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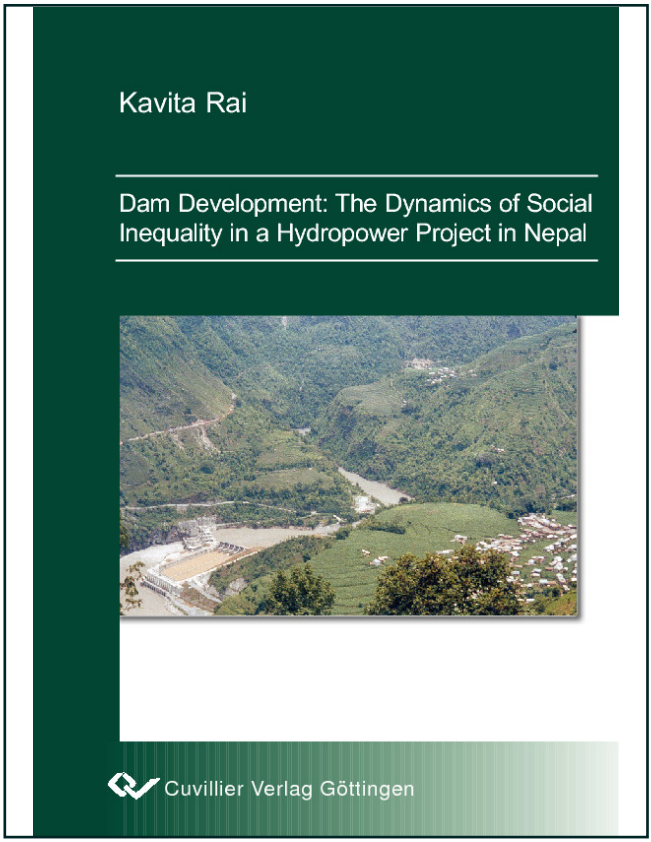
Dam Develpment: Dynamics of Social Inequality in a Hydropower Project in Nepal



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1. DAMS, DEVELOPMENT AND SOCIAL INEQUALITIES

1.1 Introduction

This is a case study of a dam intervention[1] in Nepal. It is about the dynamics of the effect on social inequality when the state constructs dams as a development intervention primarily expecting to bring about economic progress. Policy-makers emphasise that building large hydropower plants will ultimately lead to a win-win situation for all. However, the general perception is that people in rural areas are not winning because they receive little direct benefit. This is particularly so for people who are negatively impacted by the project, whether they are displaced or not. Within this context, state policies and laws provide the framework for compensating the people affected, directly and indirectly. There has been limited research on how these development interventions and policies translate at the local level in terms of distributional outcomes resulting from compensatory packages, especially financial. The social progress (or otherwise) is also rarely being researched or brought into policy debates.

The overall aim of this study is to find out how development activities by the state affect local inequalities of caste, ethnicity, class and patron-client relations. These dynamic relationships especially in terms of development interventions are important to understand within a local context and needs consideration while formulating state policies and implementation processes in future projects.

Specifically, the research objective is to explain strategies that local actors take as they lose or gain access to resources (financial in terms of compensation and project employment, and natural in regard to land and water) when a dam project intervenes. The study intends to also explain how these strategies contribute to the

[1] In this study, I define a dam intervention to include not only the construction of a dam by blocking the flow of a river, but also the processes of land acquisition, resettlement and rehabilitation. The International Commission on Large Dams defines a large dam as a dam with a height of 15m or more from the foundation. They are also large dams if the dams are 5-15m high and have reservoir volume of more than 3 million m^3 (WCD 2000).

dynamics of unequal relations among the local actors after the dam intervention. The implementation of Nepal's largest hydropower project till date, the Kali Gandaki 'A' provides the empirical evidence for the research. The study further explores the lessons learnt for reforming compensatory packages offered to people directly and indirectly.

In this chapter, the first section introduces the importance of hydropower as a determinant of Nepal's development. Following this section is a short historical narration on how social inequalities and patronage played an important role in the development of the Nepali state. The next section introduces briefly the state policies with regard to large hydropower project intervention. After that an overview of theoretical literature in the field of social inequalities and patronage is presented and research hypotheses proposed. The concluding section summarises the contents of the subsequent six chapters in this thesis.

1.2 Dams and development: Resource abundance and hydro dollar dreams

Development processes in Nepal are asymmetrical, favouring the urban population while the majority of the rural population lose out. Nepal's huge water resource has been an experimental field for many 'development efforts'. The country possesses the second largest potential of water resources in the world to generate electricity through hydropower. There are two important reasons for undertaking the current research in the development of hydropower[2]. First, hydropower is an important sector in terms of the country's economic development as it contributes to 90 per cent of energy generation and possibilities of export are high. Second, large-scale hydropower projects, particularly dams use rural natural resources of land and water disrupting local social and economic conditions. Currently, the gains from power generation through hydropower are concentrated largely in urban than in rural[3] areas. From the first hydropower plant installed in AD 1911 (Sharma 1997) until

[2] Nepal Electricity Authority classifies hydropower schemes into four ranges: micro (up to 1MW), small (1-10MW), medium (10-300MW) and large (>300MW)

[3] About 14.2 per cent of the population is urbanised (CBS 2002). Electricity generation from a medium or large hydropower plant is directly connected to the national grid for urban consumption or export. The connection of electricity to villages directly affected by medium-sized hydro plants is recent.

today, 39.39 per cent of Nepali households have access to electricity[4] (CBS 2002). There exists a gap between urban and rural households as 80 per cent in urban households have access to electricity against 24 per cent of rural households.

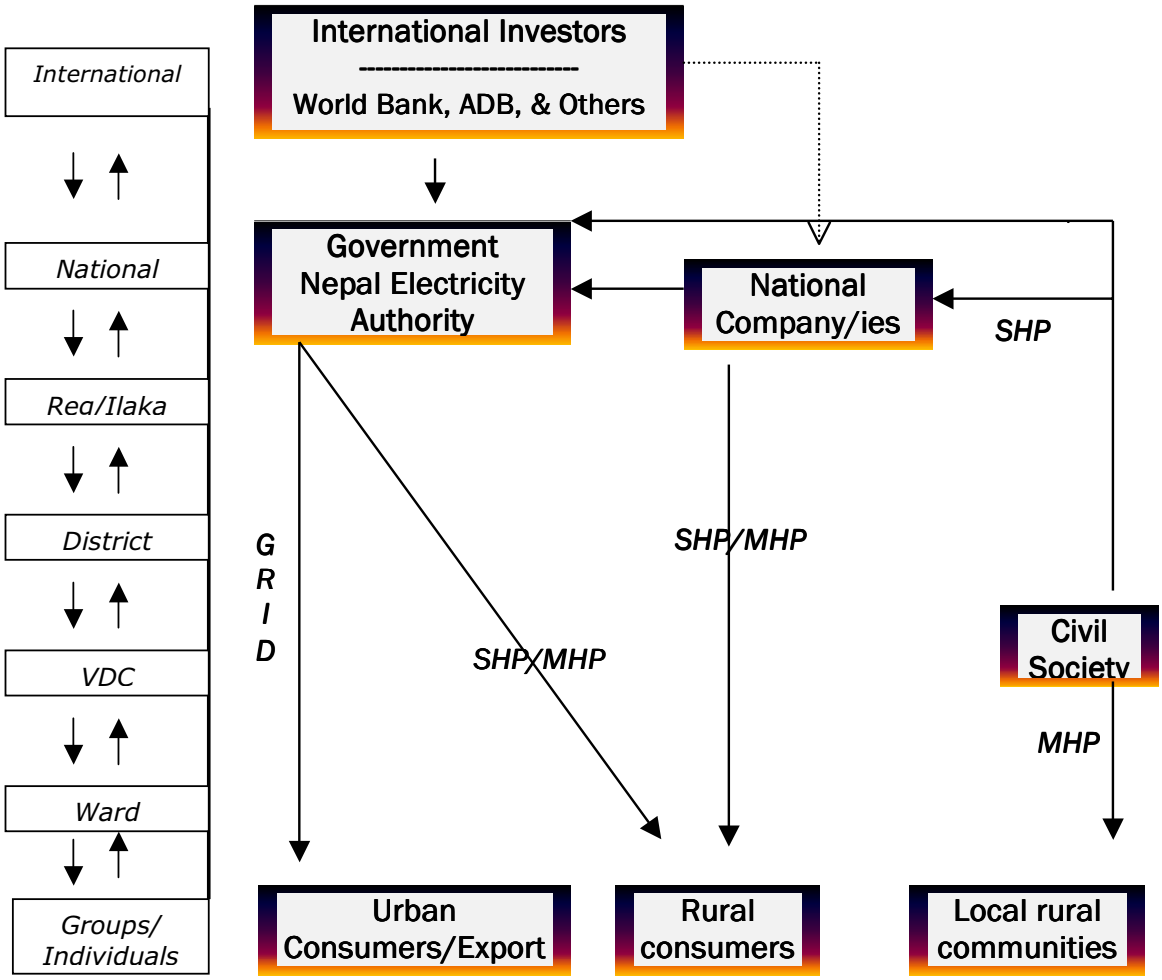

Fig 1.1: Stakeholders of hydropower investment and implementation in Nepal (SHP/MHP – small and micro hydropower, Grid - electricity from large hydropower, focus of the current research) Source: Author's own.

Two dominant strategies mark the development of the Nepali hydropower sector (Pandey 1997). The first strategy opens up the sector through aid and international investment. Nepali policy-makers are keen to harness the hydropower potential and

[4] A study conducted by CADEC (2003) suggests that this figure from the CBS does not have any breakdown of the electricity source (hydro, solar or others). The study also recomputed figures and came up with a

export energy to India. Critics argue that Nepal is not sure how it will use the revenue from this power generation for other economic development projects (Thapa 1997, Pandey 1997). The country also relies on international investors who are more interested in larger projects as they provide higher financial returns. However, the policy to develop mega projects continues to be the major focus (Thapa 1997)[5]. The big hydro strategy will not bring immediate benefits for the rural sector, as the investments will take time to make a profit. At the same time, competitive rent seeking has been a major cause for political instability. As Pandey (2003) writes, 'the irony of one of the poorest countries in the world building some of the most expensive projects was lost on our policy-makers and civil society'. He further asserts that large aided projects are often the most expensive as they have to set bids at international standards, have built in 'tied aid' rules and dollar loan financing interest rates which are higher than Nepali rupee loans.

The second strategy, pursued largely by the private sector and civil society is to build up the small hydro sector with a larger share of local resources and capacity aimed at reducing the rural-urban energy gap. Hydropower experts of Nepal have continuously pointed out that economic growth resulting from electricity export possibilities is not the most viable alternative and to put all 'eggs in one basket' is not the only way forward for Nepal's hydropower development (Gyawali 2000). They also argue that locally designed projects are less capital intensive with possibility of local funding and that there will be stronger backward linkages in the manufacturing sector. Smaller schemes will also have less displacement and resettlement problems in comparison to large ones.

In recent years, the first strategy has been getting more attention. As Skar & Cederroth (1997) wrote in their analysis of Nepal's hydropower sector, 'Unfortunately, there seems to be little interest in small-scale rural electrification

lower figure of 33.68 per cent (ibid: 37).

[5] The two countries have already been exchanging power that interconnected the eastern, central and western parts of Nepal with India's West Bengal, Bihar, Uttar Pradesh and Uttaranchal states. At present, a new accord signed with India limits Nepal to export upto 150MW.

from the policy-makers who prefer the more spectacular grand projects[6] from which the country (and the staff involved) stand to gain foreign exchange money, prestige and profits.' Gyawali (2001:46) envisages the same and writes, '(w)hile the Age of High Dams may have ended in North America and Europe, the first salvo has just been fired in Asia'. Large dams are viewed as panacea for the pervasive poverty in the Himalaya-Ganga (Dixit 1994). However, large dam projects are also facing increasing resistance because of the wider development debate of diverting public financial resources used for energy production to other social development programmes. International funding of big dams through loans will also shift the burden of repayment to the consumers[7]. The building of large infrastructure projects or dams also results in the loss of land and other resources. Dam development is highly contested because of the issues of displacement and resettlement. These issues are therefore, a prominent focus of the current research. The following section will elaborate on some of the issues surrounding displacement and resettlement.

Displacement and resettlement: A development trade-off?

Dixit (1994) points out that displacement is regarded as a natural trade-off, a price to be paid for the economic growth of the whole society. Displacement through dams has often been through official coercion (WCD 2000). People inevitably lose land and access to resources as the state takes over them from the people and pays them compensation (cash or land). The people affected by such projects are likely to suffer negative consequences, resulting in social and psychological disruption, and often long-term economic impoverishment (Dixit 1994, Cernea 2000). Currently, there is a realisation that national development will have to embrace not only the technical complexity and economy of large hydropower projects but simultaneously consider the complex weave of other challenges[8].

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[6] The Ninth Plan (1997) lays out the long term plan for export-oriented large multipurpose projects such as the Pancheswor (6,480MW), Karnali (10,800MW) and Saptakoshi (3400MW), each of which will ultimately lead to the creation of tremendous impacts, both social and economic.

[7] Ironically, Nepal has the highest electricity tariffs in South Asia at US cents 9.5per unit (Pun, 2003).

[8] The World Commission on Dams (WCD) stress on the core values of equity, efficiency, participatory decision-making, sustainability, and accountability in the building of dams internationally. The WCD was formed in April 1997 in an IUCN-World Bank sponsored workshop in Gland, Switzerland. An

Displacement for development often raises ethical questions because of the inequitable distribution of benefits and losses where state interventions may end up with the vulnerable being worse off (Cernea 2000). In India, a large number of displaced people have been found to be impoverished (see Mahapatra L K 1999). Similarly, Nayak's (2000) field research on resettlement colonies among the Kisan tribe of Orissa in India showed that the symbolic and emotional relationship to land cannot be compensated and that greater planning with participation of the local population as well as compensation are required. There are many reasons for impoverishment such as increased land prices in resettlement areas owing to the sudden influx of cash compensation for loss of land in the dam area and the lack of knowledge to manage large sums of money. Meanwhile, hierarchical relationships of patronage between state bureaucrats and locals, class and other striations bring about disputes as well as unequal resettlement, and compensation provisions take more time to negotiate (Gandhi 2003).

Another weakness in the compensation regime is the failure to take into account the indirectly affected population. Often, the directly affected groups are the only ones included in the compensation regime. A further gap in the compensation regime is tackling the question of how affected groups benefit from the electricity generated on their lost land. Should compensation cover loss of economic ability to take advantage of the energy generated by the dam? The legal regime for adequate compensation to prevent or cover such long-term effects needs reform in this respect (New Era 1989, Pokharel 1985). Cernea (2000) argues that development policies, including planning methodologies for displacement and rehabilitation, need to be corrected and redressing inequities are imperative[9].

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autonomous international team worked since February 1998 for 2.5 years to conduct a rigorous and independent review of the development and effectiveness of large dams, assess alternatives and propose practical guidelines for future decision-making. In Nepal, a one-year consultative process was conducted amongst members of the government of Nepal, private sector, and civil society. The process, named 'Constructive Dialogue on Dams and Development in Nepal', reviewed recommendations of the WCD guidelines and a report was brought out in 2004 (Dixit et al. 2004).

[9] Cernea (2000) has developed an impoverishment, risk and reconstruction (IRR) model to address inequities in resettlement and displacement projects. The model has been widely tried and tested globally to analyse the social and economic impacts of dams. It was also applied in the Kali Gandaki 'A' project (see Sapkota 1999)

In Nepal, prior to 2002, only two storage hydro projects existed. Between the two, it had displaced 722 families with population of 4772 (Dixit 1994). Although a comparatively low figure in comparison to global displacement figures, success rates of resettlement plans in Nepal have also been found to be low. For example, the Marsyangdi project, completed in 1989, was unable to resettle seven families and the 77 families affected by the Tanakpur project did not receive compensation (Gyawali 2001:48). This raises serious questions because of the inevitable linkage of displacement and resettlement to proposed mega projects. Dixit (*ibid*) projects that the proposed large nine projects (Saptakosi, Kali Gandaki 1, Marsyangdi, Burhi Gandaki, Uttar Ganga, West Seti, Pancheswor, Rapti, Bagmati) with a total energy production of 23,626MW will displace 218,500 people. This is a tremendously huge figure for Nepal considering the current low rate of displacement.

The main assumption in this research is that the hierarchical structure of the Nepali society and the ubiquity of patronage politics will negatively affect even those development programmes that aim at inclusion and redistribution. Therefore, the initial research question I pose is: what are the outcomes in terms of equality/inequality when large hydropower plants are implanted upon local communities' vis-à-vis the distribution of resources – financial and natural (land and water)? A particularly apt field to study this are resettlement and redistribution programmes meant to compensate those adversely affected by large infrastructure projects such as hydro dams. In the next sections, I will offer an overall understanding of the two central research concepts: social inequalities and patronage politics, particularly within the Nepali context followed by the hypothetical propositions.

1.3 Social inequalities and patronage politics: Boon or bane to development?

The literature on inequality is vast and fraught with 'sociological minefield(s)' (McAll 1992:3) Béteille (1983:1) differentiates between relational and distributional inequality. Relational inequalities are inherent in relations amongst people. Some are deemed superior, and others subordinate. Distributional inequalities, however, concern disparities in the distribution of material resources such as income and

wealth. Studies deal with relational inequalities with the division of people into categories along caste, ethnicity, class and gender lines. Comparisons of people are carried out within and between these categories.

Inequality is often related to power and social relationships characterised by the domination of one group, individual or class by others (Mohanty 1983). Myrdal (1971:109) succinctly summarises that within South Asia, the 'entire structure of inequality is bolstered by the caste system, the colour line, ethnic discrimination, nepotism, and the general set of social and religious taboos'. Myrdal also wrote that the inequalities inherent in traditional social stratification in South Asia are recognised as 'obstacles to development' by hampering economic progress (1971:147). In Nepal, the situation, as depicted by Myrdal in *Asian Drama*, still exists.

The study of social inequalities in relation to dam intervention is gaining importance. The World Commission for Dam report (2000:120) points out 'the emergence of equity as a critical ingredient of development underlines that this "balance sheet" approach is unacceptable as it ignores the typical mismatch between the distribution of the gains and losses of a project across different societal groups. Large dams can be seen as an extreme example of this dilemma, as public resources – both monies and rivers – are devoted to projects that all too often result in inequitable distribution of costs and benefits'. What are the ground realities?

At this stage, I pose three more research questions. How do social structures (caste, ethnicity, clans, class, patron-client relationships) shape individual and group strategies to influence the process of compensatory distribution (cash, land) and the usage and redistribution of natural resources (of land and water) in the post-compensatory phase? How do the strategies of individual actors change the inherent inequalities of the social structure? What are the policy implications, especially in terms of equitable or inequitable outcomes, that needs incorporation in dam development? Before unfolding the research assumptions to these questions, the

following section will briefly explain the Nepali social structure and the politics of patronage.

1.3.1 Social inequality examined: Caste, ethnicity, and class[10] in Nepal

In Nepal, there is a complex social structure of kinship, class, ethnic, and caste groups, characterised further by individual traditions, histories, and identities. Bista (1991) points out that people's self-identity are determined by the social roles they assume as members of such groups. As recorded in the 1991 census, Nepali society is a mosaic of 60 different ethnic and caste groups[11]. Gurung H (2001) breaks down the Nepali population into 35 ethnic and 36 caste groups. However, by 2001, the census listed 103 caste/ethnic groups including "unidentified groups" (MOPE 1993). With more than 90 per cent of the Nepali people dependent on an agrarian economy, only a minor urban class exists. Pradhan (2000) takes another approach. He classifies the population geographically, the majority (66.8%) of the population being the *Pahadi*, or hill communities comprising of both the caste structured *parbatiya* as well as the ethnic *janjati* (indigenous groups) and the *Madhesi,* a mixture of caste, linguistic, religious and ethnic groups from the southern plains. The Nepali language[12] (which was originally the mother tongue of only the two dominant castes, Bahun and Chhetri) as the *lingua franca* of the country ranks first in terms of spoken language in 54 out of the 75 districts.

The caste system originated from the Hinduisation of the country, termed as the process of *Parbatiyisation*. This process was facilitated by the state, particularly the ruling elites, members of dominant 'high caste' Parbatiyas or Indo-Nepalese (Pfaff 1999). High caste groups aligned closely to centralise and hold power. Because in the Brahmanical worldview, entrepreneurship was not seen as a calling of high moral purpose, Brown (1996) explains that this disdain resulted in the traditional Hindu division of labour where manual labour was despised and high caste groups were

[10] The concepts of caste, ethnicity and class are further elaborated in Chapter 2.
[11] In Nepal, there are primarily two main racial groups: the Caucasoid or Indo-Aryan who has a vertical hierarchical social structure stratified according to caste and the Tibeto-Burman Mongoloids that includes ethnic hill indigenous groups.
[12] The Nepali language is spoken by 48.98 per cent of the population (CBS 2002).