

## Decentralisation and Water Resources Management in the Indian Himalayas: The Contribution of New Institutional Theories

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### Abstract

The current debate on decentralisation offers a polarised view on the dynamic power relations involved in water resources management. Drawing New Institutionalism as applied in the social and ecological sciences, the paper argues that decentralisation represents a complex adaptive process that involves a combination of natural and a political endeavour by actors and agents to draw on existing structures to negotiate and renegotiate the existing unequal power relations to (mis)manage water. Examining a Village in the Indian Himalayas as a case study, the paper demonstrates the significance of New Institutionalism for a comprehensive understanding of the decentralisation as a process, with an intention to identify the opportunities and barriers presented by institutional factors on water resources management. The paper reveals the contemporary top-down decentralised reforms though has helped actors to voice their concern and empowered the agents to remain adaptive, these have not ensured resource use efficiency, addressed poverty and promoted greater participation of the actors. Facilitating these will require a strengthening the role of statutory public organisations to regulate water distribution, build capacity of actors and offer diverse forums to facilitate informed water-related decisions for a sustainable future.

**Keywords:** India, institutional analysis, power dynamics, structure-agency, water governance

**DOI:** 10.4103/0972-4923.64735

### INTRODUCTION

Decentralisation has become a panacea for the problems of development, resource management and poverty alleviation in the developing world. Over 60 developing countries have carried out 'decentralised' reforms in one form or the other (World Resources Institute 2003). Interestingly, the outcomes of these contemporary reforms are mixed (Ribot 2004; Colfer & Capstrano 2005), partial and contradictory (Larson 2002; 2003; Sumberg & Okali 2006). Decentralisation is defined as an action by which the 'central government cedes power to actors and institutions at lower levels in a political-administrative and territorial hierarchy' (Agrawal & Ribot 1999). This action is expected to increase resource use efficiency, promote equity and ensure greater participation and responsiveness of government to local people. Case studies from around the world indicate that this contemporary top-down decentralisation reforms have rarely achieved their purposes, and local people are still 'waiting for democracy' to ensure equity and efficiency in resource management (Ribot 2004). The top-down nature of this reform process

is challenged by a number of studies (Gaventa 2002, Boone 2003; Eckert 2006; see special issue of *Conservation and Society*, Vol 6, Issue 11, 2008) which argue that 'bottom-up' decentralisation exists where communities have chosen diverse institutions to negotiate the unequal power relations. The 'top-down' versus 'bottom-up' perspective of decentralisation presents a polarised view. Drawing on New Institutionalism's application across the social and ecological sciences, this paper argues that decentralisation represents a complex adaptive process that involves a combination of natural and a political endeavour by actors and agents to draw on existing structures to negotiate and renegotiate the existing unequal power relations to manage water. As such, decentralisation does not necessarily connote the spatial distinction of being 'top-down' or 'bottom-up', but a messy integration of these.

The outline of the paper is as follows. The next (second) section lays out New Institutionalism's contribution toward analysing decentralisation as a process. The third section outlines the ethnomethodology employed for understanding decentralisation. The fourth section applies the New Institutionalism's contribution in the Rampur Revenue Village

to analyse the process of decentralising water resources management. The fifth section highlights the implications that New Institutionalism brings to better understand the decentralisation process involved in the case, with the final section calling on the centralising role of government to facilitate decentralisation reforms.

### DECENTRALISATION AND NATURAL RESOURCES MANAGEMENT: THE CONTRIBUTION OF NEW INSTITUTIONALISM

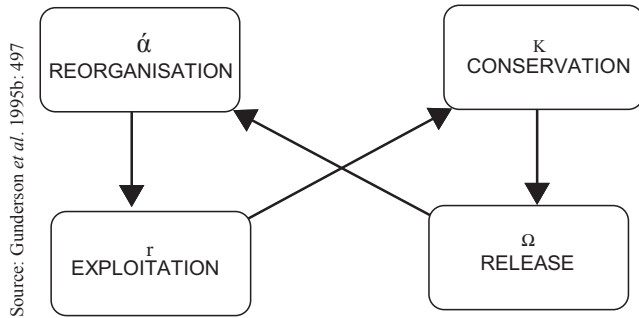
'New Institutionalism' is described by Rational Choice Institutionalism, Historical Institutionalism, Organisational/Sociological Institutionalism, and Ecological Institutionalism (for comparisons of the first three refer Hall & Taylor 1996; Campbell 1997). These "Institutionalisms" share a common interest, examining the role of institutions and actors on social action, though their conceptions of what comprises an institution varied. Rational Choice and Historical Institutionalism elaborate on the role of institutions for the instrumental behaviour of actors, who are individuals or group functioning as a unit (Ostrom 1998)<sup>1</sup> in order to maximise their preferences (Hall & Taylor 1996; Campbell 1997). Rational Choice Institutionalism argues that actors behave strategically (given that the problem cannot be resolved through individual action) in a given context to decentralise reforms. Historical Institutionalism rather emphasises more of a 'calculus-based approach' than a 'strategic approach,' arguing that the behaviour of actors involved is institutionally determined – i.e., "what people want and the way they behave are determined by whom they think they are and where they are, where their life is embedded" (Stoker 2004). An important contribution of Rational Choice and Historical Institutionalism is their contribution to the 'theory of constraints,' which attaches importance to the historic and strategic role of institutions in decentralising water resources management (Campbell 1997). However, their normative approach gives space for its critics, such as Organisational Institutionalism who call for more realistic and situation-specific analysis of actions.

The Organisational Institutionalism contributes towards a 'theory of action' by emphasising the subjective role of institutions in decentralising water resources management. Drawing from sociology, Organisational Institutionalism makes a significant contribution towards organisational theory from a social realist perspective (Powell & DiMaggio 1991). It maintains that actors make decisions and create decentralised institutions to reduce uncertainty, and do so in ways that are intended to conform to existing normative and cognitive frameworks (Campbell 1997). There is a 'logic of social appropriateness,' i.e., doing what is perceived as socially acceptable or legitimate, where policy solutions are socially constructed by a network of actors (Campbell 1997). For Organisational Institutionalism, actors are individuals who process "information and strategise in their dealings with various other actors, as well as with outside institutions and personnel" (Long 2001). Action is the realization of a purpose

or goal, assisted by empirical knowledge about the world (Fuchs 2001). All actors exercise some kind of power or room to manoeuvre, based on their lived experiences and acting upon them, through knowledge and capability (Long 2001). While all actors have powers, following Hindess (1986), Long argues few of them have discursive powers, "they form a part of the differentiated stocks of knowledge and resource available to actors of different types" (Long 2001). This discursive power enables local actors to transform into social actors (Long 1992), signifying the social construction that closely relates to Giddens' (1984) 'agents'. One of the significant contributions of this institutionalism is an emphasis on human agency – "the capability to doing things" (Giddens 1984). Structures are regarded as rules and resources recursively implicated in social reproduction facilitates the human agency. Giddens (1984) argues that human agency and structures are not two separate concepts or constructs, but are two ways of considering social action. Though Organisational Institutionalism offered insights on the structure-agency dualism, they align towards the agency, giving less importance to the operational details of the structures to build this human agency. More so is the 'slippery' use of the concept 'agency' (Hitlin & Elder 2007, Campbell 2009). Finally it does not inform what transmutes an actor to become an agent.

In this discourse, the Ecological Institutionalism – a lesser known form of institutionalism, with roots in geography and ecology (Mitchell 1975; Mitchell 1990; Dorsey 1986; Gunderson *et al*, 1995; Gunderson & Holling 2002) embraces dynamism, uncertainty and predictability of social actions, so as to focus on a 'theory of integration' in diverse arenas. Dorsey (1986) reveals that decisions taken in diverse nested arenas, provide direction for change in policies, the legislation and the administration. Drawing from ecological science, Gunderson *et al* (1995) maintain that these changes in an arena represent an adaptive cycle that has the properties of growth (exploitation-r) and accumulation (conservation-K) on the one hand, and novelty (release- $\Omega$ ) and renewal (reorganisation- $\alpha$ ) on the other. This function closely relates to decentralisation process, for instance, past policies and programmes have exploited (r) water resources and have favoured the rich and the powerful. Such exploitation has given space to emphasise the need for the deprived section of the society to participate (K). This has in turn led to search for novel alternatives ( $\Omega$ ), such as decentralisation reforms, which is recognised by policy makers as a means of reorganising existing policies and programmes ( $\alpha$ ) (Figure 1). This reorganisation subsequently has led to inefficiency, elite capture and exploitation of water resources, recreating the adaptive cycle. This adaptive cycle is iterative, have different time period and do not have any tangible form, but takes place in diverse nested arena of 'panarchy' (Holling 2001), making decentralisation a complex adaptive process.

Given the similarities of their interests, and their independent development (judging from the paucity of cross-referencing: Hall & Taylor 1996), these diverse, but complementary perspective is useful for analysing decentralisation as a process. Applying heuristically the normative historical and rational-



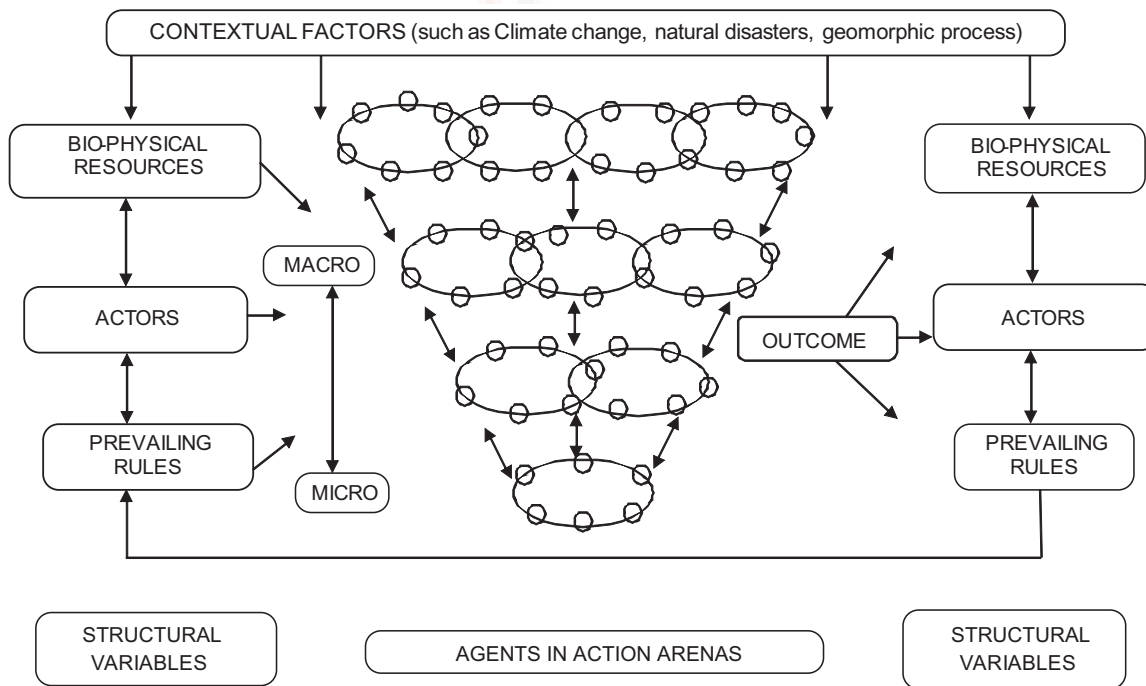
Source: Gunderson et al., 1995b: 497

**Figure 1**  
*Adaptive functions within arena*

choice institutionalism helps to understand the historic and strategic role of structures in influencing the capability of actors and agents, there by unravelling the ‘black-box’ of ‘agency’. While, ecological Institutionalism explains in analytical stages the negotiation process among agents to reinforce and/or bring about institutional change.

The complementary perspective in New Institutionalism is explored through the Institutional Integration framework (Saravanan 2008) (Figure 2) to analyse decentralisation as a process. The framework draws on the interactive role of three situational variables: rules, actors, and existing bio-physical resources commonly recognized by new institutionalism. In the framework, actors are individuals “who process information and strategise in their dealings with various local actors, as well as with outside institutions and personnel” (Long 2001). All actors exercise some kind of power leverage or room to manoeuvre, based on their lived experiences and acting upon

them, through knowledge and capability (Long 2001). Actors are individual members of structures who collectively act given the inadequacy of resources and institutional arrangements through diverse forms of short-term impulsive actions. However, certain actors having discursive powers facilitate these impulsive actions towards goal-oriented actions through ‘projects’, and are therefore transmuted to agents (Llewellyn 2007). The agents are knowledgeable human entities having the ability to combine practical consciousness with discursive consciousness. In the process, they reinforce and/or change the prevailing rules, the behavioural characteristics of actors and the biophysical resources. Rules are patterned behaviours of a social group (Mitchell, 1975; Ostrom, 1998) that forbid, permit or require actions or outcomes to enable actors to derive benefit (or loss) from certain resources (Crawford & Ostrom 1995). While there are a number of rules, broadly following Ostrom (1998), these rules are recognised as boundary rules (specifying who the actors are), position rules (setting the position for actors to take), scope rules (setting the outcomes for their decisions), aggregation rules (specifying the outcome), information rules (providing channels for communication), authority rules (setting the actions assigned for actors), and pay-off rules (prescribing the benefits and costs). Following Giddens (1984), these rules always come with bio-physical resources that are authoritative and allocative. Authoritative resources are derived from the coordination of human agents’ activity, and allocative resources stem from the control of material products or aspects of the material world (Giddens 1984). The actors, rules and resources collectively form the elements of the structures. Structures are organisations or collectivities. They are statutory and/or socially embedded.



**Figure 2**  
*Framework for analysing institutional integration*

Statutory structures are constitutionally and legally established, openly accepted and clearly structured arrangements enforced by either or both public and private actors. Socially-embedded structures are formal, accepted widely amongst individuals and groups, but can also be concealed, have unwritten codes of conduct and enforced by caste, village councils and religion.

The core elements of the structures (structural variables) interact historically and strategically (following Rational Choice and Historical Institutionalism) in constraining water management, and in building capacity of actors. The differential capacity endowed on actors actively interacts with context to facilitate diverse forms of strategic actions. Some of these actors intelligently draw on their capacity and the prevailing elements to transmute as agents to interact in diverse decision-making arenas. Arenas are social settings which are accessed, activated and created in a strategic context by agents to contest, negotiate, dominate and exchange goods and services, and to solve problems (Dorcey 1986; Ostrom 1998; Long 2001). In these arenas, the agents (like Ecological Institutionalism) actively draw on the activities of the actors, the prevailing rules and resources to negotiate with other agents their 'projects' in multiple arenas (Dorcey 1986), representing 'panarchy' (Gunderson & Holling 2002). 'Panarchy' is "the hierarchical structure in which systems of nature, and humans, as well as combined human-nature systems and socio-ecological systems are interlinked in never-ending adaptive cycles of growth accumulation, restructuring, and renewal" (Holling 2001). The interaction of these systems in the 'panarchy' takes place in linear, cyclic and nonlinear forms of networks of negotiation. The decisions taken in the 'panarchy' bring about changes in the structural variables, creating a cyclic process. The contextual variables, such as geological disturbances, climate, physiography, demography, and other forces punctuate the framework at various periods of time. These characteristics make the socio-political process adaptive and dynamic. For analytical purposes, the framework represents a cyclical process, though in real life, interaction among variables is complex, uncertain and messy.

## METHODOLOGY

The paper applies ethnomethodology to pragmatically and contextually understand the process of decentralising water resources management (Pollner 1987). This approach is applied to a water-related problem context in the Uppala Rampur and Nichala Rampur hamlets of the Rampur Revenue Village to understand the process of decentralisation involved in water management. The Rampur Revenue Village was considered as appropriate for this study, as it is understood to be a model village by officials from the Government of Himachal Pradesh and international funding agencies operating in the region to implement various community-based resources management. It is also physically and socially remote, faces water scarcity, has high percentage of Scheduled Caste<sup>2</sup> population (one of the official indicator for the village being

economically backward), has a cohesive population with collective interest and is highly vulnerable to climatic and geological disturbances. Examining the decentralisation process in this contested landscape helps to better convey how the contemporary reforms embed in the historical and strategic settings of the village to decentralise the existing power relations to improve water use efficiency, promote participation and ensure greater equity and accountability. Diverse methods, such as semi-structured interviews, structured interviews, focus group discussions, participatory resource mapping and participant observation, maintaining field notes and information derived from secondary documents (archives and published government records) were combined in the application of this ethnomethodology during a year-long field research programme in 2004. These methods were combined in four ways: primary, lead, follow-up and cross-check investigations (Henstchel 1999). Primary investigation combined methods, such as participatory methods, focus-group discussions and semi-structured interviews, helped reveal non-controversial and less contextual information, providing a broad understanding of the water management problem in the region. Lead investigation provided core information for parts of the research that were more personal and controversial. Here, structured and semi-structured interviews were combined to understand the household perspective of the water problem and to identify who they considered as agents to help facilitate their strategies in managing water. Agents, identified by households, were interviewed over a period of time to understand their agency, or capacity to bring about institutional change. Through snow-balling techniques, other agents involved in the process of negotiation-based action were identified. Follow-up and cross-checking were undertaken for a more in-depth understanding of the situation. Information was regularly shared with a panel of advisors assembled for the research, comprising households, village leaders, bureaucrats, intellectual experts, non-government officials and politicians. They served as a sounding board to reflect the findings. Overall, structured interviews were conducted with 69 households (40% of the households in Rampur Revenue Village). Semi-structured interviews were conducted over a period of time (May to December 2004) with 4 individuals identified as agents and 25 government, non-government, politicians and expert officials. Focus-group discussions and participatory mapping exercises (resource mapping, transects and wealth ranking) were also carried out, complemented by participant observation. Employing these diverse methods helped to contextualise information and to obtain both qualitative and quantitative information involved in framing the water management problem. The information was used to build a network of factors involved in the negotiation process as well as to analyse the power dynamics among the agents. In this network, the factors represent the variables. These variables indicate the structures or the contextual factors. The linkages between these variables indicate the rule (or a contextual causal linkage) that governs their relationship in the network. Based on the rule in the network, these variables are classified



as 'boundary', 'position', 'aggregation', 'information', 'authority', 'scope' and 'outcome' variables.

### NEGOTIATING WATER MANAGEMENT IN RAMPUR REVENUE VILLAGE – CONTESTED TERRAIN FOR MULTIPLE INSTITUTIONS

The Rampur Revenue Village (the lowest revenue division within Indian administration) is in Kullu District, in the state of Himachal Pradesh, India. The village is located in the mid-hill sub-humid zone of the Indian Himalayas. It is characterised by a steep, sloping terrain with salty loam to clayey soil, prone to landslides, consequently limiting the availability of cultivable land. The Rampur Revenue Village has a population of about 1068 (as of 2002 sourced from the Village Records), spread over 6 hamlets. It is politically and economically dominated by the Rajput community, who constitute 36% of the population, though it is numerically dominated by the Kohli community (the Scheduled Castes), who comprise 60% of the total population. There are just a few families from other communities. Of the six hamlets that make up the Village, the study focused on the Uppala (upper) Rampur and Nichala (lower) Rampur hamlets, as it had more than 95 percent of the Village population. In these two hamlets (hereafter jointly referred to as the Rampur Revenue Village), all of the households own cultivable land, in both rain-fed and irrigated condition. Agriculture contributes to 45 percent of the average household income in these two hamlets, which, among the sampled households in 2004, was Indian Rupees 57,152.00. Agricultural income supplements income from other sources, such as labour employment, employment in government organizations, and the selling of milk products. Rain-fed agriculture is practiced in the mountains of Uppala Rampur, where staple food crops are grown for subsistence between October to March, and vegetables (tomato, okra, chilly, turmeric, and ginger) are grown from March to July. In Nichala Rampur, both irrigated and rainfed agriculture is practiced. In the Rampur Revenue Village, vegetables are organically grown in rain fed conditions, in addition to staple food grains (maize, ragi and wheat). It has loamy soil, with no or few pebbles, enabling good production.

Drawing from personal narratives of elders and resource persons (including district officials), the history of Rampur Revenue Village dates back to 14<sup>th</sup> century, when the Rajput community is said to have migrated from Delhi province due to the invasion of the Moghuls from Turkmenistan. The Rajputs are stated to have occupied and owned (as landlords) most of the resources, such as land, water and forest. To meet labour requirements for agricultural activity, maintenance of the irrigation system, distribution of the irrigation water, and to carry out menial jobs for the Rajput families, they brought in the Kohli community as tenant cultivators. After India's Independence in 1947, the Land Reforms Act<sup>3</sup> implemented in the 1960's attempted to obscure the distinction between landlords and tenants through land redistribution, so as to increase agricultural production and alleviate poverty. The Act

sought to redistribute excess lands from the Rajputs to their Kohli tenants. For the purposes of the Land Reforms Act, the Rajputs gave away less fertile, rocky lands, as well as land far away from the main settlements – often near forest areas – to the Kohlis. The conferment of statehood in 1971 led to planned development in the Himachal Pradesh. One of the early initiatives of the Five Year Plans<sup>4</sup> in the state gave primacy to agriculture and infrastructure development. Rampur Revenue Village witnessed the setting up of electricity connections in 1967-68, road access to nearby townships in the 1970s, bus services, educational institutes, health services and access to telephones during the 1990s<sup>5</sup>. Many significant contemporary decentralised reforms were also introduced in the early 1990s. The enactment of the Indian Constitutional (73<sup>rd</sup> and 74<sup>th</sup> Act) *Panchayat* Act introduced a system of local democracy known as *Panchayat*<sup>6</sup> in rural areas. The most revolutionary aspect of this Amendment was to promote democracy at the local level for a consensus-based planning and implementation. Over these developments, centralised neo-liberal programmes have been implemented since 2000. One of these is the Integrated Wasteland Development Programme under the Ministry of Rural Development, which implements Community-Based Watershed Management through the District Rural Development Agency (DRDA) within the state (GoHP 2004) (hereafter the programme is referred to as DRDA-IWDP).

The other programme is the 'Technology Mission for Integrated Development of Horticulture' (hereafter as the Horticulture Mission), seeking to make the state the 'Fruit Bowl of India' (Tribune 2000). This initiative aimed to commercialise agriculture in the state by exploiting its wide-ranging agro-climatic conditions to cultivate fruits and vegetables. The programme offered incentives to expand cultivable areas under horticulture, create water sources for private or collective needs, assist on-farm water management, and provide other technical inputs. In addition, the Rampur Revenue Village was also the recipient of externally-aided projects promoting community-based resource management programmes. These projects were The World Bank funded Mid-Himalayan Watershed Development Programme<sup>7</sup>, and the Department for International Development<sup>8</sup> (DfID) assisted Himachal Pradesh Forest Sector Reform Project (HPFSRP) which carries out integrated development programme (DfID-IDP) in the Village (GoHP 2004).

What is interesting is that each of these organisations – national and international – has its own jurisdiction or sector (such as water, forest, floods) for management. They embed within the historical socio-cultural settings of the village to compete<sup>9</sup> amongst themselves, claiming superiority over the physical and social implementation of programmes as well as in their impacts. Such policies and programmes opened up the subsistence economy to one that is market-oriented, whereby people not only sell agricultural products, but tend to buy consumer durables (such as televisions, refrigerators, dish antennas, mobile phones and others); gain knowledge of the demand from urban centres for horticultural crops and availability of subsidies for horticultural crops; and gain

awareness of development programmes (especially watershed programmes and rainwater harvesting programmes) and water scarcity issues looming worldwide. This has enabled households to transform the small-scale subsistence cultivation of vegetables that were often rainfed to large-scale cultivation (due to market demand), which has in turn placed enormous pressure on the existing water resources, making it necessary for households to manually irrigate their crops.<sup>10</sup> These multiple structures interact historically (Caste, settlement pattern, Land Reforms Act and infrastructure developments) and strategically (contemporary decentralised reforms) to facilitate the perception of local communities and local officials to frame the water-related problem as ‘lack of irrigation’ resulting in water crisis in the Village (Refer Saravanan 2009) on how the integration of policies in Uppala Rampur frame the water-related problem). The problem of the lack of irrigation is examined to identify the different actions adopted by actors and identify the agent’s and their role to reinforce existing institutional structures or bring about institutional change to overcome the water scarcity.

The households in the Rampur Revenue Village adopted various actions to manage water in the watershed. Structured interviews<sup>11</sup> during the year 2004 revealed, in general, five types of action that households adopted to manage water: class-based action, resistance, negotiation-based action, passive action, and resign to take any action. Class-based action was adopted by 7 percent of households. This form of action was determined by higher caste households who informed what crops to grow and when and how much water was to be allocated to lower caste (namely the Kohlis). The higher caste used the existing socially embedded structure (caste hierarchy) to implement their control. Though more authoritative, it was socially accepted in the villages, as some of the households treated higher caste members as their protectors. Resistance was adopted by 16 percent of households from Kohli community in the form of stealing water and using force to take water in irrigated agriculture. These actions are largely by families, who had other sources of income other than from agriculture. Many of these resistance forms of action though are brought to the notice of the leaders of the traditional Village Council elders or called *Panch*<sup>12</sup>, rare is there any action or meeting to resolve. As Rajputs avoid such confrontation, as this would reveal (by the Kohli households) some of the mismanagement adopted in social and cultural practices in the Village, such as siphoning village funds, demanding first-irrigation water to their fields than the Kohli households, and so on. Negotiated-based action, adopted by 20 percent of households, involved communicating and negotiating with others to get water (in irrigated agriculture, this was through adequate management) or to demand access to markets to sell cash crops. These households combined individual rationality with a consensus-seeking approach. Those households employing passive action – 34 percent – cultivate their land, but do not concern themselves about obtaining access to water or markets. They tend to cope with everyday living as best they can by seeking income from alternative sources. Twenty-three percent of

households entirely resigned from taking any action, as they did not have the freedom to organise on their own, and had to fatalistically cope with everyday life to the best of their abilities. Deeply embedded in the socio-cultural and historical settings, and strategically activated, these short-term impulsive actions demonstrate diverse capabilities of the households who are differently endowed with resources (caste, landholdings, cattle, house-hold size, and employment opportunities) to react to the resource crisis.

Each of these actions is important towards identifying the agents facilitating the particular actions adopted by the households. For the purposes of the study, the agents facilitating negotiation-based action were identified, as they aimed to strengthen, through reinforcement and/or change the existing institutional arrangements through consensus-based action. Identifying these agents was easier through structured interviews with households and through snow-balling techniques identified other agents. The agents identified as facilitating the negotiated-based action were Par Singh, Sher Singh and Charan Singh in the village. Among them Charan Singh was selected to understand the decentralisation process, as he was sought by about 57 percent of the households (of which more than two thirds were Rajputs) and also was approached by Par Singh and Sher Singh for the village level social problems. In addition, he played a lead role in negotiating with the other agents (Anand Kumar, Divisional Forest Officer; Kumaresh Kumar, Project Officer; Narender Singh, market middle-man) to ultimately facilitate negotiation-based action in Rampur Revenue Village.

Charan Singh adopted negotiated action as a strategy to actively pursue households’ interests through his involvement in twin ‘projects’.<sup>13</sup> The first project was to influence government bureaucrats to construct water harvesting structures (such as percolation ponds and check dams) under various community-based projects (the DRDA-IWDP and D/JID-IDP). The second project was to acquire better returns from the agriculture produce of this village by seeking good markets. He maintained, after discussing with officials of the Department of Irrigation and Public Health of the Government of Himachal Pradesh (GoHP), “additional irrigation is not a possibility in this high mountainous terrain, but under the DRDA-IWDP and D/JID-IDP, we could construct water harvesting structures to supplement water”. Such a structure “increases water availability downstream or along hill slopes”, he gathered after participating in exposure visits to other watershed development programmes organised by DRDA and World Bank. Through the second ‘project’ he explored aims to benefit from the comparative advantage of the agricultural markets. To pursue his twin ‘projects’ Charan Singh approached the Project Officer of DRDA in Sohan, Division Forest Officer in Kanika division and a market intermediary. These agents brought with them their capacity determined by their respective institutions (calculus-based approach) to strategically (strategic approach) interact in diverse decision-making arenas to support (or oppose) Charan Singh’s ‘project’ (Figure 3). In the process, they collectively

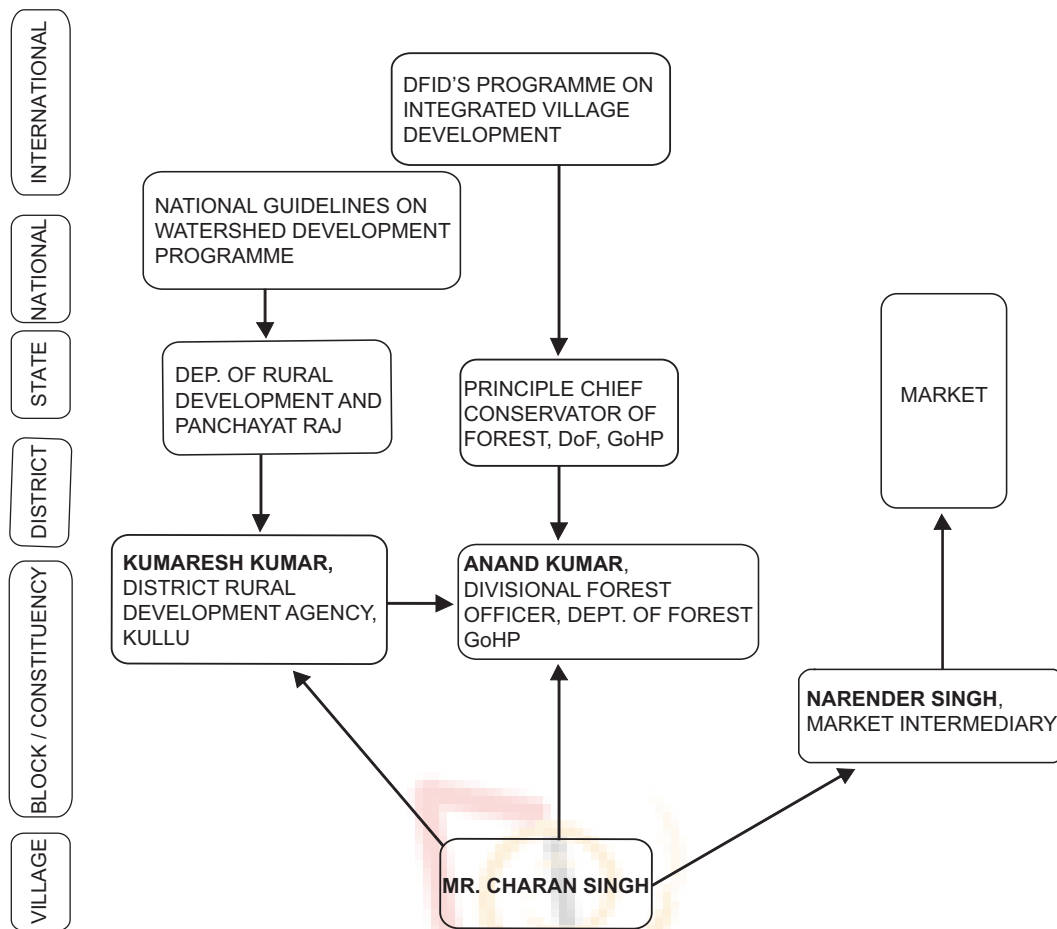


Figure 3

*Agents in Rampur revenue village*

Note: Agents in bold illustrate those examined for this paper.

drew on their ‘capability to do those things’ (Giddens 1984) to negotiate their differential power relations to decentralise water resources management. The emergence of Charan Singh, as an agent was legitimised by the households, while that of other agents was legitimised by Charan Singh and structures they represent.

**Charan Singh: The ‘Bell Master’ of Rampur**

Charan Singh (hereafter CS) was unofficially called the village ‘bell-master’ by members of the village youth group, or Yuva Mandal. The secretary of the Yuva Mandal claimed of CS that “he is often seen engaging outsiders (to inform about the village conditions) and by taking them on a village tour”, thereby making his presence known to both the insiders and outsiders, like a ‘bell-master’. CS was a ‘Rajput and large landowner’ and an ‘educated member of the Rajput community’ in the watershed. This provided him with a *boundary* for his entry into the decision-making process in watershed management affairs with a *position* as one of the ‘Panch’, as well that of a ‘Nambardar’ (government appointed land revenue collector to assist the Village Administrative Officer, who also holds crucial

land ownership details of each household) and finally as the ‘Chairman’ of the Rampur Watershed Development Committee (hereafter RWDC) in 2003 (Figure 4). The *boundary* and *position rules* provided him with ‘social networks with bureaucrats and other agencies’ through which he was able to obtain *information* on various ‘development programmes, and marketable opportunities for agricultural produce’ (such as fruit, vegetables and medicinal plants). This *information* helped him expand his scope to include water management as a problem in his village, accessing community-based development programmes from government departments and market opportunities. He used the *authority* (from his position as Chairman, Rajput leader and *Nambardar*) to coerce his fellow villagers for their signatures to get water harvesting projects (percolation ponds and check dams), through his dated 3<sup>rd</sup> August 2004. Accessing community-based programmes had some pre-requisites, which he was confident of fulfilling. “Our village is a remote, poverty stricken (percentage of Scheduled Caste community - based on one of the criteria set by government) and has collectively carried out various development works,” claimed CS. In addition, the late arrival of the monsoon in 2004 offered him the opportunity to capitalise

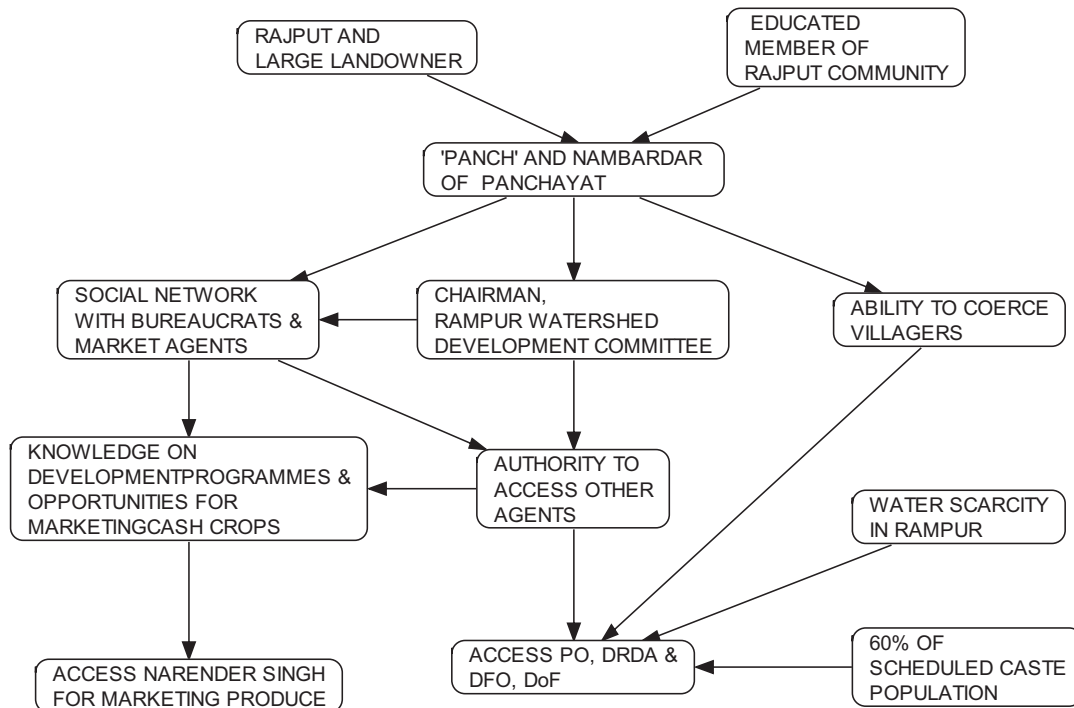


Figure 4  
Variables influencing Charan Singh's decision

on 'water scarcity' in the watershed. He *aggregated* these boundary variables to access the Project Officer of the DRDA, and the Division Forest Officer (DFO) of the Department of Forest (DoF) for water harvesting structures, and the market intermediary for the selling of cash crops. He believed such actions could benefit his fellow villagers, especially the poor, and reinforce his social position in the watershed thereby ensuring *pay-offs* from his 'project'.

#### Anand Kumar: Capitalising on Community-Management Discourses

Anand Kumar (AK) was the 'Division Forest Officer (DFO), Kanika Division' in the Himachal Pradesh department of forest. He was transferred to this division in 2003/4. In addition, DfID introduced the HPFSRP, providing him with the *boundary* to enter the decision making arena with the *position* of being "in-charge of protecting forest and livelihoods" under the HPFSRP (Figure 5). AK claimed, "It is not an easy task to get accustomed to the region, and to spearhead a large community-based project," referring to the second phase of the HPFSRP (2002 to 2006), supported by DfID. He argued that the HPFSRP is a multi-stakeholder project to address in an integrated manner rural poverty, environmental protection and empowerment of village communities (GoHP 2003). At the village level, the programme was implemented as an Integrated Development Programme (DfID-IDP). "Implementing this community-based programme is a struggle for us" claimed the Officer, "which is the different from the way we have worked in

the past – we have to see that communities are coherent group and can successfully implement the project". He maintained that a 'base-line survey' (participatory methods and structured interviews) of the Rampur watershed was done in September-October 2003, but he was not confident whether that village should be taken as claims and counterclaims remained over the reliability of this survey and the relevance of the collected information.<sup>14</sup> But after a month, following his meeting with the Project Officer of DRDA, AK justified his selection of Rampur Revenue Village as a "cooperative and cohesive watershed", and praised "CS as a respectable, educated and informative leader" in supporting and mobilizing community-support. This *information* enabled AK to *aggregate* his decisions in 'selecting Rampur Revenue Village for the HPFSRP' and 'authorizing CS as the chairman', which AK claimed would "showcase the participatory approach to integrate forest management with livelihood needs" - the aim of the HPFSRP. The decision to implement the DfID-IDP in the Rampur Revenue Village under CS's chairmanship provided him with the *authority* to initiate the DfID-IDP in the watershed in 2004, and was likely to *pay him off* to reveal his commitment towards community-based forest management.

#### Kumaresh Kumar: Romanticising Community-Efficiency

Kumaresh Kumar (KK) was the 'Project Officer' (PO) with the DRDA of Kullu district (Figure 6). Being the PO, he was responsible for implementing community-based Integrated



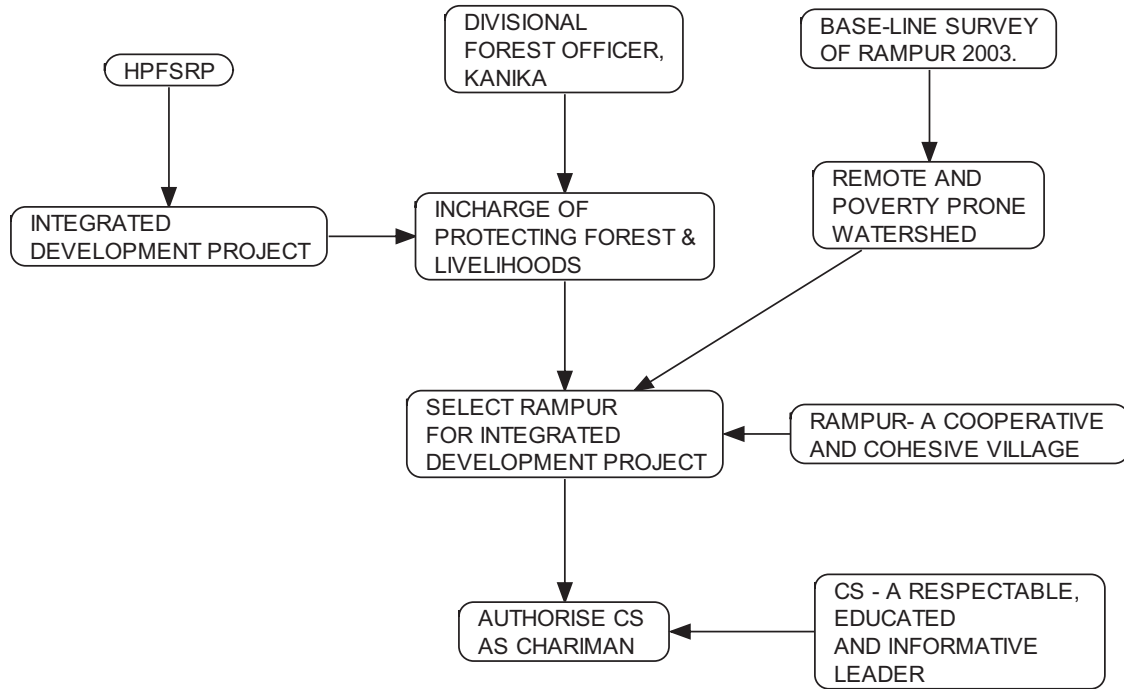


Figure 5  
Variables influencing Anand Kumar decision

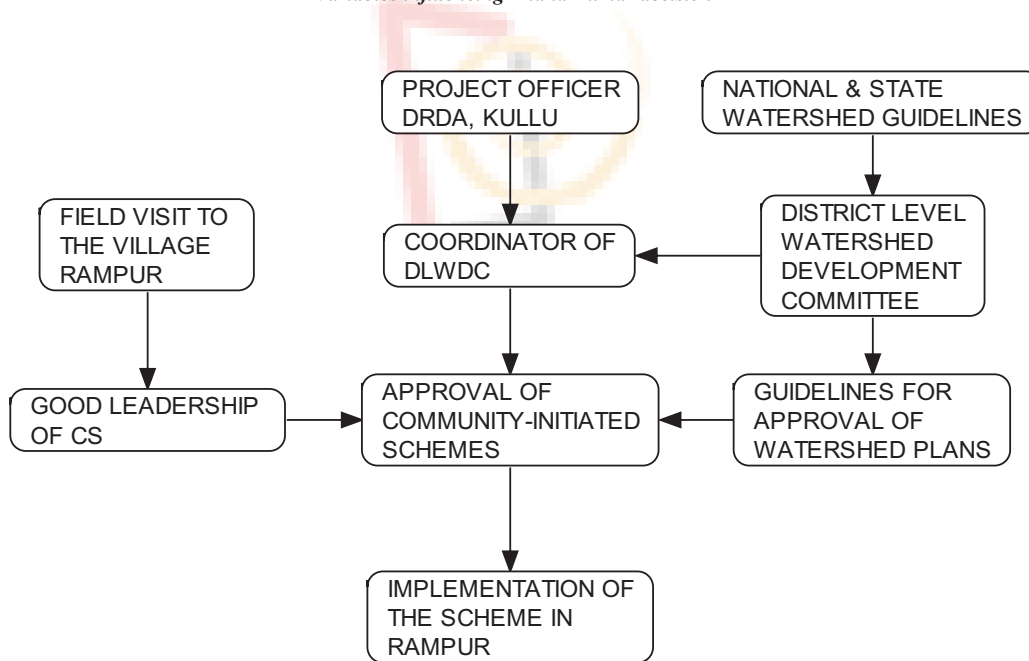


Figure 6  
Variables influencing Kumaresh Kumar decision

Wasteland Development Programmes under the Ministry of Rural Development, Government of India (GoI 2001). These *boundary* variables enabled him to enter the decision-making arena with the *position* of ‘Coordinator;’ for the District Level Watershed Development Committee (DLWDC) through which he determined the programme and component contents in accordance with national and state level guidelines. The

*information* to support or reject the project from CS for additional water harvesting structures was based on *his* ‘field visit to Rampur’. He claimed that “the people of Rampur have done good work in the past and have a good leader” under the ‘chairmanship of CS’. The *scope* for his decision in approving CS’s request for an additional water harvesting structure was put into place by the ‘guidelines for approval

of watershed plans’ a modified version of the government of India’s watershed guidelines as applied in the region (GoI 2001). This supports the “ability of people to have leverage and usefulness of the programme”, claimed KK showing the letter from CS dated 3<sup>rd</sup> August 2004. *Aggregating* these, the PO exercised his *authority* to ‘approve community initiated schemes’ under the watershed programme. Supporting and facilitating community-led initiatives provided significant *pay-offs* for KK, as one of the top officials within the Department of Rural Development in Shimla (the state capital of Himachal Pradesh) praised him as being “one of the truly committed officers who also understands the people’s needs”.

### Narender Singh: Responding to Market

Narender Singh is a market intermediary from a nearby village, Jammu. He too is a Rajput, has family links with many of the Rajput families in Rampur and also owns a few mini-trucks, which he uses to transport agricultural produce to markets in the state of Haryana and Punjab. His ‘Rajput community’ affiliation and ‘experience in selling agricultural produce’ set the *boundary* for his entry into decision-making arenas with a *position* as a ‘middle-man to sell agricultural produce’ (Figure 7). The *information* to seek access to different markets was provided by the ‘social network’ of his Rajput community affiliations. The *scope* for marketing was offered by the assurance from the ‘Panch’ of Rampur Revenue Village to sell their produce as well as by the presence of ‘good roads’ in the state of Himachal Pradesh to access market centres in Punjab and Haryana. These provided him with the *authority* to seek good market centres, though the *pay-offs* ultimately would depend upon the *aggregation* of marketable cash crop produce supplied from the Rampur Revenue Village, as well as also taxes (including bribes) paid at various inter-state check-points. The *pay-off*, though variable<sup>15</sup>, allowed him to have earned a profit of between 200 to 400 Indian Rupees per visit during

the year 2004, unfortunately it was not sufficient for him to transfer some of these to the households selling the produce.

### Negotiating Water Management

Multiple structures build the agents’ capability to decentralise water resources management. CS drew on caste affiliation and educational background (offered by the government) as a boundary rule to gain position, which was sanctioned by the DRDA, DoF, the Rajput community and households in the Rampur Revenue Village. He used this opportunity to get information on various community-based water management initiatives from the DRDA, DoF, and seek the cooperation of the Rajputs to explore various scopes available to pursue his twin projects. He exploited the weakness of the Kohli community (coercing them) and contextual factors (water scarcity and demography factors) to aggregate his decision. This decision was authorised by the DRDA, the DoF, the Rajput community and other households, allowing him to pursue his ‘project’. In this pursuit he personally benefited the most by reinforcing his social and economic status and gaining employment for his daughter, while at the same to trying to offer benefits to his (Rajput) community. The DfID and DoF provided a boundary for AK to promote the (DfID-IDP as the officer-in-charge. He used his position to get information from the base-line survey carried out by DoF, and from Project Officer from DRDA. He aggregated this with contextual factors, such as remote location and poverty status (based on the presence of Kohli community) to select the watershed for the DfID-IAD programme. This interestingly supported CS’s ‘project’ and also provided AK the opportunity to showcase his commitment towards forest management. The DRDA offered a boundary for KK to enter the decision-making arena with a position (under the Watershed Programme) as the coordinator of the DLWDC. He used the information from the DRDA and RWDC and the scope offered from his position to aggregate his

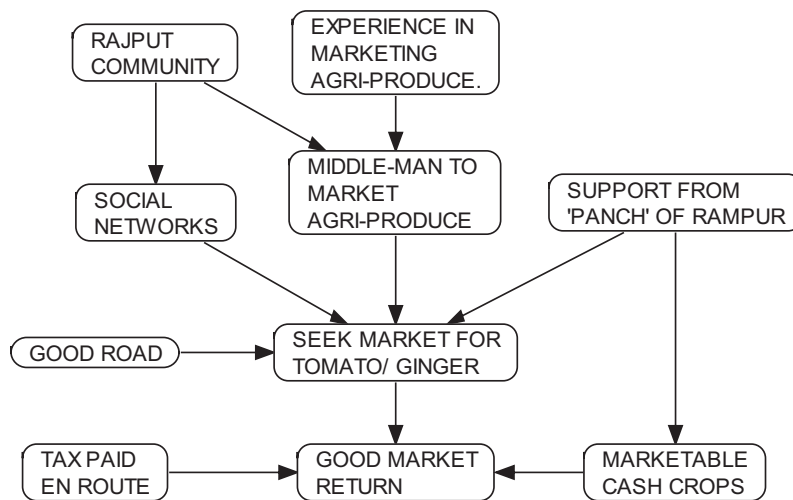


Figure 7  
Variables influencing Narender's decision

decision to support CS's project for additional water harvesting structures. Interestingly, NS was able to enter the arena on account of his social links with the Rajput community and due to the failure of the government to regulate market. He used his position as a market intermediary to sell cash produce from the Rampur watershed. He used the Rajputs for information, scope and authority to obtain a significant pay-off from the market.

The agents' success in facilitating the 'project' (pursued by CS) depended on how their terms were accepted, rejected or negotiated in practical terms. To the growing importance of market-oriented economy in Rampur Revenue Village, CS played an important role through his twin 'project.' CS was attempting to bring water management programmes to his village to supplement existing water availability during dry months as well as to help his fellow villagers have better access to markets. His efforts to bring about institutional change mainly benefited households from the Rajput community to which he belonged, who on average owned 0.4 acres of irrigable land, and 3 acres of land under rainfed conditions. In contrast to Kohlis, who on average owned 0.25 acre of irrigable land and 0.65 acres of rainfed land.<sup>16</sup> To pursue his 'project' CS contacted three other agents, namely KK, AK and NS.

Two agents (KK and AK) facilitated CS's 'project' of demanding an additional water harvesting structure for the watershed. CS, in his letter sent to KK on 3<sup>rd</sup> August 2004, demanded the construction of percolation ponds and check dams on hill slopes under the DRDA-IWDP so that additional moisture could be provided for cash crops during dry months. From his field visits and interactions with CS, KK was highly impressed. He often claimed that RWDC was one of the few watershed committees which functioned well within Sohan district. It was due to this sense of trust that KK supported CS, though the cost of the project was negotiated. Facilitating such an approach furthered KK's reputation, and he also received appreciation from a top official in the Department of Rural Development, Shimla. The second agent CS contacted was AK, who was a new appointee in this division and took over the DfID-IDP in early 2004. Through his interaction with KK, he proposed to choose Rampur Revenue Village for the DfID-IDP. This helped AK 'fast-forward' the DfID-IDP in his jurisdiction, show-case it as a successful programme, and at the same time meet CS's 'project' goals for additional water management programmes.

The third agent, NS, supported CS in seeking market centres for good economic returns for the agricultural produce from Rampur Revenue Village. NS was brought in as market intermediary to sell agricultural produce only in the year 2003. Prior to 2003, only a few market intermediaries from nearby villages marketed the produce, but were unable to deliver sufficient profit for the villagers. NS being closely related to many of the Rajput families in the village was assured by CS that he could sell all the produce cultivated by the Rajput community. With this assurance, NS sought good markets to offer better prices for his community. Compared with other market intermediaries in the village, he sold about 70 percent of their produce, and in the month of July-August 2004, the

average rate for the purchase of tomatoes was about 9 Indian rupees per kilo, as compared to others who had been purchasing the same product for 6 Indian Rupees. With assured supply and moderate payoffs, NS strongly facilitated CS.

The negotiation process offered significant benefits for CS. In year 2004, he was appointed as an Executive Member in the DfID-IDP and more importantly, he was able to organise a job for his eldest daughter as community facilitator under the DfID-IDP. She had completed graduation in the same year<sup>17</sup>. For AK and KK, they earned admiration from superiors as 'truly committed officers' that boost their promotions, while NS actively expanded as a market player in the region. On the whole, supporting CS's project provided a win-win situation for all agents involved. This demonstrated the ability of the agents to manoeuvre the existing institutional arrangements to construct two percolation ponds and check dams on mountain top under the DRDA-IWDP. However, one of the Village elder, claimed "we do not get water from such structures, we have to merely accept what outsiders (experts) say". Rarely does the water retained in the pond offer any form of moisture, as in 2004 the water dried within 5 days after the pre-monsoon rains due to highly porous terrain. Many of the Kohli's complained that these structures were above lands of Rajput communities, rarely benefiting them. The DfID-IDP project which was initiated in September 2004 in the Rampur Revenue Village has proposed to initiate self-help employment generation schemes, such as making mats, and homemade pickles and other food items, in addition to water management structures and regeneration of forest. Though this can benefit the poor, people view this with cynicism, due to coercive approach by CS.

### Attributes Governing Negotiation

The agents in the watershed demonstrated their transformational capacity by drawing on multiple structures over a period of time. However, this transformational capacity or power is revealed, maintained and upheld only when agents interact with other agents in negotiating the 'project' to change current water management practices. The ability of agents to succeed in this negotiation process depends on the rules and resources they draw on to govern their decisions: How do they choose or support the 'project' taking into consideration the needs of the poor and deprived section of the society? How do they take responsibility? How do they coordinate amongst themselves? How do they ensure participation from each other? How are they accountable in their arena and across arenas? All these questions play a dominant role in explaining institutional change.

In a new era giving importance to market-oriented agriculture, CS played an important role through his 'project' as a goal-oriented agent. The choice of his 'projects' was strategic and spontaneous, responding to (or capitalizing on) demands of the market, national and international entities. It also provided him the opportunity to establish his social and economic status within the Rampur Revenue Village. CS believed that his 'projects' would subsequently benefit the poor (the Kohli

communities), encouraging them to grow more cash crops and seek employment on Rajput farms. He took responsibility for this effort as the Kohli community was not sufficiently organised to voice their concern, though they made up about 60 percent of the population. This did not mean there was no opposition from these communities. Expressing themselves through name calling ('bell-master') and showing reluctance to participate in many of the village activities (such as cleaning of *khul* irrigation, village meetings and festivals) was the signal of rebellion against the existing social hierarchy in the village. However, given their inability to organise themselves, they could not show resistance towards CS's agency. He was able to use this opportunity to strengthen his position as one of the 'Panch' in the village and as the Chairman of the RWDC. The agents KK and AK were opportunistic players, supporting one of CS's 'projects' by transposing the national and global agenda of community-based environmental management with local needs. It is these national and international discourses that they were able to aggregate to take the final decision to support CS's project, revealing themselves as 'committed officers' towards wasteland development and forest management. The agent NS attempted to maintain his position. His choice was based on the profits and social status he was likely to gain from supporting CS 'project'. Being related to the Rajput community, he was assigned to take up selling the village's cash crops. The different choices made by the agents, rarely represented the interest of the poor or the deprived section of the population.

The process of interaction among the agents gives us information about the different forms of participation, which subsequently facilitated the 'project'. CS hosted KK and his officers with much fanfare during his visits to the watershed, showcasing the structures built and the records maintained. This was followed by occasional meetings (whenever CS visited the district capital). These meetings were not merely verbal engagements; rather, they were accompanied by gifts (often agriculture produce from the watershed), to depict the success of the watershed programmes. This built trust and served as a foundation for when a formal letter was submitted demanding water conservation structures. CS's participation with AK was more informed and driven by KK, who tacitly requested CS to meet AK, when the latter took over the position as DFO. AK's interest in pursuing the DfID-IDP programme was partly due to pressure from his department to 'fast-forward' the project, as they inherently compete with the World Bank funded integrated watershed development programme, Kandy-Hills-II (DoF is staffed under the DfID programme). The World Bank had been showcasing their projects as one of the more successful initiatives in forest management in many of the conferences, documentaries and exhibitions in the state. Participation between AK and KK was more informal when they met each other during the Officers' party (held once every month at the district headquarters), and also through formal meetings and phone conversations. The participation of NS and CS combined both social relations with the Rajput community, and the social authority that CS holds as a 'Panch' in the village. These forms of participation are contrary to the

consensual and communicative forms of participation being advocated by the contemporary development programmes.

Coordination or working together was a tacit process these agents adopted. Their complimentary or mutual goals enhanced the coordination process. CS was interested in pursuing his twin projects to benefit his community, as well as to maintain his social status, which concurred well with the objectives of the DfID-IDP and DRDA-IWDP community-based programmes. Fortunately, their interests were complimentary, which drove them to draw on different actors to achieve their mutual goals. In the case of NS's and CS's coordination, it was in their social interest to protect their Rajput community and maintain the social hierarchy in the village. In this process, all agents realised mutual gains that were mutually consistent.

With a sense of accountability, agents are inclined to inform about the decision reached in the negotiation process. This may be with regard to informing other agents, their peer groups or organizations that legitimise their agency. CS displayed his sense of accountability to KK and AK formally by showcasing the watershed programme through field visits and record-keeping. However, NS displayed a very informal means of ensuring sufficient quantities to sell the agricultural produce. The CS's sense of accountability to his fellow villagers was tacit, undisclosed and was authority-based, yet allowed him to show himself off as a 'Bell Master' in the village. In one of the meetings of RWDC on 5 June 2004, when young members of the Nehru *Yuva* Kendra, the youth group questioned the costs of some of the structures constructed under the project and their poor quality, in response, CS became angry and scolded them for not respecting elders. This infuriated some of the youths and caused them to walk out. Accountability to others within the RWDC committee is also not open or transparent, as for example Shanta Devi (who is one of the executive committee members of the RWDC) was unaware of many of the works that were being undertaken. She would simply sign when CS requested her signature, as 'we are used to do what *kaka* (meaning uncle) says'. She was appointed as a member of the executive committee member to fill the 30 percent quota of seats reserved for women. It was also authority-based when CS coerced his fellow villagers to sign the letter (dated 4<sup>th</sup> August 2004) to KK demanding construction of percolation pond and check dams in the Rampur Revenue Village. For KK and AK, to be accountable to the villagers, they had to 'showcase' the watershed as a successful community-based initiative, which was assessed based on the work completion report and the impressions officials obtained on their 'field visits'.

#### IMPLICATIONS FOR DECENTRALISED WATER MANAGEMENT

The paper examines the decentralisation of water resources management in Rampur Revenue Village in the Indian Himalayas. Drawing on the New Institutionalism applied in social and ecological sciences, the paper argues that decentralisation process involves a combination of natural and a political endeavour of actors and agents to draw on existing



structures to negotiation and renegotiate their differential power relations for managing water resources. Heuristically applied the Historical and Rational-Choice Institutionalism offers insights on the historical and strategic interplay of multiple heterogeneous structures in building capacity of actors for impulsive actions, and transmuting some as agents to negotiate and renegotiate their differential power relation. The Historical Institutionalism highlights the historical role of structures, along with contextual factors. The Caste structures, infrastructure developments, historical settlement pattern, physiographic factors in Rampur Revenue Village played an important role in opening up the village economy to the outside world. The actors built on these historical factors to strategically (i.e., per Rational Choice Institutionalism) exploit contemporary top-down decentralised reforms that have been underway since the 1990s (such as the Indian Constitution *Panchayat* Act, and community-based watershed programmes) to frame 'water scarcity' as a problem. The integration of historical and strategic structures reveal a 'fire-fighting' approach adopted due to absence of information and scope rules for informed water-related decisions. This has facilitated the actors to adopt and justify the actions to overcome the problem. The actions are diverse, individualistic and impulsive given the constraints faced by the existing structures. While all actors adopt some of these actions, there are few who attempt to exploit these to reinforce and/or change the prevailing structures by pursuing their goals through 'projects'.

The structuring effects of Historical and Rational Choice Institutionalism transmuted few actors as agents to pursue 'projects' to facilitate the actions adopted by diverse actors. The agents build their capability from the socially-embedded structures (caste, village institutions) and statutory public structures (the DRDA and DoF). These structures provide them with positions, which they actively utilise to obtain information and scope. The agents draw on the information and scope rules to exploit their authority rule, which enables them to transmute from actors to agents. Interestingly the authority rule is legitimised by both statutory public organisations and socially-embedded organisations. The pay-offs to the agents are two-fold – self-interest to retain the social position and power, and addressing the larger societal interest.

The 'projects' pursued or supported by agents do not represent a summation of self-interest, as demonstrated by Archer (2000), nor are they perceived as 'elite capture' or a derailing of democratization (Ribot 2004; Colfer & Capistrano 2005). Rather, as Giddens (1984) argues, it is the interdependence of practical consciousness (self-interest that is implicit behind words and action) with discursive consciousness (collective interest of the community often explicit in words/actions) that facilitate their agency. The Rajput community, RWDC and education institutions in the region provided Charan Singh with various positions. He used these positions to gain information, scope and authority. But what led him to pursue the twin 'projects' was his ability to exploit the issues of water scarcity, the high percentage of Scheduled Caste population in his village with various community-based programmes and

opportunities to market village cash crops. It was this ability to react to the crisis within the village by exploiting the national and international discourses in order to maintain his social and economic status in that village that made him a goal-oriented agent. Anand Kumar, with his position as the DFO of the region, was able to grasp the opportunity available through the village's existing community-based watershed programme, thus using his position to actively 'fast-forward' the DfID-IDP programme. It is Anand Kumar's opportunistic behaviour that also makes him an agent to compete and showcase their project (the DfID-IDP) with the World Bank-IWDP Kandy Hills project. This is similar to Kumaresh Kumar, who wants to showcase the initiative in Rampur Revenue Village as a successful community-led effort by exploiting Charan Singh's 'project', while furthering his career as a 'committed officer' within his department in the pursuit of democratic forms of wasteland management. Narender Singh actively maintains his position by supporting Charan Singh's 'project'. Narender Singh uses his expertise to seek appropriate market centres and manoeuvre around existing taxes and corrupt police officials so as to seek better returns for the households of Rampur. It is this supportive role that Narender Singh actively undertakes that makes him an agent. These agents actively draw on historical and strategic structures (from international, national and state level statutory public actors, market, socially-embedded caste, and households) incrementally and cumulatively to build their transformative capacity or power to become an agent in the decentralisation process. The ability of agents to pursue dual goals makes them 'cunning' (Randeria 2003) as they attempt to transpose national and regional concerns to reveal their growing commitment towards water resource management.

The 'cunning' agents interact in diverse decision-making arenas demonstrating the human agency involved in negotiating their differential power relation to manage water. These arenas are not always clearly represented, but are accessed, activated and created depending on a strategic problem context. During this process of integration, the agents reveal, uphold and maintain their differential powers as they negotiate with other agents in a given arena. The political 'show-down' or the interplay of power examined through the lens of Ecological Institutionalism enables to analyse from how agents choose a project, how they implement or negotiate the 'project' by taking responsibility, coordinating, participating (in the decision-making process) and remaining accountable to other agents and their peer groups, and finally their ability to reinforce and/or changes they bring on the existing bio-physical and institutional arrangements. Charan Singh chooses a 'project' to address water scarcity and growing pressure from market. This 'project' was actively supported by Anand Kumar and Kumaresh Kumar due to pressure from national and international agencies to reveal their commitment for participatory resource management. Narender Singh joins in as market intermediary which indirectly supports Charan Singh's project. Supporting Charan Singh's project, each agents negotiate by assigning diverse meaning to the attributes that govern their choice, responsibility, coordination, participation

and accountability in the negotiation process. All agents were in a win-win situation in this negotiation process by orienting community-based programmes to the local demands/needs. However, scepticism remains in their ability to address the poor or bring about sustainable development of natural resources in the Rampur Revenue Village.

In the negotiation process to decentralise water management, agents inform the inadequacy of the existing bio-physical resources and inappropriateness of the existing structures to other agents, thereby remaining adaptive. In this adaptive process, they demonstrate their ability to converse at high levels using diverse rules and resources, and are mobile across scale and time to achieve their goal for survival. The rules range from being socially embedded, market-based to statutory, public rules. Resources range from 'fun and feast' in the village, 'showcasing' community-based programmes, giving occasional gifts, using telephones and social hierarchy to gain trust among each other. The adaptive capacity of agents makes them as a significant player in reinforcing and/or bringing about structural change in the water management regime. However, their understanding of the subjective world is limited due to complexities, uncertainties and their cunning nature, which inherently leads to undesirable consequences rather than solving the water-management problem.

## CONCLUSION

The paper argues that decentralisation is not about formulating a top-down reform package to transfer power from the central government to other actors to manage water resources, nor is it about emphasising the existence of 'bottom-up' agency. Rather, the paper argues, drawing on New Institutionalism, decentralisation represents a complex adaptive process. The process involves a combination of natural and political endeavour of actors and agents to draw on existing structures to negotiate and renegotiate the existing unequal power relations to manage water. What brings different institutionalism together is the role of actors and the rules that governs action. The Rational Choice and Historical Institutionalism focus on the constraining effects of structures in framing the water-related problem, and in differentially building capability of actors influencing diverse actions. This reveals absence of information and scope rules for informed water-related decisions. While comprehensive assessment is beyond the means of a single structure, the statutory public actors could facilitate a comprehensive understanding of the context by laying out broad principles in the policy statements. This would allow multiple actors to integrate, adapt and remain dynamic in the policy-making processes.

The actions adopted by the actors in the Rampur Revenue Village to access water reveal the role of deeply embedded socio-cultural and historical settings. The historical structures have endowed the actors with different rules and resources, which they strategically draw on to access water using diverse forms of actions. These diverse forms of actions were influenced by historically embedded structural variables. Of

this, caste played an important role, which facilitated differential landholdings, the differential demographic structures within the households, and the endowment. Interestingly, these differences were legitimised by development interventions, offering actors to strategically act given the prevailing institutional arrangements and resource conditions. These actions are short-lived and impulsive behaviour, like a "move" in a game (Kiser & Ostrom 2000). These differential endowments facilitating actions cannot be reconciled through the contemporary decentralisation reforms that has consensus and communication-based participatory elements in it. Rather as the study reveals it require conventional state-centric programmes to alleviate poverty, ensure optimal distribution of water resources, maintain and build adequate infrastructure (roads, telecommunications, mass-media, education and health) to overcome the influence of these historical structures (such as Caste). In addition, this will require flexibility for the local officials to use their authority to choose diverse options, and improve market conditions (such as storage facilities for perishable goods and providing incentives to mountain products) for adequate distribution of water resources.

The short-lived and impulsive action facilitates few actors to transmute as agents who develop or support "projects" with an intention of reinforcing and/or bringing about necessary institutional change. Ability to analyse the capability of the agents through the lens of Rational Choice and Historical Institutionalism helps to fill the vacuum created by Organisational Institutionalism. The three types of agents (goal-oriented, opportunistic and agents maintaining positions) identified in the study have actively built on the endowment provided by the historical structures, which they strategically activate to renegotiate their different capability. For goal-oriented agent, Charan Singh it was the authority rule legitimised by the socially embedded structures (such as Caste) and the statutory structures (such as DRDA and DoF) which he exploited to pursue his twin 'projects'. For Kumaresh Kumar and Anand Kumar, the information and scope rules (offered by the community-based programmes) played an important role in facilitating their opportunistic behaviour due to extreme pressure from national and international agencies to accept that community-based resource management programmes to address poverty and improve environmental management. Though Kumaresh Kumar was sceptical about this information rule, he often remarked our scope is limited, as "we are bound by our duties". This weakened their authority rule to enforce and address poverty and environmental management that is context specific meeting the local conditions and needs. The pay-off rule hampered Narender Singh to offer good rates for the farmers in the Rampur Revenue Village. The ability of agents to transpose national/international and regional agendas to the local concerns to reveal their growing commitment to address water resource management makes them as 'cunning' players in the decentralisation process. The combination of Rational-Choice, Historical Institutionalism and Organisational Institutionalism helps in identifying and analysing the transformative capacity or power of the agents.

The political 'show-down' or the interplay of power examined through the lens of Ecological Institutionalism enables to analyse from how agents choose a project, how they implement or negotiate the 'project' by taking responsibility, coordinating, participating (in the decision-making process) and remaining accountable to other agents and their peer groups, and finally their ability to reinforce and/or bring about changes in the existing bio-physical and institutional arrangements.

The agents demonstrate their ability to integrate actors, a myriad of rules and resources to integrate resources management, and in the process build adaptive institutions. However, they are inadequately supported by information and scope rules, which the agents exploit, in the process this leads to inequity, inefficiency and un-sustainability of water resources management. While agents may be cunning, their adaptive behaviour makes them a significant player in the socio-political process of water management. Facilitating these adaptive processes towards a desired decision-making requires providing opportunities and allowing agents to share, debate and negotiate the available heterogeneous information in diverse forums to facilitate decentralisation of diverse power that benefits the poor and the disadvantaged.

The New Institutionalism from social and ecological sciences offers insights for comprehensive understanding of decentralisation of water management as a process. More important, the New Institutionalism helps to identify the rules and resources that offer opportunities and barriers for managing water resources. The application of New Institutionalism in the case study Village reveals that contemporary top-down form of decentralised reforms though has helped actors to voice their concern through diverse actions and empowered the agents to remain adaptive, they do not on its own ensure resource use efficiency, addressing poverty and participation of the stakeholders. Facilitating these to address the above goals will require a strengthening the statutory structures, who could lay out broad principles in policy statements to facilitate integrative, and dynamic comprehensive policy making processes. Strengthening the capacity-building approach through infrastructure development, regulated water distribution, targeted poverty alleviation programmes, and developing forums to actors/ agents to debate and share available information to enhance informed decisions for sustainable water resources management.

### ACKNOWLEDGEMENTS

The author acknowledges the fellowships offered by the University of Queensland International Postgraduate Scholarship and IWMI Fellowship for this study. The author is grateful to Prof. Geoffrey T McDonald, Dr. Basin von Horen, Dr. David Ip, members of Governance and Institutions research group at ZEF, and two anonymous reviewers for their insightful comments on the earlier draft. I am grateful to Anjali Bhat for her in-depth comments on the paper and Dr. Peter P Mollinga for fruitful and thought provoking insights on the agency and power dynamics. The usual disclaimers apply. The paper is a tribute to Prof. Geoffrey T McDonald and Dr. Basil Von Horen.

In the paper, pseudonyms have been used to identify the agents, the names of the district, watershed and villages to conceal the identity of the subjects.

### Notes

1. Actors for this institutionalism are "any individual, or group functioning as a unit" (Ostrom, 1998:70).
2. Castes are a hereditary form of community social stratification originally based on social occupation. Scheduled Castes and Scheduled Tribes are groupings of the Indian population that are explicitly recognised by the Constitution of India as being deprived.
3. The Land Reforms Act (1958) of the government of India was implemented in the state of Himachal, as the Himachal Pradesh Transfer of Land (Regulation) Act of 1968 and the Himachal Pradesh Tenancy and Land Reforms Act of 1972 by the Department of Land Revenue within the state.
4. Since becoming a sovereign Social Democratic Republic in 1950, India has carried out planned development through Five-Year Plans.
5. These developments would not have been feasible without the action of the Member of Legislative Assembly (MLA) in 2004 who hails from Rampur Revenue Village.
6. *Panchayat* means assembly of five (*panch*) wise and respected elders chosen and accepted by the village community.
7. This project began in November 2004 after the completion of the study.
8. The D/ID programme is targeted towards forest management through an integrated development programme, while the Government of Japan specifically aims to manage floods.
9. The District Project Officer, DRDA Sohan, claimed that they were the first to enter the watershed and create a good database, adopt a community-based approach and link project implementation with the *Panchayat* institutions. In contrast, the Divisional Forest Officer, claims their D/ID programmes allocates more money per hectare and consider an integrated approach within the watershed by linking with livelihood activities.
10. Often farmers carry water from the nearby springs or from government-tapped water to irrigate vegetable crops during April/May in a year. Being a very steep sloping terrain, they carry water on their backs climbing as high up as 300 to 500 metres above sea level.
11. The researcher built personal rapport with these households before fielding the structured interviews, which enabled good response (89%) on their common actions to access water. The few households who were unwilling to reveal their actions through the questionnaire were interviewed in person by the researcher to identify their actions.
12. '*Panch*' takes its meaning from the word '*Panchayat*', a five member led traditional village councils. The members holding the positions each are called a '*panch*'.
13. Agents are people with projects, and 'people with projects' generally organise to achieve the projects' objectives, as organising others builds 'emergent powers' (Sayer, 1992: 119; Archer, 2000: 266; 2003: 2-3) into agential capabilities (cited in Llewellyn, 2007:134).
14. The educated youths from the *Yuva Mandal* youth group claimed that the female investigator fabricated the survey information by sitting at home and consulting CS and other '*Panch*' members.
15. When the researcher accompanied NS on a trip (25<sup>th</sup> August 2004), NS made a loss of about 1650 Indian Rupees from selling tomatoes in the Ambala market, but made profit of about 1760 Indian Rupees on 30<sup>th</sup> August 2004 when selling ginger in Chandigarh.
16. On average in the Rampur Revenue Village, 63 percent of households own marginal (land less than one acre) irrigable land, 21 percent small irrigable land (between 1 and 2 acres), and 9 percent holding large irrigable land holdings (more than 2 acres), 7 percent of the households did not have any land holdings under irrigation. With regard to unirrigated land holding, about 46 percent of own marginal land, 23 percent small land, and 15 percent large land holdings.
17. In 2004, during the presence of the author, CS bought a satellite dish antennae, set-up a rice flour mill (in September 2004), and a colour television (in November 2004), which surprised the villagers.



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