministry of Forests and Soil Conservation (MoFSC), and Ministry of Land Reform (MoLR) are the three key ministries involved presently in land related policy making in Nepal. Some of the key land related policies of each of the ministry are:

1. Fertiliser Policy of MOAC
2. Forestry Policy that focuses on community forestry of MoFSC
3. Land Use (Land Reform and Land Revenue etc) policy of MoLR

Fertiliser Policy and its formulation process by MoAC

A recent agricultural policy related to management of farm soil fertility in Nepal is National Fertiliser Policy, which was approved by the government in February 2002. This policy was formulated recently in view of enhancing farmer's application and access to fertiliser so that agricultural productivity in the country could be increased as envisaged in APP (1995). This policy was initially conceptualised at the MOAC to ensure increased availability of chemical fertiliser in the country. However, during the consultation process with the important stakeholders in the private sectors (e.g. importers, distributors, producers), the MOAC realised the significance of microbial and organic fertilisers in the overall integrated plant nutrient management systems (IPNMS) in the country. Consequently, during the fertiliser policy development consultation process, concerns of microbial and organic fertilisers were included in the fertiliser policy in view of balanced use of plant nutrients and maintenance of soil fertility.

The detailed steps of fertiliser policy development process are presented in Figure 1. During the process of policy development, several policy draft outlines were prepared and revised subsequently from the inputs of local and international consultants and Steering Committee constituted from representative of key ministries and NPC including field level consultation with important stakeholders (MoAC, 2002). The stakeholders ranged from farmers, fertiliser producers, importers, distributors, traders, researchers (fertiliser surveyors and analysts), extensionists and policy makers.

The present fertiliser policy appears to be well intentioned and covers overall issue of soil fertility management, but lacks appropriate rules, regulations and institutions for its

implementation. Without adequate formulation of rules and regulations for fertiliser supply, quality control and pricing and field level monitoring it will be difficult for its full implementation. This necessitates the development of fertiliser Acts, rules and regulations to effectively implement it in the field.

Forestry Policy focussing on Community Forestry

Community forestry approach was working very well traditionally through local community rules even before the development of forestry policy during 1990s. MoFSC, since last one decade, has used community forestry policy for better management of trees and community lands for the benefits of the community and the nation. Forest Act (1993) and Forest regulations (1997) are the important legislation that provides options to local community for the control and ownership of community forest in their locality. Forestry policy has specifically involved in the management of forestland including lands covered with some sort of green vegetation. However, privately owned, degraded and marginal land with no trees or vegetation, are not addressed by the policy. There is a policy guideline for the steep /slope land management through community forestry approach, which states that in above 45 degree slopes, no trees or plants should be harvested. However, technical aspects of the land management are not addressed by community forestry projects. Community forestry policy and rules have affected migratory livestock farming in the high mountain regions of western Nepal. Consequently it has reduced options for better addition of organic plant nutrients in the crop production and soil fertility maintenance through *in situ* manuring.

Key Policy Concerns

Issues of sustainable land management overlaps between different ministries and sectors. Presently, government does not have a systematic long-term plans consisting of policies formulated on the basis of empirical analysis and programmes implemented on the basis of these plans. Until now, government policy is very general. Such general policy may have differential impacts. Specific policies to manage degraded and uncultivated lands are limited. Present land use policies and programmemes are not being adopted based on Land Resource Mapping Project (LRMP) information. It appears that land use policy developed by Ministry of Land Reform (MoLR) is not based on wide consultation and analysis of stakeholders.

For analysis of land and crop suitability and capability, information are lacking in terms of climate and hydrology. The country also lacks soil fertility maps based on land capability, land suitability and crop suitability for developing suitable nutrient management planning and policy-making. There are some recently formulated sector specific policies in agricultural land management such as fertiliser policy which focuses on the management of croplands and but they are basically biased towards accessible fertile areas and *Terai* region where most of the croplands are located.

Institutions and stakeholders involved in the development of land resource management priorities, action plans and policies are scattered in different ministries and institutes. Their activities, strategies and action plans are sectoral and are rarely linked with the regular field level land management programmeme activities. There appears to be some good field level studies on soil and land management but they are not reviewed and linked to policy decision. No co-ordinated and integrated functional institutional framework exists for information flow between different stakeholders and institutions. Field level research findings are rarely linked and fed with policy and decision making in the government ministries. Therefore, the flow of information among them is often irregular and *ad hoc*. There is also a poor availability, accessibility and relevance of information flowing between the government and the private-I/NGO sectors, grass-root institutions and farming communities due to lack of common platforms and regular mechanisms for information sharing on issues relating to LMS policy debates and development

Policies and programmes of different national five-year plans and sectoral plans are not properly linked. There is a need of review of the current policies and periodic plans such as the 9th and 10th Five Year Plans, APP and Fertiliser Policy to understand soil fertility management in the country. This requires interdisciplinary, and inter-institutional collaboration and co-ordination. A broader natural resource management agency may be needed to co-ordinate the work of different ministries such as land reform, climate and hydrology, forestry, agriculture, and physical land planning for the development of integrated land use and management policy in Nepal.

2.3 Summary of consultation meeting

Why poor policy implementation? Is it due to lack of appropriate policy or lack of measures to implement it?

Land management covers soil, nutrient and water management aspects. Land management policies focus on either cropland or forest land mainly or a mixture of both. Important policies of land management identified are:

- Land use rules and regulations by MoLR
- Leasehold forestry policy
- Fertiliser policy

In many cases there is a policy but no clear strategies, action plans and programmes or responsibilities, to achieve it. Three policy scenarios identified are:

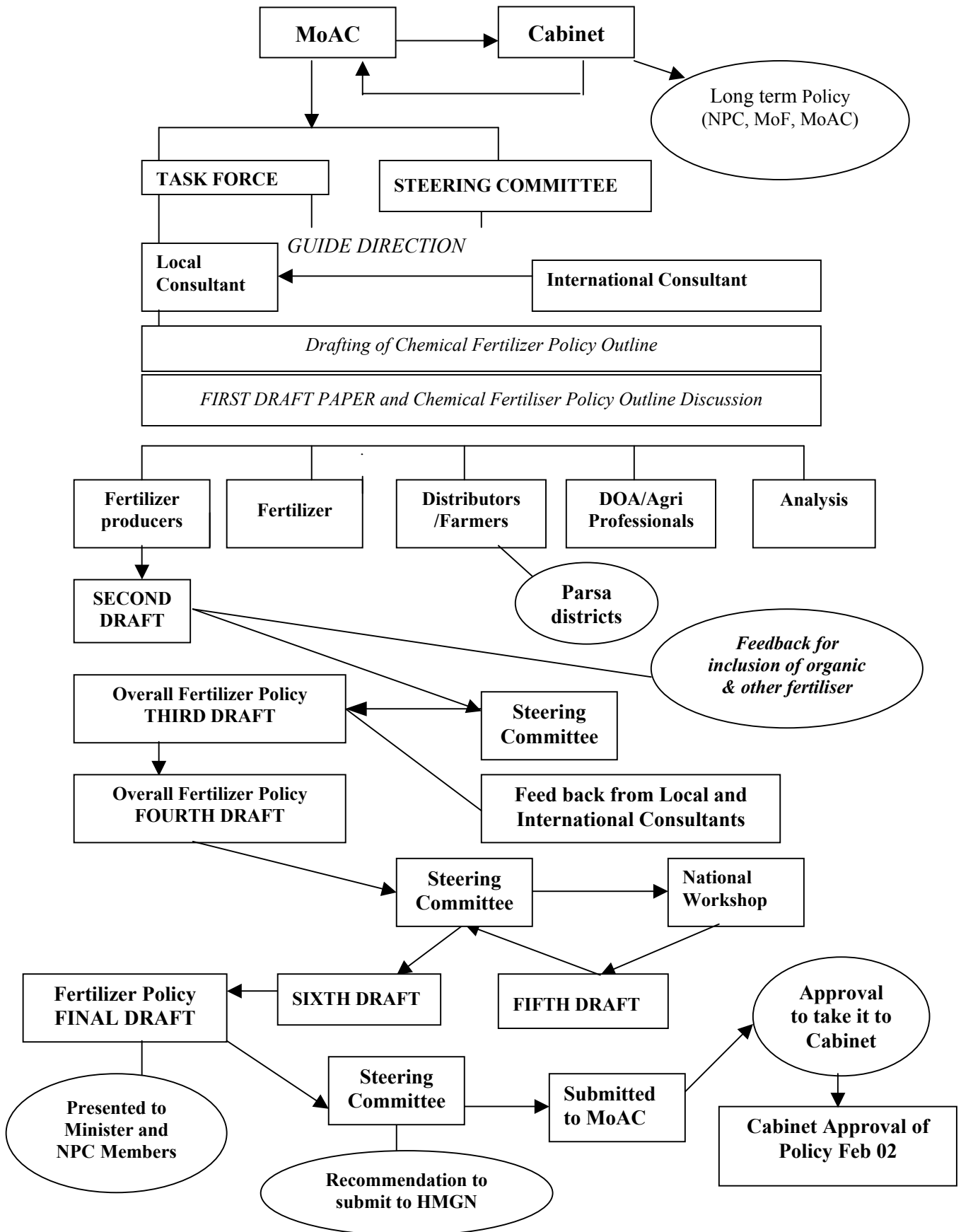
1. Policy with rules and regulations (e.g. Land use policy of MoLR)
2. Policy without rules and regulations (e.g. Fertiliser policy)
3. No policy but working effectively (e.g. community forestry before 1990s)

To summarise, the preliminary fieldwork has shown that the following areas need to be addressed in subsequent stages of the project:

- ◆ *There is a policy on fertiliser supply but no rules /policy on quality control. There is a fertiliser policy but no soil fertility management policy. Present fertiliser policy also includes soil fertility management issues?*
- ◆ *There is a need of review of policies on Ninth plan, 10th Plan, and fertiliser policy and APP to understand soil fertility management policy and their linkage and coherency. Policy also should look for future perspectives.*
- ◆ *Present fertiliser policy has focused on croplands. But not on degraded uncultivated lands, which is about 2 million hectare and 1.2 million hectare of pasturelands. Therefore review of policies on such land is needed.*
- ◆ *It appears that land use policy developed by MoLR is not based on wide consultation and analysis of stakeholders.*
- ◆ *There is no land use policy based on utilization pattern. Fertiliser policy has focused on Terai and favourable land. Bio fertiliser and OM promotion policy should be officially introduced and promoted.*
- ◆ *Community forestry policy and rules have affected migratory livestock farming in the high mountain regions of Nepal. Therefore, policy should be location specific based on agro-ecozone and livelihood context. Present community forestry is good for middle Hill region.*

Figure 1: Steps of Fertiliser Policy Development in Nepal (MoAC, 2002)

Source: Dr. B.B. Basnet, Fertiliser Unit, MoAC



Annex 1: List of Stakeholders (Key Informants) Interviewed

1. Mr. S. Jaishy, Chief Soil Testing & Service Section, DoA, MoAC, Pulchowk
2. Dr. B.B. Basnet, Chief, Fertiliser Unit, MoAC, Singhdarabar, Kathmandu
3. Mr. S.K. Rai, Senior Scientist, Soil Science Division, NARC
4. Mr. R.C. Munankarmi, Senior Scientist, Soil Science Division, NARC
5. Dr. K.C. Paudel, Environment Division (Biodiversity unit), MoFSC

Annex 2: Interview Checklists for Policy Interviews

1. What are the recent policies, Acts/ legislation / By-laws developed in the country that may have influence (directly or indirectly) on LMS at the farm and landscape level?
2. Please mention the process in the formulation of policies?
3. Currently what mechanism have you adopted in planning and formulation of the institutional policies and programmes?
4. What were the enabling environments that have positively affected the process of this policy making?
5. What are the current linkage and communication mechanisms that exist in the formulation of policies and programmes?
6. In your opinion what are the major constraints and gaps to the formulation of appropriate practical and effective policies and guidelines in land management?

Annex 3: List of stakeholder participants in LMS Policy Consultation Meeting, 18 June, 2002, Hotel Narayeni, Kathmandu

1. RP Sapkota, Executive Director, NARC
2. SB Pandey, Director Planning, NARC
3. DR Pradhan, DDG, DLS
4. SN Jaishy, Chief, STSS
5. JP Bajracharya, DD, DLS
6. D Pariyar, Chief, PFD, NARC
7. SB Mathema, Manager, HARP
8. BK Rimal, Project Chief, BIWANP, MoFSC
9. SL Maskey, Chief, SSD, NARC
10. BB Basnyat, Chief Fertiliser Unit, MoAC
11. K Sah, Senior Scientist, SSD, NARC
12. D Gauchan, Senior Scientist, ORD, NARC
13. KD Joshi, Adjunct Officer, CIMMYT, Kathmandu
14. R Manandhar, Hort. Dev. Officer, MoAC
15. A Subedi, Executive Director, LI-BIRD
16. P. K. Shrestha, Programme Officer, LI-BIRD

Annex 4: List of Discussion Points generated at the start of the Consultation Meeting

1. Setting the context "land management strategy"
2. Key policies affecting LMS
3. Policy formulation process
4. Key stakeholders in land management policy
5. Mechanism of linkage and information flow
6. Gaps in policy formulation process
7. Constraints and limitation on policy (LMS) formulation
8. Process of policy: a) Monitoring; b) Evaluation

Appendix 1: Interviews with key stakeholders

1. Suresh Rai and R.C. Munankarmi, Soil Science Division NARC

NARC soil science division is presently involved in developing agroecological map of Rupendehi district with detail soil survey and maps as a case study model so that the experience can be used in the future to develop similar GIS/ AEZ maps for agricultural planning. This will give information to developing crop suitability maps or soil fertility maps based agroecological characteristics /domains of the location

Present field level soil science related problems linked to planning and policy

There are no soil maps of Nepal for different locations and domains. Without such information how we can develop agricultural plans and policy based on scientific information?

- For the sound land and soil management policy development we need following information:
- (i) How much fertiliser is needed and imported?
- (ii) What is the status of nutrients and organic matter in the soils and how much additional needed?
- (iii) How much fertiliser to be recommended for different crops and land conditions?
- But present fertiliser recommendation is blanket not based on the fertility maps or soil fertility. This has adverse effect on soil management on the farm level
- There is no programmes and policy to identify mapping area for specific nutrient deficiency (e.g. ZN) and recommend nutrients accordingly
- There is no specifically defined roles, who should be involved on developing AEZ and fertility maps
- Soil Science Division NARC has so far done soil survey of 50-55 districts but these information has not be adequately used for planning and policy formulation
- Soil fertility conditions depend on physical, biological and chemical structure and properties of the soils. However, presently focus of soil fertility is synonymous with chemical parts e.g. N, P, K. etc. No adequate policy attention has been given to improve soil fertility based on physical structures (bulk density, aeration, texture, water holding capacity etc) and biological properties/structure of soils in terms of microbial presence, mineralisation etc. Integration of physical and biological information on the chemical structure of the soils is important to understand and improve fertility of soils.
- For sound land management policy and programmes, fertility maps should be developed based on land capability, land suitability and crop suitability for which interdisciplinary, and inter-institutional /ministry coordination is essential. However, such coordination does exist adequately in the country.
- Analysis of land and crop suitability and capability, information are also needed in terms of climate and hydrology. Therefore, broader natural resource management agency/Ministry is needed to coordinate the work of climate and hydrology, forestry, Agriculture, and Physical land planning for the development of integrated land use and management policy in Nepal.

2. Mr. Sadananda Jaishee, Chief Soil Section, DoA

Land management related policy should cover issues like, land reform, land classification and soil fertility management.

- The soil section is involved in soil fertility analysis and providing soil fertility related information and recommendation to farmers.
- Fertiliser related issue is important land management policy. Process has been initiated in fertiliser regulations and act, which is essential for quality control and maintaining fertility. Fertiliser act should come as essential commodity Act.
- Who should do soil classification? It is not clear.
- There is a high demand of soil fertility information and maps from pocket package programmes of APP/DoA.
- Soil fertility maps of 11 districts have been initiated by Soil Section, DoA.
- Some soil analyses of pocket package programmes have been done but information generated has not been promoted.
- Linkage between DoA and NARC is good. There is a regular meeting with NARC but not a very strong programme level linkage. The DoA soil has a good field level collaborative programme with SSMP on soil fertility management.
- Soil fertility management package should come from NARC for extension recommendation. Soil fertility rating and fertilize recommendation formulation should be done by NARC.
- Government has adopted IPNMS policy recently in the country. Farmer's field school also has been initiated in soil fertility management approach.
- Present land use systems is not adopted based on LRMP information
- IPNMS field activities are running in 10 districts.
- In the 10th plan emphasize has been given for contracting private sectors in developing soil fertility maps.
- DOA has also initiating developing GIS maps.
- There is a lack of unified co-ordination of overall land management issues among different ministries and agencies
- NPC should take lead on coordinating GIS information and maps related to land management sectors scattered in different agencies ex. ICIMOD, TU geography, NARC, NGOs etc.
- MoAC should take lead on IPNMS related programmes, and policies

3. Dr. KC Poudel, Biodiversity Unit, MoFSC, Singha Darbar

- MoFSC uses community forestry approach for both better management of trees, community benefits and for better management of land
- Soil conservation, bioengineering and maintenance of greenery are the major approaches employed for land management and environmental conservation
- Issues of sustainable land management overlaps with agricultural and other Ministry and sectors.
- Soil conservation Department at MoFSC, focuses on soil conservation at landscape and farm level through agroforestry, horticulture and other physical means.
- Until now, government policy is very general. Such general policy may have differential impacts. For examples, policy not to cut *Dalbergia sissoo* will have some different impact and consequences since it can be planted both in common and private land. In farmer's private land, this policy will restricts to receiving benefits to farmers.
- Policymaking is sector-specific and location specific. For some policy, there is a need of wide consultation with different stakeholders including grass root communities. However, for some policy it may not be desirable to have wide consultation.
- For better coordination of work mandatory rules and regulations are essential. In addition resources are very essential to have better linkage and coordination.
- Land capability delineating and information need to be developed and easily available in simple language for sound flow of information of land management issues and enhancing policy formulation process from grass root to national level policy making process
- Alternative agroforestry model need to be developed and should be demonstrated and promoted for better policy formulation
- There is a need of good review and synthesis of information for policy making
- MoFSC has a good coordination with different sectoral ministry for implementation of community forestry and soil conservation issues. Planning and policy making is both of top-down and bottom up approach
- Forestry policy is better addressed for community forestry land but not for marginal land, and private lands are not addressed by MoFSC
- Different species of forestry plants are prescribed/ recommended for different land types and soil types based on expert guidance and thumb rules but not really based on sound research
- However, technical aspects of the land management are not addressed by community forestry projects.
- There is a policy guideline in community forestry, which states that in above 45 degree slopes, no trees or plants should be harvested. This policy has been adopted in the community level.
- MoFSC policy or rules do not much address to private and barren land, even though certificate is given for growing non-timber forest products/. However, if nationally identified rare endangered plants such as Simal, Khair, etc. are concerned, then the rules will also operate to private land.

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