

The Deliberative Scientist: Towards an Approach to Integrating Science and Politics in Forest Resource Governance in Nepal

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Abstract

Seeing resource management essentially through a biophysical lens has provided too restricted a perspective to understand complex challenges which have socio-political roots. The case of community forestry in Nepal presents a range of experiences in relation to conflicts and collaboration between technical forest officials and local forest dependent people.

In this paper, we offer insights utilising a model of deliberative processes applied to forestry practices. We identify how different aspects of techno-bureaucratic domination (legitimated by principles of positivist science) can be deliberatively challenged in improved governance practices. We demonstrate that neither technocratic prescription nor reliance on local knowledge alone is adequate for sustainable management of forests. What is needed as Fischer (1998) argues is a deliberative engagement between the claims to knowledge of scientists and citizens.

The research reported here involved direct attempts to practice a more deliberative approach to forest management. This experience showed that it is possible to create and expand deliberative spaces which improve the quality of planning and decision making in forest management. This deliberative intervention built a platform for different stakeholders to reflect upon their ontological stances and pre-existing knowledge about the forest and each other. This deliberative process provided a foundation for less constrained dialogue, greater collaboration and mutual learning in the direction of better evidence-based decision-making.

1. Introduction

This paper challenges claims to hegemony of biophysical sciences as the basis for policy formation in resource management. We are concerned that ‘science’ has been used to advance particular interests rather than inform democratic governance. In this paper, we conceptualize ‘deliberative practices’ that seeks to forge more effective dialogues between scientists and citizens in the governance of natural resources. The potentials, and challenges, of active efforts to improve forest resource management practices integrating science and local knowledge are demonstrated through the experience of an Adaptive Collaborative Management (ACM) research in the context of Community Forestry (CF) in Nepal.

The case of CF in Nepal presents an interesting experience in revealing complex conflicts and collaboration between technical forest officials and local forest dependent people. Over the past fifty years of challenge to feudal elements in Nepal, scientific and bureaucratic processes have coalesced into what we conceptualise as techno-bureaucratic dominance shaping forest governance practices. However, when technocratic approaches (emphasizing exclusion of local forest dependent people) did not succeed in protecting forests (Gilmour and Fisher 1991), there was a gradual opening of deliberative spaces with local people (Hobley 1996). This process led eventually to a relatively more democratic programme of CF (Malla 1997), which is heralded as a leading global innovation in forest governance (Kumar 2002). Progressive forest legislation (Forest Act 1993) has emerged allowing local people to take greater control of government forest (GON/MFSC 1995). Today, CF in Nepal continues to engage local forest dependent citizens and forest officials from local level forest management to national policy processes.

In this paper, we document practical lessons and conceptual insights with regard to deliberative action as a possible reconstruction of forestry management practices. The potential and limitations in active efforts to improve deliberative approaches have been analysed in previous research (Ojha 2006; Banjade and Ojha 2005). In this paper, we describe practical experiences, including the views of the people who were directly involved. We identify how different aspects of techno-bureaucratic domination are being deliberatively challenged in the causes of more sustainable and inclusive governance of forest within the CF system. We demonstrate that neither technocratic

prescription nor reliance on local knowledge is adequate for inclusive and sustainable management of forest. What is needed as Fischer (1998) argues is a “dialectical clash” between scientific and citizen interests.

From a deliberative perspective, the purpose of scientific inquiry should be to “improve the quality of policy argumentation in public deliberation” (Fischer 1998; 2003). As Fischer argues, this shift involves turning from the closure of proof/verification to evidence informed, discursive/contextual inquiry so as to provide a more open deliberative process. Through processes of deliberation, a greater possibility exists for citizens and experts to reach a consensus concerning what will be taken as “valid explanation” of any situation (Fischer 1998). The role of experts in public deliberation is therefore to give advice, rather than making and implementing decisions (Reich 1990).

Therefore this paper critiques scientific claims as a practice seeking to achieve technical closure and explores how to increase control of citizens (Bohman 1999; Forester 1999; Fischer 2003). Drawing on the ideas of Bourdieu (Bourdieu 2004), we seek to explain how deliberation can be frustrated and how techno-bureaucratic practice is reproduced in the field of forest governance. We demonstrate the power of ideas in frustrating change, using Bourdieu’s notions of ‘doxa’ (principles on beliefs and dispositions that guide doxa and close deliberative possibilities) and symbolic power (possession of which enables a dominant pattern of doxa or doxa to legitimate and reproduce its dominance over time),

2. Technocratic Challenges and Deliberative Innovations in Community Forestry

Despite widespread expansion of CF in Nepal, there are concerns that the anticipated livelihood benefits of the CF programme have not been realised (Malla, 2000, 2001; Kanel and Pokharel, 2002). For example, the degree of environmental protection in CF can negatively influence the livelihoods of poor forest-dependent villagers, such as fuelwood and charcoal sellers (Kaski ACM Team, 2002). Researchers see forest officials as dominating processes through which forest bureaucrats and local forest users negotiate knowledge and political power pertaining to the policy

and practice of forest management (Malla 2001; Nightingale 2005; Ojha et al. 2005). The techno-bureaucratic doxa of government officials claims legitimacy through protection of natural resources. They exercise their symbolic power in the form of technical domination and would like to keep control of CFUG management and governance. Some have even argued that this power was increasing and there was a bureaucratic “backlash” (Shrestha 2001) or “betrayal” (Mahapatra 2001), and warned that the principle of CF was in “danger” (Shrestha 1999).

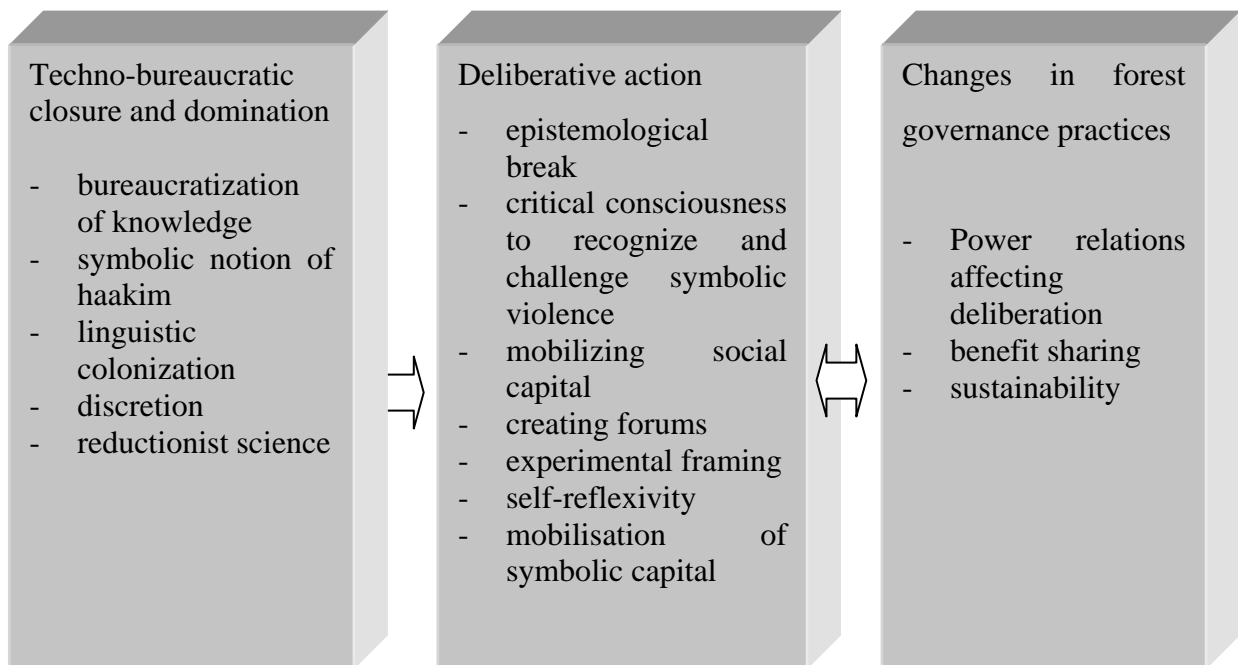
In order to address this tension, a Nepalese run NGO, ForestAction Nepal (FAN), conducted research in collaboration with several international organizations. One such initiative was ‘Improving livelihoods and equity in community forestry in Nepal: the role of Adaptive Collaborative Management (ACM)’. This activity was conducted in collaboration with New ERA Nepal and CIFOR Indonesia with funding from IDRC, Canada. The five field sites are located in eastern, central and western region of Nepal and represent both hill and plains (terai) districts (see map). The research focuses on three different levels a) at local level where local forest users were directly engaged to protect, manage and use forest resources, b) at the district and sub-district level, for which we call ‘meso’ level, which include both government and non-government actors involved in the implementation of various forest sector policies, and c) at the national level, where critical learning from field activities fed into national policy making process through informal channels. The aim was to identify, develop and critically assess institutional arrangements and deliberative processes that affect CF governance and management, especially at the CFUG level. In order to improve governance, one of the strategies was to enhance deliberation between local forest users and technical forestry staff of the Forest Department.

Figure 1. ACM Research Districts



The FAN researchers identified and trained local change agents from the CFUGs, District Forest Offices (DFO) and NGOs. The researchers and change agents worked to identify immanent techno-bureaucratic doxa legitimated by claims to scientific closure, and then promoted deliberative processes to open up these claims to local people’s questioning. Figure 1 depicts a schematic representation of the approach we used in transforming techno-bureaucratic closure through deliberative actions.

Figure 2. Aspects of Techno-bureaucratic domination, deliberative scientific intervention, and potential outcomes in forest governance practices



In the deliberative processes, five groups of social agents came into interaction:

the research staff (practicing deliberative approaches),

local change agents (at CFUG and Meso level),

CFUG leaders,

socio-economically marginalised groups within CFUGs

field based forest Rangers of government forestry department, and District Forest Officers.

3. Deliberative Processes and Outcomes

Below we describe four examples of deliberative processes (summarised in Table 1) used to challenge and transform various aspects of techno-bureaucratic domination in forest governance at CFUG and meso levels.

Table 1. Summary of Governance Practices, Technocratic Doxa and Deliberative Action

Governance Practice	Nature and Extent of Domination by Techno-Bureaucratic Doxa	Outcomes of deliberative processes
Forest management planning (Lalitpur)	Forest Rangers attempted to resurrect control over planning and insisted technocratic management	Increased deliberative confidence of local people, revision of OP accommodated views and concerns of local groups. Increased deliberative response of the technical foresters.
Construction of fire line and removal of dangerous trees (Nawalparasi)	DFO and forest Rangers took action against CFUG for not fully complying with DFO's authority	Increased ability of forest users to argue against techno-bureaucratic domination, increased self-reflexivity of technical foresters.
Forest harvesting (Morang)	Restrictive use of science	More active use of forest products by renegotiating OP and harvesting practices.
Forest harvesting and thinning (Dhankuta)	Protectionist focus on forest and marginalization of poorest groups	Allowing firewood selling groups to cut firewood within the sustainable limit.

3.1 Challenging techno-bureaucratic control in forest management planning in Lalitpur

In Lalitpur, a cluster of eight CFUGs were brought to a common forum to discuss possible issues of techno-bureaucratic domination in forest management. In May 2006, the leaders of the eight CFUGs of Lalitpur district organised a meeting in a government built Forest Range Post office situated inside the forest, by the side of Lamatar village in the south of Kathmandu valley. This was one of the ACM research sites and one of the co-authors, an ACM researcher, participated in the meeting. Since it was a public holiday, there were no Rangers but only the peon who opened the meeting room as agreed previously with the Ranger. This formal meeting of CFUG leaders without a Ranger present was the first of its kind in the nearly decade long history of the CFUGs.

Before the beginning of the formal meeting, participants were enjoying the sunshine outside. The leaders were making jokes against the Ranger and indulging in criticising the DFO and Rangers for their lack of knowledge of local realities and practical needs.

The secretary of the host CFUG began the meeting at around noon in a very happy mood with a clear feeling of freedom from Rangers in the meeting. The meeting began with brief introductions and was followed by identification and exploration of issues of common concern and then by the prioritisation of the issues in terms of urgency and significance. Putting his views on this agenda, one of the leaders stated:

“In the name of CF, the government has made us *gothala* (a slave responsible for taking care of cattle). We are told to protect and develop the forest, but when it comes to utilisation, *ban hakims* (forest officials) become the true *malik* (owners) of the community forests. They dictate everything – when to harvest, what to harvest, how to harvest. And if we present options that better suit our needs, then they point to the one or the other provision of the OP about which we had little idea and say when it was prepared.” (All quotes are translated from Nepali)

At the end of his statement, one of the researchers asked about the Operational Plan (the OP in the above quote):

“But you made the OP and presented to the DFO, at least this is the legal procedure. What’s your problem with following your own rule?”

As soon as the comment came out of the researcher’s mouth, many leaders stood up and began to shout at the researcher on the lines:

“Who says we made the OP? It was the Ranger who made the OP. We were never consulted. Many of the users had not understood the actual statements of the OP. This was no more than *tamsukama andhako lepche jastai* (signing by the blind on a debt agreement).”

The researchers attempted to turn this immediate response of the villagers towards more deliberative reflection to explore why and how they failed to challenge the assumptions, interests and technocratic doxa of forest Rangers during the actual practice of preparation of OPs and its

consequences. It was revealed that most of the OPs were prepared five to seven years before, at a time when the level of literacy and general awareness among the local people was very low. As these were the initial days of CF program in Nepal, the Rangers were encouraged to handover as many forests as possible. They could also get TADAs (travel and daily allowances) and some additional money for each OP finalized. With this incentive on the one hand and pre-set target of handover on the other, the Rangers wrote many of the OPs on their own based on their formal forestry knowledge without much deliberation with the local people. As there was little deliberation with the local people, local needs, management knowledge and specificities did not enter into the OP. The technical conventions in which the Rangers had been trained guided the design of the OPs and remained unchallenged.

Discussion on the diverse ways through which Rangers dominated the process of formulation of the OP was the main element of the meeting. In fact this kind of technocratic domination was the central issue that was affecting all the CFUGs present. They discussed various aspects of the existing OPs and decided to initiate a revision process. They also planned to approach the Ranger and the DFO for help. However, they strongly felt that they themselves should actively involve in preparing new OPs and that their knowledge, needs and local specificities should be properly addressed. The meeting was ended with a plan of action to speed up the revision process.

The ACM researchers contributed to the process by shaping the discussion, supplying additional background information, providing an assessment of the symbolic power of the forest officials, and advised on deliberative strategies that could be effective while dealing with forest officials. Moreover, the researchers encouraged applying these deliberative strategies between all members of CFUGs so that quality of the internal deliberation could be enhanced.

Following this meeting the leaders of the local CFUGs began to meet regularly. The ACM researchers persuaded them through critical questioning and coaching to increase interaction among themselves, to work co-operatively on a larger scale reducing the risk of being divided and ruled. With renewed enthusiasm and increased confidence they also went to see the DFO. They were able to convince the DFO that they need to revise those old OPs which had lost their legal legitimacy after the end of the stipulated plan duration. Although it was opposed by the DFO

initially, he gradually became positive on the issue. The DFO however, asked them to consult with the local Ranger, get his help and prepare new OPs before going to him for approval.

As a part of ACM based regular interaction, another meeting of the local leaders was organised in the same Range Post two months later, this time with the Ranger. The researcher co-author, who had participated in previous meetings, observed a huge change in the relation between the Ranger and the CFUG leaders in this short duration of two months. Many of the leaders were confidently voicing their concern regarding the impractical provisions of the existing OPs and were arguing for immediate revision. In response, the Ranger acknowledged the need to revise the OPs to reflect the needs and priorities of the local forest users, though he was arguing he did not have manpower to support the groups.

When the co-author asked one of the leaders how they were able to discuss so openly and confidently with the Rangers this time, he replied:

“We already saw his (Ranger’s) *hakim* (a senior officer who is vested with huge discretionary power, and often poses threat to the sub-ordinates and clients) the DFO, and spoke to him. He (the Ranger) is only his *karinda* (assistant). This is also because now we know more than the Ranger on the OP. Now he cannot cheat us. This is largely because of your *sangat* (interaction with you). Through your ACM program we knew the forest rules and the OP, we saw how other people are managing the forests and we had an opportunity to talk to senior forestry officers.”

Nepali word *Sangat* summarizes how ACM researchers worked with locals – as a day to day companion to explore, analyze, reflect and incite, rather than preach and prescribe.

ACM in Patle CFUG (one of among the several in the area) brought both the Rangers and the local people into a collaborative and social learning process during OP revision. Training and visits organised for them were designed to provide opportunity to reflect upon and share mutual experiences to broaden their knowledge on ecological and social changes and their inherent uncertainties.

The co-author tried to verify the perceptions of the Forest Ranger in the changing dynamics. He responded:

“whenever you are here in the meeting their voice becomes louder. They perceive you as their people.”

One of the participants, a local ACM activist, pointed out:

“The Ranger becomes approachable in front of the researchers. In other occasions he dominates us”

In this way the project researchers were able to forge better deliberation between the local forest users and the forest officials. They created forums, helped to reveal local people’s submissive stance towards techno-bureaucratic doxa, enhanced reflexivity on the part of forest Ranger, helped the forest Ranger to visualize alternative views and evidence. The researchers created a form of associational power ameliorating the gap between the Rangers and the local people in actual deliberative setting. But the researchers had clearly become more than just a catalyst in this process and had created some undesired deliberative dependence on both sides.

3.2 Challenging discretionary power of techno-bureaucratic doxa in Nawalparasi

Another dimension of techno-bureaucratic doxa we encountered was related to the use of discretionary power to constrain CFUG independence. We now describe the experience with Chautari CFUG in Nawalparasi.

It was early June 2006. One of the co-authors visited Chautari CFUG in Nawalparasi district. He entered the concrete building of CFUG office, in which there is a separate office chamber of the CFUG chair person, alongside a secretarial room and a wide meeting hall. Mr X, the chairperson of the CFUG, was sitting on the chair, without anyone else around him, resting his back on the

chair and putting his two palms over his cheeks – a posture that reflects a sad mood in Nepalese culture. He appeared to have submerged in a deep thought, reflecting on some serious issue and almost appeared reluctant to welcome anybody in his office. However, when he saw the co-author entering his room he suddenly broke the silence. He began to express his grievances by sharing his recent encounter with the DFO:

“These forest officers have become autocratic; they have become more powerful than the king.”

The co-author had been a regular visitor of the CFUG as ACM researcher over the past two years. He had been part of the CFUG and a friend of the chair person and other CFUG members. To make sense of the chair person’s statement, the co-author reckoned that Mr X had had some serious disputes with DFO in recent days. His additional comments revealed that he was eagerly waiting for someone with whom he could share the problem and discuss coping strategies. Before the co-author was able to ask for elaboration on the matter, the chairperson continued:

“Look, my friend. Yesterday, I had gone to see the DFO in Parasi, the district headquarters. I requested for an appointment through the DFO’s clerk and waited outside of DFO office in the waiting lounge. When I did not get time to meet him even after waiting for two hours I entered his room. I challenged him to prove my fault on forest harvesting matter and take action if I had committed any offence. I proudly reminded him that that I was elected by the local people of Chautari area who have stakes in Chautari forest and not by him and that I was accountable to them and not to him. I warned him that if he continues to undermine the rights of forest users, then the consequence would be deforestation, for which DFO should himself be responsible.”

Mr X’s tussle began with the DFO after the CFUG decided to remove some trees that created hurdles in the fireline – a trail in the forest to control fire and to facilitate forest management or harvesting activities inside the forest. The CFUG received permission from the DFO and constructed a fireline in early April 2006. Some trees were felled as per the permission. However,

two of these felled trees interlocked with other standing trees causing a risk to passers by. There was an immediate need to remove these to minimize the risk, so they felled those trees as well.

However, the DFO perceived this as non-compliance of the permission and as a challenge to his authority. He immediately took action against the CFUG: sent a staff to inspect the field and asked for *spastikaran* (a letter asking to clarify reasons for doing something, usually as a first step towards prosecuting an offender), and ordered the CFUG to stop all forest management activities. This instruction barred CFUG to undertake usual harvesting operation as specified in the agreed OP.

In a subsequent meeting with the researcher, one of the Rangers of the area defended the DFO's action as "necessary to ensure the sustainable management" of the forest. He blamed the CFUG leaders for not fully following the principles of scientific forest management during the fireline construction. He added that local people were not the right persons to understand, appreciate and apply the forest science in their everyday practice and that some discretionary power should be vested with government forest officers to ensure forest science is properly followed in management practice.

The DFO's action led to fuelwood shortages in the village. An urgent meeting of the forest users was called on June 2006. In a big gathering of the users, attended by about 80, they expressed anger over the DFO action:

"If firewood collection is prevented, we do not need this forest. Rather burn it."

"Let the DFO manage this forest. Why should we bother for conservation of this forest if he dictates us in our every step?"

The co-author researcher was present during this mass meeting, and found that even those members, who usually opposed the chairperson, were fully supporting the CFUG action to fell the trees and were against the DFO's action against the CFUG.

The open discussion on the crisis and their shared perspective on the issue can largely be attributed to the critical social learning and increased awareness on the legal and ecological aspects of forests management under the ACM activities for last two and half years. Local people have had frequent interactions with the researchers through Tole meetings (meeting at hamlets), Tole representative meetings, reflections and planning workshops, and general assemblies. As some of the researchers were foresters by profession they could enhance the quality of interaction by enriching the information and arguments with forestry science. This also increased the legitimacy of the researchers among the forest officials including the DFO. That helped bring the local people and the DFO closer though there was little direct attempt by the researchers in this particular case.

While the conflict was ongoing, a new DFO was transferred to Nawalparasi as a regular transfer process within the Forest Department. This new DFO had participated in ACM orientation training, had frequent interaction with ACM researchers and had developed strong interests in applying collaborative approach in the field. His association with the project provided him an opportunity to be self critical on the widespread techno-bureaucratic attitude among the forest officials and to reflect upon his own role in the CF process.

With these associations in the background, formal and informal interactions increased among the researchers, the DFO and the local people. These interactions provided both parties with opportunities to exchange and better understand each other's views. Gradually, they were able to reduce suspicion, began to co-operate with each other in resolving the case. In a meeting with the researchers the DFO shared his strategy to resolve the case:

“I will seek the response of all the local people. If the event was transparent and if there was no ill intention behind it, I will help resolve this case.”

Here, contrary to the conventional strategies that are usually based on maintaining clandestine relation with the key leader or applying formal, legal/administrative tools to control the CFUG, the DFO had chosen a more deliberative strategy to deal with the case. The level of critical awareness among the local people on forest science and on the respective roles of DFO and CFUG had made it difficult for the DFO to impose without deliberation. The CFUG's association with the ACM

research process and its institutions and also with the national CFUG federation, FECOFUN, and other civic movements was also important.

The CFUG also developed its capabilities to deliberate with the DFO as a result of improved internal deliberation. Over the past three years of ACM intervention, a culture of wider consultation, deliberation and democratic decisions has been developed. Almost all the CFUG members were invited to a mass gathering, were informed about the situation and their views on this problem was sought. They unanimously ratified that the trees were felled as the immediate solution to minimise the risk to passers by and involved no ill intention on the part of the CFUG. They also clarified that the felling of those additional trees would not have any significant impact on the forest condition. According to one ACM researcher, the frequent interactions between the two parties, allowed them to rethink upon their stances and finally negotiate to move forward.

In this case, the deliberative processes that helped resolve the issue mainly consisted in enhancing the internal deliberative potential of the CFUG and thus enhance legitimacy of the local group in the eye of the DFO. Also, creation of added discursive sphere around CFUG practices through the network of the project was helpful in overcoming the power difference between the DFO and CFUG in the deliberative processes. The continuing ACM engagement with the CFUG over three years and the ACM training given to the DFO facilitated the development of deliberative processes less dependent on ACM workers.

3.2 Challenging restrictive science and ineffective harvesting of forest, Chautari CFUG, Morang

In Morang, Chautari CFUG was formally handed over in 2000. In 2003, government made it compulsory to include inventory of forest in the CFUG OP, including estimation of growing stock, annual increment and prescription for annual cut. Without such technical forest assessment, CFUGs were not allowed to extract forest products from the community forests. In this context, Chautari CFUG requested Morang DFO to provide necessary technical support in revising the OP. DFO assigned a Ranger for the inventory of the forest which was a costly venture for the CFUG

who had to pay Rs. 15000 (about USD 200) cash to the Ranger in addition to providing accommodation and meals during the Ranger's field work.

Though the CFUG revised their OP according to the needs of the government, many CFUG members never looked at the prescription made in the OP for annual harvest of timber and/or other products. They saw the inventory as part of legal requirements and did not see it as something useful to them. Even after the preparation and approval of the OP, the CFUG had to obtain permission from the DFO for timber extraction. Although the DFO assigned the forest technician from the local Range Post CFUGs have to pay for the service of the forest Ranger. They had to offer *chakari* to the Ranger and repeatedly request the service as a favor. After repeated *chakari* and a commitment to provide *prabhidhik bhatta* (technical allowance), the Ranger came and marked trees for felling.

Usually, the Ranger did not allow CFUG to harvest mature trees even within the prescription limit of the OP. CFUGs wanted to please Ranger to get additional trees marked for harvesting. They feared if Ranger would not mark trees, then they would not receive approval from the DFO. In exchange for this technical service, Rangers receive a sum of money or some timber at the rate fixed for users (which is significantly lower than the existing market price - they pay NRs 150 per cubic foot within the CFUG for better timber while existing market price is NRs 500-600). This process is repeated annually.

Ranger generated the necessary technical information through the inventory in a way that is not understood by the members and leaders of the CFUG. The CFUG accepted the knowledge of Ranger as 'scientific' and 'legitimate knowledge' and gave it symbolic power. Although the OP allows cutting some standing trees annually, the DFO and Ranger allowed the CFUG to harvest only dead and fallen trees. It is the techno-bureaucratic power of DFO and Ranger that is the key for deciding the harvest level. As a result, in most of the years the total quantity harvested was only a fraction of the possible harvest consistent with the OP. When the chairperson was asked how it had been possible, he said:

"We don't know how much we can harvest. DFO only allowed us to harvest the fallen and dead trees. In some years, depending on the block and natural factors (such as storm), we could extract more timber than in other years."

In the name of using 'science', DFO staffs are not sincerely following the prescription made in the OP. They are rather using their bureaucratic power in misinterpreting or retaining the control over forest product harvesting. As a Ranger said in a meeting:

“If we allow CFUGs the prescribed quantity to be extracted from the forest, it is likely that more trees would be cut contributing to the depletion of forest. If we allow only dead and fallen wood to take out we will be in safe side.”

The ACM project researchers worked with the CFUG, trained local facilitators facilitating deliberation within the CFUG in 2004 and remained there for about two years (actual facilitation started in early 2005 and remained till late 2006). They started questioning and challenging the existing institutions and processes including: preparing their own submissions in line with the legal guidelines on forest management including forest product harvesting. Two of the co-authors together with local facilitators directly facilitated executive committee meetings, toles and assembly for users' and executives' roles and rights, and organized sensitizing workshops of leaders and tole representatives on how could they prepare their own plans including plans for forest management. They also organized reflective meetings with service providing organizations including representatives of DFO to discuss the roles of different organizations in CF. Research facilitators used critical causal questions such as why are they harvesting forest products? Who has the ultimate power in community forestry? Who prepared the OP and constitution? Who should prepare these documents? What is in these documents? Are they following the provisions of OP and Constitutions? What does the information of inventory means?. These questions helped them reflect upon their own practices as well as prompted users and leaders to critically review the OP and constitution.

During these deliberative processes, the researchers came to know that dead trees would no longer be available in significant quantities from late 2006 when they would harvest from the last

remaining block of forest. In a meeting of the CFUG Executive Committee (EC) at the end of 2005, we asked them how they had been going to harvest timber after they finished extracting from the last block. The secretary of the EC said,

“We went through the OP and found that we can extract timber as mentioned in the OP. We discussed it in our earlier meeting. We are doxa on it but could not decide how we should actually be moving forward.”

In the meeting we helped them to understand the calculation of the allowed prescribed amount of wood for harvest. Then they started challenging decisions made in the name of forest science. Initially they started talking with Ranger on the question of how they would get timber after they finish the last block if DFO allows only the dead and fallen trees to harvest. In a meeting of EC with the researchers, they revealed their desire to challenge the symbolic power of the techno-bureaucratic doxa in the following terms:

"We doubt the prescription made in the OP; there must be more quantity than have been prescribed in the OP [they had prescribed very minimal quantity as annual allowable cut]. Moreover, they [DFO staff] have cheated us till now by not allowing us to harvest mature trees within the harvestable limits prescribed in the OP. Thanks to you people for making us aware of this aspect (hamro ankha kholi dinu bho)".

What was useful here was the ways deliberative practitioners questioned the villagers, made them more conscious on inquiring, probing, reflecting and discussing at individuals, toles, with representatives and with other stakeholders. They read the OP and constitution and reflected upon their provisions. The deliberative processes helped to improve the confidence of users as legitimate managers of forest, make sense of the legal documents, understand the technical calculations and terms used in the OP (through which forest officials were manipulating and harvesting practices), and enabled them to challenge the techno-bureaucratic domination with reasoned arguments. In this case, national legislation could be utilised to open up deliberative space and skill developing in the EC and confidence building in the whole CFUG were necessary and sufficient to challenge meso level decisions.

3.4 Challenging protectionist forest science and damage to livelihoods of socio-economically marginalized groups, Handikhaka CFUG, Dhankuta

Handikharka CFUG (237 HH) in Dhankuta has been formally managing a forest (201 ha) close to the District headquarter where there was a significant demand for fuelwood and charcoal. The CFUG is highly differentiated by class, caste/ethnicity, and occupation and that their dependency on forest resources varies significantly. ACM research started here since 2004. The CFUG had weak internal governance. Most of the local stakeholders were concerned about the situation, but were unable to influence the situation.

The OP of the CF was protection oriented rather than creating benefits and support to livelihoods of the users. The objective stated in the OP were to: i) protect the drinking water sources; and to control landslides through the proper protection of the forests; and ii) fulfill the requirements of grass, firewood, timber, leaf, thatched grass, agriculture implements and other basic forestry needs of users without any detrimental effect on the forests. These objectives were supported by local elites who were less dependent on CF for fuelwood, fodder and leaf litters, and were not happy with use of forests by poorer people.

Over the course of time, users who were fully dependent on forest for their livelihoods received additional threats from local leaders against use of forest. Handikharka CFUG enforced strict rules of forest protection. The founding Chairperson is remembered by the users as very strict on forest protection and his period of office is considered as a golden age. At that time, CFUG members patrolled the forest on the rotation basis and illicit cutting of the forest was controlled. The patrol teams always reacted aggressively to firewood sellers. They thought that firewood sellers should stop their fire wood selling even if they had no alternative livelihood options. In a discussion with firewood sellers, one woman said:

“There were many cases of confiscation of our sickles, rope, Namlo (load carrying strips/rope) and our firewood at dhat (check post) while we tried to carry fire wood to bazaar.”

Another women added:

“No one recognized our problems. We were always blamed as “forest destroyer”. Every one wanted the forest completely protected. Firewood collection and selling was defined as illegal”.

Since local elites wanted to reduce immigration into the area and the DFO wanted to shift the role of forest protection to the local people, their interests met and this consensus was reflected on the protection oriented institutional arrangements in the OP and CFUG constitution. Major provisions made included: prohibit grazing, conduct planting, prevent forest fires, give emphasis to forest development activities, forest protection/patrolling.

Poor people who did not own land for farming, hence depend on CF for forest products even for their own consumption (firewood selling) were totally sidelined. However, they did not stop collecting firewood illicitly and selling in the Dhankuta bazaar (local market).

The ACM project started in 2004. With series of initial discussions at meso level, the researchers found that there was limited understanding of actors at different levels on how they could resolve the issues of forest protection vis-à-vis optimal use of forest resource for livelihood improvement of the poor. There was a challenge to transform presupposition of powerful actors including DFO, donors and local elites that firewood sellers are the enemy of the forest. The Project promoted deliberative processes to bring subordinated knowledge of firewood sellers in the CFUG decision making processes.

People from the CFUG and District level stakeholders levels met for tole level discussion with the *daure* group (firewood sellers). These sub-group meetings provided forum for forest users who had not previously been included in any planning and decision-making process.

During the discussion of *daure* group one of the women expressed:

"we were also enthusiastic to participate in the General Assembly of the CFUG in the past but when we participated we were blamed repeatedly as forest destroyer and made us

ashamed. It forced us to leave the venue before reaching any decision. Such assemblies were nothing but a venue to get scolded”.

Tole representatives and representatives of daure group started putting their agenda in other planning forums and with EC more proactively giving pressure to the leadership to give emphasis to their livelihoods agenda. The issues and insights from these deliberative processes were taken to meso level meetings. Frequent interaction at both levels sparked interest in institutionalising the deliberation for more active management of forest with a new purpose– to contribute to the livelihoods of the poor, mainly the daure group.

Sensitivity of local village elites and meso stakeholders to apply a more deliberative approach resulted partly from reflective tools such as heterogeneity analysis, which provided opportunity to reflect upon inequalities in the area and greater equity in decision making and benefit sharing. The EC proactively undertook wealth ranking of all users and identified those whose livelihoods were forest dependent. They prepared a collective vision and monitoring mechanisms and planned accordingly. They shared their plans with different meso level organizations. During reflection of ACM process, CFUG shared their plan and the meso forum provided commitment to support the CFUG along with DFO. With the realization of pro-poor plans of forest management, they developed different strategies for fire wood sellers.

The first outcome of the ACM process was the provision of allowing firewood sellers to collect firewood. For extracting firewood, firewood sellers were trained in forest management with the purpose of combining scientific methodology of firewood harvesting with local livelihood support. The DFO provided forest management training to them. Similarly, firewood sellers were encouraged to develop a self monitoring mechanism. They were also provided with other capacity building training, such as off-season vegetable farming in their home garden provided vegetable seeds, irrigation facility and other technical support. Similarly, they formed micro credit groups for small scale saving.

At the end of the one cycle of the deliberative process (mid 2006), the researchers reflected jointly with the EC members and firewood sellers' group. Both expressed their satisfaction to the increased deliberative processes over the past two years. One woman expressed,

“We are very grateful to the CFUG. Our occupation is recognized now and we can proudly say that we are firewood sellers. We are planning to change our occupation as well because we are now informed of some other livelihood alternatives. If we would have informed like this earlier, we could jointly explore options of livelihoods and could have left selling firewood if we had realized that firewood selling could not be a sustainable option for us.”

Similarly, the CFUG chairperson mentioned,

“I previously thought that this process obviously is time taking and would not materialize significant benefits. But now, I am satisfied that we are using forest for subsistence for firewood sellers who were previously considered as destroyers. I think it will take time to make every user aware but firewood sellers and recent leadership have livelihood focused CF management perception.”

The deliberative intervention provided a platform for different stakeholders to understand each other and reflect/review of their respective positions, knowledge and approaches for more open structures and processes. More specifically, they discussed openly their previous doxa on forest protection which alienated the firewood sellers in Handikharka CFUG. As a result of deliberative interactions with the research team, the leaders agreed to organize a series of meetings with firewood sellers to develop livelihoods improvement strategies with them and provide support when and where necessary. In this way, there was a shift away from techno-bureaucratic approach to forest management. In this case, improved deliberation focused on inclusion of a group excluded by a combination of techno-bureaucratic and elite civil society doxa.

4. Transforming Techno-Bureaucratic Doxa into Deliberative Processes

The four case studies provide a range of insights into the specific ways through which techno-bureaucratic doxa permeates a form of forest management that is formally participative. In all cases, techno-bureaucratic symbolic power denied CFUG's room for discretion and manoeuvre by knowledge claims based on a closed scientific doxa.

In order to improve deliberation in forest governance, deliberative interventions involved four interrelated processes – deliberation among meso stakeholders, between meso stakeholders and CFUG, among various groups of CFUG, and among the members marginalized sub-groups within a CFUG. When these deliberations at multiple scales were linked through diverse channels of communication, formally and informally, then it was possible to challenge and reconstruct the existing techno-bureaucratic approaches to forest management, though not always free of problems such as dependency on the researchers for a considerable period. Specific aims included:

- Developing an interactional learning process between researchers, forest users and forest officers. This was able to bring the OPs into public debate and both acknowledge and challenge scientific claims on forest management
- Using the relevant experience of researchers to influence both forest officials and local people and shift the balance of claims to knowledge
- Designing techniques to increase the confidence of all local people in terms of challenging decisions and using positive aspects of national legislation.

Local people often lacked basic technical skills to verify quantitative claims used as *jal-jhel* (tactics) by forest officials. The deliberative process must start from appreciation that one's own position is legitimate – people started questioning only when they recognize themselves as legitimate citizens having legal control over the particular patch of community forest. The research team had to challenge local people's submissive doxa before they were confident on this right.

When space is created for regular deliberation between users, local elites and techno-bureaucrats, the possibility of transformation of protection oriented doxa increases towards more equitable CFUG governance. The research process created a discursive sphere in and around CFUG so that techno-bureaucratic closure in decision-making could be openly questioned. Deliberative processes demand time, but we hope we have demonstrated that the benefits outweigh the time costs. An extended process of reflection, deliberation, and challenging is required before local people can decisively challenge techno-bureaucratic domination. This entails critiquing submissive doxa in civil society as much as the dominating techno-bureaucratic doxa.

Different aspects of techno-bureaucratic domination have differential potential to be made more deliberative. The process of deliberation is hindered by the historically entrenched techno-bureaucratic doxa, nurtured in the field of formal forestry training (Ojha et al 2005). This tends to resist efforts to deliberation, unless there is serious reflexivity among the scientific practitioners (as Bourdieu suggests) and deliberative confidence among ordinary citizens (Fung 2005). Deliberative interventions can contribute by critiquing both dominant and dominated doxas, and enhancing deliberation by reducing imbalance in the distribution of symbolic capital. The meso level deliberative forums provided the forest officials an opportunity to listen to diverse perspectives and reflect upon the limit of techno-bureaucratic domination.

The role of science in forest governance even in the context of participatory approach is accepted here, but it should be modest in its claims to knowledge closure. While scientific practice rests on clearly defined roles and functions and formal rules and organisations, local people operate in more fluid and flexible institutions, as their role in natural resource management is just one among many roles. This difference creates a possibility of combining both depth and breadth dimensions of knowledge in the governance of natural resources. But bringing both more and less formal decision-making processes into meaningful, evidence based, deliberative interaction is a great challenge.

We recognise it is important not to be utopian about existing local deliberative processes in civil society. Structural inequality among local people means that some are more able to invest

resources and time to generate ‘formal’ knowledge. As such, when deliberative processes operate at a local level and require investment of time or local resources, then they are more likely to draw the involvement of local elites. Both through immediate benefits of participation for the elite, such as status, information, stipends, or other benefits and in terms of long term policy implications of the research, this association between scientists and local elites may tend to reinforce the existing social inequality among the different groups of local people (Vernooy and McDougall 2003).

Enhancing deliberation is also related to timing and the ‘surprises’ or apparent contradictions that emerge from time to time in any human practice. If the efforts of deliberation are targeted at such times and spaces of ‘crises’ when the rules of the dominant doxa are being questioned by experience, then the possibilities for improved deliberation are higher. This was true in the case of Dhankuta CFUG, where both local leaders and meso stakeholders were worried over the passiveness of the CFUG in the face of increased responsibilities. In Lalitpur and Nawalparasi, support from deliberative research was delivered at a time when local CFUGs had a feeling of crisis – termination of OP (Lalitpur) and risk from accidentally fallen trees (Nawalparasi). This indicates that instead of emphasizing incremental change only through more and more participatory tools and techniques within the existing structures (which are not compatible with deliberative processes), it is worthwhile to look for crisis - and hence opportunities - and then push for more rapid change.

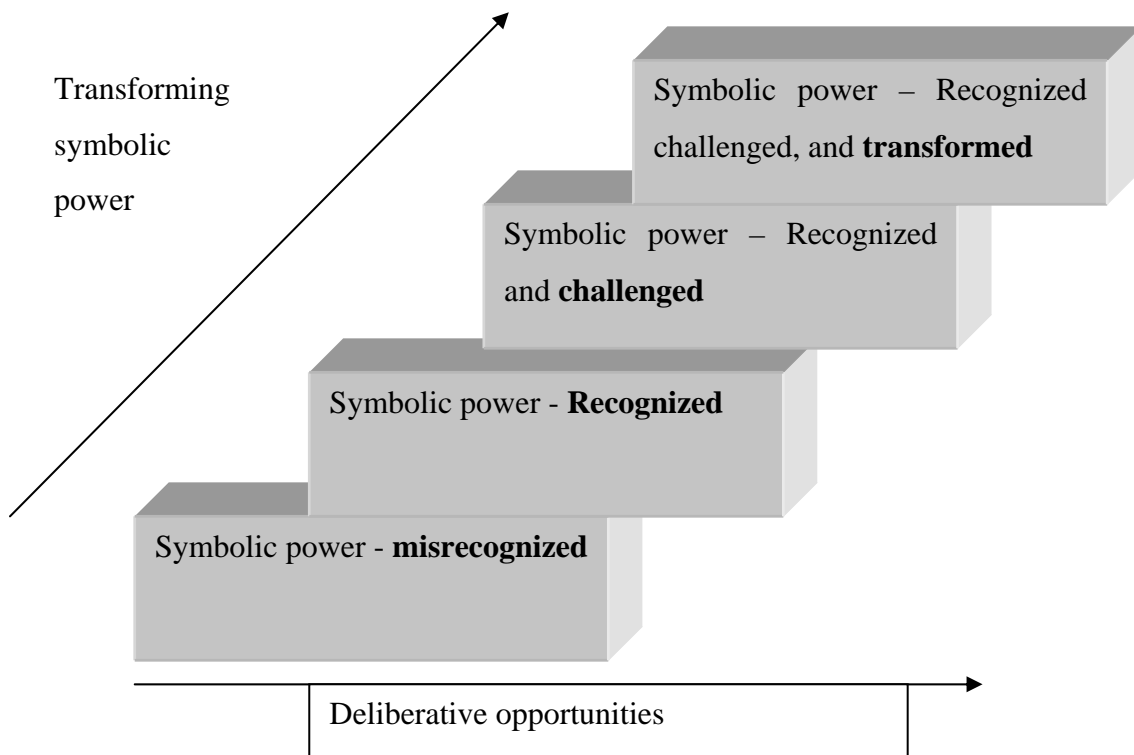
But most of the pre-intervention decision-making processes described here, as Bourdieu argues, were permeated by a high level of symbolic domination. The dominated agents hardly recognized their condition and there was hence little sense of a deliberative crisis. Bourdieu refers to such situations in which dominant social agents are able to exercise domination because the dominated agents as mis-recognition of unequal power relations (Ojha 2006). Variations on recognition can be seen as fourfold:

- fully misrecognized
- recognized but not challenged

- challenged but not transformed
- recognized, challenged, and in the process of transformation

These four levels of increasing recognition correspond to increasing potential for deliberative improvement. The interventions described in this paper can be seen as an external effort to change recognition as a necessary condition for improved deliberation (see Figure 3).

Figure 3: Relationship between symbolic power and deliberation



Source: adapted from Ojha (2006)

Long term deliberative interventions at different levels, among diverse groups, with techniques aimed at increasing reflexivity and dialogue can eventually transform power relations – from the state of misrecognized to the one in which it is deliberatively challenged and re-negotiated. Forest officials who enacted a very conservative form of techno-bureaucratic doxa in the cases (such as

technocratic control of OP in Lalitpur) later realized the weakness of their approach through deliberative interactions, which forced them to be more reflexive of their own practice. Improving deliberative practices requires an understanding of how symbolic power is operating and how doxic claims to closure are being reproduced. We argue that effective practice in improving deliberation needs this element of abstract theory to bring claims to scientific and local knowledge, to biophysical and socio-economic knowledge into a single deliberative forum.

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