BASELINE SURVEY REPORT

Managing Resource-Based Disputes for Peace Building and Economic Growth (MaRPEG)
2018

niti
FOUNDATION

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List of Abbreviations

AYON	=	Association of Youth Organization Nepal
DoED	=	Department of Electricity Development
EIA	=	Environmental Impact Assessment
IEE	=	Initial Environment Examination
GF	=	Governance Facility
GoN	=	Government of Nepal
IPPs	=	Independent Power Producers
IPPAN	=	Independent Power Producers' Association, Nepal
LAHURNIP	=	Lawyers' Association for Human Rights of Nepalese Indigenous Peoples
MaRPEG	=	Managing Resource-Based Disputes for Economic Growth
MoE	=	Ministry of Energy
TAF	=	The Asia Foundation

Introduction

As Nepal aims to graduate from a least developed to a developing country by 2022, it requires a much higher economic growth for over the next decade. Only significant investment from the public and private sector in new infrastructures will spur the needed growth to graduate. A 2013 World Bank report estimated that Nepal needs to invest between US$ 13 to 18 billion to close its infrastructure gap. Hydropower remains a backbone of Nepal's economic growth due its potential multiplier effect.

However, utilization of water resources for development of hydropower poses a particular challenge in distribution of its cost and benefit. The contradiction begins with the inequities associated with large-scale infrastructure projects, where benefits are often distributed over a large region, at times the entire nation, and costs that are significantly concentrated to a small neighborhood. For example, a hydropower project that powers a country's economy may require displacing thousands of individuals who will forever lose not just their land on which they subsist, but also significant parts of their culture and tradition. Recent experiences indicate that it is the perception of inadequate financial compensation and social loss that many of these communities exhibit their lack of support for such infrastructure projects. This is intensified by increasing claims of rights over resources from local indigenous groups that the government has legally committed to protect through national and international laws.

At national level, disputes on water rights, especially over traditional use of water, such as agriculture, fishing, water mills and the modern need for generating hydroelectricity have been observed in many of the hydropower projects. Such issues are likely to increase with the increase in number of hydropower license issued by the government. While hydropower led broad based economic growth and continuation of livelihood and wellbeing of local population are important for sustainable development, there still remain challenges in consolidating the differences and disputes that come with competing water uses.

Moreover, as the country moves into a federal structure, claims of rights over water resources are likely to be even more complicated

as water flows through different provinces.

The question of managing the distribution of costs and benefits in projects bordering two or more provinces, and the claims of water rights beyond the designated project area to upper and lower riparian areas will be contested.

At the local level, these grievances often manifest in various forms of disputes among the hydropower projects, government agencies and the local people. Despite an increasing trend of such disputes, the state seems to have little understanding of the phenomenon and the ability to respond accordingly. Projects are left on their own to manage expectations and underlying interests of local stakeholders and their work is often delayed and/or halted due to unfulfilled demands, resulting in higher cost and challenges to establishing a peaceful and sustainable relationship between the communities, the project, and the government. Moreover, there is a strong need to ensure equitable mechanism to manage local disputes, particularly in countries like Nepal where governance structure and human rights systems to protect the lives and livelihood of local and indigenous communities are weak.

The nature of disputes in infrastructure development and the way they are handled is also determined largely by Nepal's unique history. A key determinant in this regard is the existing relationship between the Nepali state and society. Subsequent democratic movements contributed to the slow erosion of centralized powers of the state bureaucracy, while a strong rights-based civil society movements began taking hold over the country. Starting from the early 90s, the ethnicity-based movements also gained a significant momentum and got a strong foothold in Nepal's national politics during the insurgency when the Maoists strategically courted them to gain support for their cause. Traditionally, the centralized administrative and political institutions left out representation from these groups in most of the decision-making process and, therefore, the latter were naturally very wary of the intent of the central bureaucracy. even stronger when the country ratified the International Labor Organization (ILO) 169 in 2007 and is likely to get more intense over the discussion on the distribution of the natural resources in a federated state.

As the need for closing infrastructure gap takes center stage, it is equally important to keep in mind to ensure that the economic benefits from these infrastructure projects also directly translate into the regions and local affected communities from where resources are being extracted. While we search for policy mechanisms that can ensure the much-needed infrastructure projects aren't unnecessarily obstructed by excessive demands and weak rule-of-law, it is equally important to ensure that the communities whose lives are being disrupted get an equitable treatment and are able to receive fair compensation and future growth potential for their contribution to the development of the country.

Managing Resource-Based Disputes for Economic Growth (MaRPEG)

To address the above mentioned issues in Nepal's hydropower sector, Niti, through the project on Managing Resource Based Disputes for Economic Growth (MaRPEG), aims to promote an evidence-based and representative policy response by relevant state and private institutions in preventing, mitigating, and managing resourced-based disputes in hydropower development.

Niti's overall goal of this program is to overcome resource-based disputes in hydropower development by promoting a more democratic, inclusive and participatory policy process hence contributing to a more peaceful society.

Niti recognizes that a key factor behind the failure to deal with these resource-based disputes in hydropower development is the lack of clarity in defining the policy problem, which then manifests in unclear policy response. Therefore, Niti purposes to, first, engage in an action research to generate a set of comprehensive evidence-based recommendations that will not only help clarify the problem but will also provide potential response for the private sector and the government. In order to do so and gather a baseline scenario of the context and situation, Niti undertakes this survey. For this purpose, this baseline survey has been conducted.

About the survey

The survey was carried out in 2016 covering 20 selected districts where hydropower projects are being built. It was primarily developed to identify the nature of resource-based disputes in different local contexts. The survey had a total of 1571 respondents belonging to different age groups, ethnicities, gender and geography. Respondents differed in their level of education, their profession, income level, institutional affiliation and abilities.

This survey study is an attempt to identify a baseline scenario of Nepal's hydropower development and socio-economic issues revolving around it. Different local context and people's expectations associated with the hydropower development have become source of disputes, mainly in utilization of water resources for hydropower development. The government has set a target of generating 10,000 MWs of hydropower within this decade (2016-2026). The government has developed an Energy Emergency Decade Action Plan (2016-2026), which is already in the implementation phase. However, Niti envisions building an enabling environment for hydropower development through managing and mitigating local disputes resulted from benefit sharing of the resources in their locality. To do so, Niti has been working in partnership with the Governance Facility; an initiative of development partners to help resolve the issues of governance, to create a conducive environment for hydropower development by addressing local issues of conflict resulted from resource-based disputes.

Use of Research Findings

This research aims to complement in building a broader narrative of resource-based disputes and their impact in economic growth and peace building in a country that has just come out from a long political transition after a decade-long conflict that caused the emergence of identity-driven disputes in the country. The findings of this research will be useful for policy makers, academia, development practitioners, researchers and any individual interested in the issue. Furthermore, the analysis in this report is based on primary sources

of information. Therefore, it is more reliable to get a clearer picture of the local context and people's perception towards utilization of resources. The study report can be useful to draw conclusion and build programs and tools to address the problems at the local level.

Based on the findings of this study and action research (which was carried out in 3 districts, namely Dolakha, Kaski and Lamjung out of 20 districts selected for baseline survey), Niti, in close collaboration with its consortium partner IPPAN, will engage in an inclusive consultation process to prepare an industry-specific guideline for Nepal's independent power producers. Such consultations will be held across different hydropower project sites from the selected 20 districts. This will allow local communities, including project-affected population, to directly interact with relevant private sector and local government institutions.

A key objective of this research is also to identify expectations of local communities as well as hydropower project developers for consensus generation. Identification of such grievances and gap will also help strengthen the private sector's capacity in generating targeted response to current and potential disputes. The guideline, built based on findings of this survey and action research, will provide, among other things, preemptive mitigating strategies, tools for managing disputes post hoc, and measures to respond to the needs of project-affected women and marginalized groups. The findings of the study will also be useful for uptake of policy recommendations by state institutions.

Methodology

Selection of Districts

This study is based on survey carried out in 20 different districts where hydropower projects are located, to identify different variables of resource-based disputes in hydropower development (nature, type and status). For this, Niti's research team worked with independent power producers, government bodies, local citizens and traditionally excluded people such as women, youth, and marginalized communities from project affected areas to ensure that the

marginalized voices are better represented in the sample survey. Surveys were conducted among randomly picked 1571 respondents. The districts were randomly selected from hilly region of the country, as almost all the small, medium and large-scale hydropower projects are located in hilly region. The districts selected for this study are: 1) Ilam, 2) Solukhumbu, 3) Dhading, 4) Dolakha, 5) Rasuwa, 6) Nuwakot, 7) Makwanpur, 8) Sindhupalchowk, 9) Gorkha, 10) Kaski, 11) Lamjung, 12) Manang, 13) Myagdi, 14) Parbat, 15) Tanahu, 16) Dailekh, 17) Surkhet, 18) Bajhang, 19) Dadeldhura and 20) Doti.

Survey Process

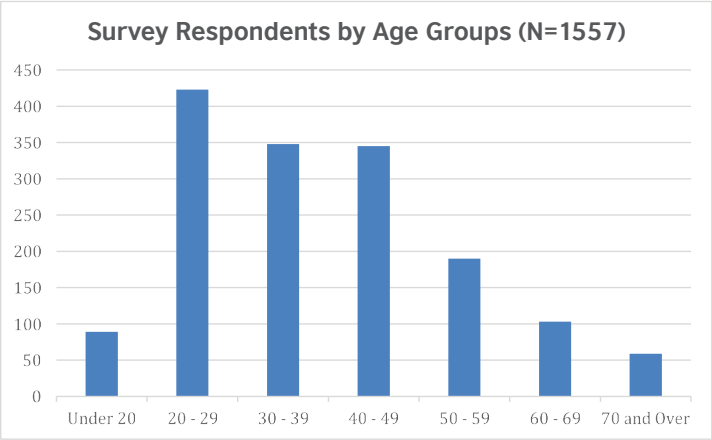
The survey was carried out by local youths from the respective districts. A total of 16 local enumerators from respective districts were selected based on institutional and individual network of the Association of Youth Organizations in Nepal - AYON. Selected enumerators were trained in Kathmandu for two days on various information on hydropower projects and on ways to conduct interviews, along with two practice interviews, where the enumerators played the roles of both the interviewer and interviewee separately.

The questionnaire was in Nepali language and the information received was later translated into English. The enumerators were teamed in group of two and were provided with the printed copies of the interviews. Once the interviews were conducted around major hydropower project sites in the district, the filled questionnaires were brought back to Kathmandu, where all the data entry was carried out. For quantitative data, a coding system was developed as the data was entered in the spreadsheets. Basic statistical tools were run to generate descriptive statistics and are presented in the report below.

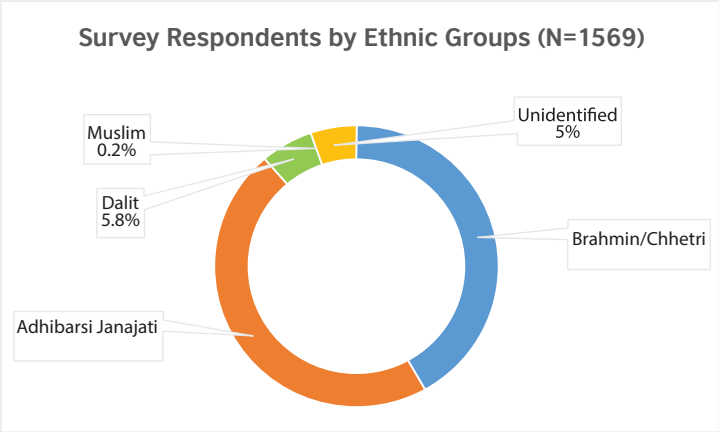
Demographic Profile of Respondents

A total of 1571 respondents belonging to different age groups, ethnicities, gender and geography participated in the survey. They differed in their level of education, employment, income level, institutional affiliation and abilities.

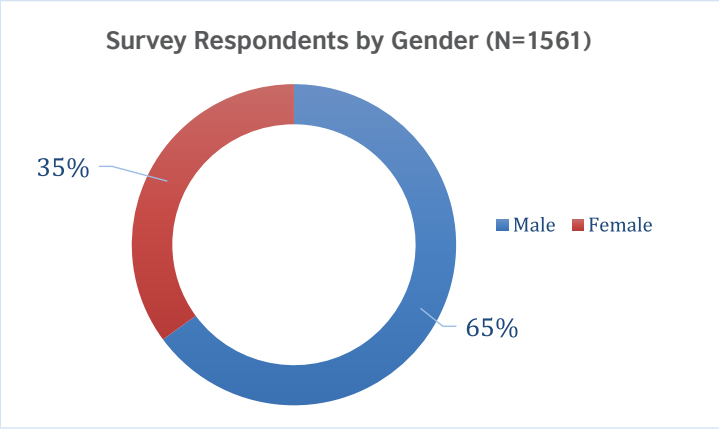
Age: The respondents comprised of people from various age groups. Most of the respondents belonged to 2059 age group and they comprised 83% of the respondents.



Ethnic Group: The respondents came from various ethnic groups, which were broadly categorized into four groups: Janajati (indigenous), Brahmin/Chhetri, Dalit (untouchables) and Muslim. A majority of the respondents (42.7 percent) were Janajati (indigenous), followed by Brahmin/Chhetri (42.1 percent) with minority of Muslim (0.2 percent). Five percent of respondents did not identify their ethnicity. This also reflects the fact that most of the areas in which hydropower projects are build is inhabited mostly by indigenous people.

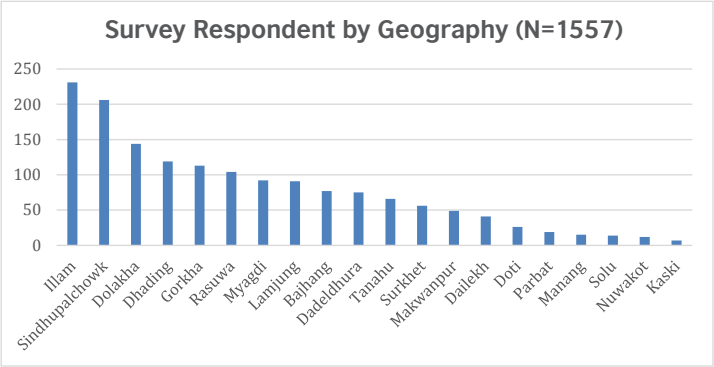


Gender: The number of male respondents was two times as high as the number of female respondents. A total of 65% of the total respondents were male and 35% were female.

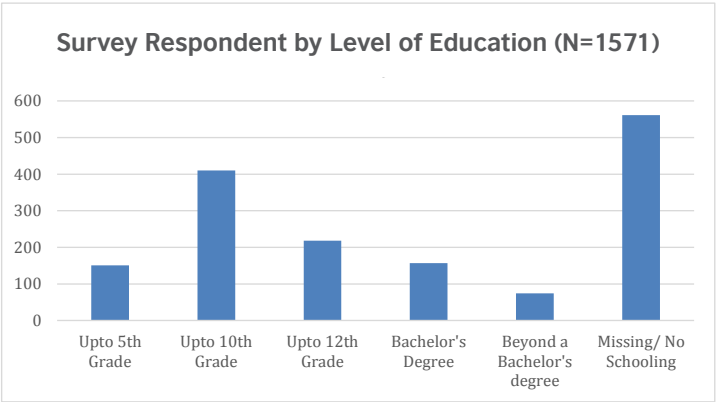


Geography: The survey was conducted in 20 districts with higher concentration of hydropower projects in the five development regions—two (Ilam and Solukhumbu) districts from the Eastern region, six (Dhading, Dolakha, Rasuwa, Nuwakot, Makwanpur and Sindhupalchowk) districts from Central region, seven (Gorkha, Kaski, Lamjung,

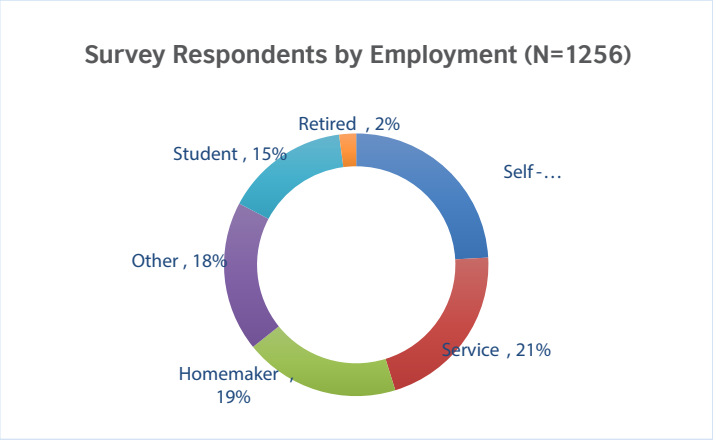
Manang, Myagdi, Parbat and Tanahu) districts from Western region, two (Dailekh and Surkhet) districts from Mid-Western region, and three (Bajhang, Dadeldhura and Doti) districts from Far-Western region. The participation was the highest in the central region followed by Eastern region and the least in Mid-Western region.



Education: A total of 64.29% of the respondents reported having some formal education, while 35.71% had no formal education. Of the 1,010 respondents who reported having some formal education, the average number of years of formal education was 10.3 years, suggesting that most of them had finished their SLC or more. In fact, 54.7% of the total 1571 respondents had completed the 10th grade or more.



Employment: In terms of primary occupation, most of the respondents were self-employed (24 percent), followed by service (21 percent), homemakers (19 percent), and students (15 percent). Self-employed comprised of individuals engaged in agriculture/farming, fishery, hotel/shop business and tourism sector among others.



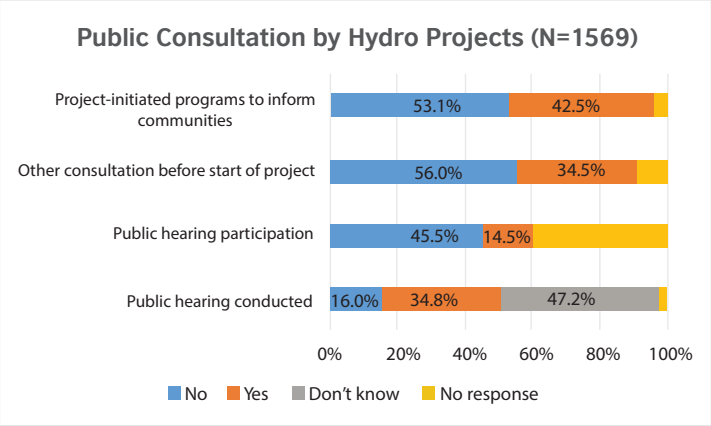
Income: More than fifty percent of the respondents reported their monthly income to be less than NPR 15,000. Very few respondents had monthly income more than NPR 25,000.

Institutional affiliation: A majority of the respondents—53.4 percent—reported being unaffiliated with any organizations, while 14 percent reported being affiliated with community organizations, 13.5 percent with voluntary associations, and 9.6 percent with political parties. Many respondents were involved in multiple organizations like national and local NGOs, trade unions, student organizations, international associations.

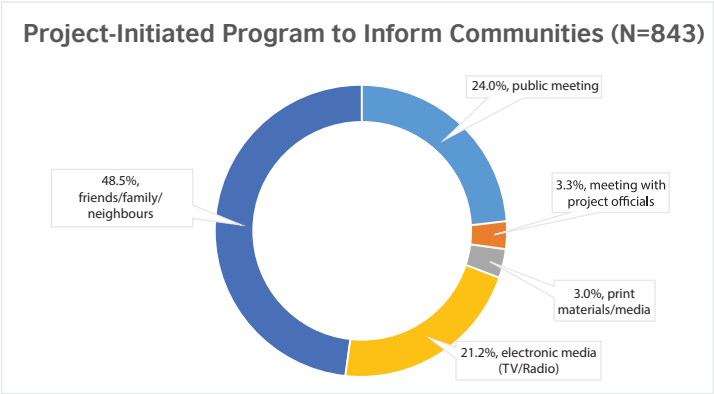
Disability: A total of 3.1 percent of the respondents had some form of disability.

Knowledge and information about Hydropower Development

A majority of the respondents—79.1 percent—reported that they were aware of the progress of hydropower development in their area. A total of 38.4 percent of the respondents reported being fully aware of the progress of the hydropower projects in their area and 31 percent were unaware. However, the proportion of respondents reporting being aware of the local projects' progress is low when considering the fact that 63.2 percent reported parts of their property fell in the designated affected area of the local hydropower projects. Only 25 percent of the respondents' property had been acquired by local hydropower project.



A majority of the respondents—47.2 percent—had no idea if the local hydropower projects had conducted any public hearing about the project, while 34.8 percent reported that they had. However, only 14.5 percent of the total respondents had actually participated in such public hearings. On the effectiveness of such public hearings, only 9.4 percent of the total respondents felt that the hearings were effective, while a majority of respondents—70.8 percent did not provide a response to the question. A total of 34.5 percent of respondents reported that the hydropower projects had engaged in other kinds of consultations before starting projects.



A majority of the respondents—86.1 percent—were not aware of the idea of Free Prior Informed Consent. A total of 42.5 percent of the respondents reported being aware of project-initiated programs to inform communities. Of the 843 respondents who could describe the method of such project-community engagements, 48.5 percent reported that the projects informed the community mainly through friends, family and neighbors, while 24 percent reported the engagement took place through public meetings, and 21.2 percent reported the engagement taking place through electronic media such as TV or radio. A majority of respondents—91.6 percent—preferred Nepali as the language of communication, and 93.2 percent preferred Nepali for reading project related documents.

Information available at public hearings

Respondents have acknowledged that the public hearings conducted in their locality have been useful for them to acquire information about the proposed projects to be built. Public hearings consist information related to impacts and benefits of project, compensation schemes and risks mitigation measures while developing a project. Additionally, public hearings also touch upon the issues associated with hydropower development process, power development agreement (PDA), power purchase agreement (PPA), timeline of the project from the start of construction to its completion and operation. Moreover, project cost and investment through the shares issued to

locals are discussed and emphasized during public hearings. Locals show interest in understanding laws governing shares distribution to during public hearings.

Similarly, people are interested in understanding physical structure of the hydropower project development that is associated with building of dam or tunnel. A general question from the locals is whether the project will cause displacement of local people and if the area might be submerged due to building of canal/tunnel and dam. Findings of environmental impact assessment (EIA), such as the effects caused by project on forest, wildlife, water resources and ecological cycle are discussed during public hearings. People want to know the negative impact that the projects might cause in their locality and natural resources they have been using for many years. Respondents tend to seek information regarding environmental aspects of the project development.

Land acquisition is important for any hydropower project and that requires a common understanding between the developer and local people on compensation schemes. People generally demand clarification about the compensation schemes from the developer during the public hearings. Compensation for land can either be in monetary terms or in shares. Resettlement of displaced people, including ethnic communities and households above the tunnel, should be given importance. Any resettlement should be accompanied with better livelihood opportunities and housing plans.
Other issues that are discussed during the public hearings in any project development area include access to electricity and indirect benefits in the form of community infrastructure developments. Providing economic support to local schools, school building construction, assisting in paying teachers' salary are also concerns of locals. Construction of health posts, temple/stupas, roads, bridges, drainage systems and drinking water pipelines are the forms of expectations people have from the project developers. Employment opportunities, skill development trainings to local people, and several other support schemes for socio-economic development are important for locals.

EIA/ IEE Report

As per the respondents who had seen EIA/IEE report, they get access to such report mainly through hydropower project office and friends and family circle. In some instances, local government and non-government institutions like electricity office, VDC, NGOs, teachers, newspapers also acted as the source of EIA/IEE information. Out of 72 respondents, only 6 respondents cited public hearings as their source to get access to EIA/IEE report.

As for the respondents who had not seen EIA/IEE report, it was mostly due to the hydropower projects not sharing the information and at times due to limited sharing such that only select people like village experts and committee members access EIA/IEE report. At the same time, few respondents showed lack of interest in EIA/IEE report saying it was not a matter of concern to them, few others were not able to participate in meetings due to household chores and work related commitments

and hence did not see EIA/IEE report. Also, out of 162 respondents, 13 respondents cited their inability to read and write as another reason for not seeing EIA/IEE report while one respondent mentioned that women were not prioritized while sharing EIA/IEE report.

Effective mechanism for sharing project related informationwith the public

Out of 224 respondents, 93 respondents voted mass public meetings as the most effective mechanism for sharing project information with the public, followed by TV, radio, newspaper media, and friends, family and neighbors.

Preferred FM Station and Preferred Time

The FM station preferred by the respondents varied across the districts. For example, people from Rasuwa district showed their preference for Radio Rasuwa while those from the eastern districts showed their preference for Radio Nepalbani among others. Similarly, the peak listening time according to the respondents can be divided into two time-slots: 6-10 in the morning and 6-10 in the evening as most of them would be at home during these times.

Key issues of Conflict/ Disagreement

The key areas of conflict in hydropower were identified as benefit sharing, impact, compensation and mitigation, information sharing and project management. In case of sharing benefits from hydropower, conflicts generally arise on issues of shares, employment and electricity. Given the existing law, whether the locals should be issued shares or not was a major topic for disagreement between the hydropower and local people. In case of issuance of shares to the local people, the ratio of share distribution would give rise to further conflict. Similarly, employment related issues like not giving priority to local people over others when hiring project employees, no increment in salary of employed people, and no hiring of local people based on their abilities were the issues of discontentment between disputing parties.

At a later stage, inefficient project management delayed completion of construction, abdicating from local demands and fulfillment of commitments and agreements by the hydropower project, which also ultimately led to disputes. For instance, the agreement to release water to river bodies if not released in the agreed percentage/ratio could be a potential issue of conflict.

The respondents complained of misuse of power and nepotism by the authority while recruiting employees and distributing benefits. The discrimination between various ethnic groups and minorities was also one of the reasons for conflict in some cases.

Resolution of conflict

In cases of disputes, which were often the case, they were resolved with mutual understanding and agreement between the project officials and the disputing parties. Such agreements were made for providing compensation, employment opportunities and investment in local development. Certain cases of disputes were settled with the involvement of government agencies like police, VDC and political parties and but these were rather rare.

Perception about hydropower projects

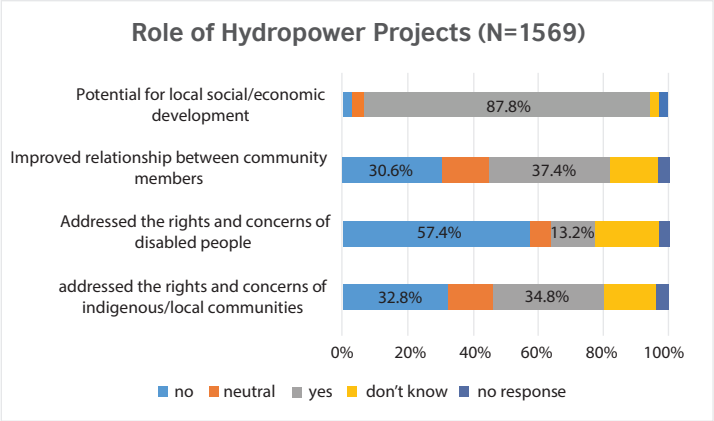
Hydropower development is the first and foremost priority of the government of Nepal. Energy sufficiency is the most needed lubricant for the economy to take off. Endorsing the priority of the government, locals agree that hydropower development can fuel the engine of economic growth by creating jobs and industrial development. This survey has gathered an impression that the locals have optimistic outlook towards hydropower development and its contribution in enhancing the quality of their life. A majority of respondents (87%) strongly agree the huge role of local hydropower projects for social and economic development of the nation. Similarly, involvement of women in decision-making was upbeat with 61% of respondents saying women in their communities were empowered and were participating in collective community-interest decision-making. A majority of the people say that local public and institutions have the capacity and skills to handle hydropower related conflicts and disagreements.

However, more than fifty percent of the respondents did not know whether benefits of hydropower projects were equitably distributed and only 16% believed that it was equitably distributed. Despite this low belief and lack of information on equitable distribution of benefits, an overwhelmingly percent of respondents supported hydropower development in their local communities.
In order to understand the perception of local population regarding the role of hydropower projects, the respondents were asked to rate a number of statements on a scale from 1 to 5, where 1 signified complete disagreement and 5 signified complete agreement.

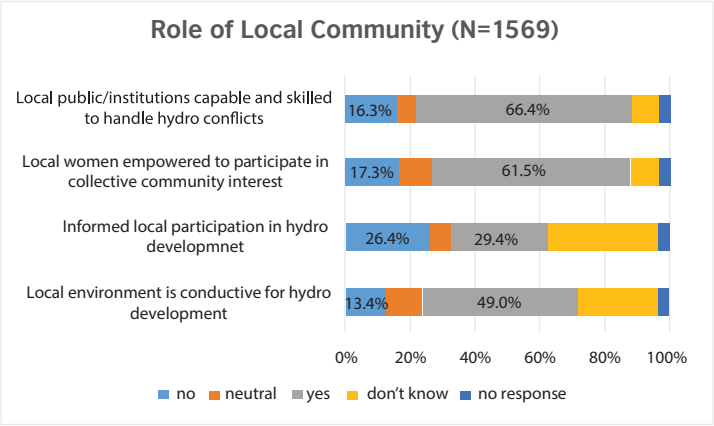
"The hydropower project/s has been successful in addressing the rights and concerns of indigenous and local communities." 34% respondents believed the project has been successful in addressing the rights and concerns of indigenous and local communities. Similarly, the local population is fairly positive on role of hydropower projects on establishing good relationship between community members, with 37% of respondents supporting the statement, "local hydropower projects have contributed to facilitating a good relationship between community members". When asked if hydropower projects are capable of carrying out activities without disruption, more

than 40% of the respondents believed that their local communities have conducive environment for hydropower projects to function without any hindrance. Further, when asked if they would support strikes to hinder project progress in the event of non-fulfillment of their demands, a majority of the respondents concurred on finding better alternatives to resolve demands than to participate in strikes. This indicates a positive attitude of local population towards hydropower projects in their communities.

Conversely, only 29% believed that there is informed participation of local communities in the process of hydropower development in the area, which implies lack of information sharing on the part of hydropower projects prior to carrying out construction activities. Likewise, respondents were of the view that hydropower projects have not addressed the rights and concerns of people with disabilities effectively. A very low proportion of respondents (13%) agreed on inclusion of differently-abled population by hydropower projects. Also, they did not completely trust hydropower projects to develop fair and realistic solutions for the benefit of local communities, indigenous populations, and traditionally excluded and backward communities. Only 32% of respondents trusted hydropower projects on that issue.



A huge majority of respondents—87.8 percent—stated that local hydropower projects had great potential for generating local social and economic development. However, the projects' role on other local efforts was reported to have been underwhelming. Only 37.4 percent of respondents believed that local hydropower projects had improved relationship between community members. While 34.8 percent believed the projects had done enough to address the rights and concerns of indigenous and local communities, a very low proportion of respondents—13.2 percent—believed that the projects had addressed the rights and concerns of people with disability.



Only 13.4 percent of the respondents did not believe that their local communities had conducive environment for hydropower development, while 49 percent believed that their local communities have conducive environment. Although 61.5 percent believed that the women in their communities were empowered and were participating in collective community-interest decision making, only 29.4 percent believed that their community was engaged in informed participation in hydropower development process.

However, a majority of respondents—66.4 percent—believed that local public and institutions had the capacity and skills to handle hydropower related conflicts and disagreements.

A large majority of respondents—51.9 percent—did not know whether benefits of hydropower projects were equitably distributed. Only 16.3 percent believed that it was equitably distributed, while 18 percent believed that it was not. Despite this low belief and lack of information on equitable distribution of benefits, an overwhelmingly large proportion of respondents—83.8 percent—supported hydropower development in their local communities. However, they did not completely trust hydropower projects to develop fair and realistic solutions for the benefit of local communities, indigenous populations, and traditionally excluded backward communities. Only 32.3 percent of respondents trusted hydropower projects on that issue, while 26.5 percent did not trust them.

Perception of Impact of Hydropower Development

Hydropower development in any area tends to have multiple bearings in that particular area and on local population. Such bearings can be both beneficial as well as damaging in social, economic, environmental and cultural context. The perception of local population regarding the impact of hydropower development plays a major role in the success of hydropower development in any given area.

The respondents in the survey were asked to assess positive and negative impacts of hydropower projects in their local communities, on a scale from very high impact to no impact. Out of 1571, most respondents (40.4 percent) reported high positive impacts while 22.5 percent reported high negative impacts of hydropower projects in their communities. These ratings were backed by their perception of local hydropower projects in their communities.

Positive impact

Investment and employment opportunities, community development and availability of better facilities, and overall economic development of the country were identified as the positive impacts of hydropower projects in their communities. As a result of hydropower development, employment opportunities for the local population in the form of employment in hydro projects, employment in schools established and various works related to electricity generation were created.

Hydropower development also led to establishment of small and medium factories and flourishing of businesses like poultry and fish farms, hotels, etc., creating further opportunities of employment and income generation. Opportunities to invest in shares of local hydropower projects and profit sharing from such investments were seen as additional positive impact of hydropower development.

Production of hydroelectricity has helped in reducing the ongoing energy crisis in the country at the local as well as at national level. Locals say there has been decrease in power cuts and in some cases the whole district has become load shedding-free district. The regular supply of electricity has increased the use of electrical appliances like television, computer, and bulbs accessible. Accessibility to email and internet services has made communication easier. This has created a favorable environment to open up factories and new businesses.

Hydropower development in local communities has played an affirmative role in community development. Roads, bridges, drainage system, water supply system, school buildings and health posts have been built. Quality and accessibility of education has improved due to the availability of better teachers, scholarship opportunities and better infrastructure. The standard of health-care facilities and services has improved. Various skill-development training programs have enhanced the ability of local population. Financial assistance provided for the maintenance and construction of temples, stupas and other religious as well as cultural sites have helped in preserving the religious and cultural heritage. Formation of welfare committees has further strengthened communal harmony. More recently, the hydropower projects supported big time in the aftermath of the April 2015 earthquake.

Factories have been established at the local level utilizing local resources, which have created jobs. The increased road network and trade opportunities have led to development of tourism in the area and hence created market for the local agricultural as well as non-agricultural products. This kind of development has resulted in the appreciation of land price in the area. With better livelihood opportunities, there has been improvement in the living standard of the

local people.

Besides, reduced wood consumption, natural resource utilization, clean river are some of the few environmental benefits of hydropower development. The distribution of royalty in the affected districts has directly or indirectly contributed in the overall development of the country.

Negative impact

There are some negative impacts of hydropower development on environment, water and irrigation, displacement and compensation. Issues of employment and compensation also stirred some dispute in the area. Environmental degradation is a major downside of hydropower projects. Respondents mention that the process of hydropower development has resulted in air, water, land and noise pollution. The operation of heavy vehicles and large machineries tend to cause air and noise pollution. Cutting of trees to install electric poles, transmission lines and other construction related works have led to destruction of forests, causing extinction of wildlife, decreased water level, increase in temperature, and degradation of pasture and agricultural land. The risks of flood, landslides and other natural calamities have also increased. The risk of short circuits due to unmanaged wires has also increased.

Livelihood of local people has been severely hampered with the development of hydropower projects in the area. The mechanism to ensure that people's livelihood is not affected during project development is sometimes not in place. Due to diversion of water from rivers, there has been shortage of water for irrigation and drinking purpose. Drying up of water sources have created problem for people dependent on fishery as their primary occupation. In this circumstance, the locals have been demanding employment opportunities in hydro projects. Issues of employment opportunities, with priority to locals, low or no remuneration, employment security are emerging.

The process of hydropower development in the area has raised a serious case of displacement of people living in the area. Hydropower

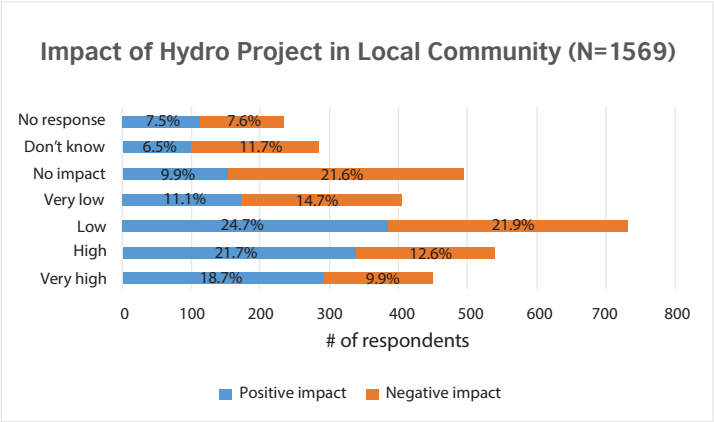
project development requires large area of land, which leads to displacement of settlements, farmlands, etc. The community and people displaced had to migrate from their ancestral land, leaving family, friends and relatives behind. In the absence of proper resettlement plans and policies, they end up living in poor conditions, deprived of using their own land for agricultural purpose, their only source of income generation in most cases. In cases of compensation for the displaced and affected people, there have been delays in compensation for land by both private and public hydropower developers and compensation mechanism is not fair and efficient, which leads to disputes among the stakeholders.

Lack of information sharing and transparency, poor management, ignorance of public demands, political interference, power balance in decision-making process and ineffective mechanism for dispute resolution have all adversely affected social justice and harmony. The development of hydropower has also brought the risk of loss of rituals and traditions, primarily due to displacement of indigenous people from their ancestral property and unforeseen urbanization, mostly unmanaged, in terms of living. Incidents of illegal activities, stealing and theft, harassment of women has been rising.

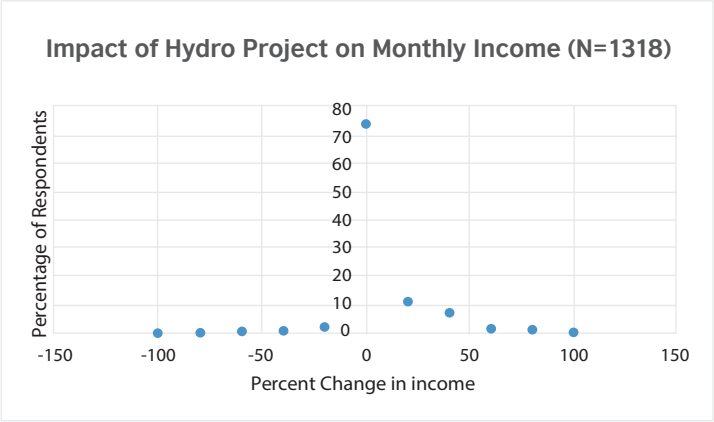
Economic Impact

The survey findings give a very positive account of the economic impact of hydropower development in the area, with 22 percent of the respondents reporting increase in their monthly income compared to only 3.9 percent of the respondents reporting percentage decrease in their monthly income. This increase can be attributed to factors like availability of employment opportunities, favorable climate for new businesses with better access to market with the development of road and other facilities, establishment of factories at the local level, flourishing tourism sector, market availability for local products, appreciation of land prices and increasing level of awareness of local population regarding financial affairs among others.

Hydropower development however seems to have a twin effect. High investment in construction of hydro projects, uncertainty of profit from hydro sector, inflation of prices, decrease in tourism business, loss of productive land were considered as shortcomings of hydropower development in the area.



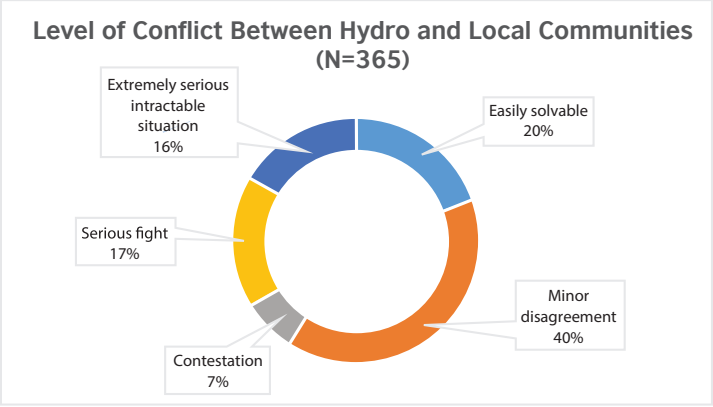
All the 1571 respondents were asked to rate positive and negative impacts of hydropower projects in their local communities, on a scale from very high impact to no impact. More respondents—40.4 percent—reported high positive impacts of hydropower projects on local communities, while 22.5 percent reported high negative impacts on local communities.



A total of 1,318 respondents provided responses to the question of whether the local hydropower projects have had an impact on their monthly income. A large majority—74.1 percent—reported no impact on their monthly income due to the local hydropower pro-

ject, while 11.1 percent reported experiencing 20 percent increase in monthly income, and another 7.3 percent of respondents reported experiencing 40 percent increase in their monthly income. In total, 22 percent of those 1,318 respondents attributed an increase in monthly income due to the local hydropower project, while 3.9 percent reported a decrease in their income. Therefore, the responses suggest that hydropower projects have had more positive impact in local income.

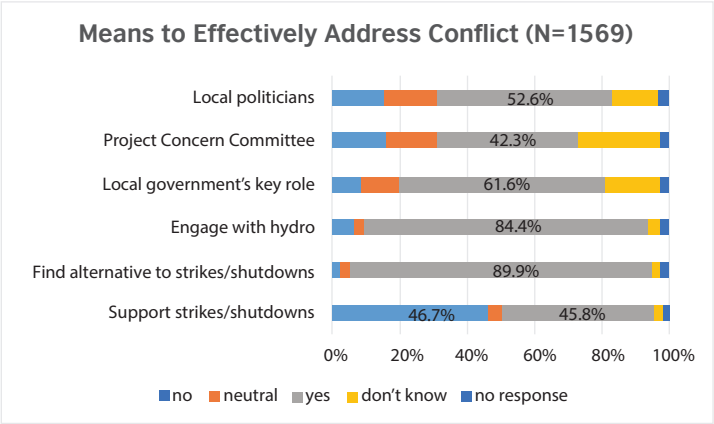
Perception of Conflict in Hydropower Development



Respondents were asked if they were aware of any conflict between hydropower projects and indigenous communities/ local public. A total of 11.1 percent of respondents reported being a part of dispute between hydropower projects and local public. Over 75 percent responded that they were unaware of conflict. A total of 365 respondents reported being aware of conflict and described the extent of such conflict. 40% of respondents reported that the conflicts were mostly minor disagreements, 20 percent termed the conflicts 'easily solvable,' 17 percent reported that they were serious fights, and 16 percent deemed the conflicts extremely serious.

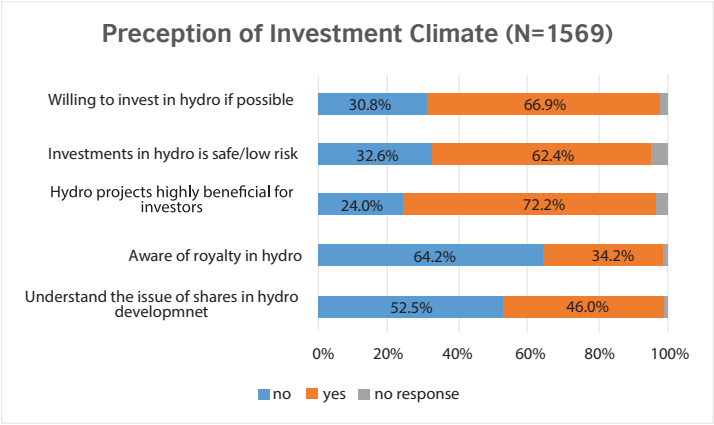
These responses suggest that a majority of conflict between hydropower projects and local communities are serious in nature. When asked about the best way forward to address concerns and demands

on hydropower projects, 32.6 percent mentioned forming concern committees, and 31.4 percent mentioned using rural municipality office for such purpose. There is a critical need for a mechanism to resolve conflicts between hydropower projects and local communities. This is especially important because most hydropower projects are in rural remote communities with almost non-existent dispute settling mechanisms, as courts are housed only in district headquarters and are out of reach of local communities. As a result, there is a possibility that local grievance against hydropower projects have gone unaddressed.

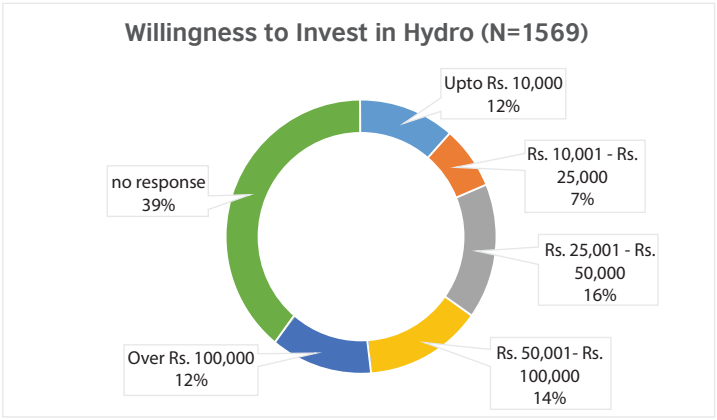


When asked about the most effective means to address conflict between hydropower projects and local communities, a majority of the respondents reported public engagement with hydropower projects (84.4 percent),
61.6% said that local government should take key leadership role and 42.3% said forming a Project Concern Committee and 52.6% said local political parties need to facilitate such conflicts. On the question of whether the respondents would support going on strikes and shutdowns to get their demands met by the hydropower projects, there was almost a tie among those who said 'yes' (45.8 percent) and those who said 'no' (46.7 percent). However, if given an opportunity to find an alternative to the possible strikes and shutdowns to meet their demands, an overwhelming majority of respondents—89.9 percent—reported that they would prefer the alternative.

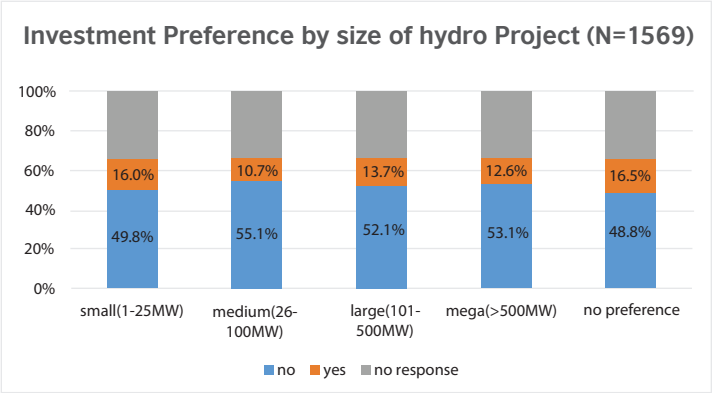
Hydropower and investment climate



A higher proportion of respondents—46 percent—said they have the knowledge about equity shares in hydropower development. Only 34.2 percent said they are aware of the concept of royalty in hydropower. However, 66.9% of the respondents were willing to invest in hydropower projects if they could and 62.4% considered investments in hydropower projects to be of low risk and relatively safe. And 72.2% considered investments in hydropower projects to be highly beneficial.



Despite incomplete information about equity shares and royalty in hydropower development, a large majority of respondents are found to be still enthusiastic about investing in hydropower projects and deem such investments safe and beneficial. A total of 26 percent of respondents stated that they would invest more than Rs 50,000 in hydropower projects if given an opportunity, while 23.4 percent stated that they would invest Rs 10,000 to Rs 50,000.



A majority of the respondents—45.5 percent—stated that they prefer to invest in hydropower projects owned by the government of Nepal. Only 8.1 percent prefer to invest in Nepali private sector-owned projects, while only 5.2 percent preferred foreign-owned hydropower projects. On the issue of size of the preferred hydropower project for investment, there was no clear preference between small (1-25MW), medium (26-100MW), large (101-500MW), and mega (>500MW) projects. Of the 1,051 respondents who stated their investment location preferences, a large majority—61.9 percent—stated preference for investing in hydropower projects in their own village/locality, while 30.4 percent were also willing to invest in own district, and 7.3 percent were willing to invest in hydropower projects in other districts as well.

Conclusion

Hydropower development has several linkages to the source of income and means of livelihood to local people. Hydropower development causes social, economic and political impact in the local community. Such broader impacts can be categorized as: i) short term impact and ii) long-term impact in people's lives. Local people see the opportunity in hydropower development but they have less trust in the institutional mechanism of the state that they would be the part of. Locals also don't trust that the hydropower developers would be fairly sharing the benefits. This causes tension among the locals as well as between the developer and the local people. Such a scenario involves three major stakeholders, namely, local people, developers and the state in hydropower development. This trilateral relationship unfolds in other several areas where all of these stakeholders could collide. This eventually causes hindrances to hydropower development.

Against this backdrop, the assessment clearly indicates that there are no clear trends in terms of locals' perception about the hydropower development and subsequent development activities. Local people see the prospects of economic development from resource utilization but at the same time they doubt there would be equitable distribution of wealth generated from utilizing the resources. Most of the people have concerns about job opportunities and shares in hydropower projects. Locals also don't believe that they would get information about the project development in a transparent manner from the developers. Such information asymmetry at the local level or such prevailing perception about the disclosure of information leads to distrust between the people and developers.

Hydropower development has been one of the major sources of job creation at the local level. But they have been deprived of jobs mainly because of the lack of technical skills required for such projects. Local people expect the developers to invest in skill enhancement programs and eventually recruit these trained people. In case of developers not being able to fulfill such demands, there is a high chance that the locals and developers get into disputes. Such disputes have been some of the reasons for project delays in almost all the twenty districts surveyed.

ANNEX: Survey Questionnaire

Survey No.		Survey-or Name		Date	

SECTION 1: RESPONDENT DETAILS

Full Name:	Age:	Gender:
Survey Location Distict:	VDC-MuncWard):	
Home Location if Different Distict:	VDC-MuncWard):	
District of Birth:	if different from Home Location, years of Migration:	
Literacy	A) Literate B) Illiterate	Years of Formal School-ing:
Disability	A)Yes B) No	
If yes, which type of disability (Mobility and physical impairments; spinal cord disability; head injuries – brain disability; vision disability, hearing disability, learning / cognitive disability; Psychological disorders; invisible disability)?		

1. Which of the below best describes your primary occupation/ engagement?

A. Service
B. Self-employed
C. Student
D. Retired
E. Homemaker
F. Other: _____

2. What would you say is your main occupation/engagement sector

A. Private Firm/Company/Household
B. NGO/CBO/Trade Unions/Other Civil Society Group
C. PublicSector(PleaseSpecify)_____
D. Others(Pleasespefy)_____

3. What is your average estimated monthly income?

A. Below 5 Thousand
B. 5-15 Thousand
C. 15-25 Thousand
D. 25-50 Thousand
E. Above 50 Thousand

4. Which of the following organizations (social, voluntary, civil society, community, etc.) are you associated with? (Multiple response)

A. National NGOs
B. Local NGO
C. Trade Unions
D. Students' Organizations
E. Voluntary Associations (e.g. Ama samuha)
F. Community Based Organizations
G. Religious Organizations
H. Cultural (drama, theatre, etc.) sports clubs
I. International Associations
J. Political Parties
K. Other (please spefy)_____
L. None

SECTION 2: KNOWLEDGE AND INFORMATION ON HYDROPOWER DEVELOPMENT

5 (i) Are you aware of the progress of hydropower develop ment in your area?

A. YES
B. NO

5 (ii) If yes, can you list the name and size and status of projects you are aware of? (max 5)

Project Name	Size	Stage*

(*a). Planning Phase; b). Under Construction; c). In Operation; d). Don't Know)

6. I am fully aware of the progress of the above listed project/s
A. Completely Disagree B. Disagree
C. Don't know D. Agree
E. Completely Agree

7 (i) Is your house or property acquired by the hydropower project?

A. Yes B. No C. Don't know

7 (ii) If not acquired, does your house or any part of property fall into the affected area designate by the project?

8 Yes 9 No 10 Don't know

8 (i). As far as you know, did the above listed projects (if many, the closest from your house) conduct public hearing?

A. Yes B. No C. Don't know

8 (ii). If yes, did you participate in the public hearing?
A. Yes B. No

8 (iii). If you participated in the public hearing, how effective was the public hearing? Rate.
A. Completely Disagree B. Disagree
C. Don't know D. Agree
E. Completely Agree

8 (iv). If you participated in the public hearing/s, can you tell us what information was made available at the hearing/s? (5 max)

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

9. To the best of your knowledge, besides the public hearing did the project conduct any other consultation with you or your community before the start of construction?
   A. Yes B. No

10 (i). Are you aware about the idea of Free Prior Informed Consent (FPIC)?
A. Yes
B. No

10 (ii). If yes, in your opinion what are the three key things neces sary for FPIC?

_____

_____

_____

_____

_____

_____

If yes, how do you rate your experience in implementation of FPIC ?
A. Completely satisfied
B. Satisfied
C. Don't know
D. Unsatisfied
E. Completely unsatisfied Why?

_____

_____

_____

_____

11 (i). Are you aware that all hydropower projects conduct Environment and Social Impact Assessment (EIA/SIA)?

A. Yes
B. No

11 (ii). If yes, have you seen EIA/SIA report?

A. Yes
B. No

11 (iii). If yes, where did you find it?

_____

_____

11(iv). If no, why?

_____

_____

12(i). Are you aware of any project initiated programs to inform communities regarding the project?

A. Yes
B. No

12(ii). If yes, what how was project information communicated? (Multiple response)

A. Mass (public) Meetings
B. Meetings with Project Officials
C. Print Materials
D. Media (TV/Radio)
E. Through friends/families/neighbors

F. Others (Please Specify)_____

13. What do you think is the most effective mechanism for sharing project related information with the public?

_____

_____

14(i). Which language do you prefer for communicating verbally with the hydropower project officials?

A. Nepali
B. English
C. Mother Language
D. Other Language (Please Specify)_____

14 (ii). Which language do you prefer to read the hydropower project documents?

A. Nepali
B. English
C. Mother Language
D. Other Language (Please Specify)_____

Which FM station do you listen the most? _____

Not applicable At what time do you normally listen to FM stations? (give time range) From _____ To _____

SECTION 3: IMPACTS OF HYDROPOWER DEVELOPMENT

15. How do you assess the positive impact of the hydropower project in your community/ies?

Not positive	-	Highly positive			Not sure
1	2	3	4	5	999

16. According to your knowledge/information, what positive impacts have hydropower project made in your society? (Social, Economic, Environmental, Cultural benefits)

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

17. How do you assess the negative impact of the hydropower project in your community/ies?

Not Negative	-	Highly Negative			Not sure
1	2	3	4	5	999

18. According to your knowledge/information, what negative impacts have hydropower project made in your society? (Social, Economic, Environmental, Cultural benefits)

1. _____

2. _____

3. _____

4. _____

5. _____

19 (i). How much would you say has been the change in your monthly income after the initiation of hydropower project/s?

Decreased					-				Increased		Not Sure
-100%	-80%	-60%	-40%	-20%	0	20%	40%	60%	80%	100%	999

19 (ii). What do you think are the factors that have led to this change in monthly income?

SECTION 4: CONFLICT AND HYDROPOWER DEVELOPMENT

20 (i). Are you aware or recall incidences of conflict or disagree ments between hydropower projects, indigenous communi ties or the general public?

A. Yes
B. No
C. Don't know

20 (ii). How would you rate the level of conflict /disagreement between hydropower projects, indigenous communities or general public?

A. Easily solvable conflict
B. Simple disagreement
C. Contestation
D. Serious fight
E. Very Serious intractable situation

20 (iii). If yes, what were the key issues of conflict/disagreement? Mention three such issues.

_____

_____

_____

_____

21. In your opinion, what could be the potential issues of conflict and disagreements between the project and the public? Mention three such issues

_____

_____

_____

_____

_____

22. If it were you, what would be the best medium to forward your claims and demands to the project?

A. Concern Committee
B. Struggle Committee
C. Village Development Committee
D. District Development Committee / LDO
E. District Administration Office / CDO
F. Political Party Members
G. Local School Teachers
H. Don't Know
I. Others (Please Specify): _____

_____

_____

23. Please state your perception to the following questions:

		Completely Disagree (1)	Disagree (2)	Don't Know (3)	Agree (4)	Completely Agree (5)	Not Applicable
i	I support the practice of local communities/public who call for strikes and "Bandhas" to hinder project progress when their demands are unmet						
ii	I would actively participate in programs, activities and dialogues organized by hydropower projects for peaceful resolution of conflicts.						
iii	I would find better alternative to resolve my demands than to participate in strikes and 'bandhas' or hinder the project progress if my demands are unmet.						
iv	The local government plays a key role in establishing a healthy relationship between hydropower project and the local communities, including marginalized and indigenous communities.						
v	The locally established Project Concern Committee is able to inclusively represent the concerns of local communities, including the marginalized and indigenous communities.						
vi	Role of local political parties has been to facilitate a healthy relationship between the project and the local communities						

vii	The hydropower project/s has been successful to address the rights and concerns of indigenous and local communities.						
viii	The hydropower project/s have contributed to facilitating a good relationship between community members						
ix	Hydropower development holds immense potential for local economic and social development.						
x	The local environment is conducive for hydropower projects to function without any hindrance						
xi	There is informed participation of local communities in the process of hydropower development in the area						
xii	The women in our community are empowered and participate in decisions pertaining to collective and community interest.						
xiii	I think the hydropower project has addressed the rights and concerns of people with disabilities.						
xiv	The local people and institutions have the capacity						

24 (i). Benefits of hydropower projects are equitably distributed.

A. Completely Disagree
B. Disagree
C. Don't know
D. Agree
E. Completely Agree

24 (ii). Please state your justification for the above

_____

_____

_____

_____

25 (i). I support hydropower development in my community/area.

A. Completely Disagree
B. Disagree
C. Don't know
D. Agree
E. Completely Agree

25 (ii) Please state your justification for the above

_____

_____

_____

_____

26. I am confident that the hydropower project can develop fair and realistic solutions for the benefit of the local communities, indigenous populations and traditionally excluded backward communities.

A. Completely Disagree
B. Disagree
C. Don't know
D. Agree
E. Completely Agree

Have you been part of any disputes between the hydropower project and local citizens?
A. Yes
B. No
If yes, how was the dispute resolved?

_____

_____

_____

_____

_____

SECTION 5: HYDROPOWER AND PROFITABILITY

27. Please state your perception to the following questions:

		Completely Disagree (1)	Disagree (2)	Don't Know (3)	Agree (4)	Completely Agree (5)
i	I have complete understanding on the issue of shares in hydropower development					
ii	I know about royalty in hydropower					
iii	Hydropower projects are highly beneficail for investors					

iv	Investments in hydropower projects is safe as there is little risks associated					
v	If given an opportunity i am willing to invest in hydropower projects					

28. If given an opportunity to buy shares in hydropower projects, how much will you be willing to invest?
Rs._____ (in thousands)

29. My preference for investment in hydropower project will include these projects? (Multiple Response)Based on location
A. Projects in my village
B. Projects in my district
C. Project in other areas of the country Based on ownership
D. Project developed by the Government
E. Project developed by national private sector
F. Project developed by foreign compaines Based on size
G. Small projects (1-25 MW)
H. Medium projects (26-100 MW)
I. Large projects (101-500 MW)
J. Mega projects (more than 500 MW)

No Preference

30. Please state your justification for the above

_____

_____

31. Do you know about the royalty from hydropower projects coming to your district?
A. Yes
B. No
32. Do you know about the royalty from hydropower projects coming to your VDC?
A. Yes
B. No

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