

Manual for Conducting Public Hearings in the Environmental Impact Assessment Process for Hydropower Projects



Department of Electricity Development, HMG, Nepal,
in Collaboration with United States Agency for International Development and
International Resources Group



This is a publication of the Department of Electricity Development, HMG Nepal. Its function is to help the proponent prepare EIA documents within the framework of the existing Acts and Rules. It is recommended but not mandated. If this manual and its contents contradict the provisions of the prevailing Acts and Rules, the prevailing Acts and Rules shall govern.

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2004

Department of Electricity Development, HMG Nepal,
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Manuals in this series:

Manual for Preparing Scoping Document for Environmental Impact Assessment (EIA) of Hydropower Projects (2001).

Manual for Preparing Terms of Reference (TOR) for Environmental Impact Assessment (EIA) of Hydropower Projects, with Notes on EIA Report Preparation (2001).

Manual for Preparing Environmental Management Plan (EMP) for Hydropower Projects (2002).

Manual for Public Involvement in the Environmental Impact Assessment (EIA) Process of Hydropower Projects (2001).

Manual for Developing and Reviewing Water Quality Monitoring Plans and Results for Hydropower Projects (2002).

Manual for Conducting Public Hearings in the Environmental Impact Assessment Process for Hydropower Projects (2004).

FOREWORD

Environmental Impact Assessment (EIA) is one of the proven tools of facilitation to achieve the goal of environmentally and socially sound and sustainable development. The incorporation of EIA in hydropower projects in Nepal was initiated in the early eighties. Donor agencies required preparation of EIAs for large-scale hydropower projects consistent with international practices. However, with the enactment of the Environment Protection Act (EPA97) and the Environment Protection Rules (EPR97) in 1997, the integration of EIA in hydropower projects has become mandatory. A large number of proposed and existing hydropower projects have already completed EIAs. Several of these EIAs have been approved by relevant government agencies and are in the process of implementation.

In the course of gaining experience about the processes and procedures of EIA implementation, we have become aware that the process needs to be improved.

In March 2000, the DOED, the National Environmental Impact Assessment Association of Nepal (NEIAAN), USAID, and IRG organized a one-day interagency workshop. The objective of this event was to carry out a Strength-Weakness-Opportunity-Threat (SWOT) analysis of the EIA process for hydropower projects in Nepal. A major conclusion of the workshop was that the EIA process could be facilitated and streamlined by producing a series of manuals that would clarify the requirements at each stage in the process. Thus, the DOED, with USAID assistance through IRG, began developing “first level” sectoral manuals for improving the EIA process for hydropower projects. The draft manuals produced are then being refined through a series of interagency workshops.

In 2002 four more SWOT workshops were held to address specific EIA issues in greater detail. The SWOT workshop on public hearings, conducted on December 27, 2002 in Kathmandu, concluded that a set of guidelines to conduct public hearings would assist in improving the public hearing process through uniformity of actions.

This manual on public hearings was developed during 2003, and finalized through a workshop held on October 16, 2003. The 53 participants consisted of senior representatives from the DOED, Ministry of Forest and Soil Conservation (MFSC), Ministry of Population and Environment (MOPE), Ministry of Water Resources (MOWR), Nepal Electricity Authority (NEA), Bhoite Koshi Power Company, Butwal Power Company, CARE Nepal, Didi Bahini, DN/MOPE EIA Capacity Building Project, Environmental and Public Health Organization (ENPHO), Rural Natural Resources Management Women's Group (HIMWANTI), International Centre for Integrated Mountain Development (ICIMOD), International Resources Group, IUCN Nepal, Lamjung Electricity Development Company (LEDCO), METCON Consultants, National EIA Association of Nepal (NEIAAN), United States Agency for International Development (USAID), Water and Energy Commission Secretariat (WECS) and Water Resources Consult (WRC). This manual is the result of the dedicated effort of the participants.

I sincerely hope that this manual will be useful to streamline the current practice of conducting public hearings for EIAs for hydropower projects in Nepal. I am confident that the manuals in our series will streamline our efforts to considerably improve the current practices of EIA in Nepal, making the system more beneficial, effective, and efficient for achieving environmentally and socially sound and sustainable hydropower development in Nepal.

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Director-General

Department of Electricity Development

Kathmandu, Nepal

September 2004

Acronyms and Abbreviations

CBO	Community Based Organization
DDC	District Development Committee
DOED	Department of Electricity Development
EDC	Electricity Development Center
EIA	Environmental Impact Assessment
EPA97	Environment Protection Act, 1997
EPR97	Environment Protection Rules, 1997
HMGN	His Majesty's Government of Nepal
IEE	Initial Environmental Examination
IRG	International Resources Group
MOPE	Ministry of Population and Environment
MOWR	Ministry of Water Resources
NEA	Nepal Electricity Authority
NGO	Non-governmental Organization
T/L	Transmission Line
USAID	United States Agency for International Development
VDC	Village Development Committee

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1. INTRODUCTION

1.1 Hydropower Development

Nepal possesses about 2.3% of the world's freshwater resources and a potential of generating 83,000 MW of which 43,000 is technically and economically feasible. Though Nepal's first hydropower station was set up in 1911, hydropower development has been slow. Despite this huge potential for hydropower development, Nepal has so far been able to exploit only about 1.2% of its hydropower potential with an installed capacity of slightly less than 600 MW in 2004. According to the Central Bureau of Statistics (Population Census 2001) only 40% of the population, mostly the urban population, has access to electricity¹. The government has been unable to exploit its vast hydroelectric potential due to limited financial resources and other constraints.

Nepal's tremendous hydropower potential would likely meet its domestic demands for several decades and still have sufficient surplus for possible export to neighboring countries such as India. With this in mind, the HMGN promulgated the Hydropower Development Policy, 1992. In 2001 HMGN promulgated the Hydropower Development Policy, 2001. The latest policy encourages national and international private sector investors to participate in the development of hydropower in Nepal.

1.2 Environmental Problems, Policies, and Legislation

Both nationally and internationally, many development policies of the past had failed to incorporate environmental² issues while implementing development projects. Such initiatives have resulted in creating environmental issues such as erosion, floods, landslides, deforestation, pollution, etc. In order to ensure their full and appropriate assessment in developmental decision-making process, HMGN started incorporating environmental considerations in its policy documents in the beginning of the 1980s. The Seventh Five-Year Plan (1987-92) was the first to consider environmental concerns in the planning process of the government. In the Eighth Five-Year Plan (1992-1997) due consideration was given to development related environmental issues. In a series of actions, the government endorsed the National Conservation Strategy, formed a concrete environmental policy, established the Ministry of Population and Environment (MOPE) in 1995, endorsed National EIA Guidelines in 1993 and Environmental Impact Assessment (EIA) Guidelines for Forestry Sector in 1995, and enacted the Environment Protection Act, 1997, (EPA97) and Environment Protection Rules, 1997 (EPR97).

1.3 EIA Process

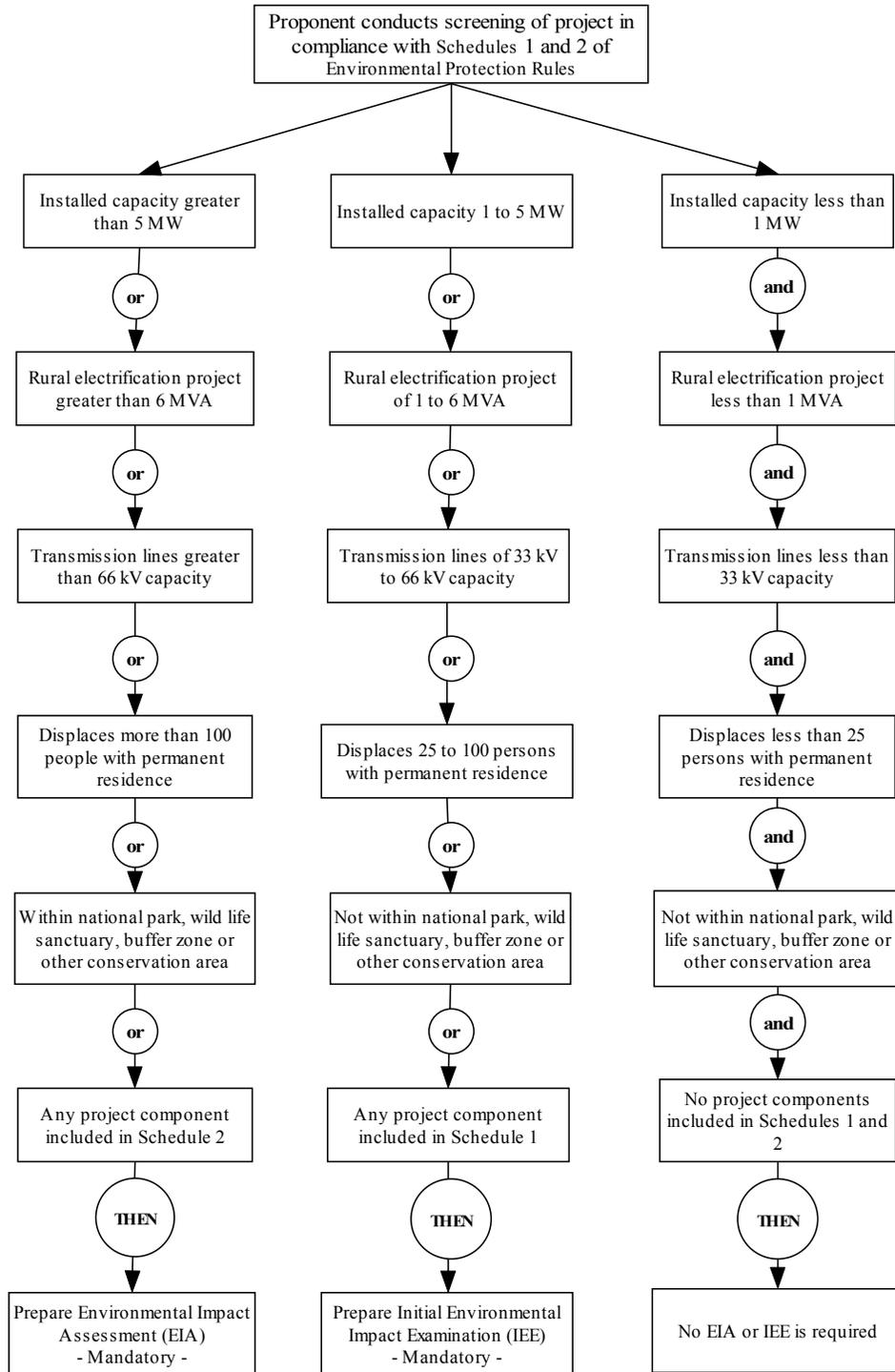
The EIA process in Nepal as required by EPR97 consists of screening, scoping, terms of reference (TOR) for the EIA study and EIA report. The IEE process consists of terms of reference (TOR) for the IEE study and IEE report.

¹ This figure includes electricity from any source (Nepal Electricity Authority or micro-hydro or solar power)

² The term "environment" includes the physical environment, the biological environment, and the socioeconomic and cultural environments

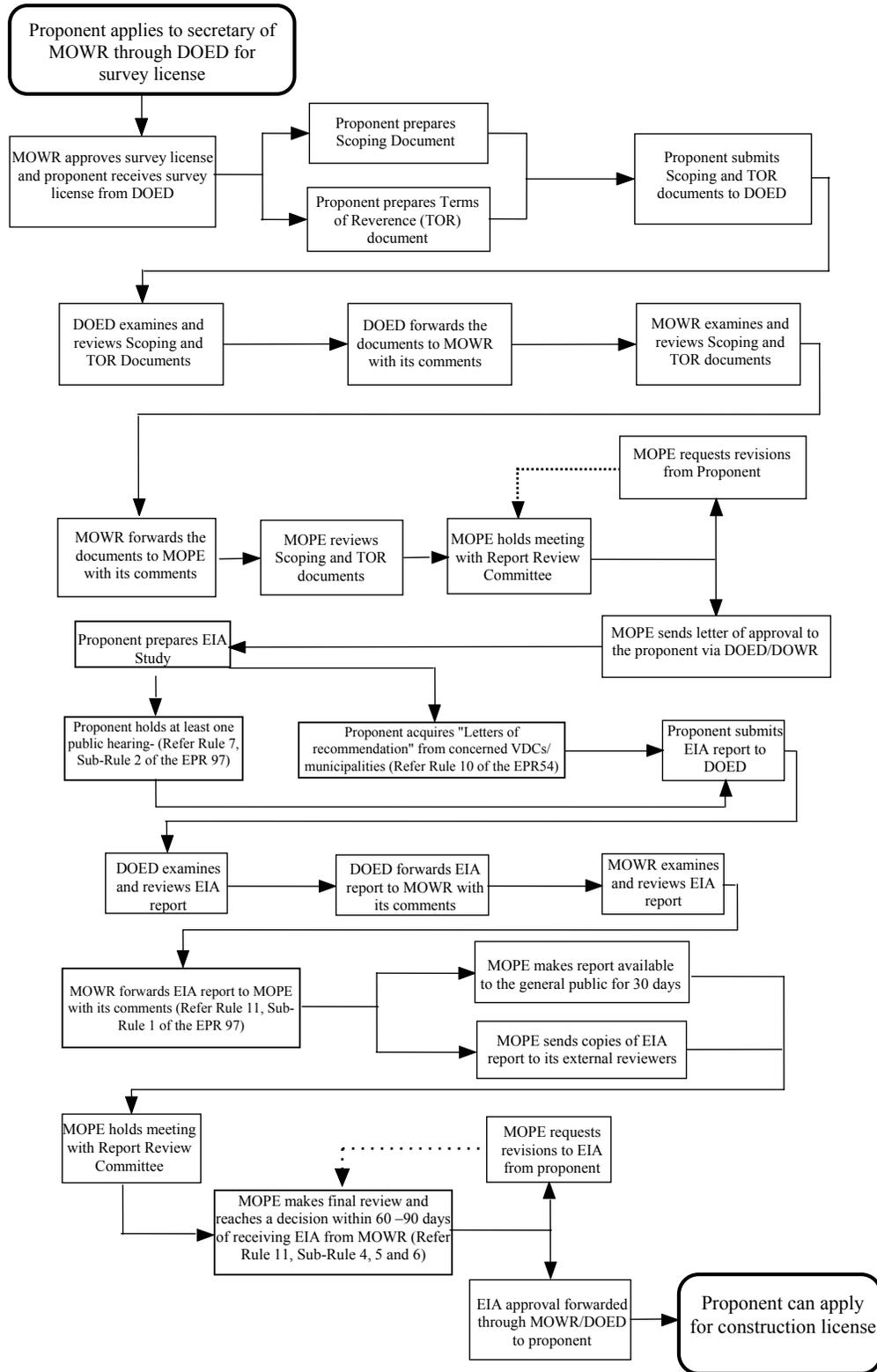
Screening (Figure 1) determines which power projects (generation, transmission, and distribution) require an EIA or IEE study. All the projects that fall under Schedule 1 of the EPR97 require an IEE and all of the projects that fall under Schedule 2 require an EIA, as listed in Annex 7.

Figure 1: The Screening Process



After it has been determined that a project requires an EIA study (Figure 2) the scoping exercise is the second step.

Figure 2: Scoping, TOR, and EIA Process



The proponent may submit Scoping and TOR reports either separately or together as per Rule 4 and 5 of the EPR97. The proponent submits the reports to the DOED for review. DOED examines and reviews the reports. Then, DoED forwards these reports to MOWR along with its comments (if any). MOWR examines and reviews the reports along with the comments. Then, MoWR forwards the reports along with its comments and suggestions (if any) to MOPE. The MOPE reviews the report in the light of comments and suggestions from MOWR and convenes the Report Review Committee (Refer to Rule 11, Sub-Rule (4) of the EPR 97). MOPE addresses the Report Review Committee's comments and requirements in approving the Scoping and TOR reports.

The approved TOR provides the roadmap for the proponent to conduct the EIA study. When completed, the proponent submits specified number of copies of the EIA report to DOED. DOED examines and reviews the EIA, among other things, for the following two legal requirements:

- (i) Conduct of a public hearing on the proposal in the Village Development Committee (VDC) or municipality where the proposal is to be implemented, and collect opinions and suggestions. (Refer to Rule 7, Sub-Rule(2) of the EPR 97)
- (ii) Letters of recommendation from the concerned VDC(s) or municipality. (Refer to Rule 10 of the EPR 97)

DOED forwards the reports along with comments and suggestions (if any) to MOWR. MOWR examines and reviews the reports along with DOED's comments/suggestions. MOWR then forwards the reports to MOPE, along with comments and suggestions (if any) for further actions.

MOPE publishes a public notice (Refer to Rule 11, Sub-Rule (2)) inviting the concerned public and stakeholders to provide comments on the report. MOPE places EIA reports in concerned VDCs and District Development Committee (DDC) offices, and at other significant public places for a period of 30 days to ensure adequate public access to these reports. MOPE requires the proponent to address all meaningful and substantive comments from the stakeholders and the general public. The MOPE convenes an EIA Report Review Committee (Refer to Rule 11, Sub-Rule (4)) as mentioned earlier. The Review Committee reviews the EIA and submits its report to the MOPE. The MOPE addresses the comments made by the Review Committee and those received in response to public notice while approving the report.

1.4 Public Hearing and Its Importance

The public has a right to know and to be involved in information exchange and decision-making that may potentially affect lives, resources, and properties.

A public hearing is a forum for interested and affected entities and/or entire communities to obtain and exchange adequate and accurate project information. A public hearing provides an opportunity for concerned stakeholders to express opinions, voice their concerns, and provide suggestions to the authorities to facilitate balanced decision-making.

Such hearings facilitate the public involvement process. When the public is fully aware and informed of project benefits and effects, project development usually becomes relatively trouble-free. Therefore, a good public hearing process is in the interest of the proponent as well.

Experience shows that a good public hearing is important for:

- *Ensuring timeliness and efficiency of action;*
- *Reducing unforeseen expenditures and threats to financial investments; and*
- *Ensuring equitable and timely agreement on contentious issues.*

A successful public hearing is likely to provide adequate, reliable, valid, and timely feedback to the proponents to streamline the project implementation. It is likely to provide to other stakeholders the confidence and satisfaction that the project development would adequately address their issues. A poorly planned and conducted public hearing may result in difficulties and delays.

1.5 Need for the Manual

The EPR97 mandates that the proponents of a hydropower development conduct a public hearing during the preparation of an EIA report. However, EPR97 does not specify the number, location, timing, or the process by which such hearing is conducted. This has resulted in some confusion among proponents and the concerned authorities and a lack of uniformity in conducting public hearings for these projects.

This manual has been developed in order to provide general guidelines for the public hearing process and to help the proponents conduct public hearings effectively for hydropower projects.

It should be noted that this manual is not a legal document and is not mandatory for the proponents to follow the guidelines recommended herein. It is believed that this manual will help hydropower developers, regulatory and monitoring authorities, affected public and other stakeholders interested in hydropower development and the public hearing process. For further information on the public involvement process the reader should consult DOED's *Manual for Public Involvement in the Environmental Impact Assessment (EIA) Process of Hydropower Projects*.

2. LEGAL REQUIREMENTS

A public hearing is mandatory for projects requiring EIA by EPA97 and EPR97. Under the EPR97, the public has the right to examine relevant project information and make their concerns, opinions and suggestions known to the proponents and other concerned authorities. Similarly, the Water Resource Act and the Electricity Act 1992 have also recognized the important role of public involvement in hydropower development.

Rule 7, Sub-Rule (2) of the EPR 97 states, "*whilst preparing the report of Environmental Impact Assessment, the proponent shall organize a Public Hearing*

about the proposal at the area of Village Development Committee or Municipality where the proposal is to be implemented and collect opinions and suggestions.”

3. CURRENT PRACTICES FOR PUBLIC HEARINGS

Recently commissioned hydropower projects, such as Kaligandaki-A, Khimti-I, Modi Khola, Puwa Khola, and Bhote Koshi hydroelectric projects were initiated before EPR97 was promulgated. Indrawati-III Hydroelectric Project is the only constructed project completed after EPR97 was promulgated. Middle Marsyangdi Hydroelectric Project, which is under construction, conducted its public hearing during the EIA report preparation and had its EIA study approved as per EPR97. Additionally, there are several projects in different stages of development that have conducted public hearings and EIA studies as required under EPR97.

Currently most of the public hearings are conducted after preparation of the draft EIA report. Some proponents publish notices in national daily newspapers informing the public of the date, time, and venue of public hearings for the project EIAs. Others inform the local bodies and authorities at the district and village level regarding the time, place, and venue of the public hearing through direct contact.

The quality of public hearings has been largely influenced by the willingness of the proponents, the funding agencies, the availability of resources, and the capabilities of the people who conduct the public hearing.

At present, proponents usually conduct one public hearing, regardless of the scale and size of the project or the geographical extent of affected communities. Public hearings have been conducted during the rainy season and peak agricultural seasons resulting in minimal participation. In the case of one public hearing for a transmission line project, the number of general public who attended the public hearing was less than ten, perhaps due to a lack of publicity regarding the hearing. Concerned/affected parties and local elected bodies can always communicate later on. The main intention of public hearings, as per the law, is to go to the doorsteps of the vulnerable and illiterate groups and involve them in the development process.

4. RECOMMENDED PRACTICES FOR CONDUCTING PUBLIC HEARINGS

In order to achieve the objectives of a public hearing in letter and in spirit, careful thought should be put in to planning and organizing the public hearing. A public hearing may be divided into the three stages as follows:

- a) Planning and organization,
- b) Implementation and
- c) Evaluation.

4.1 Planning and Organization Stage

Planning is the first stage of conducting a public hearing. This stage involves identification of stakeholders, preparation of information package for dissemination at

the public hearing, preparation of checklists to facilitate the discussion, communication of information regarding the public hearing to stakeholders, identification of location and venue for the public hearing, and facilitating participation and representation of target groups. These steps have been further described below.

4.1.1 Identification of Stakeholders

Identifying stakeholders for the public hearing must be done carefully. No stakeholders should feel that they have been left out, ignored, or avoided in the public hearing process.

Stakeholders in the hydropower development projects are individuals, groups, agencies, and organizations affected by the project, or with concerns or interests in a development project and its outcomes, or in common resources impacted by a development project. Stakeholders are “Partners in Development”. There are many potential stakeholders/partners of hydropower development projects. Some, like the local people, are involved in all stages, throughout the implementation of the project. And, they are often affected by it for years afterwards. Others become more or less important during various stages of the development and implementation of the project.

The effects of a project on stakeholders can be adverse or beneficial, direct or indirect, sooner or later. The identification of the stakeholders, the timing of their involvement, and the activities they may be encouraged and enabled to undertake, depends largely on the type, size, and location of a project as well as on the developer and his team's insight, creativity, sensitivity, and dedication to involve them.

Local people, those who are most directly affected by a project are the key stakeholders - they are at the greatest risk, they feel the impacts most intensely, they benefit the most from opportunities; hence, they should be the first to be involved. The poor, landless, vulnerable, and marginalized people are among these stakeholders, and it is they who are often the most difficult to be convinced to get involved in the public hearing.

Since local people are the key stakeholders throughout the life of a project, their involvement and participation from the beginning is crucial to the success of the project. The clearer the terms of public engagement, the more meaningful their involvement, the smoother and more sustainable the outcome.

Besides the local people, DDCs, VDCs, municipalities, NGOs/CBOs, ministries, government agencies and authorities may play key roles as stakeholders in hydropower projects.

Many methods are available to identify the stakeholders. One of the simplest methods is mapping the impact area by assessing environmental impacts. Land use maps, physical and political maps and aerial photographs may all be used to identify the impact area. With the help of the maps and photographs the impact area may be divided into impact areas considering some criteria such as walking distance, resource

use, and movement of people and flow of goods. Impact areas may be sub-divided into high impact areas, medium impact areas, and low impact areas. From these areas the project affected households, communities, vulnerable groups, women, and other stakeholders representing those areas may be identified for the public hearing.

Definitions of project-affected households are given in Annex I, and tips for identification of the stakeholders are given in Annex II.

4.1.2 Checklist Covering Key Issues/Impacts

The proponent should prepare a semi-structured discussion guideline (checklist) for the public hearing. It will help conduct the public hearing in a planned way to focus discussions on significant issues. This checklist should cover all the significant positive and adverse environmental impacts of the hydropower development project. The checklist could be broadly categorized into the following three categories:

- a) Key project features.
- b) Impacts on physical, biological, socioeconomic, and cultural environments.
- c) Mitigation measures

The checklist should be pre-tested on a small sample of local people before conducting the public hearing.

4.1.3 Prior Information/Communication for Public Hearing

Information should be provided through public notices in local and national languages, through radio (national/FM), local and national newspapers, local leaders, traditional village heads, and any other available communication media. Also such notices should be published in the national daily newspaper. To increase public participation it is suggested to mobilize local leaders, NGOs/CBOs, clubs, mothers' groups, etc. by organizing a coordination meeting at the project site. Suggestions for selection of such media may be obtained during the study from local VDCs and DDCs.

Before conducting public hearings, team members should go to the field to gather information in advance.

Advance public notices (at least 15 days prior) should be provided with adequate information regarding the project and the importance of public participation. The public notice should include information regarding the subject, time, location, and brief information on the project. The public notices should be posted on the notice boards of VDCs/Municipalities, DDCs, health posts, and schools of the affected areas.

It is also recommended that pamphlets/booklets, if possible, should also be distributed to the public at least one week in advance. Further, because the literacy rate is low in Nepal, announcements through loudspeakers in local and national languages two days

in advance to holding the public hearing are recommended to ensure maximum participation of the affected people.

4.1.4 Location and Venue

Location and venue depends on the scale and size of the project. Selecting accessible areas and public locations such as schools, VDC office, health post, and public gathering places located within two hours of walking distance will encourage participation from the targeted people. Suggestions about the date, venue and time should be sought from the affected VDCs/municipalities and concerned personnel/bodies before fixing the date and venue for the public hearing.

4.1.5 Representation and Participation

Maximum participation of stakeholders/affected people including community heads, elected officials of the local government, NGO/CBO representatives, teachers, social workers, vulnerable groups, women and voiceless people must be solicited.

4.1.6 Timing

The rainy season, peak agricultural seasons, local and national festivals, and similar potential unfavorable periods should be avoided to the maximum extent possible. It is suggested that opinions regarding timing of the public hearing should be sought from the affected VDCs/municipalities and concerned personnel/bodies before fixing the timing for public hearing.

4.1.7 Duration

The public hearing should last not more than three hours so that participants can return conveniently to their homes before nightfall. The appropriate time to start would be around mid-morning. This will provide enough time for eating, traveling, and returning home. Sufficient time should be given for discussions and recording opinions of all the participants.

4.1.8 Number of Public Hearings

While a public hearing may appear to be the simplest and most direct way of collecting the public voice, it can also be very complex, unpredictable, and demanding. The number of such hearings will depend upon the complexity of the project. More than one public hearing in different locations may be required depending upon project size, type, impact area, population, and/or potentially controversial issues. As a general rule, most participants should have no more than two hours walk to the meeting venue. If majority of the participants are more than two hours walk from the venue, two or more public hearings may be planned. If the project area covers more than one district, it would also be appropriate to hold at least one public hearing per district.

4.1.9 Logistics Management

Due attention should be given to logistics such as seating arrangements, shade, light conditions, face-to-face interaction, and audio/video equipment, and banners should be arranged before the arrival of the desired participants. Water should be provided to the participants and, if possible, tea and snacks.

4.2 Implementation Stage

The implementation stage of a public hearing process is the most important stage. During this stage some of the preparatory work such as selection of a professional moderator, specification of certain ground rules for interaction, dissemination of information, group facilitation, opportunity for comments, recording of the session and sign-up sheets should be completed before conducting the public hearing.

4.2.1 Facilitator

It may be advantageous to have a professional moderator, with experience in hydropower projects to facilitate the hearing. However, appropriate members of the proponent's team may also be sufficient. It would be advantageous to have adequate and appropriate experts available at the hearing to present facts and address questions to the extent possible. Support may be solicited from representatives of the VDCs, DDCs, and government agencies as needed. The facilitator should be a good listener.

4.2.2 Ground Rules for Interaction

To facilitate a public hearing successfully, facilitators must first explain the “ground rules” for the interaction:

- Certain time should be allocated for speakers and the representatives before the public hearing and floor discussion (suggested time - 1 hour).
- Speakers should be asked to introduce themselves by name and other identifying roles or characteristics (e.g., local farmer or shop keeper, school teacher, village leader or elected official, NGO or CBO representative, etc.), in order to establish their authority, interest, and issues.
- Speakers should be given brief, but adequate time to state their case.
- Speakers should be restricted to the identification of major issues and possible alternatives to the proposed action.
- Adequate time should be allotted to solicit public concerns from affected families, local leaders, vulnerable groups, voiceless people and women, and for floor discussion.

4.2.3 Dissemination of Information

Dissemination of information using non-technical language and avoiding technical jargon when conducting the public hearing is most important. Similarly, the use of Nepali language or other national languages (e.g., Rai, Tamang, Gurung, Bhojpuri, Maithili, Newari, Tharu, etc.) may facilitate clear communication.

Displays of posters, maps, models, and other permanent illustrative materials, such as pamphlets, should be used to give the public a good understanding of all aspects of the proposal, proposed actions, and their potential adverse and positive impacts. These pamphlets should be distributed door to door and also posted in public locations. Presentations using slide projectors, overhead projectors, and multimedia projectors should only contain information that is already available in “hard copy” displays.

Proponents should begin the public hearing by providing the stakeholders with the following information:

- Purpose of the project
- Type/size of the project
- Project location/site

Next, the proponent should address how the EIA study has addressed issues identified during scoping and present a summary of the results of the EIA. This should cover:

- Significant issues addressed
- Non-significant issues
- Impact area (high and low, in DDCs, VDCs, and municipalities)
- Impacts (physical, biological, socioeconomic, and cultural)

Finally, the proposed mitigation measures should be presented, together with the potential benefits and opportunities (without falsely raising expectations) for the people.

If there has been adequate public involvement during the development of the EIA study, including the scoping phase, the majority of the people should already be very familiar with the major issues and the total presentation could be completed within one hour. Thus, the remaining two hours will be available for questions and clarifications.

The proponent’s team must be prepared to explain how issues raised by the households, communities, and other concerned stakeholders were (or will be) addressed. Additional tips for information dissemination are given in Annex III.

4.2.4 Facilitation

Key EIA team study members should be present at the public hearing, so that most of the concerns raised may be answered satisfactorily. The entire proceeding should be transparent. This will help increase credibility of the proponent and develop mutual trust among stakeholders. Facilitators of the public hearing should interpret how each suggestion might guide the assessment process and how the respondents can make further contributions, such as providing comments on the draft EIA report.

Since the prime objective of public hearings is to obtain stakeholder input, the facilitator(s) should endeavor to educate the stakeholders on the process of EIA. The public hearing forum should be made friendly and open in order for the stakeholders

to feel comfortable and express their opinions fully and frankly during the course of the public hearing.

4.2.5 Opportunity for Comments

Opportunity for comments, suggestions and raising common concerns should be provided to all participants. A list of common concerns is given in Annex IV. Voiceless people, vulnerable groups, seriously affected families and women should be encouraged to provide comments and offer suggestions. It is also suggested that a 15-day time period be provided to the public for written comments after the public hearing. A small field office may be established to collect inputs before and after the public hearings.

4.2.6 Commitments

Promises made too early in the public involvement process without appropriate analysis tend to raise expectations, which, if misunderstood or unfulfilled, may lead to adverse consequences. No commitments should be made without proper analysis and authority. Such promises should be accompanied with specific details and timeline for implementation.

When misunderstandings do arise, strikes (*bandhs*), and protests typically follow. Strikes hinder project activities in both, the short and long term. Such disruptions can be very expensive. One pro-active way of heading off conflicts over misunderstandings is to assure that all involved have a clear idea of their roles and responsibilities - proponent, local people, government line agencies, and others, where appropriate. However, possible and realistic commitments may be made during the public hearing to facilitate building mutual trust among the stakeholders.

If public hearings are conducted at more than one place, it is very important that the similar commitments, if required, are made at all places. Inconsistent commitments to address similar issues tend to foster distrust and will likely result in adverse consequences on the development of the project.

4.2.7 Recording

Recording of proceedings at public hearings would likely improve the chances of avoiding misunderstanding and facilitate focusing on issues. Also, concerns expressed by the stakeholders get properly documented and addressed. The records should consist of written minutes supplemented with audio/visuals. Annex V provides an outline of a public hearing record/minute.

4.2.8 Signup Sheet

Signup sheets containing minimum information including name, address, age, sex, occupation, designation, and signature should be recorded for documentation. A sample sign-up sheet is given in Annex VI.

4.3 Evaluation

Evaluation is the final stage of the public hearing process. A public hearing may be considered successful if there is representative participation of key stakeholders such as project affected households, local leaders, social workers, women, and vulnerable groups.

4.3.1 Participation/Representation

An analysis of the participation of different stakeholders including affected families, communities, voiceless people, vulnerable groups, different ethnic groups, local leaders, social workers, and NGO/CBO representatives should be included in the EIA report.

4.3.2 Permanent Records

Permanent records such as attendance, signed documents, minutes, photographs, and audio/video records should be kept for documentation and disclosure.

5. PRESENTATION OF INFORMATION

Schedule 6, Rule 7 of EPR97 does not require specific reporting format for public hearing in the EIA report. It is suggested that information regarding the public hearing be summarized under separate subheadings in the “study methodology”, “environmental impacts” and “mitigation measures” of the EIA report. Details of the public hearing may be provided as an annex.

Annex - I

Definition of Project Affected Households

In Nepal, a "household" is defined as family members living together and sharing a single kitchen. Project affected households are the households those who suffer adversely from a project and have fully or partially lost their land, house and immovable property, and/or access to essential resources (forest, water, etc.) as a result of the construction and operation of a hydropower project.

The terms *Seriously Project-Affected Families* (SPAF) and *Project-Affected Families* (PAF) are sometimes found in other documents. The families who are living close to the project site and have lost all of their private property including land, house, and others and require involuntary resettlement are considered as SPAFs. Those families who have partially lost their land, house and other property and do not require involuntary resettlement are regarded as PAFs.

The World Bank uses the term Project Affected Persons (PAP) as the persons who have been affected by land acquisition, relocation, or loss of income associated with change in income due to the project. In some reports the Bank also uses the comparative term "Directly Affected Groups" and "Indirectly Affected Groups".

The World Commission on Dams uses the term Adversely Affected People (AAP). In all the cases, the terminology refers to populations who suffer adversely during development interventions. In the case of dam projects, this includes people whose economic, social, and cultural lives are affected by construction works, impoundment, alteration of river flows and any other ecological consequences, in reference to displaced people and host communities, both upstream and downstream. It also includes groups affected by the construction of transmission lines, access roads, and so on.

Annex - II

Tips for Identification of the Stakeholders

Stakeholders in hydropower development are those who could be affected directly or indirectly, positively or adversely, sooner or later, by the project; and who could contribute to or hinder its development. Since stakeholders play an important role in the success of a hydropower development project, it is most important to identify and prioritize them.

Asking some of the following questions can help identify them:

- Who will be adversely affected by the implementation of the project?
- Who will benefit by the project?
- Who are the most vulnerable, voiceless, and invisible individuals/groups requiring special attention?
- Who supports/opposes or has influence on the success of the project?

Stakeholders may be identified in terms of one or several of the following categories:

- Individuals whose lands, houses, and/or properties are acquired fully or partially by the project.
- Individuals whose livelihoods are affected by the project.
- Communities whose resources are affected by the project.
- Poor, landless, vulnerable, voiceless and marginalized people affected by the project.
- Government agencies and their representatives at various levels (center, district, local), from concerned ministries, departments, and offices who have regulatory or resource responsibilities.
- Elected officials of concerned VDCs, municipalities, DDCs or constituencies.
- Concerned business people and entrepreneurs.
- Concerned INGOs, NGOs, CBOs and user groups.
- Political party representatives.
- Local influential people from the project area (informal or traditional community leaders, teachers, faith healers, social and religious leaders).
- Health workers/Female Community Health Volunteers.
- Representatives of trade unions.
- Representatives of federations (FECOFUN, NFIWUAN, FNCCI).
- Social workers (dedicated to the upliftment of voiceless people, poor, landless, women, and vulnerable groups).
- Project developers/proponents.

Annex - III

Tips for Information Dissemination

Dissemination of information using non-technical language and avoidance of technical jargon when conducting the public hearing is most important. Similarly, the use of Nepali language or other national languages (e.g., Rai, Tamang, Gurung, Bhojpuri, Maithili, Newari, Tharu, as appropriate) may be helpful.

The use of maps, modules, visual aids, tables, and other graphics helps clarify physical relationships and other information for the participants. A brochure with adequate and easy graphics provides for good communication and is preferred.

Maps should be at a scale so it is easy to identify upstream and downstream areas, dam, intake sites, power-house site, power distribution and switching stations, areas expected to be flooded, tunnels, transmission lines, and the length/alignment of access roads, etc.

While a single standardized format or model for preparing brochures or pamphlets for information dissemination is not recommended, given the wide variation in the needs and characteristics of the audience, there are, nonetheless, some useful points to consider. For example, information for dissemination may be organized by categories such as:

- Technical aspects;
- Project benefits;
- Physical impacts;
- Biological impacts;
- Socioeconomic and cultural impacts; and,
- Timing of activities and their beneficial and/or adverse impacts.

Relative importance of each category or topic will vary with the stakeholder interest. For example, local villagers may be more interested in the social, cultural, economic, and resource impacts. NGOs and advocacy groups may focus more on environmental, health, and legal issues. Developers and technicians may focus more on the technical aspects.

In preparing a brochure or pamphlet for information dissemination, the following outline is useful; be sure to present clear definitions and explanations of each point of information:

- Project purpose - power supply for whom and why.
- Project size - installed capacity and what that means in layman terms.
- Project type - reservoir type or run-of-the-river.
- Project location - settlements, wards, VDCs or municipalities, DDCs, location of the dam site, intake structure, power-house, tunnels, transmission lines, switching/power distribution stations, labor camps, access roads, etc.

- Impact areas - how impact areas of the project are identified, noting total number of households, and the names of villages/wards, VDCs/municipalities and DDCs.
- Temporary and other ephemeral (transitory, short-lived) impacts: such as potential “boom and bust” developments during the construction phase.
- Long-term impacts - environmental, economic, social, cultural, etc., including indication of relative high/low, beneficial/adverse impacts.
- Potential opportunities arising - in terms of resettlement and new communities, labor requirements, skill training, and other economic aspects with realistic expectations.
- Site rehabilitation needs – re-vegetation or restoration, etc.
- Location of villages for involuntary resettlement - individuals, families, whole communities expected to be moved.
- Potential resettlement sites - located on maps, in photographs, etc.
- Number of involuntary resettlement households - noting dates, source and destination.
- Families/households not undergoing involuntary resettlement - but which might be adversely affected by loss of access to resources, with estimated numbers.

Annex - IV

Common Concerns of the Public

Hydropower development projects have different environmental impacts (physical, biological, socioeconomic, and cultural). They can be positive or adverse.

The proponents should carefully scrutinize the experience of prior projects (reviewing earlier project documents, on site discussions with stakeholders, project staff and field observations) for lessons learned and best practices to address common concerns of the public. This will help to establish good public relations and receive better cooperation from the local people as well as help to reduce misunderstandings and conflicts in the area. The common concerns of the public regarding hydropower development include the following:

- Compensation for loss of property (land, including unregistered land, house and other private property).
- Reason for displacing them/selecting their property.
- Involuntary resettlement settlement (location, facilities).
- Infrastructure (roads, bridges, health posts, schools, irrigation works, etc.).
- Loss/sharing of common resources (forest, grazing land, fisheries, water etc.).
- Business/occupation.
- Employment.
- Displacement of temple/religious/cultural heritage.
- Training/skills development.
- Facilities (communication, drinking water, irrigation, electrification, bank etc.).
- Inflation /price hikes.
- Population influx.
- Social conflicts.
- Social development.
- Noise, air, and water pollution.
- Revenue sharing.

The proponent should classify the public concerns/requests into following three categories and deal with them accordingly during the public hearing:

- Concerns that are fair.
- Concerns that require further consultation.
- Concerns that are unrealistic/impractical.

Annex - V

Sample Record/Minutes of the Public Hearing

I. Background (provide background information including objectives of the public hearing, methodology/process, date, location, facility/venue etc.)

II. Attendance (provide information regarding the background of the participants. Use information derived from the signup sheets and also annex copies of them)

III. Discussions

A. Issues Raised by the public

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

B. Issues Addressed by the proponent/EIA team

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

C. Response from the Proponent

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

D. Conclusions

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Annex – VII
Environmental Protection Rules 1997: Schedule 1 and 2

Schedule - 1(Pertaining to Rule 3)
Proposals Requiring Initial Environmental Examination

A. Forest Sector

- (1) Plantation of indigenous plants of a single species on a single block of 50 to 100 hectares in the Terai and 25 to 50 hectares in the hills.
- (2) Plantation of such imported species of plants as are deemed suitable for that purpose following their test in the concerned place, on a single block of 10 to 50 hectares in the Terai and 5 to 25 hectares in the hills.
- (3) Handover of forests with an area ranging between 25 to 100 hectares in the Terai and 5 to 25 hectares in the hills as leasehold forests.
- (4) Clear felling or rehabilitation of national forests with an area of not more than 5 hectares.
- (5) Establishment of saw-mills processing 5,000 to 50,000 cubic feet of timber per year.
- (6) Collection of 5 to 50 tons of forest products other than timber per year.
- (7) Establishment or expansion of national parks, wildlife sanctuaries and conservation areas, or environmental conservation zones.
- (8) Extraction of the roots of trees which have been felled, removal of leaves (in such a manner as to turn trees into stumps), extraction of seeds of lichens or orchids from trees, and collection of Sal (*Shorea robusta*) seeds.
- (9) Formulation of watershed management plans.
- (10) Construction of new botanical gardens or zoos outside forest areas in the public or private sector.
- (11) Resettlement of imported wild animals of different species.
- (12) Preparation of management plans of national parks, wild life sanctuaries, conservation areas, and their buffer zones, or launching of development and construction activities specified in such plans.
- (13) Establishment of medicinal herbs centers for the commercial production of medicinal herbs and aromatic plants in public scrublands.
- (14) Commercial collection or industrial processing of non-polluting medicinal herbs and aromatic plants.
- (15) Construction of forest paths up to 5 kilometer long, and of fire protection lines up to 10 kilometer long.
- (16) Collection of boulders, gravel and sand and extraction of coal and other minerals from forest areas.

•**B. Industrial Sector**

- (a) (1) Production of alcohol by the process of blending and establishment of distilleries equipped with boiling and fermentation facilities, with a production capacity of 5,00,000/- liters per day.
- (2) Establishment of breweries and wineries equipped with fermentation facilities with a production capacity of 500,000/- liters per day.
- (3) Establishment of acid, alkali, and primary chemical industries with a production capacity of 100 metric ton per day.
- (4) Processing of hides not more than 5000 sq. ft. per day.
- (5) Establishment of Electroplating and Galvanizing industries.
- (6) Establishment of cooking, natural gas refilling, filling, production and distribution industries.
- (7) Establishment of boulder crushing industries.
- (8) Establishment of paints industries.
- (9) Establishment of dairy processing industries.
- (10) Establishment of industries producing lubricant by the process of blending reprocessing or reclamation.
- (11) Establishment of industries manufacturing foam.
- (12) Establishment of industries manufacturing dry or wet cell (battery).
- (13) Establishment of crude sugar or sugar industries with a production capacity of 3000 metric tons per day.
- (14) Establishment of thread and cloths dyeing, printing and laundry industries (including carpets) except traditional cottage industries.
- (15) Establishment of pulp and paper industries, except traditional cottage industries, with a production capacity of 100 metric tons per day.
- (16) Establishment of bricks and tiles industries with a production capacity of 10 million units per year.
- (17) Establishment of cement industries with a production capacity of 30 metric tons per hour based on lime-stone and with a production capacity of 50 metric tons per hour based on clinker.
- (18) Establishment of quick/ slaked lime industry producing 50 metric tons per day.
- (19) Establishment of pharmaceutical industries.
- (20) Establishment of industries manufacturing chemical fertilizers (blending) and pesticides (blending).
- (21) Establishment of plastic industries (bases on waste plastic as raw materials).
- (22) Establishment of matches industries.

• Amended by First Amendment

- (23) Establishment of industries relating to auto workshop (except 2 wheelers).
- (24) Establishment of industries producing and processing coke and briquette from coal."

(b) **Establishment of the following industries having investment of total fixed capital exceeding Rs. 1 million.**

- (1) Plastic processing (except processing waste materials).
- (2) Processing and production of tires, tubes and rubber.
- (3) Soap (including detergents and clearing shampoos).
- (4) Photo processing.
- (5) Foundry.
- (6) Production of cigarettes, bidi (tobacco rolled in leaf) tobacco, betel nuts.
- (7) Slaughter house.
- (8) Glass (plane glass)
- (9) Food processing.
- (10) Relating to metal (including re-melting, re-rolling, and fabrication).
- (11) Bitumen and bitumen emulsion.
- (12) Cold storage.
- (13) Threading.
- (14) Vegetable ghee, oil.
- (15) Herbal processing.
- (16) Production of different items from bone, horn and foot root
- (17) Rosin turpentine, veneer and catechu.
- (18) Fish and meat processing.
- (19) Production of packaging materials
- (20) Poultry feeds.
- (21) Machine shop.

•C. **Mining Sector:**

- (a) Excavation of mines through relocation and resettlement of permanent residence of not more than 100 people.
- (b) Relating to Open Mine and Under Ground Mine:
 - 1. Excavation of metallic minerals in small scale.

• Amended by First Amendment

2. Excavation of the other industrial minerals in small scale except precious stones semiprecious stones and abrasive minerals from among the classified industrial minerals for the industrial purpose.
3. Excavation of non-metallic minerals in small scale.
4. Excavation of industrial precious and semiprecious stones and abrasive minerals with a production capacity of 50 to 100 grams per day.
5. Establishment of coal mines in small scale.
6. Excavation of construction oriented mineral materials in small scale.
7. Excavation of highly precious, precious, valuable stone and semi-valuable stone minerals with a production capacity of 50 to 100 grams per day.
8. Production of natural gases in very small and small scale.

(c) Relating to other Mines:

1. Extraction of 10 to 50 cubic meters of sand, gravel and soil from river beds per day.
2. Extraction of 50 to 100 grams of precious, valuable and semi-valuable stone minerals per day through placer or dredging techniques.

D. Road Sector:

1. Construction of the following roads:
 - (a) District roads
 - (b) Urban roads
 - (c) Rural roads
 - (d) Small feeder roads
2. Construction of 1 to 5 kilometers long ropeways.
3. Construction of 1 to 5 kilometers long cable car routes.
4. Construction of major bridges.
5. Construction of tunnels.
6. Improvement of the standard, rehabilitation and reconstruction of national highways and feeder roads.

E. Water Resources and Energy Sector:

1. Supply of electricity through the installation of transmission lines of not more than from [▲]33 kv to 66 kv capacity.
2. Operation of rural electrification projects of 1 to 6 mva.

[▲] Inserted by First Amendment

3. Operation of electricity generation projects of 1 to 5 mw capacity.
4. Under the new systems of irrigation :
 - (a) Those irrigating 25 to 2000 hectares in the Terai,
 - (b) Those irrigating 15 to 500 hectares in the hill valleys,
 - (c) Those irrigating 10 to 200 hectares in the hill and mountain areas with a steep gradient.
5. Under the rehabilitated systems of irrigation :
 - (a) Those irrigating more than 500 hectares in the Terai.
 - (b) Those irrigating more than 200 hectares in the hill valleys.
 - (c) Those irrigating more than 100 hectares in the hill and mountain areas with a steep gradient.
6. Any water resources development activity which displaces not more than [▲]from 25 persons to 100 persons with permanent residence.
7. Control of floods through dams in the Terai.
8. Control of rivers over an area of more than one kilometer.

Note: Any rehabilitation project which includes additional irrigated areas, new sources of water, watershed management or changed channel lines shall be considered to be a new system.

F. Tourism Sector:

1. Establishment and operation of hotels with 50 to 100 beds.
2. Extension of the areas of the existing airports.
3. Opening of new areas for the promotion of tourism.
4. Operation of rafting activities on any river having fish or other aquatic life.
5. Operation of new golf courses and organized water sports.
6. Promotion of tourism in a number exceeding 10,000 per year at an altitude above 5000 meters.
7. Disposal and management of waste emitted from trekking points.

G. Drinking Water:

1. Collection of rain-water in an area of not more than 200 hectares, and use of water sources (springs and wet-lands) located within the same area.
2. Surface water sources with not more than 1 cubic ft. safe yield, and supply of not more than 50 percent of the water during the dry season.
3. Processing of water at the rate of 10 to 25 liters per second.

▲ Inserted by First Amendment

4. Recharging up to 50 percent of the total aquifer for the development of underground water sources.
5. Construction of not more than one kilometer long tunnels for carrying water.
6. Displacement of not more than 100 persons for operating a water supply scheme.
7. Settlement of not more than 500 persons on the upper reaches of water sources.
8. Supply of drinking water to a population ranging between 2,000 and 20,000.
9. Supply of drinking water to a population ranging between 10,000 and 100,000, and connection of new sources.
10. Installation of more than 20 kilometers long electricity transmission lines for pumping or processing water, and consumption of more than one mw of electricity.
11. River training and diversion activities over an area of more than one kilometer.

H. Waste Management:

1. Waste management activities to be undertaken with the objective of providing services to a population ranging between 2,000 and 10,000.
2. Following activities relating to waste emitted from houses and residential areas :
 - (a) Filling of land with 100 to 1000 tons of waste a year.
 - (b) Activities relating to transfer stations and resource recovery areas spread over not more than 3 hectares.
 - (c) Selecting, picking, disposing, and recycling waste through chemical, mechanical or biological techniques in an area of not more than 2 hectares.
 - (d) Activities relating to compost plants in an area ranging between 1 and 5 hectares.
 - (e) Operation of sewerage schemes.

I. Agricultural Sector:

1. Clearing of national forests covering not more than 1 hectare in the hills and 5 hectares in the Terai, and using them for agricultural purposes.
2. Following activities relating to construction :
 - (a) ✕
 - (b) Construction of 1 to 5 kilometers long agricultural roads.
 - (c) Construction activities for farming 2000 to 5000 domestic fowls.

✕ Deleted by First Amendment

- (d) Construction activities for farming big cattle numbering between 100 and 500.
 - (e) Construction activities for farming small cattle (sheep and goats) numbering between 1000 and 5000.
 - (f) Establishment of agricultural wholesale markets in urban areas.
3. Following activities relating to toxic substances (only those which are listed):
- (a) Import of 1 to 10 tons of toxic substances.
 - (b) Sale, supply, storage and disposal of 100 kg to 1 ton of toxic substances.
 - (c) Use of 100 kg to 1 ton of toxic substances in a single area.
4. Establishment of the following agro-based industries which do not dispose of polluted substances mixed with dangerous toxins :
- (a) Milk-processing industries with a capacity of not more than 26,000 liters a day.
 - (b) Such agro-based industries as those producing jam, jelly, squash and juice.
 - (c) Cheese industries.
 - (d) Baby food industries.
 - (e) ✕
 - (f) ✕
5. ✕
6. Commercial fish-farming in an area of more than 1 hectare.

▲J. Operation of any planning, project or programme of any development work, physical activities or change in land use [•]except the proposals mentioned in Clause (A) to Clause (I) and those below the standards of such proposals as well as the proposals below the standards of those mentioned in Schedule-2 with a cost of Rs. 10 millions to hundred millions.

✕ Deleted by First Amendment

▲ Inserted by First Amendment

• Inserted by the notification published in Nepal Gazette on Aug. 23, 1999

Schedule - 2 (Pertaining to Rule 3)
Proposals Requiring Environmental Impact Assessment

A. Forest Sector:

1. Plantation of indigenous plants of a single species on a single block covering an area of more than 100 hectares in the Terai and 50 hectares in the hills.
2. Plantation of such imported species of plants as are deemed suitable for the purpose following their test in the concerned place, in an area of more than 50 hectares in the Terai and 25 hectares in the hills.
3. Handover of forests with an area of more than 100 hectares in the Terai and 25 hectares in the hills as leasehold forests.
4. Clear felling or rehabilitation of forests with an area of more than 5 hectares.
5. Establishment of sawmills processing more than 50,000 cubic ft of timber per year.
6. Collection of more than 50 tons of forest products other than timber per year.
7. Formulation and implementation of forest management plans.
8. Clearing of public forests and establishment of new medicinal herbs centers for commercial production.
9. Rosin and turpentine, rubber, plywood and veneer, catechu, and timber-based matches, pulp and paper industries to be established within one kilometer inside the forest area which depend on forests for their raw materials and use processing techniques, and cardamom and medium and large tea industries which use large quantities of firewood.
10. Commercial and industrial processing of medicinal herbs and aromatic plants which emit garbage and pollution.
11. Establishment of saw-mills, bricks and tiles factories, and tobacco processing industries within 5 kilometers from the forest boundaries.
12. Establishment of resorts, hotels, safaris, educational institutions, hospitals and industries or other construction activities inside forest areas, national parks, sanctuaries, conservation areas, buffer zones, and environment conservation zones.

•B. Industrial Sector:

1. Establishment of distilleries equipped with boiling and fermentation facilities with a production capacity of more than 500,000 liters per day.
2. Establishment of breweries and wineries equipped with fermentation facilities with a production capacity of more than 500,000 liters per day.

• Amended by First Amendment

3. Production of primary chemicals such as corrosive acid and alkali etc. (except citric tartaric, acetic, acid etc.) with a production capacity of more than 100 metric tons per day.
4. Processing of hides more than 500 square ft per day.
5. Production of chemical fertilizers and pesticides except produced through welding process.
6. Establishment of mineral based industries with a fixed investment of more than Rs. 50 millions.
7. Production of petro chemicals and processing (diesel, kerosene, lubricants, plastics, synthetics rubbers etc.).
8. Production of ferrous and non ferrous metals (except re-rolling, re-melting and fabrication) by the process of primary smelting.
9. Establishment of industry producing more than 3000 metric tons of crude sugar and sugar per day.
10. Establishment of cement industries with a production capacity of more than 30 metric tons per hour based on lime stone and with a production capacity of more than 50 metric tons per hour based on clinker.
11. Establishment of lime industries with a production capacity of more than 50 metric tons per day.
12. Production of asbestos.
13. Establishment of radio active emission (nuclear and atomic processing) industries.
14. Production of primary compound (Bulk drugs) for medicines.
15. Production of extremely hazardous substances such as Isocynite, mercury compound etc.
16. [□]Production of ammunitions and explosives including gunpowder.
17. Establishment of industries of pulp or paper with a production capacity of more than 100 metric tons per day.
18. Establishment of brick and tiles industries with a production capacity of more than 10 million pieces per year.
19. Chemical processing of bones

•C. **Mining Sector:**

- (a) Relocation or resettlement of permanent residence of more than 100 people for the purpose of mine excavation.
- (b) Operation of all underground mining activities located at the main boundary thrust and central boundary thrust Zone.
- (c) Relating to Open Mines or Underground Mines:

[□] Changed by a notification published in Nepal Gazette on Nov. 9, 2001

• Amended by First Amendment

1. Excavation of metallic mineral substances in medium and large scale.
 2. Excavation of non metallic mineral substances in medium and large scale.
 3. Excavation of other medium and large scale industrial minerals except precious stone, semi-precious stone, abrasive minerals from among the classified industrial minerals for industrial purposes.
 4. Excavation of medium and large scale coal mines.
 5. Excavation of construction-oriented minerals in medium and large scale.
 6. Excavation of highly precious, precious, valuable and semi-valuable minerals with a production capacity of more than 100 grams per day.
 7. Production of natural gas in medium and large scale.
 8. Excavation of radio active minerals in any scale.
 9. Excavation of asbestos minerals in any scale.
 10. Excavation of crude oil in any scale.
 11. Excavation of industrial, precious, semi-precious stones and abrasive minerals with a production capacity of more than 100 grams per day.
- (d) Relating to Other Mines
1. Extraction of sand, gravel and soil at the rate of more than 50 cubic meters per day from the beds of river and rivulets.
 2. Extraction of highly precious and semi -precious minerals at the rate of more than 100 grams per day through placer and dredging technique.

D. Road Sector:

1. Construction of the following roads :
 - (a) National highways.
 - (b) Main feeder roads.
2. Construction of more than 5 kilometers long ropeways.
3. Construction of more than 5 kilometers long cable car routes.

E. Water Resources and Energy Sector:

1. Supply of electricity through the installation of transmission lines of more than 66 kV capacity.
2. Operation of more than 6 MVA rural electrification projects.
3. Operation of electricity generation projects with a capacity of more than 5 MW.

4. Generation of more than 1 MW diesel or thermal electricity.
5. Under the new systems of irrigation:
 - (a) Those irrigating more than 2000 hectares in the Terai.
 - (b) Those irrigating more than 500 hectares in the hill valleys.
 - (c) Those irrigation more the 200 hectares in the hill and mountain areas with a steep gradient.
6. Any water resources development activity which displaces more than 100 people with permanent residence.
7. Construction of multipurpose reservoirs.
8. Inter-basin water transfer and use.

F. Tourism Sector:

1. Establishment and operation of hotels with more than 100 beds.
2. Establishment and development of new airports.
3. Rafting arrangements for more than 2000 persons per year on a single river.
4. Dispatch of more than 2000 tourists and their assistants per year for trekking in a single area.
5. Development and construction of any infrastructure for the promotion of adventure tourism in high mountainous areas.
6. Operation of house boats on lakes.

G. Drinking Water:

1. Collection of rain-water in an area of more than 200 hectares and use of water sources (springs/wetlands) located within the same area.
2. Surface water sources with more than 1 cubic ft safe yield and the use of its entire part during the dry season.
3. Water processing at the rate of more than 25 liters per second.
4. Recharging of more than 50 percent of the total aquifer for the development of underground water sources.
5. Construction of more than 1 kilometer long water tunnels.
6. Displacement of more than 100 persons for the operation of water supply schemes.
7. Settlement of more than 500 persons on the upper reaches of water sources.
8. Supply of drinking water to a population of more than 20,000.
9. Supply of drinking water to a population of more than 100,000, and connection of new sources.
10. Over mining of biologically or chemically polluted point and non-point sources or underground water sources that may be affected by them.

11. Operation of multi-purpose projects relating to sources of drinking water using water sources at the rate of more than 25 liters per second.

H. Waste Management:

1. Waste management activities to be undertaken with the objective of providing services to a population of more than 10,000.
2. Following activities relating to waste emitted from houses and residential areas :
 - (a) Filling of land with more than 1000 tons of waste per year.
 - (b) Activities relating to transfer stations and resource recovery areas spread over an area of more than 3 hectares.
 - (c) Selecting, picking, disposing and recycling waste through chemical, mechanical or biological techniques in an area spread over more than 2 hectares.
 - (d) Activities relating to compost plants spread over an area of more than 5 hectares.
 - (e) Burying of waste emitted from an urban area with a population of at least 10,000.
3. Following construction activities relating to hazardous waste of the following nature in any scale :
 - (a) Construction of a waste plant.
 - (b) Construction of a waste recovery plant.
 - (c) Construction of a site for filling, accumulating or burying waste.
 - (d) Construction of a site for storing waste.
 - (e) Construction of a waste treatment facility.
4. Following activities relating to lethal waste
 - (a) Emission and management of any radio-active substance with a half life exceeding 25 years.
 - (b) Emission and management of any lethal chemical with 30 lethal dose.
 - (c) Final disposal management of biological lethal substances emitted from health centers, hospitals or nursing homes with at least 25 beds.
 - (d) Any activity relating to one hectare or more of land and energy for the purpose of incinerating or recycling any lethal substance.

I. Agricultural Sector:

1. Clearing of forests covering more than 1 hectare in the hills and 5 hectares in the Terai and using them for agricultural purposes.
2. Following activities relating to construction :

- (a) ✕
 - (b) Construction of more than 5 kilometers long agricultural roads.
 - (c) Construction activities for farming more than 5000 domestic fowls.
 - (d) Construction activities for farming more than 500 big cattle.
 - (e) Construction activities for farming more than 5000 small cattle. (sheep and goats).
 - (f) Urbanization plan in cultivable lands.
3. Following activities relating to toxic substances (only those which are listed):
- (a) Import of more than 10 tons of a toxic substance.
 - (b) Sale, supply, storage and disposal of more than 1 ton of a toxic substance.
 - (c) Use of more than 1 ton of a toxic substance in a single area.
 - (d) Activities relating to insecticide plants or toxic substances.

J. Health:

- 1. Operation of hospitals or nursing homes with more than 25 beds, or medical profession (study and teaching also).

K. If any proposal is to be implemented in the following areas:

- 1. Historical, cultural and archeological sites.
- 2. Environmentally weak and wet areas.
- 3. National parks, wild life sanctuaries and conservation areas.
- 4. Semi-arid, mountainous and Himalayan regions.
- 5. Flood prone and other dangerous areas.
- 6. Residential, school and hospital areas.
- 7. Areas with main sources of public water supply.
- 8. ✕

- ▲L. Operation of any planning, project or program relating to any developmental work, physical activities or change in land use except the proposals mentioned in Clause (A) to Clause (K) and those below the standards of such proposals as well as the proposals below the standards of those mentioned in Schedule-1 with a cost of more than 100 millions

✕ Deleted by First Amendment

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▲ Inserted by First Amendment

• Inserted by the notification published in Nepal Gazette on Aug 23, 1999