Up scaling of Participatory River Basin Management Approaches: NGO Examples from the South

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Introduction

Non-governmental organisations (hereafter NGOs) have played a key role in demanding more participatory forms of river basin management. They emphasise that no technical or institutional fix will be effective unless underlying causes of water mismanagement and unequal distribution are simultaneously addressed. These ideas progressively have come to be accepted in policy discussions and project design. Yet, local initiatives promoted by NGOs are still considered not ready for effective up scaling to larger geographical areas.

The focus of this paper is to explore reflexively some of the issues, which arise from up-scaling participatory approaches in river basin management. It will draw on preliminary results from work being done by two NGOs, one based in Peru and the other in India. The material will highlight some of the challenges in up scaling participatory practices. On one hand, participation, if it is to be meaningful, must be embedded in "grassroots" livelihood issues. On the other hand, up scaling requires absorbing other perspectives and actors, which often can be at the expense of the local. The paper will conclude with some reflections on some of the issues raised.

I The vision behind 'River Basin Management: A Negotiated Approach':

Since Rio, NGOs have been building a body of experience and knowledge in practical implementation of sustainable water management initiatives. Both ENDS[2], an Amsterdam-based environmental NGO, has been accumulating such experiences. On the subject of alternative water resource development and management strategies, it has developed strong relationships with NGOs around the world. One NGO with which it has worked closely is Gomukh based in India. The two organisations co-operated closely in opposing non-sustainable, top-down, large scale infrastructure projects. Along the way, we realised that it was equally important to develop practices using the principles that we were advocating. We also realised that such experiences needed to be documented in a language and terminology that is accepted by national and international institutions and agencies like the World Bank, donor agencies, etc. However, we also realised that most NGOs gave priority to direct engagement and action rather than the analysis and documentation of their own work.

To overcome this situation, we decided to formulate a project which would allow NGOs working with an 'integrated river basin perspective' (hereafter IRBM) to document their practices. We also felt documenting itself was not enough. We needed to find ways to support and encourage the case-activities in a proactive and mutually beneficial manner. This is how the project, River Basin A Negotiated Approach, was born.

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[2] The opinions expressed in this paper are the author's who is a member of the team that is coordinating this project. Both ENDS, Gomukh, and AEDES are not responsible for the contents of this paper.

With funding from DGIS (the Dutch Ministry for Development Co-operation), the project started functioning in August 2001 and it runs till September 2004. The project is based on an analysis of six cases of locally initiated, participatory management initiatives that are negotiating a vision towards river basin management and national water policies.[3] The project sets out to offer recommendations on how to enable such initiatives and ultimately integrate them in national water policies and budget allocations. The project does not intend to develop an all-encompassing IRBM model. We did not start from a pre-set methodology either. All the participating organisations were doing their IRBM work, developing their own tools, long before they became involved in this project.

Instead of a preset methodology, the project relies on five themes that were identified by the participating organisations which they regard as illustrating the basic differences between their approach and "mainstream" strategies. These five themes are Up-scaling; Negotiation; Gender; Ecosystem approach and Appropriate technologies. The idea behind the themes is to provide a common ground that will allow a degree of comparativeness. It is recognised that some of the issues will be either irrelevant or difficult to address in certain areas, while site-specific situations might on the other hand create the need for investigating additional aspects. Each case study will focus on providing a detailed picture of "how" the participating NGOs got to the stage where they are today. The case studies are intended to present an in-depth analysis of the historical development and the present status of the particular micro or sub-catchment.[4]

II Participation and Negotiation as integral Elements to Scaling up IRBM Practices:

The objective of this paper is to highlight emergent tensions in participatory IRBM practices that are in the process of being up scaled to incorporate larger sections of the basins in question. We consider negotiation as a core issue in this process. Because IRBM often involves long time horizons for producing benefits as well as large spatial scales for implementation one of the most critical challenges is how to negotiate the rights, needs and uses of a variety of social actors, including nature itself.

Generally, negotiation is taken to be positive action. The idea appears to be that as long as people are sitting and discussing things, conflict is avoided. Yet, as Daniels and Walker maintain (1996), it is important to consider that conflict or at least the threat of conflict may be a pre-condition for negotiation. They argue that conflict in natural resource management is not only unavoidable but also desirable to the extent that it can lead stakeholders to negotiate innovative agreements. Conflict or the threat of conflict may also be a way by which marginal groups can profile themselves so that they can be taken "seriously" in their demands.

[3] The six case studies are from India, Peru, Bolivia, Bangladesh, South Africa, and Thailand.

[4] A word on terminology is required. Catchments are natural units – basin shaped areas from which rainwater can drain to a common outlet point. Watershed is a hump-backed land unit that forms the upper drainage area of one or more catchments, with hydrologic linkages to lower parts of the catchments. Although catchments embody many scientific practicalities, social and administrative boundaries may limit their appropriateness as management units. Rivers form social and administrative boundaries because they are visible and relatively fixed in space and time. Rivers are the natural centres of catchment areas. In our project, the tendency has been to take the social boundaries – rivers – and apply a watershed approach.

In our work, negotiation is turning out to be a multi-faceted, multi-level and organic process, where the outcomes appear to be different depending on the temporal and spatial scale being used. In this respect, objectives and benefits take on a contingent dimension because they have to be framed in short, medium, and long term horizons. For people, participation in negotiation processes may be just another way of building support, strengthening their safety net, meeting livelihood requirements, entertainment and diversion, or simply getting ahead. As Edmund and Wollenberg (2001: 246-247) maintain, "...negotiations are often best understood in relationship to other strategies, including strategies of confrontation or competition..." In practical terms, negotiation requires some kind of institutional framework through which contending interests can be expressed and accommodated. Communities must be able to demand-based (need-based) plan, which evolves through several rounds of negotiations among community stakeholders, followed by negotiations with local governments, national agencies, donor agencies, banks, etc. This enables an iterative process that responds to societal and ecological priorities instead of maximising the technical objectives normally pursued. Such a process requires time for community orientation, capacity building, and the creation of the necessary social and managerial institutions.

The second point is that negotiation should not be automatically equated with participation. Negotiated approaches to natural resource management agreements will involve differing degrees of participation by various stakeholders. Yet, participation per se does not say anything about the terms under which people negotiate. In some cases, negotiation can be a means to constitute interests and identities. Therefore, it does happen that at the beginning of negotiation, a particular stakeholder will not have had clearly defined interests and only have arrived at one through the process itself. Negotiation can also be seen to generate information, which is important for all stakeholders. Ideally, negotiation processes imply a full transparent disclosure of information. If one assumes that stakeholders never know enough to act optimally, then the negotiation process itself can be a way of accessing more information just by the very nature that people are coming together and bringing forth their opinion on a particular issue. Yet, it is important to note that full disclosure may not always happen and that it can be rather sensitive and yield detrimental results, particularly for marginal groups. Thus, negotiation does not necessarily entail all of the positive aspects frequently associated with participation.

Furthermore, participation in itself can be difficult to assess. We realise that NGOs tend to be the most vocal when it comes to pointing out the importance of participation. And there is some evidence, which suggests that participatory development projects are more successful than externally managed top down projects (Kerr et al. 1998). Yet, what exactly is meant by participation is unclear. We also share the concern voiced by some researchers (see Cooke & Kothari 2001) with regards to participation. Concern has been raised over the fact that participation practices tend to be externally driven and as such gloss over the way participation is culturally embedded and historically influenced. Also, participation should also include the right to refuse to be involved. Again, this is something that can be difficult for NGOs and other institutions to accept. Be that as it may, we do feel that that involving people in designing and implementing our project will increase the likelihood that it will meet its objectives.

Having said that, it is important to recognise the challenges confronting a project that sets out to do participatory IRBM. What is the appropriate role for and level of participation? Does the appropriate level of participation depend on the specific circumstances and goals of the project or activity within the project? Therefore, it seems that scale is also an important dimension to participation. For practical reasons, it seems impossible to involve everyone directly or indirectly affected by practices occurring in a river basin, or a part of it.

Scale is important in this project for additional reasons. And here scale must be seen in what has come to be referred to as the hierarchy approach in ecology. The hierarchy approach of ecology (see Allen & Hoekstra 1992) view each system as both a component of some higher level system and product of several lower level systems. Scaling up in this approach is concerned with a shift in emphasis from a lower level to a higher level, while scaling down shifts emphasis from a higher level to a lower level. For management purposes, the relevant question is which scale is most appropriate for which kinds of decisions. In practice, matching jurisdictions with ecological formations cannot always be accomplished because watersheds, for example, may not fall within a single local political or administrative jurisdiction. Likewise, principles developed for the management of small micro-catchments are not likely to be relevant for the management of river basins.

III NGO Experiences: India and Peru

Case study 1: Bhima Basin, India

i) General Context

Gomukh Trust has its headquarters in the heart of the Bhima basin. The Bhima basin, comprising of about 6 million hectares, lies in western Maharashtra, a progressive, industrialised, and culturally vibrant state. The Bhima River flows from west to east, passing through Maharashtra and Karnataka before confluencing with the Krishna River. It originates in the high rainfall region of the Western Ghat mountain region and therefore, receives heavy precipitation in the upper reaches of the basin. Bhimashankar, wherein lies the origin of the Bhima River, receives about 5000 mm of average rainfall in the 4 months of the monsoon season. This results in floods in the middle reaches of the river.

Though the state of Maharashtra has about 75% of the basin area of the Bhima and receives abundant rainfall, the inter-state tribunal award and national policy restrict it from using this water. It has to release this water to the riparian states of Karnataka and Andhra Pradesh in order to satisfy the water requirements of these low rainfall regions. This decision was made in 1976 and it was valid for twenty-five years. In 2001, a process to reconsider this decision began.

The need to renegotiate this decision is a result of the changes that have occurred in this region. Maharashtra is one of the most highly industrialised states in the country. The cities of Pune and Pimpri, along with the surrounding industrial area, which lies within the Bhima basin is the second largest industrialised and urban area within the

State. The increase in demand for drinking water has snatched away water that was reserved for agriculture, downstream of the cities.

Furthermore, after independence and after the formation of the State of Maharashtra in 1960, major and medium irrigation schemes occurred in the Bhima basin. The Government concentrated on large irrigation and hydropower projects. Unfortunately, all these efforts have proven to be inadequate as far as meeting the demand for water for rural and urban areas. The inadequacy of the current planning process is so serious that more than 80% of the basin area and an equal proportion of the rural population living in villages still remain completely outside the purview of irrigation systems developed so far. This also applies to the entire state of Maharashtra, which is about 6 times larger than the Bhima basin. In 1992, when there was a severe drought, 30,000 villages out of 43,000 thousand villages in Maharashtra were supplied drinking water with tanker lorries, for about 2 months during summer.

Inequitable access and drought have resulted in unbalanced development in the basin. Irrigation projects provide water for perennial irrigation for sugar cane fields, electricity for running the pumps for lifting the water from the canals, and a sugar factory. About 60% of all water resources harvested in major - medium irrigation dams is used for irrigating sugarcane fields, which constitute only 3% of the cultivable land. There are 40 sugar factories planned or already functioning in the Bhima basin. Almost half the elected Members of the Legislative Assembly from the Bhima basin hold a major political and economic interest in various sugar factories. There is a severe shortage of drinking water for the majority of the rural population, yet the sugarcane fields are flooded with water.

ii) Participation, up-scaling and negotiation

Gomukh is working in the Kolvan valley, comprising 16 villages with an area of about 8000 hectares. Their efforts are aimed at achieving comprehensive rural development through watershed development and management. In practice, this means having a multi-pronged approach which incorporates a number of social actors.

At one level, this means working with the State government. Gomukh trustees and associates are members of statutory committees and working groups of district, state and national level, where they share and advocate their experience of watershed development and management. In several cases, they have supplemented the existing government programs, such as building minor irrigation works and bunds. In other cases, it means working in areas that the government refuses to attend, such as constructing small water harvesting structures in the Bhima basin.

At another level, this means working closely with village groups and their political body, Panchayat Raj. The 73rd amendment to the Constitution of India (1992) has given these bodies the right to take decisions. Also, recent laws make it mandatory to include at least 30% women members in the local government. Residents are regularly invited to participate in the ongoing dialogue process regarding projects within the Kolvan valley. They are involved at every stage of decision-making, planning, construction and implementation. They are in a position to operate and maintain the water storage and distribution structures and even repair them.

Additionally, Gomukh has helped to set-up women's self-help groups and income generating training courses for women.

At this level, Gomukh has learned that IRBM must be integrated with economic development. Hence, they initiated their Watershed Plus' program which sets out to improve agricultural practices, progressively eliminate chemical fertilizers and pesticides, and promote organic farming and other income generating agro-based activities. Gomukh has now established a cold storage for storing organic vegetables and hand-pounded, organic rice for the up-markets in Pune and Mumbai city.

Case Study 2: Ocoña river, Peru

i) General Context:

Since 1996, the NGO AEDES has been working at the level of the sub-watershed Cotahuasi. AEDES's mission is to support and stimulate organised participation in the local management of natural recourses. Cotahuasi is one of the 11 districts of the La Unión Province, in the department Arequipa, in Peru. The surface of the province is almost the same as the watershed Cotahuasi, which is part of the high watersheds of the river Ocoña. The district Cotahuasi corresponds with the micro-watershed Huacaccara. The capital of the province and the district Cotahuasi is Cotahuasi. Huacaccara corresponds to the district Cotahuasi and has a population of 3100 people. In the sub-watershed Cotahuasi live 17.500 people. The population of both the Cotahuasi sub-watershed and the Huacaccara micro-watershed consists of indigenous people and *mestizos*. Agriculture is the main economic activity in the province.

The diversity in ecosystems of the sub-watershed Cotahuasi - infertile, dry desert till moist Andeans forest, including overgrown banks, cactus fields, brushwood and steppes - has produced high levels of biodiveristy. [5] In a study conducted by AEDES, it identified 460 species of wild plants, including some very rare ones. Villagers use the flora for fodder, fuel, construction, ritual, medicine, veterinary, and ornamental purposes. Considering that most people in the region do not have access to modern health care, these plants are of major importance to their well being.

La Unión pertains to the 25% of the poorest region in Peru (SIP 2002). In the eighties, the violence generated by Shining Path disrupted the social and economic fabric of this province. Today, life expectancy in the sub-watershed Cotahuasi is 54,33 years, almost 18 years less than in Lima (SIP 2002). There are high levels of malnutrition, alcoholism, and illiteracy exceeds 30% (SIP 2002). The majority of residents (approximately 60%) have fields that are less than 1 hectare where they grow crops primarily for home consumption. The rest has fields that are larger than 2 hectares and grow cash crops. This group has a lot of influence in decisions in the area. They also receive more water per hectare than the small landholders.

[5] A study of the fauna identified 207 species (AEDES 2001).

ii)Participation, up-scaling and negotiation

The project has developed a two- prong approach. On one hand, it supports and advises major actors, including provincial and district authorities, municipal and community representatives in the development and implementation of a participatory and coordinated approach to economic development and environmental management. On the other hand, it works with communities to resolve the problem of malnutrition in the area. It seeks to develop sustainable economic activities.

In 1996, with the support of AEDES, a provincial round table was created, the MCPLU. The MCPLU is responsible for the execution of the local Agenda 21. AEDES had two reasons for catalysing its creation. The first was to create a voting block with the mayors of the 11 districts of the province so that they would have more power to negotiate projects for the province. The second was to offer residents the opportunity to participate in the development of the province, demanding more transparency in the administration of economic resources. The *Consejos de Desarrollo Distritales* (CDD, District Development Councils) are round tables at the district level. The CDD Cotahuasi is in charge of management of the micro-watershed Huacaccara as part of its task of the execution of the local Agenda 21 of the district Cotahuasi.

The specific functions of the *Mesa* (Round Table) and the *Consejo* (Council) are:
1) Harmonise the activities of the public and private[6] institutions related to the management of the local agendas 21of the province La Unión and the districts
2) Institutionalise the participation of the communities in the management of the development process;
3) Achieve a transparent management by the local authorities and the institutions working in the province/districts;
4) Execute the functions of other institutions created by the state to prevent the duplication of functions.

The MCPLU is chaired by the provincial mayor and constituted by the representatives of the public and private institutions at the provincial level. The CDD is chaired by the district mayor and constitute by the representatives of private and public institutions at the district level. The people who are not members of an organisation can participate at the meetings and have the right to speak but not to vote. Women participate in the general assemblies, the meetings of irrigation committees. Their level of participation varies from village to village; in some villages they take part actively in the discussions in other villages passively. In the *Comisiones de Regantes* (irrigation commissions) and *Comités de Riego* (irrigation committees) there are a few women in the executive committee. In principle, the MCPLU and the CDD´s do not exclude anyone. However, the issue is always to find ways of engaging residents so that they are able to see that there are benefits to participating.

Since 2001, the Peruvian government has been supportive of the *Mesas de Concertación*, focusing on reducing poverty. However, in 2002, a regional council in Arequipa (CTAR) was created with the same objective. Therefore, there is a discussion now on new ways of organising the *Mesas de Concertación* and also about

[6] Till now private institutions are not very active.

the organizational form of the MCPLU. In this context, the MCPLU extended its planned activities by means of their second local Agenda 21 2002-2021, and the strategic development plan of La Unión until 2004. The latter is called "Agenda for the integrated management of the ecosystems of the watershed Cotahuasi" because of its priorities.

In Peru, water management is organised by a national law, which does not take into account regional diversity. In the sub-watershed Cotahuasi, the principle stakeholders in the water management are: the *Junta de Usuarios*, the *Asociación de Productores de Cultivos Organicos* (APCO)[7], and the provincial municipality. In the micro-watershed Huacaccara, the most important stakeholders are: the *Comisiones de Regantes y Comités de Riego,* the *Comités Locales de Productores* (CLP)[8], the provincial municipality and PRONAMACHCS. As mentioned before till now the private institutions are not active. The objectives of APCO and the CLP are the same: promoting the organic production and offering support to the farmers in the commercialisation of their products. The objectives of the *Junta de Usuarios* are representing the *Comisiones de Regantes* and *Comités de Riego* and advising and supporting the *Comisiones* and *Comités* in the execution of their tasks. The objectives of the *Comisiones de Regantes* and *Comités de Riego* are organising the distribution of the water so that the crops receive sufficient water for a good production. Each *Comisión de Regantes* in the province has its own historical agreement for water distribution and its own approach to irrigation. They irrigate according to the position of the fields along the canal and in other systems they irrigate according to the crop type, i.e. starting with the beans and potatoes followed by irrigation of maize, wheat and barley and at the end alfalfa.

AEDES concentrated its efforts in addressing the problem of malnutrition. Hence, the emphasis was on food security, promoting organic agriculture. There is also the need to generate income for people. Here, the goal is to use the biodiversity in the area in a sustainable manner. One of the major strategic choices of AEDES has been to promote the creation of a National Protected Zone[9] in the Cotahuasi district. They propose that the local population should use the resources and that they should manage the Zone as well. There is concern that gold mining will be allowed to occur in the area.

IV Analysis of the Cases:

Both organisations are working to reverse situations caused by centralist water management policies that do not take into account the needs of poor marginal people. Here, several issues are common to both case studies.

1) Both AEDES and Gomukh recognise the importance of working with local and state/provincial authorities in order to heighten complementarity of actions and policy and thereby prevent duplication of activities, as well as failures.

[7] Association of Producers of Organic Crops.
[8] The local committees of producers. This are the sub-committees of APCO.
[9] There exist various kinds of natural protected zones in Peru. AEDES is searching for a type that would allow the natural resources to be use by local residents and at the same time protected from people from outside the province.

2) Both organisations recognise that at the scale of the community, participatory IRBM can become a reality only if it is linked with economic development, providing residents with means to improve their livelihoods (assets and capital).

3) Both organisations acknowledge how important using technology to communicate their message. In particular, AEDES is putting in operation the Provincial Information System - a computerised database and a geographic information system. PIS can be used by the local organisations. At the moment, there is one information centre where the population can search data to apply for the execution of a project by an institution. The idea is that each district (out of a total of 11 districts) will have its own information centre. AEDES is constructing a website for the province La Unión to allow residents to communicate with the leaders of the MCPLU. The website will also help in communicating the experiences of this area to outsiders.

Having said this, it is perhaps time to reflect on some of the challenges that surface with participatory negotiation. Both AEDES and Gomukh are either directly involved in government institutions, or supporting platforms, grassroots organisations, etc. to propose solutions to resolve local water management problems. These platforms and/or institutions require the collaboration of entities from different political and administrative zones, the co-ordination of which generates problems with competence and expertise. The final make up of such groups will be a combination of people who have rights and interests because they are directly affected by developments in the sub or micro watershed, and those who are exogenous. The knowledge and power these actors have will play a critical role in determining the outcomes of such platforms and/or institutions. Hence, instead of scaling up, would it not be important to scale out as well: joining forces with other groups in another part of the basin. Or should scaling up and scaling out occur simultaneously? Should there be a time lag? Either way, how is knowledge produced along these levels being fed back into local communities? How can local communities - the direct users - exert constrains, impose limitations in order to assure that their needs are being communicated to policymakers? If in the past, actual practices have almost not been considered in formulation of water laws, it would seem that this is an important issue to keep reminding ourselves. Finally, how can we ensure that that the linkages generated by these processes remain manageable? What linkages appear to be most important for socially just and environmentally sustainable outcomes?

V Concluding Remarks

As one can see, there are still many gaps that need to be addressed. The projects are continuously evolving. The challenges are many. Let me briefly outline just a few. First, we do not seem to have enough information on the tools that NGOs are using in their work. What tools, at which phase, and for whom? We also do not seem to have enough information on what is being traded off.

Furthermore, assessment of impacts at various levels has thus far not been documented. What monitoring systems are in place to reveal problems in the project question and design, as well as to provide opportunities to modify the agenda or methodology?

Finally, this is a collaborative project which means that all the case holders are involved in determining how it develops. We are continuously negotiating with each other what to emphasise, what needs to be included, etcetera. Given the location of all the participating NGOs, most of our communication is done by electronic mail. We try to meet at least every six months to have in-depth discussions that simply cannot be conducted by electronic mail. We have also allocated funds for the representatives from each of the NGOs to visit other cases to see for themselves the local reality. We are not involved in the actual fieldwork. Both ENDS has a "hands off" approach relying on the story as it is told by the NGOs. Does it need to engage more directly? Given that Both ENDS, like NGOs in general are epistemic communities, can it promote participatory IRBM approaches without doing them?

Furthermore, we are put in the challenging situation of wanting to let the organic process of participation evolve and knowing that we have to show "project" results and impacts. A priori project proposal with all the participating NGOs would have been better, as it would have allowed us to include more appropriate time frames and perhaps more realistic outcomes. In this regard, the project could be a plea for donors to be open to such collaborative proposals coming from NGOs.

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