

ZEF

Bonn 2009

Working
Paper
Series

46

Center for Development
Research

Department of
Political and
Cultural Change

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Dancing to the Tune of Democracy:

Agents Negotiating Power to
Decentralise Water Management


universität**bonn**



Zentrum für Entwicklungsforschung
Center for Development Research

ISSN 1864-6638

ZEF Working Paper Series, ISSN 1864-6638
Department of Political and Cultural Change
Center for Development Research, University of Bonn
Editors: H.-D. Evers, Solvay Gerke, Peter Mollinga, Conrad Schetter

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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, and members of Governance and Institutions research group at ZEF, for their insightful comments on the earlier draft. I am grateful to Anjali Bhat for her in-depth comments and suggestions to improve the paper. 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 and the names of the district/watershed/villages.

Abstract

The current debate on decentralisation offers a partial and polarised view on the sharing of power to manage water. Drawing New Institutionalism as applied in the social and ecological sciences, the paper argues that decentralisation represents a complex adaptive process, wherein agents draw upon the activities of multiple actors and their rules to negotiate and renegotiate their unequal power relations. Examining a watershed in the Indian Himalayas as a case study, the paper demonstrates the incremental and cumulative integration of statutory and socially-embedded rules in facilitating the agents' negotiation process. It reveals the cunning and adaptive behaviour of the agents to decentralise water resource management. The paper argues that though the contemporary decentralised reforms offered opportunities for these agents to negotiate, they do not ensure resource use efficiency, equity, accountability and participation of stakeholders in management of water. The paper identifies the significance of authority, information, scope and pay-off rules to facilitate decentralisation reforms. It recommends the conventional state-centric regulation to strengthen these rules for more informed management of water resources.

Keywords:

institutional analysis; agents; institutional change; power dynamics; Asia; India.

1. 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 reforms are mixed (Ribot, 2004; Colfer and Capstrano, 2005), partial and contradictory (Larson, 2002; 2003; Sumberg and 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 and Ribot, 1999:3). 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 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' agency exists where communities have chosen diverse institutions to translate local concerns into policies. The 'top-down' versus 'bottom-up' perspective of decentralisation presents a partial and polarised view. Drawing on New Institutionalism's application across the social and ecological sciences, this paper argues that decentralisation represents a complex adaptive process, wherein agents actively 'dance to the tune of democracy' by drawing on diverse rules and resources to negotiate and renegotiate their unequal power. As such, in its implementation, decentralisation does not necessarily connote the spatial distinction of being 'top-down' or 'bottom-up', but a messy integration of these.

This paper examines agents in negotiating their differential powers to decentralise water resources management in the Indian Himalayas. 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 identifies agents and their negotiation in decentralising water resources management in the hamlet chosen for the case study. 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.

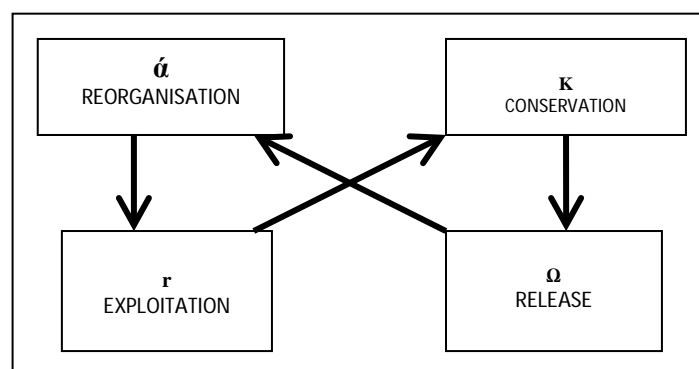
2. Decentralisation and Natural Resources Management: The Contribution of New Institutionalism

'New Institutionalism' is described by Rational Choice Institutionalism, Historical Institutionalism, Organisational/Sociological Institutionalism, and Ecological Institutionalism (for comparisons of the first three refer Hall and Taylor, 1996; Campbell, 1997). These "Institutionalisms" share a common interest, examining the role of institutions, though their conceptions of what comprises an institution and their analytical focus are varied. Rational Choice and Historical Institutionalism elaborate on the role of institutions for the instrumental behaviour of actors to constrain water resources management in order to maximise their preferences (Hall and Taylor, 1996; Campbell, 1997). Rational Choice Institutionalism argues that actors behave strategically 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, 2004:30). An important contribution of Rational Choice and Historical Institutionalism is their contribution to the 'theory of constraints,' which attaches importance to the historic role of institutions in structuring decentralised reforms, through which they pursue their strategic interests (Campbell, 1997:23). This 'logic of consequentiality' emphasises the exogenous process of decentralisation.

In contrast, Organisational Institutionalism contributes towards a 'theory of action' by emphasising the subjective role of institutions in facilitating the decentralisation process. Drawing from sociology, Organisational Institutionalism makes a significant contribution towards organisational theory (Powell and DiMaggio, 1991). It maintains that agents 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). One of the significant contributions of this institutionalism is an emphasis on human agency – "the capability to doing things" (Giddens, 1984:9). Giddens (1984) argues that human agency and structures are not two separate concepts or constructs, but are two ways of considering social action. Drawing on Sewell (1992), Cooney (2004) argues that agents stand at the intersection between structures and agency. The crucial role of agents in drawing structures together to negotiate and renegotiate their differential power in water resources management is important in understanding decentralisation as a process.

In this polarised discourse, what the author calls 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 and Holling, 2002) – does not argue for separating the mechanism of constraints and actions. Rather, it embraces dynamism, uncertainty and predictability, so as to focus on a 'theory of integration' concerning constraints and actions in diverse arenas. Dorsey (1986) reveals that the mechanisms of constraint and action take place instantaneously in diverse nested arenas, providing direction for change in policies, their legislation and their administration. Drawing from ecological science, Gunderson et al (1995:497-499) 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- Ω) and renewal (reorganisation- $\acute{\alpha}$) on the other. This function closely relates to socio-ecological systems, for instance, past policies and programmes have exploited (r) water resources and have favoured the rich and the powerful. Such exploitation in the name of development has given opportunity for non-governmental actors to emphasise the need for water conservation and for providing forums to the deprived population (K). This has in turn led to search for novel alternatives (Ω), such as community-based management, which has eventually been recognised by policy makers as a means of reorganising existing policies and programmes ($\acute{\alpha}$) (Fig. 1). This reorganisation will subsequently lead to exploitation. It is the combination of this adaptive cycle in the nested arena that creates 'panarchy' (Holling, 2001:391), making decentralisation a complex adaptive process.

Fig.1. Adaptive Functions within Arena



Source: Gunderson et al., 1995b:497

To sum-up, Rational Choice and Historical Institutionalism offer both strategic and calculus-based approaches to explaining the constraining effect of various institutions, while Organisational Institutionalism explains the action-side of various institutions in decentralising water resources management. Ecological Institutionalism explains the integrative nature of constraints and action as being part of a complex adaptive process. Given the similarities of their interests, and their independent development (judging from the paucity of cross-referencing: Hall and Taylor, 1996), these diverse

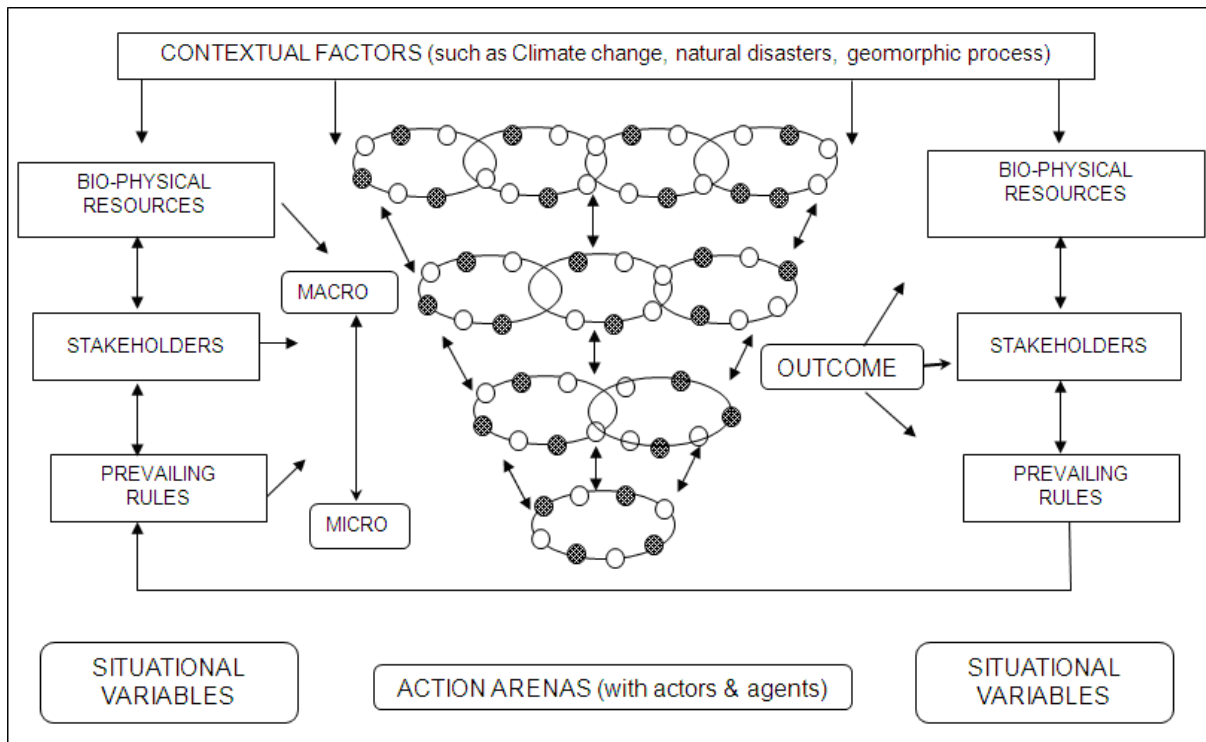
perspectives of new institutionalism, where complementary, can offer a framework for analysing integration of institutions in decentralising water resources management.

The Institutional Integration framework (Saravanan, 2008) (Fig.2) amends the Institutional Analysis and Development framework (IAD) (Ostrom et al., 1994) to analyze decentralisation as a process. The IAD framework recognises the interactive role of three situational variables: rules, characteristics of stakeholders as actors and agents, and existing bio-physical resources commonly recognized by new institutionalism. Rules that are patterned behaviours of a social group (Mitchell, 1975; Burns and Flam, 1987; Ostrom, 1998) that forbid, permit or require actions or outcomes to enable actors to derive benefit (or loss) from certain resources (Crawford and Ostrom, 1995). In the socio-political process of water, rules are structures of power relations management which are statutory and/or socially embedded. Statutory rules are constitutionally and legally valid, openly shared and clearly structured arrangements enforced by either or both public and private actors. Socially-embedded rules are formal, practiced widely amongst individuals and groups, but can also be concealed, unwritten and enforced by caste, village councils and religion. 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 (1983:33), 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: xxxi). These rules (along with bio-physical resources) play a crucial role for stakeholders, who, as agents, draw on these to negotiate their differential power relations.

In the Institutional Integration framework, actors are stakeholders, having legitimate interest in managing water resources. These actors are organizations and social groups. These actors incrementally and cumulatively facilitate and constrain the transformative capacity of agents through their rules that are calculus (Historical Institutionalism) and strategic-based (rational-choice institutionalism) in diverse decision-making arenas. The agents, who are human individuals in the arena, respond to the prevailing water management problem by interacting with other agents in a given arena by demonstrating their agency or "the capability of doing things" (Giddens, 1984:9) – the action. These agents are knowledgeable human entities, who have the ability to combine practical consciousness with discursive consciousness. Giddens points out that all of us have knowledge, but rarely do we formulate them for discursively (Giddens, 1984:41-42). Agents have the capacity to formulate knowledge discursively by drawing upon the activities of actors and their rules to negotiate their differential power relations to decentralise water management. In the process, the decisions taken in the arenas bring about changes in the prevailing rules, the characteristics of stakeholders and the biophysical resources.

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, 1998:68-69; Long, 2001). Arenas are never single, but are rather multiple, existing at various levels in a social sphere (Dorcey, 1986), representing 'panarchy' (Gunderson and 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, 2001:392). The interaction of these systems in the 'panarchy' takes place in linear, cyclic and nonlinear forms of networks. These networks comprise a coordinated set of heterogeneous human entities interacting more or less successfully to develop, produce, distribute and diffuse methods for generating goods and services (Callon, 1991). Such a network highlights the contribution of micro-scale actions to large-scale outcomes (Klijn and Koppenjan, 2000). Following Ostrom et al (1994), the situational variables (bio-physical resources, characteristics of human entities and prevailing rules) influence 'panarchy'. The decisions taken in the 'panarchy' brings changes in these situational variables, creating a cyclic process.

Fig.2. Framework for analysing institutional integration



The decision-making process is punctuated by contextual variables, such as geological disturbances, climate, physiography, demography, and other forces punctuating the framework at various periods of the decision-making process. These characteristics make the decentralised process adaptive and dynamic. For analytical purposes, the framework represents a cyclical process, though in real life, interaction among variables is a complex, messy process of shaping and reshaping policies.

3. Methodology

The paper applies ethnomethodology to pragmatically and contextually understand how actors and their rules facilitate agents in the process of decentralising water resources management in a watershed (Pollner, 1987: ix). 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 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 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 whether this process has improved water use efficiency, promoted participation and ensured 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 in reality. 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 actors 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.

4. Negotiating Water Management – 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 Castes¹), 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 are 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 14th 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.

¹ 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.

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 Act² 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 Plans³ 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 1990s⁴. Many significant decentralised reforms were also introduced in the early 1990s. The enactment of the Indian Constitutional (73rd and 74th Act) Panchayat Act introduced a system of local democracy known as Panchayat⁵ 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 Programme⁶, and the Department for International Development⁷ (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 compete⁸ 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

² 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.

³ Since becoming a sovereign Social Democratic Republic in 1950, India has carried out planned development through Five-Year Plans.

⁴ These developments would not have been feasible without the action of the current Member of Legislative Assembly (MLA) who hails from Rampur Revenue Village.

⁵ Panchayat' means assembly (yat) of five (panch) wise and respected elders chosen and accepted by the village community.

⁶ This project began just after the completion of the study in 2004.

⁷ The DfID programme is targeted towards forest management through an integrated development programme, while the Government of Japan specifically aims to manage floods.

⁸ 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 DfID programmes allocates more money per hectare and consider an integrated approach within the watershed by linking with livelihood activities.

programmes) and water scarcity issues looming worldwide. This has enabled households to transform the small-scale subsistence cultivation of vegetables that often depended on water resources available in the form of on-land and atmospheric moisture 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 crops⁹. In these diversified physical, social and economic settings, the Village faces a number of problems as defined by the local communities and local officials during the primary investigation. Four problems were prioritised: (i) inadequate employment opportunities; (ii) lack of irrigation; (iii) requirement for additional bus services and (iv) inadequacy of existing health infrastructure. The problem of the lack of irrigation is examined to understand the agent's role in bringing about institutional change to overcome the water scarcity, as it was one of the resources highly contested among the households, and the role of the development agencies in negotiating their differential power relations.

The households in the Rampur Revenue Village adopted various actions to manage water in the watershed. Structured interviews¹⁰ during the year 2004 revealed 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 Kolhi 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 form of action though are brought to the notice of the leaders of the traditional Village Council elders or called Panch¹¹, 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 others, 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.

Each of these actions is important towards understanding how household strategies are facilitated by different agents. For the purposes of the study, the agents facilitating negotiation-based action were identified, as they aimed to strengthen the existing institutional arrangements through consensus-based action. Identifying the agents was easier through structured interviews with households and through snow-balling techniques. The agents identified as facilitating the negotiated-based action were Par Singh, Sher Singh and Charan Singh. 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,

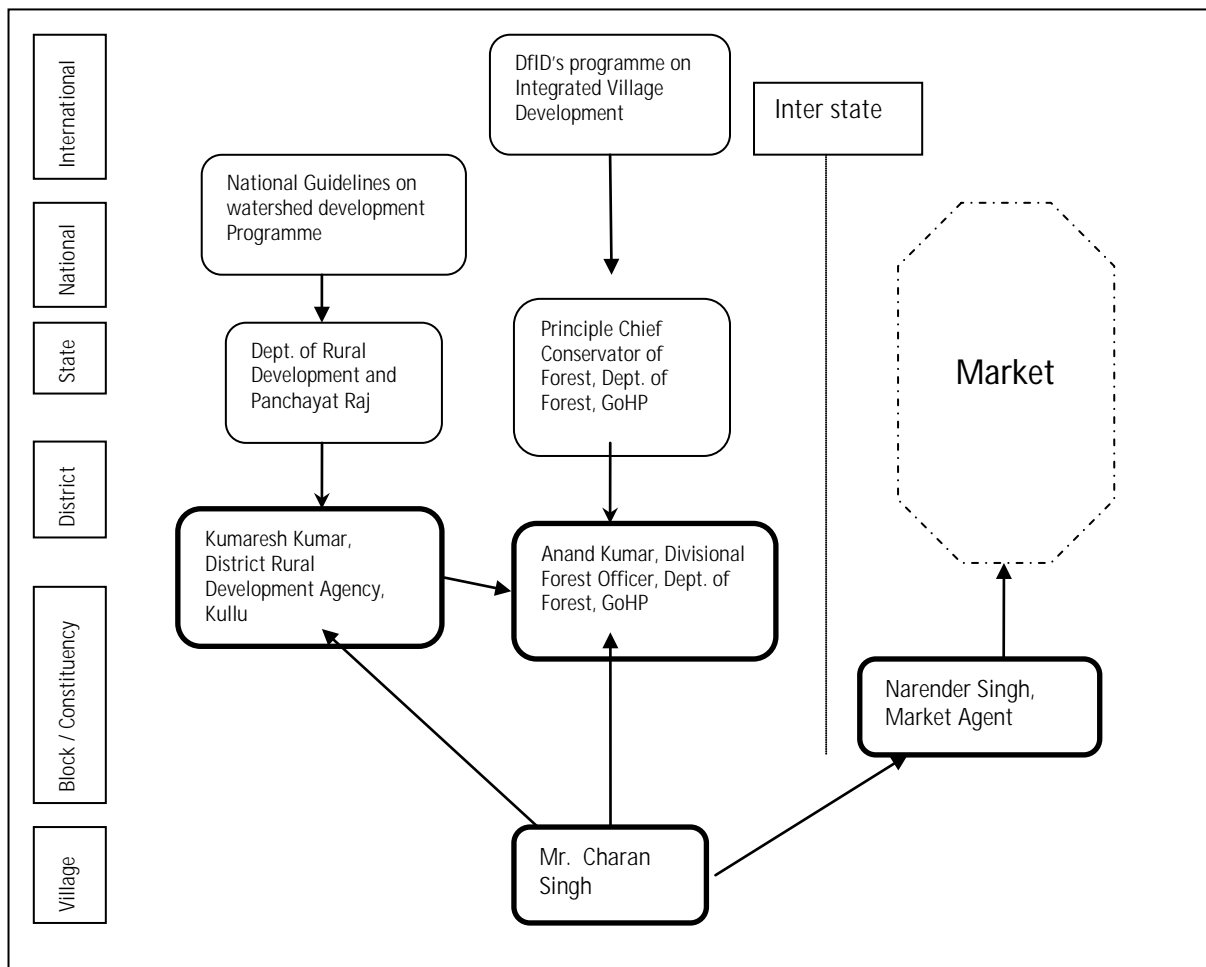
⁹ Often farmers carry water from the springs or from government-tapped water to irrigate vegetable crops during April/May in a year. Being a very steep sloping terrain, they carry water on their backs climbing as high up as 300 to 500 metres above sea level.

¹⁰ 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.

¹¹ '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'.

Divisional Forest Officer; Kumaresh Kumar, Project Officer; Narender Singh, market agent) to ultimately facilitate action in Rampur Revenue Village.

Fig. 3 Agents in Rampur Revenue village



Note: Box in bold illustrate the agents examined for this paper. The box on market is illustrated to indicate institutions with boundaries that is highly porous and cuts across regional boundaries.

Charan Singh adopted negotiated action as a strategy to actively pursued households' interests through his involvement in twin 'projects'¹². 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 DfID-IDP). The second project was to acquire better returns from the agriculture produce of this village by seeking good markets. He claimed, 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 DfID-IDP, we could construct water harvesting structures to supplement water". Such a structure "increases water availability downstream or along hill slopes", he claimed 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, the Divisional Forest Officer (DFO) in Kanika division of Sohan District and Narendra Singh to sell vegetable products. 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 hinder) Charan Singh's 'project' (Fig. 3). In the , they collectively drew on

¹² 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).

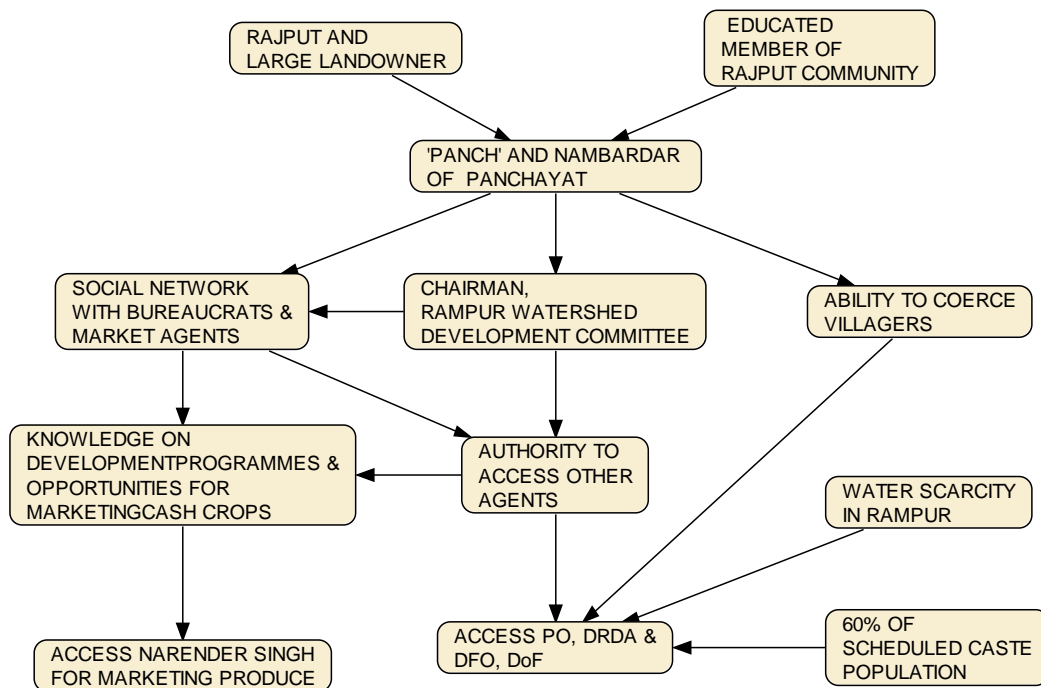
their 'capability to do those things' (Giddens, 1984:9) to negotiate their differential power relations to decentralise water resources management. While the emergence of Charan Singh was legitimised in a strategic context by strategically located actors (here households), the legitimacy for other agents was granted by Charan Singh.

4.1 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'¹³, 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 (Fig. 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 3rd 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 on 'water scarcity' in the watershed. He aggregated these boundary variables to access the Project Officer of the DRDA, the Division Forest Officer (DFO) of the Department of Forest (DoF), and Narender Singh for the selling of cash crops. He believed such actions could provide him with pay-offs for his fellow villagers, especially the poor, and for his social status in the watershed.

¹³ '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'.

Fig. 4 Variables influencing Charan Singh's decision

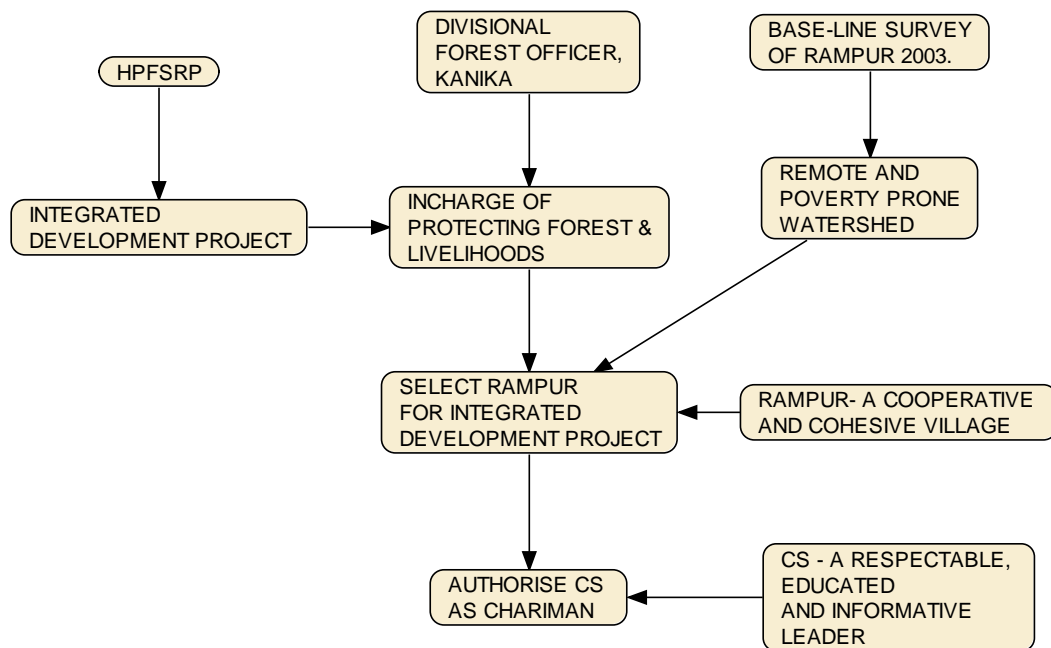


4.2 Anand Kumar – Capitalizing on Community-Management Discourses

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" (Fig.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 sustainable forest management and sustainable livelihood issues in an integrated manner addressing 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 information¹⁴. But after a month of 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.

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.

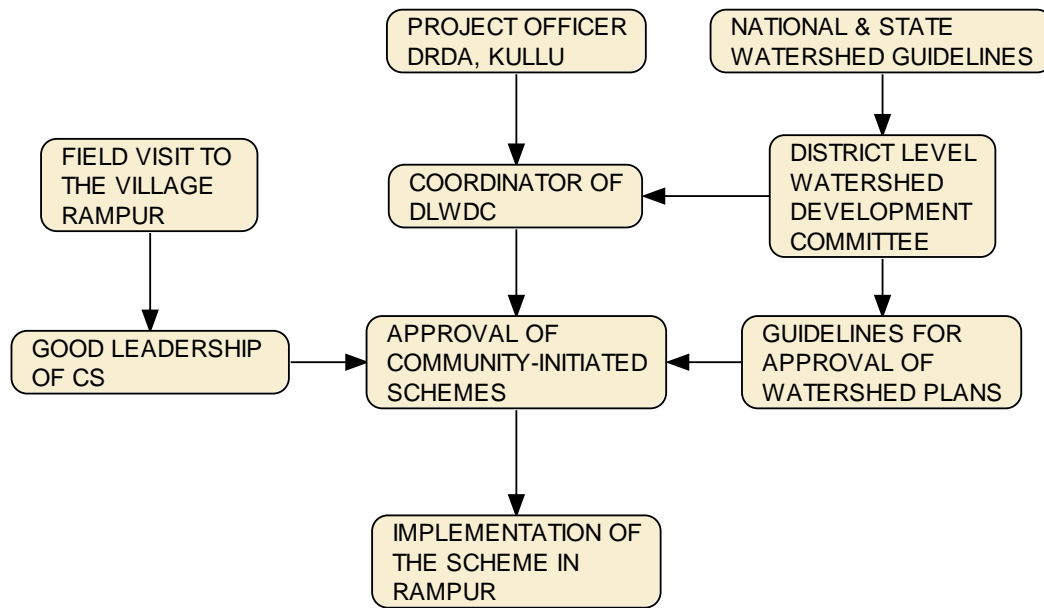
Fig. 5 Variables influencing Anand Kumar decision



4.3 Kumaresh Kumar: Romanticizing Community-Efficiency

Kumaresh Kumar (KK) was the 'Project Officer' (PO) with the DRDA of Kullu district (Fig. 6). Being the PO, he was responsible for implementing community-based Integrated Wasteland Development Programmes under the Ministry of Rural Development, Government of India (Gol, 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 a proposal from CS for additional water harvesting structures was based on information he gained through a '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 (Gol, 2001). This supports the "ability of people to have leverage and usefulness of the programme", claimed KK showing the letter from CS dated 3rd 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".

Fig. 6 Variables influencing KK decision



4.4 Narender Singh – Responding to Market

Narender Singh is an agent 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' (Fig. 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 variable¹⁵, 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.

¹⁵ When the researcher accompanied NS on a trip (25th 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 30th August 2004 when selling ginger in Chandigarh.

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 land¹⁶. 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 3rd 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 an agent to sell agricultural produce only in the year 2003. Prior to 2003, only a few agents 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 offered better prices for his community. Compared with other market agents 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 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 supported CS.

The level of agency involved 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 year¹⁷. 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. 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.

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.

4.6 Attributes Governing Negotiation

The agents in the watershed demonstrated their transformational capacity by drawing on multiple actors and diverse rules (along with resources) 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 among 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 Schedule Caste communities' 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 encouraged 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 4th 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'.

5. Implications for Decentralized Water Management

The paper examines the agents and their negotiation process (the agency) in decentralising 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, where there is negotiation and renegotiation of power relations for managing water resources. Following Historical Institutionalism, the 'calculus-based approach' highlights the historical role of institutions in facilitating the decentralisation process. Historical factors (caste, the history behind settlement in the village) and infrastructure development (education, electricity, road, and telephones) in Rampur Revenue Village since the 1970s played an important role in opening up the village economy to the outside world. The agents built on these historical factors to strategically (i.e., per Rational Choice Institutionalism) exploit contemporary decentralised reforms that have been underway since the 1990s through the Indian Constitution Panchayat Act, and community-based watershed programmes, in turn, offering forums for social elites to voice their concerns, specific to developmental issues. 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 and 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 makes 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. 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. 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 diverse rules (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 structuring effects of Historical and Rational Choice Institutionalism build capacity of the agents to pursue or support 'projects' to negotiate their differential power relations to an extent perceived as socially acceptable or legitimate among the agents and the village society. The 'projects' pursued or supported by agents do not represent a summation of self-interest, as demonstrated by Archer (2000), nor are they often perceived as 'elite capture' or a derailing of democratization (Ribot, 2004; Colfer and 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. Charan Singh, though pursuing his practical, conscious interest in retaining his social position and economic prosperity represents the interest of households growing cash crops. Anand Kumar, though interested in retaining his position, actively represents the interest of his organisation (DoF) to compete and showcase their project (the DfID-IDP), as compared with the competing World Bank –IWDP Kandy Hills project. Kumaresh Kumar actively maintains his position and represents the RWDC's interests, in showcasing its success in the pursuit of democratic forms of wasteland management. Narender Singh actively pursues his own professionalism by supporting the interests of the Rajput community. The ability of agents to pursue dual goals through their agency 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 with other agents in diverse decision-making arenas demonstrating the human agency involved in decentralisation water management. 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 the changes they bring on the existing bio-physical and institutional arrangements to decentralise water management. 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 agency towards decentralising water management, agents inform the inadequacy of the existing bio-physical resources and inappropriateness of the institutional arrangements 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 decentralising water management. 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-related problem.

6. 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, within which multiple agents 'dance' to the tune of democratic rules and resources (either from intentional decentralised reforms or as a natural response) to reveal, uphold, and maintain their differential powers through negotiations to remain adaptable to the existing institutional arrangements that is inadequate to manage the water crisis.

The new institutionalism from social and ecological sciences offers insight to examine the incremental and cumulative network of actors and rules in building the capacity of agents, and in facilitating their agency to decentralise water management. These forms of interplay of power are not always tangible but only realisable through linkages between pre-existing activities across decision-making arenas. In specific the new institutionalism helps to identify the actors and the rules facilitating the cunning and adaptive behaviour of agents. For goal-oriented agent, Charan Singh it was the authority rule legitimised by the socially embedded actors and the statutory public actors which he exploited to pursue his twin 'projects'. For Kumaresh Kumar and Anand Kumar, the information and scope rules 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 decentralised reforms though has empowered the agents to voice their concerns, as revealed by the paper, does not automatically ensure resource use efficiency, addressing poverty and participation of the stakeholders. Facilitating this will require building capacity of those members of the society who are recognised as being deprived to facilitate the authority rules of village-level agents, like CS. This will require conventional state-centric programmes to alleviate poverty, ensure adequate allocation of water resources, maintain and build adequate infrastructure (roads, telecommunications, mass-media, education and health). In addition, will require public actors to offer flexible scope rules in order 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). Complementing the decentralised reforms with conventional development reforms will ensure agents to take informed decisions to manage water resources that ensure equity, efficiency and sustainability.

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