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# **STAKEHOLDER ISSUES IN HYDROPOWER DEVELOPMENT PROJECTS**

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Ministry of Water Resources  
Electricity Development Center

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## **About the Report**

This report constitutes the second part of the requirements stated in the Stakeholder Analyst's Scope of Work. The first part included the guidelines for stakeholder analysis.

This report is prepared from the following:

- ▶ Review of environmental studies and reports, and description of previous stakeholder participation, from hydroelectric projects in Nepal that are completed, under construction and planned.
- ▶ Interviews with project management personnel from the selected projects, as well as identified stakeholder groups including those from EDC, NEA, NGOs, Private Sectors, and related sectoral ministries.
- ▶ Review of published media reports for the selected projects.
- ▶ Visits to selected project sites under three categories of projects to observe how stakeholder issues have or are being addressed. These projects included—Jhimruk, Kulekham and Marsyangdi for completed ones, Kali Gandaki A, Khimti and Upper Bhoté Koshi for the ones under construction.

It should be noted that this is only a first cut to a broad subject of stakeholder issues. It can be made very detailed and refined. This report is limited to identification, evaluation, and analysis of basic characteristics of stakeholder issues suggested for public disclosure. Further analysis and refinement should be carried out in the future.

## **Acronyms**

DDC	District Development Committee
FDC	Fisheries Development Center
EDC	Electricity Development Center
EIA	Environmental Impact Assessment
IUCN	IUCN-The World Conservation Union
MOA	Ministry of Agriculture
MOI	Ministry of Industries
MOPE	Ministry of Population and Environment
NEA	Nepal Electricity Authority
NPC	National Planning Commission
USAID	United States Agency for International Development
VDC	Village Development Committee
WB	World Bank
NGO	Non Government Organization
HMG	His Majesty's Government of Nepal

## Executive Summary

The stakeholder issues in hydropower development projects differ with the project stage. These issues are related to the stakeholders' interest. At the planning phase, the issues revolve around adequate information and knowledge about the project, during the construction phase, it is the impact on the interest and mitigation, and at the post-construction phase it is mostly related to the local feeling of being ignored, depression and relationship among the stakeholders.

The management in all three stages in the projects reviewed in this study, has tried to address the issues as they emerge. They are learning by doing. The process has been more systematic in the more recent projects than older ones. The process should be made more systematic for projects to progress smoothly in the planning and construction phase. The issues have to be analyzed and understood.

EDC needs to do the following to ensure better management of the issues:

- ▶ Ensure completeness of stakeholder issues
- ▶ Assess the importance of the issues
- ▶ Assess the urgency of addressing the issues
- ▶ Assess the connectedness of the issues
- ▶ Review the strategy to address the stakeholder issues
- ▶ Conduct periodic review
- ▶ Audit the relationship among the stakeholders in the post-construction period

### Planning Phase

The perception of fairness, transparency and sensitiveness of projects to the local stakeholder, issues can be resolved to a large degree with meaningful participation and effective information exchange among various stakeholders. The issues include:

- ▶ Inadequacy of fair compensation criteria
- ▶ The issue of precedence
- ▶ Interagency cooperation
- ▶ Resource allocation for managing stakeholder issues
- ▶ Transferring lessons from completed projects
- ▶ Detailed design and final compensation planning

EDC should make sure that the information is adequate and the process is effective and encouraging to the public. During the finalization of the scope of studies the following information is provided to the public to reasonable degree and adequately explained:

- ▶ Project description
- ▶ Detailed map showing the boundary of township, villages, rivers and streams, parks, highways and other landmarks
- ▶ Location of each project facility including—roads, water supply, transmission lines, and other related facilities
- ▶ General engineering design of the project
- ▶ Summary of proposed operation model of the project

- ▶ Identification of environment to be affected, proposed environmental protection, mitigation and enhancement plan based on the preliminary knowledge at the time
- ▶ Stream flow and water regime information including monthly flow rate, duration, mean daily stream flow curve for each month of the year at the point of diversion and impoundment with location of stream gauging station, method used to generate stream data used in the applicant's engineering calculations
- ▶ Detailed description of any studies and proposed methodology to be employed

At the second stage of study, the EDC should ensure that similar quality of information is provided to the public, including

- ▶ A copy of draft application indicating the type of application and including the concerns raised by the stakeholders
- ▶ A copy of results of all studies including mitigation or enhancement measures
- ▶ A written request for review and comment
- ▶ Description of disagreement with other agencies and stakeholders including explanation of disagreement

At the third and final stage of the study, EDC should make sure that the proponent provides the following to all key stakeholders

- ▶ Copies of application license or exemption for licensing
- ▶ Any deficiency, corrections, revisions, responses to additional information requests or amendment to the application
- ▶ Any written correspondence with the HMG agencies

At the planning stage EDC should ensure the access of public to the information. The final reports should be made available to the public at the most accessible and convenient places for the concerned people to consult. Ideally they should be placed in public places like schools, public libraries, and VDC or municipality offices at the local level. Individuals and organizations should be allowed to make copies at their own cost. If the duration of any special arrangement to disseminate information should be increased to achieve the objective, beyond the legally required time, then it should be decided jointly with the proponent.

### **Construction Phase**

In general the stakeholder issues that dominate the construction phase of the projects are

- ▶ "Jobs-jobs-- is the most important one, before the locals used to go to India, now they want the project to provide them jobs" —
- ▶ Partisan politicians make a small thing big
- ▶ The enmity between two major political parties often creates difficulties for the project
- ▶ "The things get tougher as you go along. Initially it is easy. They want you to solve their problems"
- ▶ Compensation payment for land is disputed
- ▶ Scarcity of food supplies into the project area
- ▶ Unexpected hydrological situation and its implication for work
- ▶ Too big environmental issues (compared to the project size) to be managed by small project
- ▶ Very high expectations of the people
- ▶ EIA is too lenient
- ▶ Inadequate EIA
- ▶ EIA too stringent and too much
- ▶ Role of outside NGOs
- ▶ Captive situation for the developer

- ▶ Legitimate and illegitimate demands
- ▶ Progressively growing demands
- ▶ Lead time to prepare the community
- ▶ “Developer does not have surplus money ”
- ▶ Male dominated public consultations
- ▶ Post-construction job security
- ▶ One window policy vs hierarchy in the government
- ▶ Unclear commitments and requirements
- ▶ Interagency cooperation (HMG and locally elected bodies) at the local level
- ▶ Democracy and empowered people vs private investor
- ▶ No difference between public and private investment
- ▶ Difference between the public and private risks
- ▶ Construction safety in hydropower construction

In the construction phase, stakeholders would like to be updated on the project activities. They would like to know if the project activities have been taking place as planned and promised in the document. They need this information to monitor project activities. The project office in the site should make the study reports and periodic monitoring reports available to the public for review. Public should be allowed to express their views following such review. A form should be developed and made available to the stakeholders for reviewing the project activities and make comments.

The project management may form a local committee of stakeholders to review and plan for the resolution of any dispute. The members of the committee should be briefed periodically on the progress of the project. The project management should decide and defend its decision on the need for modification in its planned activities. If the differences occur then they should inform the stakeholder committee. The project management should maintain record of these activities.

EDC needs to receive periodic reports on project monitoring and assess these for the specific project and also future projects.

### **During the Post-Construction Phase**

The following stakeholder issues are frequently encountered in the completed projects

- ▶ Post-construction depression
- ▶ Unmet expectations
- ▶ Inadequate environmental mitigation
- ▶ Rich people migrate to other places
- ▶ Maintaining good relationship with the local community
- ▶ Unattractive place to live and work
- ▶ Mobilizing trained people
- ▶ Sharing development benefits
- ▶ Unforeseen events and accidents
- ▶ Conflicts over price of electricity
- ▶ Water for new agricultural needs

During the post-construction phase, the local stakeholders are the ones who are most concerned with the project situation. The local stakeholders should be provided with a copy of audit report to assess whether the project has completed the mitigation activities as planned

The stakeholders also want to know how the project is going to abide by the agreement in the operation and maintenance phase. The reports should be placed in the public places such as schools and VDC offices. It should also be made accessible in the project site office in the intake and powerhouse area. EDC should review these comments periodically.

A Stakeholder Committee may be formed to coordinate the relationship between the project and the community. This committee could be made responsible for receiving, interpreting and addressing the local issues during the operation and maintenance stage.

Finally, EDC needs to ensure that the mandate it has through various acts are enforced. It needs to develop a system and learn more from the past and current experience at various stages -- planning, construction and post construction -- to better manage the issues.

## **1 Introduction**

Hydropower projects involve numerous stakeholders who raise different types of issues. These issues have to be identified and resolved before they result in conflicts that may endanger the projects. EDC as a promoter and facilitator of power projects has to make sure that these issues are addressed at all the three main phases of power projects—planning, construction and operation.

Issues are concerns or desires of stakeholders that they want addressed by other stakeholders. Depending on the side one stands one may find the issues more or less important for attention.

The issues can be divided into primary and secondary. Primary issues for a stakeholder are the ones, which should be included in the policy agenda to receive resources for resolution and smooth progress of project or plan.

Issues have a life cycle. They emerge, mature and then get resolved. Some issues live longer than others do. There are various ways that an issue gets resolved and normalized. Some get resolved because of national and international policy changes while others die out with time.

Stakeholder issues are raised with a demand for space in the agenda setting of a decision. Some issues are important and therefore receive attention of the decision maker while others are weak and do not receive any space.

Media and outside forces help strengthen an issue and increase its importance. Therefore, if an issue is adopted by a powerful media or outside force, it is likely to receive a place in the policy agenda.

The Environmental Conservation Act (1997), The Environmental Protection Regulations 1997, and The EIA Guidelines 1993 indicate ways to address most of the issues in the hydropower development projects. In practice these requirements have yet to be tested. The tools to operationalize these regulatory requirements have to be further refined. Stakeholder issues analysis is one step towards that direction.

## 2 Stakeholder Issues in Hydropower Projects

### 2.1 Projects in the Planning Phase

A review of stakeholder issues in the planning phase, mainly as identified through the EIA scoping exercise, shows that representation of stakeholders, fairness in compensation payments, reasonableness of demands, inclusion of new stakeholders, share of development benefit to the region, and interagency cooperation emerge as key issues. The degrees, to which the projects have followed the process of identifying stakeholder issues, have varied. The most recent ones are more complete than previous ones. Among the projects that are under construction Upper Bhoite Koshi, Kali Gandaki A and Khimti have tried to identify the stakeholder issues early on but it is the Upper Karnali project which has actually completed the EIA study according to the steps outlined in the 1993 Guidelines. This later study can be taken as a test case but it is still a study. The process needs to be tested in the real situation where the developer owns the EIA and actually tries to use it for power development.

The TOR for EIA for West Seti Project which were developed following a scoping exercise help to identify some of the stakeholder issues at this stage. In this exercise social impact and resettlement, river hydrology, sedimentation, habitat-flora and fauna, access roads, transmission line and natural hazard were identified as the primary issues. Local development opportunities, health, slope stability, natural resource management, project alternatives, water quality, and climate change had been identified as the secondary issues. The main concerns of the local people during the public hearing were compensation, local jobs and local contracts. However, new issues have emerged with time.

Some stakeholder issues that keep coming up in the project planning phase are

#### ► **New Stakeholders**

Over the years the situation in West Seti has changed and new demands have emerged. Besides the impending agreement for power purchase from India, local and regional stakeholder issues have developed. The regional stakeholders want 5% of the total net revenues Doti district forever. The argument is that Doti district has major contribution to the proposed national earning equal to 10% of the net profit from the project therefore it should get half of it (5%) of the total revenue.

Other issues are related to compulsory employment of the locals in the construction with preference for more laborious (skilled) ones. The stakeholders also want the project to compensate the people who are living in the area but do not hold any title on the land and to use water of all the small streams and rivulets in the basin for irrigation and drinking water.

#### ► **Interjurisdictional Issues**

Both domestic and international interjurisdictional issues are just emerging. Internally, Districts and Villages are raising their rights and benefits issues. At the international level the issue with neighboring countries do come up whenever larger size projects are proposed. For example, the proponent of the West Seti Project, SMEC, has to satisfy the stakeholder issues across border to India. India being the potential buyer of the power it is not yet clear as to what other interjurisdictional stakeholder issues will emerge by the time a detailed study is carried out.

Other issues include

- Inadequacy of fair compensation criteria
- The issue of precedence
- Interagency cooperation
- Resource allocation for managing stakeholder issues
- Transferring lessons from completed projects
- Detailed design and final compensation planning

## 2 2 Projects Under Construction

In the construction phase the stakeholders raise different types of issues than in the case of completed projects. There is a significant flow of money and people into the project area. There is also a wide range of interaction between and among the numerous stakeholders who influence each other. At this stage often there are differences between the developer's interest and those of other stakeholders.

During the construction phase the local communities feel important. Their local issues can become national and international issues. The issues which they consider insignificant become important and eventually influence the policy of the concerned agencies because these issues become the focal point of national and international attention. The communities feel powerful. They often exercise this power to influence other stakeholders. Jobs for the locals, fair treatment, regional development, sensitivity, access to information, and participation in the project development process is their main concern. They want the developer to keep the promises made before the project initiation, and add new demands to their already existing list.

The power developer has different sorts of concerns. He feels less or more powerful than other stakeholders, depending on the stage of project development and its commitment to the project. His main concern is to finish the project within the scheduled time frame to reduce cost. He is interested to confine and settle the issues within the community level. His preferred modality is to resolve issues at the smallest unit (individual) possible and with least noise. He is ready, often, to make compromises to get the project moving. Ensuring jobs for the local people, meeting the demands of the local politicians, ensuring good relationship between various stakeholders, security, ensuring fairness, dealing with unforeseen and new problems and demands, dealing with high expectation, and demand for openness is the main issue raised by the developer.

The HMG officers try to enforce their mandate. They also look for participation in the project activities. Individually, the officers also seek benefits from the project. The officers feel that they do not have necessary manpower and resources to fulfill the extra need put on them by the project.

In general the stakeholder issues that dominate the construction phase of the projects are

- ▶ "Jobs-jobs-- is the most important one, before the locals used to go to India, now they want the project to provide them jobs"
- ▶ Partisan politicians make a small thing big
- ▶ The enmity between two major political parties often creates difficulties for the project
- ▶ "The things get tougher as you go along. Initially it is easy. They want you to solve their problems"
- ▶ Compensation payment for land is disputed
- ▶ Scarcity of food supplies into the project area
- ▶ Unexpected hydrological situation and its implication for work
- ▶ Too big environmental issues (compared to the project size) to be managed by small project
- ▶ Very high expectations of the people

- ▶ EIA is too lenient
- ▶ Inadequate EIA
- ▶ EIA too stringent and too much
- ▶ Role of outside NGOs
- ▶ Captive situation for the developer
- ▶ Legitimate and illegitimate demands
- ▶ Progressively growing demands
- ▶ Lead time to prepare the community
- ▶ “Developer does not have surplus money ”
- ▶ Male dominated public consultations
- ▶ Post construction job security
- ▶ One window policy vs hierarchy in the government
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- ▶ Interagency cooperation (HMG and locally elected bodies) at the local level
- ▶ Democracy and empowered people vs private investor
- ▶ No difference between public and private investment
- ▶ Difference between the public and private risks
- ▶ Construction safety in hydropower construction

## 2 3 Completed Projects

Once a hydropower project is complete then the importance and even position of key stakeholders change. The contractors and most of the outside stakeholders are gone. The importance of the locality to the national and international stakeholders suddenly decreases. Depending on the size of the scheme, the developer leaves behind a small crew of technicians to maintain the power station, and intake area. The main concern for a power producer is to ensure that there is no shortage of power for the consumers. The security of the facility is taken over in most case by regular security forces. The intense focus that the project receives during the construction period from the media and outside forces virtually disappears. Unless other dramatic events such as disasters or major interventions, occur, the issues related to the project get normalized. Most of the stakeholder issues at this stage are related to the after effects of the project such as realization of effects of the project after completion and new mitigation demands, depression, ineffectiveness of mitigation measures, and improvement of relationship between the developer and community.

The following stakeholder issues are frequently encountered in the completed projects

- ▶ Post construction depression
- ▶ Unmet expectations
- ▶ Inadequate environmental mitigation
- ▶ Rich people migrate to other places
- ▶ Maintaining good relationship with the local community
- ▶ Unattractive place to live and work
- ▶ Mobilizing trained people
- ▶ Sharing development benefits
- ▶ Unforeseen events and accidents
- ▶ Conflicts over price of electricity
- ▶ Water for new agricultural needs

### 3 Analysis of Stakeholder Issues

The main purpose of analyzing stakeholder issues is to help decision makers decide which issues are key and should be included in the agenda of the organization's decision and which should receive resources so that the goals and objectives of their organization can be achieved

The stakeholder issues analysis helps to

- ▶ Ensure that the legally mandated stakeholder issues are addressed
- ▶ Create such environment that national and international developers find it easy to invest in the power sector

The analysis should provide information regarding the nature, life cycle, connectedness, and ownership of the issue, so that an approach to resolving the issue can be designed

#### 3 1 Elements of Issue Analysis

For the analysis of an issue the following criteria should be used

- ▶ Importance
- ▶ Nature
- ▶ Position in the issue life cycle
- ▶ Duration
- ▶ Ownership
- ▶ Interconnectedness

##### 3 1 1 Importance of an Issue

The highest importance of an issue is determined by the larger national goals and objectives, as defined by the guiding statements in the constitution, by the prevailing national policy and law. For example, the importance of releasing information on issues of public interest is determined by the constitution

The importance of an issue for EDC is determined by the place it occupies in its agenda and also in the agenda of the donor agencies and key stakeholders. Therefore, besides understanding its own policy and mandate, EDC should also be fully aware of the place an issue occupies in the donor or financing agencies' agenda such as the World Bank, Asian Development Bank, OECD, and others

A stakeholder issue can also be important when it occupies very high place in the national agenda. Its importance is high when a powerful stakeholder owns it. In either case the issue must be addressed and resolved

##### 3 1 2 Nature of an Issue

Issues can be tangible and intangible. The tangible issues are easier to resolve. The intangible ones are more complex and difficult to resolve. For example if a stakeholder raises the issue of its peace and privacy being disturbed by the project activities then, there is no way to compensate it in direct terms

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Similarly if an interest group raises the lost historic sites in the project again this has to be addressed in indirect terms

### **3 1 3 Position in the Issue Life Cycle**

Issues have a life cycle They emerge they get matured and eventually they enter the policy agenda or die Before addressing them, issues should be assessed for their position in their life cycle For example, the environmental protection in Nepal was there but was picked up after the 1990 and then slowly it was included in the government's policy agenda and finally it became a law

If the issue is already in the policy agenda or law then it is mandatory for EDC to ensure that it is addressed If an issue is just emerging, it should be watched if it needs any addressing at all

### **3 1 4 Duration of an Issue**

Issues have staying power Some issues last longer while others die out How long an issue has been in the media, and public debate determines its staying power The following questions can help identify the position of an issue

- History of an issue
- How long the issue has been circulating?
- Is the issue maturing to become an item on the policy agenda?

### **3 1 5 Ownership of an Issue**

Issues have owners Some issues are already owned while others get adopted as they evolve Some issues have strong owners while others do not If the issue does not have an owner or if a weak stakeholder owns the issue then it is most likely to disappear The following questions help check the ownership of an issue

- Who owns the issue?
- What is the position of the owner in the stakeholder list of EDC?
- What is the possibility of the issue being picked up by more a important and influential stakeholder?

### **3 1 6 Interconnectedness of an Issue**

Most stakeholder issues are connected with other issues If the issues are separate then they can be addressed alone But if they are connected then resolving one issue will also affect other issues In the displacement and compensation issue, if people are paid very high then the displacees are likely to move independently somewhere else and the issue of resettling them in a new place, acquiring land in other place and other related issues do no arise

## **3 2 Findings on Stakeholder Issues**

### **3 2 1 Issues in the Planning Phase**

In the planning phase the local stakeholders are concerned with compensation (amount, process and timing), local development, and benefit sharing in the project. They are most interested in getting a clear picture of project's impact on their economic and social conditions. These issues are raised mainly because of the lack of information, knowledge about the project, and uncertainty about the future. After the mandatory arrangements for stakeholder participation at various stages of project planning, through EIA, there have been surge in the issues. This often makes managers put blame on democracy and increase right of the people. But the reality is that these issues will remain and they are likely to get stronger in the future. The conceptual issues such as fairness are likely to become more refined with more experience in the future.

The organizations raise the issue of participation in the planning process. They claim that because they have the legal mandate and also the expertise that can be useful for the project planning, they should be included in the planning process. Often the organizations are not clear about each other's role.

These issues which relate mostly with the lack of communication, lack of clear regulatory arrangements, and lack of adequate manpower, have been showing signs of improvement over the years. In particular with the enactment of Environmental Conservation Act 1997 and other supporting regulations and guidelines that have been drafted, recently some learning is taking place at the organizational level. Therefore, the issue of interagency cooperation is likely to improve albeit very slowly.

### **3 2 2 Issues During the Construction Phase**

The stakeholder issues during the construction phase raised by the local stakeholders include employment of the locals, compensation payment, unexpected accidents, unmet expectations, and demands. These issues have got to do with the way a power project is advertised, planned, and developed. In order to make a power project attractive often, the supporters of the project try to sell it on the grounds of meeting local employment needs and development expectations. Often the promises are not realistic. This gap creates suspicion of local people towards the management. These issues are likely to remain as long as the process of promoting project does not become realistic. These issues will dominate the construction period if there are not alternative income generating opportunities for the people. In poverty situations these issues are likely to be owned by political organizations and gain strength, and political groups will try to deliberately extract favors.

From the developer's perspective, the issues during the construction phase relate to the delays in the bureaucracy, changes in the government's financial policy, different interpretations of the regulatory clauses, unrealistic and stringent EIA standards, public relations, security and progressively growing demands of the local people.

These issues are important from EDC's perspectives because eventually, if the issues do not subside in the future, they are likely to affect the developer's perception of risk, and as a consequence, reduce the attractiveness of investment in the country's power sector. It is still early to say how these issues will

evolve in the future. The two truly private projects—Upper Bhothe Koshi and Khimti, are test cases. The Kali Gandaki A, being a NEA project, can teach limited lessons for private investor. There is a possibility that the private investors, who are new to Nepal's working environment, learn lessons and adjust their plans accordingly.

### **3 2 3 Post-Construction Issues**

In the post-construction phase the predominant issues from local stakeholder's perspective include economic and social depression, inadequate environmental rehabilitation, migration of rich people, sharing development benefit, and employment.

These issues have their origin in the way projects were planned and implemented in the past. Lack of participation and environmental impact assessment and mitigation measures largely contribute to the origin of these issues.

These issues are relatively weak in that they are raised mostly by weak stakeholders who cannot move out of the project area. But these issues are likely to get further support by other stakeholders including donors and lenders in the future and thus increase their importance. An example of this growing concern and effect on the investment can be seen in the recent demand made by the World Bank about the welfare of the displaced people from Marsyangdi Project, after more than a decade of its completion. This shows that these issues are likely to gain strength and demand resolution. Similar concerns from the home country made Jhimruk Project to conduct post construction environmental studies.

These issues are important for EDC because they affect future planning and investment of the power project. For EDC these issues are likely to become even more important when it tries to issue a license to upgrade the power plants in the near future.

From the developer's perspective the issues during this phase is maintaining good relationship with the community, ethical issues of developing the lagging regions, sharing benefits and addressing unforeseen events, accidents, and conflicts with the community, and adjusting to Government's policy changes and meeting emerging new needs of the community. As far as the distribution issues are concerned they are likely to get more intense and important if the economic situation in the locality and region do not improve faster. The demand for sharing the profit can increase. Once the investment has already taken place, the investor has little choice other than compromising some of its interests. The issues related to government's policy changes got to do with the interagency cooperation and harmonization. The VAT policy has created new confusion among the developers and investors.

The nature of the developer in Jhimruk, Kulekhani and Marsyangdi is different. Among the three, Jhimruk resembles a private party. The experiences with the issues and their importance, are naturally different. Marsyangdi and Kulekhani being NEA undertakings, do not face the same type of problem as Jhimruk does. Therefore, the issues faced by Jhimruk and other private companies should be further analyzed to draw lessons for private investor.

## 4 Managing Stakeholder Issues

Managing stakeholder issue implies resolving them such that they do not obstruct the project activities to achieve intended goals. The managers in the three phases—planning, construction, and post-construction can try various ways to manage the stakeholder issues. The approaches and focus varies according to the importance they attach to the issue. Some of these issues are identified early on during the EIA process and other issues emerge as the work progress.

### 4.1 Managing Issues in the Planning Phase

#### 4.1.1 Ensuring Fairness

One of the main issues that the stakeholders keep raising in the planning phase is fairness. What does fair compensation means and how can it be ensured? So far the World Bank guidelines have been used as an objective criteria to ensure fairness. The guidelines with Seriously Project Affected Families (SPAF) and Project Affected Families (PAF) have not been all that helpful to secure fairness. Developers such as NEA find it too narrow to address the community's concern of fairness. The process they argue creates conflict within the community. There is a great feeling of unfairness on the part of those who live in the area and bear most of the impacts but do not get anything in return. Managers have often tried to solve the issue of fairness.

When some developers pay too high an amount to purchase land or houses, the local stakeholders as well other prospective developers raise the issue of fairness. The prospective developers think that previous projects had paid too much to make people evacuate the area. They feel that this is going to create a precedent for them. They feel that eventually this process is going to make the power sector investment too costly, and only those agencies, which invest government borrowed money, will be able to do business.

#### 4.1.2 Resolving the Issue of Regional Development vs Power Development

Using the fairness argument in the regional stakeholders raises new issues. There are demands to share the development benefit in the regions as a whole. Except for the Arun III project, there has not been any packaging of regional development concept with the power development project. Yet there is an ever-growing realization from most stakeholders that such a regional development fund should be created out of the revenue. They suggest a regional development action plan for every power project.

The regional development issue has been brought up as a way to address the benefit sharing between neighboring local jurisdictional territory. The benefit sharing and participation of stakeholder by jurisdictional location such as VDC or DDC has often failed to accommodate others who border with the project.

### **4 1 3 Interagency Cooperation Issue**

This issue has been addressed in the interagency consultation part in more detail. It suffices to mention here that after the formation of MOPE and the promulgation of the Environmental Conservation Act 1997, there is a feeling that MOPE should take the lead to coordinate their concerns. Major HMG agencies with immediate stakes in the hydropower development include Ministry of Agriculture, Ministry of Forest, Ministry of Finance, Ministry of Land Reform and Ministry of Tourism. They feel that MOPE should involve them in the EIA process of every hydropower project and use their expertise to address the issues related to their sector.

## **4 2 Managing Issues in the Construction Phase**

### **4 2 1 Ensuring Jobs for the Local People**

Jobs are one of the main concerns of the local community in the project construction. Yet, the interest of the contractor to use more efficient machines and get things done on time conflicts with these community needs. Moreover, the promises made by the politicians about plenty of job and income during the project construction are often exaggerated. When such demands are not met, the project runs a risk of getting into conflict with the community. How to balance these two objectives in capital intensive and financially risky investment like the power development project is a major issue.

In Kali Gandaki A one can observe such dilemma. During the access road construction, local people were engaged in large numbers. But the machines have replaced most of the jobs in the main construction component—powerhouse, dam and tunnel construction and the local subcontractors have been allotted some peripheral jobs such as retaining wall construction.

In Khumti, the project has tried to address the concerns of the community for beneficial engagement by using local porters and mules for carrying the construction material from the redhead. It has also allotted construction work to local subcontractors from every surrounding VDCs. The prospective subcontractors have formed an association in every VDC, which gets the contractual job at the suggestion of a committee led by the CDO. The Khumti project has tried to increase local engagement by limiting helicopter use to ferry only very heavy equipment which is difficult for the humans to carry.

### **4 2 2 Meeting the Political Interests**

Politicians make a powerful but less important stakeholder group in the project construction phase. Their first interest is to take the project to their area and then once it is in their area try to maximize benefits for their constituency and get credit. It is in their interest to raise the expectation of the people in their area and then get credit for the benefit their constituency receives from the project. In this effort they use various types of techniques. First they make it seem very easy for the developer, and once the developer has made commitments, then they try to extract benefits. They use various tactics to influence the project. Creating public pressure is one of them. Since the interest of the private developer and that of the local politicians often compete with each other, balancing out these interests is an important issue.

The issue from developer's side becomes even more complex when politically elected people with whom it has developed good rapport change. In such situations their main concern is to ensure continuity and commitment among the various political groups. This issue was obvious both in Kali Gandaki A and in Khimti.

#### **4.2.3 Differentiating Public and Private Investments**

In general the stakeholders are not aware about the difference between the public and private investment. There is a tendency to expect same type of subsidies and public welfare programs in the private projects. This unawareness creates a gap between what is promised by the proponents of the project and what the project developer offers. The unmet expectations create misunderstandings between the developer and other stakeholders including the HMG offices, communities and political organizations. The fact that private developer's risks are different from those of the public investor is yet to be realized by different stakeholders. This gap in understanding was obvious in Kali Gandaki A, Upper Bhoite Koshi, and Khimti projects. Though the nature of risk of these three developments was different, for other stakeholders, each one of them was a development project. Some kind of awareness is needed at all levels of stakeholders to understand and be sensitive to this difference.

#### **4.2.4 Differentiating Discussion and Commitment**

There is a big difference in the way different stakeholders understand the concept of commitment. Often the local stakeholders interpret the discussion as commitment. This makes dialogue between different stakeholders difficult. Often, the misunderstanding between various stakeholders in a project have their roots in this difference. The developer or public authority assumes that it has made no commitment but the local stakeholders argue that there had been commitments. The local stakeholders claim that they were deceived while the developer feels that the local stakeholders are deliberately misinterpreting the discussions. This issue has implications for public hearing.

#### **4.2.5 Modeling Benefit Sharing**

How to ensure fair access to benefit and compensation is a major issue in the project under construction. The fairness issue is raised from both the local and regional level stakeholders as well as the private developers. The philosophy of fairness is interpreted differently by the developer and the local stakeholders. The developer's argument is that for the local people to demand anything more than what is agreed upon in the contract document is not fair. Whereas, the local stakeholders argue that they did not have information to demand more and therefore, it was fair to press for more during the construction phase.

Also there is a difference in the way a developer secures agreement. The community feels that it should be transparent and should be collective whereas, the developer feels that it was fair as long as the individual who strikes a deal with the contractor feels, at the time of agreement it was a fair deal. One can review this phenomenon clearly in the Jhimruk case. In this case most people who were cooperative to the project agreed to sell land to the project for Rs 22000 per ropani. But some people resisted and did not take the money and kept fighting and they were paid Rs 38000 per ropani after a year.

## 4 3 Post-Construction Phase

### 4 3 1 Delayed Realization

The local stakeholders often realize the impact only after the project is completed. For example in a situation where large percentage of water is already used up for irrigation purposes, introducing a power project, even when it is cost effective, becomes a source of constant conflict. The conflict intensifies with time and progress on the project work. Jhimruk is a good example of such situation. The Jhimruk project weir is constructed in Jhimruk Khola which irrigates a wide plain cultivating paddy and wheat. The Jhimruk project has been adjusting its resource allocation to the local demands under a different name --Jhimruk Rural Electrification Program and by compromising some of its benefits.

### 4 3 2 Overcoming Post-Construction Depression

The economic boom, national and international importance, and project's receptiveness to the local people's need abruptly declines once the project is completed. The local people feel depressed. They feel as if everything has been taken away from them and they have not gotten anything from the project. The feeling is positively related to the size of intervention. Kulekhami created more of such feeling than Jhimruk.

Many people feel too rich or too poor to live in the area. Those who make large sums of money as a result of project tend to migrate elsewhere. They do not need to or feel like staying in the area. Similarly those who cannot make enough to make their ends meet, also leave the area. This further perpetuates the process of depression. People's expectations are often raised too high when the project is introduced. These expectations are often unmet. This gap makes people frustrated. Depending on the situation it takes a while (over half a decade) for people to slowly recover and to readjust to a normal situation.

The boom and bust feeling can be reduced by some community development works which keeps the local community from shrinking and getting depressed after the completion of the project. In the case of Kulekhami I, the subsequent construction of Kulekhami II and then the rehabilitation work following the 1994 flood disaster has kept the local community in the Dhorsing area overcoming such distress. Similar depression can be observed in Marsyangdi project site.

### 4 3 3 Effective Rehabilitation Programs

Physical environment can be rehabilitated and significantly improved within a short time span through focused programs. For example, at the Jhimruk project, the powerhouse area has been successfully rehabilitated and enhanced the quality of environment, making it greener and inviting for wild animals and birds.

In the Kulekhami reservoir area, the slopes on both sides have become greener than they used to be ten years ago, but the drop in the water level has exposed a larger surface of denuded land than before making it less attractive aesthetically.

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The social aspect is more complex and requires special sensitivity and constant evaluation by the project to find out changes in the situation of the communities. The bridge over Madi River has become a good transport route to the surrounding villages. It has also been used to hang pipe for irrigation on the other side of the river using the tailrace water from the powerhouse. The irrigation facility has helped improve the wheat production near the staff quarter.

In Kulekhami, the project is helping the community to meet some of the community needs such as schooling, health center, permission to gather fodder grass from the project compound, commercial fishing in the reservoir and employment in the project works.

In projects that have been less sensitive to the needs of the local stakeholders and the physical environment the situation has not improved. Marsyangdi Project is such an example. In this case the project's rehabilitation effort has not produced very satisfactory results. NEA's post-construction compensation package focused on training some displaced household members and building a temple to replace the one submerged in the dam.

#### **4 3 4 Maintaining Amicable Relationship Among the Stakeholders**

How to maintain a good relationship with the community is a major issue for the project proponents during and after construction. In the post construction phase the context changes and communities realize the effects, they tend to come up with new demands to meet their needs. As the living condition of the local stakeholders remain poor, the issues of sharing in the development process will keep emerging albeit in different forms.

The management in Jhumruk and Kulekhami has tried to maintain good relationships by addressing the local needs through various community programs, such as support to the forest user group, rural electricity programs, irrigation facilities and support to the schools in the project sites.

NEA staff claim that in the Kulekhami reservoir area, the relationship with the neighboring Markhu village community in the upstream of the reservoir has improved significantly in the recent years. Similarly in Jhumruk, the management claims that the local people are quite happy after these few programs and the flexibility shown by the developer.

Other efforts to improve relationships with the community have been initiated because of outside pressure. Two examples illustrate the effectiveness of outside pressure. In the Marsyangdi Project, NEA recently has made an effort to locate the displaced people from the project and developed a package to train the displaced household members, provide them credit, and build a temple and a rest house for the affected community. This happened only after the suggestion of the World Bank. The project facilities which still remain unused enhance the picture of depression.

In the Kulekhami reservoir when all fish died, NEA agreed to compensate and make new arrangements only after some influential NGOs in Kathmandu took up the case and pressured the government at the center.

To what extent these efforts have helped improve relationships with the local community needs further investigation before their usefulness can be generalized. These examples of post-construction

management of stakeholder issues are related to the projects, which were constructed before the regulatory mechanism was in place. One will have to review the projects, which are being implemented after the development of guidelines. The case of Upper Bhote Koshi, Khimti and Kali Gandaki A should provide most useful information to assess the effectiveness of the process.

#### **4 3 5 Ensuring Effective Cooperation**

HMG institutions have yet to develop working cooperation to address the stakeholder issues at all levels. So far the cooperation is largely on a personal basis. Even though their success depends on addressing the issues most effectively, the tendency is to work sectorally and in a disjointed manner. Only during the time of natural disasters do agencies cooperate. The case of Kulekhami is such an example. The Department of Soil Conservation (DOSC) and the Fisheries Development Center (FDC), both are working in the same watershed to protect and use the same reservoir as NEA. Yet there is only a formal cooperation between these major agencies. They do not share information, neither do they share programs and use their relevant expertise.

Similarly there is no formal agreement between the fishing community and NEA, FDC and DOSC about using the lake. FDC receives fingerlings from the Center and sell them to the fishermen. FDC also leaves fingerlings into the open water in tens of thousand every year. NEA is supposed to protect the lake and keep control over the use of the lake. Yet they all work independently. No one tries formally ensuring rights. NEA does not impose regulations. They work informally.

The informality of relationship is all right as long as there is no issue of liability for any damage. Once there is a damage, then the conflict emerges. In Kulekhami, NEA and FDC realized that they should have a formal agreement with the local community only after the fishing community demanded compensation for the death of fish and loss of their income. NEA paid Rs 900,000. Now NEA and FDC want the community to form a User Group and then sign a contract on behalf of the fishing community to avoid liability for any claim in the future.

#### **4 3 6 Harmonization of Tariffs**

Even though this issue does not fall under the environmental purview, the concepts used to differentiate the price of electricity needs to be harmonized. The higher unit price of electricity supplied by the Jhumruk power station than the one supplied by NEA under rural electrification in the district has become an issue for the Butwal Power Company. Its method of working through the User Group has not been effective at least in one case. They might have to harmonize the price with NEA and they might even have to change the modality of working through User Groups. This might not be an issue for the supplier to the national grid, but it will certainly affect the facilities that are supposed to server the local rural communities.

## 5 Recommendations for EDC

As EDC is the facilitating and controlling agency to promote investment in the power sector, the stakeholder issues and management efforts made by the developers provide some useful insights for EDC's role at all the three phases of power development to

- ▶ Ensure that most stakeholder issues have been identified and addressed in the EIA studies prepared by the developer, and
- ▶ Ensure that developer's risks are kept low

### 5.1 Stakeholder Issues for EDC

The most important issues during project phases and affecting stakeholders are

- ▶ Fairness
- ▶ Interagency cooperation
- ▶ Good relationships among stakeholders
- ▶ Benefit sharing among larger section of stakeholders
- ▶ Awareness about the nature of project
- ▶ Partisan Politics
- ▶ Post-construction depression

These issues affect the goals of EDC. These issues should be addressed in the project planning, construction and monitoring and operation phases. Since the order of importance can differ by project, the following guidelines can help to prioritize these issues.

### 5.2 Steps to Prioritize the Stakeholder Issues

#### 5.2.1 Ensure Completeness of Stakeholder Issues

This can be done at every phase of power developments. At the planning phase the following checklist can be used to ensure inclusion of stakeholder issues.

- Is the list of issues and sub-issues exhaustive?
- What are the major issues raised in the project?
- What are the issues raised about the project?
- Who is raising the issues?
- Are all the key stakeholders concerns included in the study?
- Is the process of identifying stakeholder issues transparent and representative?
- Have the concerns of the weaker section of population included?

#### 5.2.2 Assess the Importance of the Issue

EDC should ensure that the issues are well understood and their importance for itself and for other key stakeholders are assessed. The following information should be determined.

- What is the importance of the issue to the key stakeholders?
- What are the constitutional and legal provision regarding the issue?

- What is the importance of the issue to EDC?
- What is the implication of not addressing the issue?

### **5 2 3 Assess the Urgency of Addressing the Issue**

Primary issues identified in the process should be assessed for their maturity. The assessor should make a statement whether the issue is likely to become stronger or weaker.

- What is the origin of the issue?
- What is the context and history of the issue?
- How long the issue has been in place?
- Where does the issue draw resources for its existence?
- Whose among the stakeholder owns the issue?

### **5 2 4 Assess the Connectedness of the Issue**

Find out if an issue is linked with other issues. This link or connectedness of an issue imposes constraint as well as opportunity to address the issue. The following questions should be asked to find out such link.

- How is the issue linked with other issues?
- Does addressing one issue affects resolution of another issue?
- Do more than one key stakeholder raise the same issue?

### **5 2 5 Review the Strategy to Address the Stakeholder Issues**

EDC should also review the strategy, programs and activities suggested by the developer to address the stakeholder issues. Some questions that can help this review include:

- How do the activities relate to the issues?
- Who is implementing the activities?
- What is the cost of addressing the issues?
- When should the activity take place?

### **5 2 6 Conduct Periodic Review**

During the construction phase, the EDC can facilitate the process by periodic review of the issues and problems in the field. It can use the following checklist to assess and facilitate the process:

- How have the issues been addressed in practice?
- Have the different stakeholders kept their promises?
- Any new stakeholder issues that was not foreseen in the planning stage?
- What type of facilitation do the stakeholders need to resolve the issue?
- What issues have taken prominence and what have died out?

### **5 2 7 Audit the Relationship**

At the post-construction phase, EDC can ensure that the relationship between the developer and other stakeholders are amicable. It should ensure that local and regional stakeholders feel benefited from

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development of the power project. This phase is equally important as other phases, particularly, as in the near future EDC might have to go ahead with the relicensing of several hydropower projects.

## 5.3 Suggestions for Public Disclosure

### 5.3.1 Project Planning Phase

In the planning phase of the hydropower project which begins with the identification of project and completes with the issuance of a license, the following information should be provided to the public. The objective of informing the public is to solicit comments and input at various stages of planning. For finalizing the scope of studies the following information should be provided to the public in reasonable degree.

- Project description
- Detailed map showing the boundary of township, villages, rivers and streams, parks, highways and other landmarks
- Location of each project facility including—roads, water supply, transmission lines, and other related facilities
- General engineering design of the project
- Summary of proposed operation model of the project
- Identification of environment to be affected, proposed environmental protection, mitigation and enhancement plan based on the preliminary knowledge at the time
- Stream flow and water regime information including monthly flow rate, duration, mean daily stream flow curve for each month of the year at the point of diversion and impoundment with location of stream gauging station, method used to generate stream data used in the applicant's engineering calculations
- Detailed description of any studies and proposed methodology to be employed

At the second stage of study the following information should be given out to the public, as a draft impact study report.

- A copy of draft application indicating the type of application and including the concerns raised by the stakeholders
- A copy of results of all studies including mitigation or enhancement measures
- A written request for review and comment
- Description of disagreement with other agencies and stakeholders including explanation of disagreement

At the third and final stage of the study the proponent should provide the complete impact study report including the following.

- Copies of application license or exemption for licensing
- Any deficiency corrections, revisions, responses to additional information requests or amendment to the application
- Any written correspondence with HMG agencies

The final reports should be made available to the public at the most accessible and convenient places for the concerned people to consult. Ideally they should be placed in public places like schools, public libraries, and VDC or municipality offices, at the local level. Individuals and organizations should be

allowed to make copies at their own cost. If the duration of the planning phase should be increased to achieve the objective, beyond the legally required time, then it should be decided jointly by EDC and the proponent.

### **5 3 2 Project Construction Phase**

In the construction phase, stakeholders would like to be updated on the project activities. They would like to know if the project activities have been taking place as planned and promised in the document. They need this information to monitor project activities. The project office in the site should make the study reports and periodic monitoring reports available to the public for review. The public should be allowed to express their views following such review. A form should be developed and made available to the stakeholders for reviewing the project activities and make comments.

The project management should form a local committee of stakeholders to review and plan for the resolution of any dispute. The members of the committee should be briefed periodically on the progress of the project. The project management should decide and defend its decision on the need for modification in its planned activities. If the differences occur then they should inform the stakeholder committee. The project management should maintain record of these activities.

EDC should receive periodic reports on project monitoring and assess them for the specific project and also future projects.

### **5 3 3 During the Post-Construction Phase**

During the post-construction phase, the local stakeholders are the ones who are most concerned with the project situation. The local stakeholders should be provided with a copy of environmental audit report to enable them to assess whether the project has completed the mitigation activities as planned.

The stakeholders also want to know how the project is going to abide by the agreement in the operation and maintenance phase. The reports should be placed in the public places such as schools and VDC offices. It should also be made accessible in the project site office in the intake and powerhouse area. EDC should review these comments periodically.

A local stakeholder committee should be formed to coordinate the relationship between the project and the community. This committee should be made responsible for receiving, interpreting and addressing the local issues during the operation and maintenance stage.

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