Proceedings of the Preparatory Meeting on the

Programme on Developing Practicable Scientific Approaches on Water Governance and Livelihoods and on Contributing to Policy Dialogue on Basin Issues

Venue: Rajamundry, East Godavari
Dates: 1st and 2nd June 2007

By

Society for Promotion of Wastelands Development, 14 A, Vishnu Digamber Marg, New Delhi-110002 spwd_delhi@yahoo.com

Executive Summary

The purpose of the meeting was to develop a common approach among the various sub-projects with various partner organisations for the programme on "Developing practicable scientific approaches on water governance and livelihoods and on contributing to policy dialogue on basin issues". The idea was to deliberate on some of the questions related to the method, the conceptual underpinnings and the overall methodology of the project. Some common broad parameters were to be worked out before the onset of the state level sub-projects. The work being done by SPWDs State level partners at the basin level related to water and allied issues was presented and discussed. The first day was devoted to a visit to the field to familiarise the participants on subbasin level issues and the tools, which SAKTI uses while dealing with practical issues related to water governance. Visits were made to the following places - Bhupatipalem project, Musurimilly project, Polavaram (Devipatnam site) and Dhowleshvaram (Arthur Cotton Barrage). The second day was devoted to the meeting comprising of four presentations.

The presentation on *"Experience related to Water Governance" by P. Sivaramakrishna and Babu, SAKTI, Hyderabad* broadly covered (a) a comparison of the tools of governance and development (b) the laws which govern the various reaches of the basin and (c) some issues related to the Seethapally vagu basin, East Godavari and SAKTI's experience in the area of governance. The presentation dealt with the details of the governance structure and how the various parts of the structure relate to each other. It was stated that the crisis of research on water governance is the same as that with land or forest governance and is marked by poor implementation capacity. Since in the case of governance the source of authority is fundamental rights/ acts/ rules in the case of governance, familiarity with the tools of governance is a must. Development professionals, academics, and social activists need to improve skills to check the lapses in implementation using the maps, records, and schedules. The objective of governance is principally to allocate the resource and to ensure incremental equity. There are three key players in the context of a basin – revenue, forest and irrigation department. P. Sivaramakrishna thereafter presented a map, which showed how the whole basin is governed by various laws. The presentation dealt with the issues in Seethapally vagu basin and SAKTI's experience on governance. The need to have a comprehensive approach was discussed, the example being of forest sector where SAKTI's demand was for convergence of the Six Guidelines and their implementation instead of piecemeal implementation of programmes like JFM. The need for having catchment-command integration and of looking at natural resources as a whole instead of only water in an isolated fashion was also discussed.

The presentation on *Tungabhadra Basin Level Study by K J Joy, SOPPECOM* dealt with the larger project – STRIVER as well as the Tungabhadra Basin Level Study. The STRIVER project aims to do an integrated interdisciplinary assessment in four twinning river basins, one of them being Tungabhadra. It is a research project, which studies conditions, develops methods, and tries to provide advice. Both the scientific and management communities have pointed out that there is the lack of clear methodologies, and that there are problems in the operationalisation of IWRM. STRIVER will develop interdisciplinary methods to assess and implement IWRM. The research work under STRIVER is centred on work packages and the presentation dealt more particularly with Work Package 9 on Land and Water Use Interactions since it was most relevant to the work to be done under the SPWD Water Governance Project.

The presentation on *"Locating Governance Institutions: Shifting `Action from State to Free Market Society" by Hardeep Singh, SPWD* was based on a literature review of documents on governance in general. Governance has always been considered as statecraft – state's authoritative action to move societies in productive direction through enacting acts and policies. It involves putting in place systems to protect individual property rights, manage conflicts, ensure honouring of contracts, to manage non-privatised property either directly or

by assigning property rights on it in public interest and to regulate economy to contain negative public outcomes arising out of private pursuits. Classical and Neo-liberal Economics have always been against enlarging the state's role in economic activity. There have been several debates on what markets can/ cannot achieve and what optimal state intervention amounts to.

Considering the limitations of Classical/ Neo-liberal Economic approaches, Institutional Economics takes into account the political and economic institutions and considers these as underlying determinants of economic performance. Institutional Political Economy as against Institutional Economy views institutions not simply as constraints on the behaviour of the pre-formed and unchanging individuals but sees them also as shaping the individuals themselves. It is difficult even to define the 'free market' operation, as states have been instrumental in some form or other in creating the markets for almost everything. The state permeates the entire economy and is constitutive of private relations. Problems of institutional design cannot be avoided by throwing state out of the economy. The ultimate check on the state must come through institutionalised forms of participation.

There is a new emergent way to looking at governance with a new approach towards understanding of institutions, power and knowledge. Institutions are increasingly looked at not in static functional terms but as emerging through social interactions. Similarly, knowledge and power are viewed not as unidirectional (one-way) or something to be shared within a small group but are looked at as emerging through the process of negotiation. Governance has come to mean something much less state-centric and more market-like. There has been increasing thrust in literature on developing fluid networks and partnerships of the citizens and community groups to take on some of the functions that were once delivered by the state. With the blurring of the boundaries of public space and a mystification of the location of power, questions have been raised on accountability and depoliticisation of public spaces. There is a need to critically examine the theories and practices underpinning the new governance paradigm especially from the angularity of poor and marginalised sections of the society.

Preparatory meeting on Programme on developing practicable scientific approaches on water governance and livelihoods and on contributing to policy dialogue on basin issues

The purpose of the meeting was to develop a common approach among the various sub-projects with various partner organisations for the programme on "Developing practicable scientific approaches on water governance and livelihoods and on contributing to policy dialogue on basin issues". The idea was to deliberate on some of the questions related to the method, the conceptual underpinnings and the overall methodology of the project. Some common broad parameters were to be worked out before commencing on the state level sub-basin projects. The work already being done at the basin level on water and allied issues by SPWDs State level partners was presented and discussed. The participants included R. Rajesh, TARU, New Delhi (Policy & Programme Advisor, Water Governance project); K.J Joy, SOPPECOM, Pune; P Sivaramakrisna, Babu, Ramana and Shyam, SAKTI, Hyderabad; Anwar Jafry & Amit, Samavesh Foundation, Bhopal; Nandagopal & Sudhakar, Krushi Samstha, Chittoor; Prasad, Aikya Vedika, Chittoor; Hardeep Singh & Amita Bhaduri, SPWD, New Delhi.

The meeting was structured along the following lines –

(a) The first day was devoted to a visit to the field to familiarize the participants on sub-basin level issues and the tools, which are being used by SAKTI when dealing with practical issues related to water governance. Visits were made to the following places - Bhupatipalem project, Musurimilly project, Polavaram (Devipatnam site) and Dhowleshwaram (Arthur Cotton Barrage).

(b) The second day was devoted to a meeting, which comprised of presentations on the following aspects –

I. "Experiences related to Water Governance in Seethapally basin" by P. Sivaramakrishna and Babu, SAKTI, Hyderabad

II. "Tungabhadra Basin Level Study under the STRIVER project" by K. J. Joy,

SOPPECOM, Pune

III. "Locating Governance Institutions: Shifting Action from State to Free Market Society"

by Hardeep Singh, SPWD, New Delhi

IV. "Debates on Integrated Water Resource Management" by Amita Bhaduri, SPWD, New Delhi

Proceedings

The proceedings have been organised such that a section, comprising of the discussions follows the synopsis of the presentations.

Experiences Related to Water Governance by P. Sivaramakrishna and Babu, SAKTI, Hyderabad[1]

The presentation broadly covered (a) a comparison of the tools of governance and development (b) the laws that govern the various reaches of the basin and (c) some issues related to the Seethapally vagu basin, East Godavari and (d) SAKTI's experience in the area of governance.

Some of the important points of the presentation include –

- The crisis in water governance is the same as that of land or forest governance as indicated by a Working Paper of IWMI which notes that there has been an excessive focus on irrigation management in river basins at the expense of other land uses like forests in catchment areas. As a result "issues on environment impact and water management are overlooked. Further, implications of a particular pattern of water utilization in a river basin are not examined in terms of their implementation for sustainable rural livelihoods" (IWMI, Working Paper 78, 2004)
- Sivaramakrishna stated that governance is about making the government accountable. The presentation stressed that the government, people and NGOs demonstrated poor implementation capacities as far as governance was concerned. The tools of governance and development were also presented. The development professionals, academics and social activists, by and large do not have skills to check the lapses in implementation, using maps, records, and schedules.
- It was noted that the source of authority as far as governance is concerned is fundamental rights/ acts/ rules. Whereas in the case of development, the source of power is directive principles of the constitution, policy documents and government orders. In the government, issues related to land are understood by cadastral maps and record of rights. On the other hand development professionals work with tools like PRAs, microplans and transacts. Both the approaches and tools are different. In the case of forest too the department works through forest felling rules, working plans, reserve rules and microplans. In the case of water, the departments work through localisation rules & maps, river conservation act, groundwater act, contour and drainage maps. The presentation quoted IWMIs research, which emphasises the importance of "transparent policy processes of state parastatals in implementation of policy strictures with implications for patterns of water utilization in river basins. Where implementation capacity is poor, water allocations and distribution may be characterised by conflicts, cost – recovery may disadvantage the poor and those without assets and maintenance of water infrastructure may be limited. Such patterns of water utilization may have serious implications for sustainable rural livelihoods, extent of poverty, environmental health and sustainability of processes of institutional reforms". (Working paper 78, IWMI, 2004 page 17)
- The objective of governance is principally to distribute the resource and to ensure incremental equity. The presentation quoted an EPW article by Amalendu Jyotishi[2]

[1] The detailed proceedings of this presentation are available on request.

[2] Amalendu Jyotishi and Satyapirya Rout, 2005, Water Rights in Deccan Region insights from Baliraja and other water institutions, Economic and Political Weekly, January 8, 2005, pp. 149-156.

which says that "approaching equity through redistribution of only one resource (water in this case), ignoring redistribution of other resources like land, capital and other endowments, is not a feasible approach. Specifically so, when water as scarce resource is neither perceived nor enforced as such. In such a situation, redistribution of income can be better achieved through the generation of employment opportunities and upward revision of wage rate. Using the principal of progressive taxation may be a better mechanism, which of course depends largely on political will."

- There are three key players in the context of a basin – revenue, forest and irrigation department. Failure was met in land reforms and in conservation of forests in the absence of capacities in governance. This may happen in the case of ensuring water rights too. The practical strategy to be followed by Civil Society Organisations is that if Government Orders based on political decisions are inconsistent with law, they need to be challenged. Also, if law is inconsistent with the constitution, it should be challenged.
- The laws governing the various reaches of the basin were presented thereafter. They include the following aspects of water: flow, resource, quality, distribution, share, improvement, disaster management and rehabilitation aspects related to water. The various laws (and policies) include Forest Conservation Act, 1980; Wildlife Protection Act, 1972; Inter State Water Disputes Act, 1956; National Policy on Rehabilitation and Resettlement, 2003; GO Ms. No. 68, 76, 119, 120, GoAP; River Conservancy Act; Environment Protection Act, 1986; Irrigation Acts; Water, Land and Trees Act, GoAP, 2002; AP Farmers Irrigation Systems Act, 1997; Land Ceiling Act; Coastal Regulation Zone Act etc.

The presentation thereafter dealt with the issues related to Natural Resource Management in Seethapally vagu basin and SAKTI's experience on governance. The interventions of SAKTI in the sub-basin since 1985 was in the area of conserving the forests, distributing land, ensuring fishing rights, popularising flood management plan, bargaining for better rehabilitation and suggesting alternatives. SAKTI was successful in checking state sponsored deforestation, first by getting the working plan amended, obtaining stay orders from government against felling of private forest and forcing the closure of mines complying the instructions of government. The PILs filed in this regard gave finality to these interventions *(PUCL website, Sakti Vs Godavari plywoods)*. The need to have a comprehensive approach was discussed, the example being of forest sector, where SAKTI's demand was for convergence of the Six Guidelines and their implementation instead of piecemeal implementation of programmes like JFM. In the case of Bhupatipalem reservoir when the Mandal Parishad passed a resolution in favour of the reservoir (as per the State Act) SAKTI challenged it in the court on the grounds of its inconsistency with the Central Act.

Tungabhadra Basin Level Study by K. J. Joy, SOPPECOM, Pune

The first part of Joy's presentation dealt with the larger project – STRIVER, while the latter part dealt with the Tungabhadra Basin Level Study. Some of the important points of the presentation include –

- The STRIVER project aims to do an integrated interdisciplinary assessment in four twinning river basins, one of them being Tungabhadra. It is a research project, which *studies conditions, develops methods, and tries to provide advice.* Both the scientific and management communities have pointed out that there is the lack of clear methodologies, and that there are problems in the operationalisation of IWRM. STRIVER will develop interdisciplinary methods to assess and implement IWRM. Under the IWRM framework, the problems to be covered are (a) water regimes in trans-boundary regulated rivers (b) environmental flow (c) land and water use interaction, and (d) pollution. The research will use sub-basins of each river basin in all cases to allow more detailed studies and easier integration of all stakeholders, for transferability purposes. STRIVER will (i) Develop guidelines for interdisciplinary methods to assess and implement IWRM (ii) Assess the transferability of case study results (iii) Enhance the dialogue between decision-makers, stakeholders and scientists (iv) Disseminate data and information to stakeholders to promote participatory planning and integrated decision-making, taking adequate account of the rights of poor people and gender roles and (v) Ensure that project results will benefit all parties after the end of the project. Within these river basins small sub-basins (catchments) have been identified for intensive work. Under the twinning concept this work involves learning from other basins (Glomma for example) where water quality issues have been addressed.
- IWRM is a very contested term. There is a dominant discourse, which is being propagated by Global Water Partnership and some other institutions, but at the same time there is an effort to build up the IWRM context from below. That has to be done in a specific social and biophysical context. There is a need to develop a methodology for this.
- The whole research work is centred on work packages. The following work packages concern the Tungabhadra part of the study (a) Work Package 4: Stakeholder Forum, dissemination, demonstration and capacity development (b) Work package 7: Water quality and pollution and (c) Work Package 9: Land and water use interactions. Among these also, Work Package 9 – Land and Water Use Interactions is most relevant to the work to be done under the SPWD Water Governance Project. Joy presented details of Work Package 9.

9.1 The issues related to competing water uses are -
Water allocation and distribution across sectors – drinking water, agriculture, plantation forestry, industry, urban use, etc.
Priorities in water allocation – agriculture, drinking water, industry, etc.
Conflicts across sectors – among stakeholders, inter-basin, inter-state/province (trans-boundary)
Political and developmental interventions – institutions involved - and their work, future needs of water – Demand and supply of water

9.2 While working out the strategies for rainfed and irrigated agriculture the following points will be considered -
Flows and relations: People (livelihood linkages, labour); Nutrients and energy ; Money/income; Livestock; Water
Institutional and policy (dis)integration: departmental coordination, agency coordination, policy contradictions and alignments

Innovations: Water saving farming systems (SRI and other); Water users association; water pricing and water rights; Substitutability of technical and institutional solutions to water problems
History: Heads and tails of different kinds: the spatial dimension of social differentiation; Evolution of policy regimes; Natural resources degradation/conservation in historical perspective: land and water use change over time and its implications

9.3 Land use changes

9.4 Fires and Reforestation Information on number of fires: Types, extent, damage, Reforestation activities: Type, extent, nature, expenditure, etc Forest land conversion: area converted, nature of converted land, for which activities, cost and returns involved, etc. Agricultural crop priorities and land abandonment Biodiversity conservation priorities on water availability and use

9.5 Strategies for improved livelihoods
Livelihood base – forest, land (agriculture), water, and others
Livelihood pattern across the social categories, gender, marginalised sections, etc
Aspects of rights – land, water, forest

9.6 Water use technology and policy
Existing water use technologies – types, technology, level of application, merits and demerits of different systems of water use technologies

9.7 Valuation of improvements in water uses
Household survey for data on farm and household aspects
Quantity of and quality of water availability at the farm and household level
Valuation of water services at the household and farm level

- For the Tungabhadra basin the following kinds of situations can be broadly identified within the sub-basin - Rural Areas: The Upper Catchments & The Middle/Lower Catchments and the Urban Areas. The rural upper catchments are marked by undulating terrain, much higher rainfall, forest areas, mining activity (Kudremukh – basically iron-ore), bamboo and pulp industries, National Parks and the problems associated with all of these. Apart from that there are no large irrigation system command areas, and the area is mainly dependent on local water harvesting systems like tanks. The extent of irrigation is relatively small. Productivity is low and the area under water intensive crops is less. On the other hand the situation in the rural middle and lower catchments is marked by the following characteristics - much lower rainfall, drought conditions in some portions, not so undulating terrain, mainly plains, two large project commands – Tungabhadra and Bhadra projects, sharp delineation between canal irrigated and other areas, limited deep tube-well based irrigation, existence of private lift irrigation schemes, collapse of collective lift irrigation schemes, rice as the predominant irrigated crop as well as the main water consuming crop. The situation in the urban areas of the Tungabhadra basin is marked by rapidly expanding small towns and lack of infrastructure. These combined factors have an impact on water use especially on drinking and domestic water use, industrial use, local pollution and scarcity.
- The issues related to quality include siltation of reservoirs due to mining activities, deforestation and soil erosion in catchments. Pollution of water could be because of industries (mining, pulp industries), increasing pesticide and fertilizer use and lack of treatment and sanitation. In the upper catchments the main issue is local water harvesting and equitable access to non-local water sources. Treatment could be done at milli-watershed level and water security can be created around local storages. The issues in the middle and lower catchments are (a) need to go beyond the dichotomy between irrigated and dryland areas and bring about their integration (b) need to explore alternative cropping systems (c) need to extend service area of the existing water sources on the basis

of minimum water assurance and (d) exploring the System of Rice Intensification (SRI) or similar water saving practices to be integrated into the cropping system. The issues on domestic and drinking water are (i) Serious drinking and domestic water issues affecting resource poor sections: both in small towns and rural areas (ii) Canal closure of about 4 to 5 months, especially in summer months, accentuates drinking water problem (iii) Both quantity and quality are problems (iv) Need to look at water use prioritisation and (v) Need to consider water for livestock, role of livestock in the economy of the area and agriculture-livestock interactions. The governance and institutional issues include (a) Inter-state issues like prior agreements and their impacts & (b) Tungabhadra Board oversees water allocation between Karnataka and Andhra Pradesh.

- In the basin there is a move towards Participatory Irrigation Management and the act is in place and there is a project level federation of WUAs for the Tungabhadra project. Some initiatives from below are there on the institutional side for greater role for WUAs: for example, there is a demand in Andhra Pradesh that WUAs should be mandated to collect water charges. There is need for Water Regulatory Authority, clear and enforceable water entitlements and water rights. As far as water pricing is concerned there is a need to shift from crop-area to volumetric basis as in Maharashtra, and more recently in Karnataka. There is a need for Multi Stakeholder Processes or platforms (MSPs) and for improvement in availability of and access to data. Civil society initiatives and collective actions for watershed development and local water harvesting need to be expanded in both the upper and in the middle/lower catchments.

- The stakeholders could be broadly categorized into the followings (a) Upper catchment farmers and their organisations (b) Middle/Lower catchment dryland and command area farmers, WUAs and other organisations (c) Urban civil society groups (d) Municipalities (e) The mining companies and/or their organizations (f) Other industries and/or their organisations and (g) Relevant state organizations and departments in Karnataka and Andhra Pradesh.

- Some of the critical issues raised by the stakeholders include –

    - Bio-chemical pollution of river by industries, municipalities and from agriculture (point and non-point pollution);
    - Improper use of water;
    - Reduction in fish population (fish biomass), thereby affecting the livelihoods of fisher folk;
    - Inter-sectoral allocation of water;
    - Problem in drinking water supply during summer;
    - Non-regulation of water use, increased pumping, no concept of minimum environmental flows;
    - Interstate water dispute;
    - Sand mining and its effects on water ecosystem. Silt accumulation in river and reservoirs;
    - Lack of participatory water management practices, no participatory policy making; and - Agriculture problems - deteriorating soil health, increasing micronutrient deficiency, mono-cropping, indiscriminate use of chemicals.

Locating Governance Institutions: Shifting Action from State to Free Market Society by Hardeep Singh, SPWD, New Delhi

The presentation by Hardeep on "Locating Governance Institutions: Shifting `Action from State to Free Market Society" was based on a literature review[3] of documents on governance. The key points of the presentation were -

- Governance has always been considered as statecraft – state's authoritative action to move societies in productive direction through enacting acts and policies. It involves putting in place systems to protect individual property rights, manage conflicts, ensure honouring of contracts, to manage non-privatized property either directly or by assigning property rights on it in public interest and to regulate economy to contain negative public outcomes arising out of private pursuits.
- Classical and Neo-liberal Economics have always been against enlarging the state's role in economic activity. There have been several debates on what markets can/ cannot achieve and what optimal state intervention amounts to. Considering the limitations of Classical/ Neo-liberal Economic approaches, Institutional Economics takes into account the political and economic institutions and considers these as underlying determinants of economic performance. Institutional Political Economy as against Institutional Economy views institutions not simply as constraints on the behaviour of the pre-formed and unchanging individuals but sees them also as shaping the individuals themselves. It is difficult even to define the 'free market' operation, as states have been instrumental in some form or other in creating the markets for almost everything. The state permeates the entire economy and is constitutive of private relations. Problems of institutional design cannot be avoided by throwing state out of the economy. The ultimate check on the state must come through institutionalised forms of participation.
- There is a new emergent way to looking at governance with a new approach towards understanding of institutions, power and knowledge. Institutions are increasingly looked at not in static functional terms but as emerging through social interactions. Similarly, knowledge and power are viewed not as unidirectional (one-way) or something to be shared within a small group but are looked at as emerging through the process of negotiation. Governance has come to mean something much less state-centric and more market-like. There has been increasing thrust in literature on developing fluid networks and partnerships of the citizens and community groups to take on some of the functions that were once delivered by the state. With the blurring of the boundaries of public space and a mystification on the location of power, questions have been raised on accountability and depoliticisation of public spaces. There is a need to critically examine the theories and practices underpinning the new governance paradigm especially from the angularity of poor and marginalized sections of the society.

[3] Camilla Strivers, Hal Draper, Coase, Adam Pzreworski, Douglass C North, Ha-Joon Chang, Geoffrey Hodgson, Stefano Harney

Debates on Integrated Water Resource Management by Amita Bhaduri, SPWD, New Delhi

The presentation by Amita on "Debates on Integrated Water Resource Management" was based on a literature review of papers on Integrated Water Resource Management. The key points of the presentation were -

- IWRM has financial underpinnings and the agencies, which are pushing it, are also the ones, who define water as an economic good/ commodity. The project started with a technical connotation of IWRM and it seemed to be tool for scientific analysis since it talked of integration across sectoral uses/ users of water. The definition by GWP seems to be broad enough.
- The literature on IWRM indicates that the term was coined in the 1980s in Netherlands and has its underpinnings in the systems approach. The concept had initially been developed by scientists and the economic underpinning surfaced much later. In the case of watershed one is stuck by the hydrological unit (principle). But in the case of sub-basin like Bahuda if there is a terminal structure one has to look at the command also, apart from the sub-basin. This can be taken as a system and can be very useful for analysis. It helps in understanding the interconnections in the different component parts of the system. Systems approach as such also has its basis in developmental thinking and in looking at the whole as greater than the sum of the parts. There is a need to go through literature on systems approach and especially on how it is used in the water sector to arrive at the unit for study.
- Since the objectives are broad enough like equity and sustainability, the definition offers a lot of flexibility. Since the objectives range from economic development, which is used by most of the international organisations (in their definitions of IWRM) to taking care of the interests of the poor, the project has a lot of scope to define it appropriately. Integration is also referred to in some of the definitions without clarifying as to what all has to integrated. Many people have critiqued the definition of IWRM on the grounds that there is not much difference between Integrated Watershed Development and IWRM. In the case of US, Integrated Watershed Development is being done across space and time on the same lines as IWRM.
- Shah and Koppen have raised doubts about the applicability of IWRM in the Indian context, on the grounds that much of the water economy is in the informal sector. Prof. Ramaswamy Iyer has commented that there is ample scope of educating people and Civil Society Organisations can play a role in this.

Discussion

A number of points and questions that emerged during the discussions, have been clubbed together issue-wise.

Specific suggestions regarding the Project were:

- There is a need to have a common methodology for all the sub-basin projects. The project would study the water balance and work out a water budget based on matching of the water needs and water availability. Care needs to be taken to look at average yields and dependability. Since the methodology for studying water balance needs to be developed before the sub-basin projects commence in Andhra Pradesh, it was suggested that experts be called from outside the present group and a meeting held to finalise the common methodology.
- A clear statement and analysis of alternate scenarios should follow the baseline studies in the sub-basin. This should involve studying the changes, which take, place

vis a vis peoples access to water over a period of time within the existing governance and rights system. Alternative assumptions and scenarios can be built based on these. The project should be in a position to state the possibilities within the existing governance scenario. As part of the existing project, the alternative scenarios of water rights, institutional arrangements and governance mechanisms should be clearly stated.

- There is a need to collect all the acts, policies, rules, GRs of the Central and State Acts for the three States where the project is proposed. This should be made available to all the partner agencies.
- There is a need to clarify certain things a little more and sequence the activities more appropriately so that the project objectives can be met. The use of water for livelihoods in the local context has to be the centre and how governance structures are impeding livelihoods and use of water for livelihoods needs to be studied. This will also require a study of existing governance system and its interaction with the marginalised people. When looking at the interaction, the social changes taking place due to emergence of newer governance concepts needs to be kept in mind. Cases in point being the shift of tribals from agriculture and their reluctance to immediately take up agitation against the Polavaram dam per se. There is a need to sequence and bring out the contradictions more sharply. The project should look at whether the problem is with the overall governance framework or its implementation. Also, there is a need to separate out the positive elements from the normative elements.
- There is a need to capture the problems of upper and lower catchment since they are markedly different. The study will look at the larger context of the basin within which the sub-basin is located. The unit for study of the sub-basin will be extended to include the command also. Case studies can be taken up in the larger basin also to define the context.
- NGOs have to struggle for secondary data from government departments. What should be the strategy to collect information from the administration? Do NGOs need to file a petition under the right to information act?
- As far as the ethical question related to the research goes, its motive should be to empower the resource poor section for more equitable access to water and not for providing data for pro-market forces. The normative question guiding the research is that it should provide certain tools in the hands of the poor and marginalised to demand their rightful share of water. The research should also contribute to methodology at the general level and to the generalised abstract knowledge that can be made available to people outside the basin.
- Delineating the problems in the present Water Governance will be a major focus of the project. Civil Society Organisations have to be cognizant of the functions of the new institutions being promoted for Water Governance. It is all the more important in the context of multiplicity of institutions that have been promoted by the Government and CSOs. Furthermore, there is a lack of clarity as to which is the authority within the government with the responsibility and powers vis a vis particular resources. To address catchment related issues, like rehabilitation and livelihoods of the people, there is a need for a political space and some authority in the government, which can address the concerns. Organising people on the ground has to be combined with demand for an authority in the government for the people to relate to.
- In the present context there is a need for Civil Society Organisations to define the role they can play in the new programmes like the World Bank supported tank rehabilitation programme.

IWRM and Basin Related Issues

The key points, which emerged on these were –

- Surplus or gap has to be determined and a response planned by drawing water from an exogenous source in case of a gap.
- IWRM has been developed as a top-down approach and there is a possibility of developing it as a bottom up approach. Basic elements allow a lot of scope and can be used to define it further. See Peter Mollinga's book on IWRM.

Water Rights Tradability

- Governance relates to the issue of water rights, which is a very hotly debated subject these days. In Maharashtra the MWRRA (Maharashtra Water Resources Regulatory Authority), which has been put in place, is trying to define water rights in a particular manner. SAKTIs strategy of engaging with the state and trying to absorb the tools used by the government should not lead to an uncritical acceptance of the definitions pushed forward by the latter. The state is increasingly intervening to make water rights tradable and there is a need to look at this issue critically especially because water right is a very critical element of water governance. Since the issue is related to livelihoods and human rights there is need to debate this to come up with clear points of agreement and disagreement. After all, a certain minimum quantity and quality of water is required by people for production as well as for drinking and domestic water use. The project needs to contribute to the larger debate on this front.

Catchment-Command Convergence

- Catchment-command convergence is important as a lot of polarisation is taking place when projects are affecting the catchment people adversely while benefiting those in the command area. In an experiment in Maharashtra the dam affected oustees and the beneficiaries of the command area have come together on a platform. In this case the command area farmers fought along with the affected people for their right to utilise certain portion of water and for assurance for their proper development based rehabilitation. In most other dams their interests are always polarized against each other like in Sardar Sarovar Project where there was no dialogue or discussion. Certain types of assurances of rights are needed right at the project onset for the adversely affected people. The way in which catchment-command linkages can be developed is an important issue.

Land Rights or Water Rights? Should They Be De-linked?

- The house was divided on this issue and some felt that there is a need to first settle land rights issues in an area and then work on water rights. They felt that land is not a closed chapter and land reform should be pursued.
- Another view was that the question is not of juxtaposing the issues of land and water distribution and that both are independently important in their own right. In many places land rights are better defined like in the case of mixed caste groups. However, water right is an important right in itself. In Maharashtra land-lordism has given way to water-lordism. Water redistribution on an equitable principle has got an independent value. It does not mean that land reform agenda must be put in the backburner. Both can be taken up. Water can be one of means through which livelihood avenues can be created in the rural areas. SOPPECOM is presently doing a study in seven states on tail-end deprivation and is looking at the water entitlements of those who do not get water. People in the head reaches are monopolizing the water and the localization pattern, which was agreed upon, is never followed. One level of equity could be of fixing the benchmark where people who are getting water today should continue to get it. The second issue is that in the present scenario water right

goes with land rights. There have been some social experiments to delink water rights from land rights. They have been partially successful and could not be replicated. But they serve as historical lessons on how this can be done.

- In Maharashtra there are a couple of lessons from pani panchayat movement and South Maharashtra movement. People's livelihood needs should be the standard to determine how much water one should get. There are methods available to determine this such as water balance. The water that is required for ones needs should be guaranteed to each family irrespective of how much land it owns. In these experiments arrangements have been made wherein if one gets water, one can take else's land and hence have a better bargaining power. Such avenues need to be explored and tried out. - These are not legally sanctioned and require some sort of consensus, pressure and political mobilisation. The South Maharashtra movement has been able to persuade the Government of Maharashtra to change the allocation norms. A pilot project is being implemented presently in three tehsils of South Maharashtra in the districts of Sangli and Solapur. In an upcoming lift irrigation scheme, the government is allocating water equitably. The people had demanded that the water be allocated to the village and the distribution within the village be left to them. The government agreed to this in writing and this has been taken up as a pilot project. The GoM has also changed the membership norms of WUA. While, previously, only command area landowners could become members of WUA, now all citizens (ration card holders) are being given membership. The association now decides the principle according to which water is distributed.
- In the case of watershed, generally the entire benefits are cornered by the people in the valley portion. There are exceptions where people are ensuring that dalits and poor in the upper catchment where most of the conservation works are taken up be given some benefits. Learning's from these can be put together in the form of literature and made available under the project.

Water Regulatory Authority

- Water Regulatory Authority cannot supercede/ override the existing acts. It has a limited exercise or power. It is not final and is a quasi-judicial forum. It looks into storage, distribution, tariffs and allocation. If it comes in the way of the existing acts, it could be challenged.

Water Governance as Part of Overall Natural Resource Governance

- Water Governance should be a part of the overall governance of natural resources. Abstracting/ diverting water and making it a tradable right causes deprivation to many since water has life support functions. People in the rural areas should be in the know of the rainfall-runoff calculations and should be in a position to assert their water rights.
- Land distribution issues are clear whereas water distribution issues are ambiguous. In the case of Chittoor, the inflow into the tanks has reduced and borewells have been sunk in the catchment. In the case of groundwater only those who have the capital can invest and sink deep tubewells. The open wells, which used to provide previously irrigation, have dried up. How can equity issues be addressed under such conditions?

Surface-Groundwater Interconnectedness and Recharge Related Issues

- Groundwater basins are aquifer based. However, mandal is the unit of jurisdiction in case of WALTA. Aquifer should be the unit of jurisdiction and recharge should be mandatory. The selection of the villages to be notified under a particular category such as over-exploited is done based on aquifer studies by the Groundwater Department. Since WALTA is being enforced through the Panchayati Raj Department (MRO), and because at this stage the government is not equipped with

monitoring the changes in the aquifer, it is continuing with village/ mandal as the unit of jurisdiction. Over time aquifer may become the unit of jurisdiction. The issue is not only of having maps but one of technology and one of mapping groundwater aquifers accurately. Even if these things are mapped out, shifting of governance is more of a political question.

- A lot of investment has been made on percolation tanks and on in-situ conservation under government programmes but rainwater harvesting has not been made mandatory.
- The problem in conserving water through recharge is that the benefits are reaped by people downstream and not by the community upstream, which conserves it. In the euphoria of implementing projects like watershed the question of rights of the upstream people have been ignored. And wherever rights to the water recharged has been given to them it has been through some informal agreement that does not have legal standing as the government was not party to the agreement. Since this was not enforceable, beyond the project period, agreements are forgotten.
- One of the unsettled issues in water governance is whether the unit of governance should be administrative or hydrological. This is a larger question that should be taken up – whether it is aquifer management or surface water management (be it watershed or larger dams). This also requires a radical restructuring of the governance systems. This issue is a larger one and is not only related to the water sector.

Localisation

- The colonial government for implementing protective irrigation in the command introduced the principle of localisation wherein parts of the command were localised for particular crops. This is a characteristic of South Indian Irrigation. Both the colonial and post-colonial governments found it difficult to implement. In the APFMIS act, 1997 it has been specifically mentioned that farmers can grow crops of their choice and this goes against the principle of localisation. There is an inherent contradiction because there is localization on the one hand and on the other hand farmers have the right to grow the crop they want. Bala Raju Nikku has critiqued APFMIS on this count.
- However, the same maps and flow diagrams continue and instead of the JE it is the WUA, which operates the system. On the one hand, the societies have the freedom to decide the cropping pattern but the water allocation to the water users association is fixed and it is the localisation map, which determines the overall allocation.
- In the case of designed cropping pattern, which is followed within Maharashtra, the Department has gone a step ahead by saying that the assessment would be volumetric. Water being given to a minor head will be measured and given to the WUA accordingly and the Water Resources/ Irrigation Department takes payments accordingly.
- SAKTI got the localization principle implemented and has trained the dalits to negotiate with the district administration on their rights to water that was being diverted from the reservoir to GAIL. The District Administration responded and a separate sluice was created for GAIL to draw water.

Multi-stakeholder Platforms

- The participants of the MSP in the case of Tungabhadra basin study comprised of – Irrigation Department (Major-Medium and Minor), CADA, State Pollution Control Boards, Forest Department, Fisheries Department, Major Industries (Grasim), NGOs in the basin, Academic Institutes (CSWCRTI, Bellary), and farmers groups. A

representative of the industry came in the second meeting. In regional terms AP was underrepresented as compared to Karnataka.

- SAKTI's strategy is one of persuading the Government to convene the MSP so that the negotiation is done with the authority. Since today MSPs generally operate outside the government set-up they lack a legal mandate. The government is not legally bound to comply with the decisions made by MSPs. In the Western countries MSPs and river basins authorities are now mandated. This is not the case with India. Janakarajan has been holding lot of MSPs on Cauvery successfully and has been able to bring TN and Karnataka farmers on one platform for dialogue. A lot of misconceptions have been removed as a result.
- In Maharashtra, SOPPECOM intervened in Kolhapur where a medium irrigation project was being constructed. Resource mapping was done in the command area, submergence and catchment area villages with the anti-dam people's movement. The movement was able to present an alternative plan to the government which indicated that the storage be dispersed from one place to three places and the height of the major dam be brought down for saving village settlements from submergence. As a result of the struggle the government agreed on two things (1) bringing down the height of the dam by two meters (2) constructing another structure to prevent water loss. This negotiation can take place provided one has data and has done homework. Otherwise, very often CSOs are not able to use the space. Had the movement taken the form of no dam, the area would not have got the water it needed. There is a need for a dialogue among the people who are going to benefit and those who are to be adversely affected.
- Local watershed and water harvesting cannot meet all the livelihood needs of the people in the catchment area especially where rainfall is 400-600 mm. Those who claim the opposite generally go by average values of rainfall and do not look at dependability, which is an important factor in water budgeting and water balance.

Governance

- As of Civil Society, political parties are loosing ground in various ways and markets are taking away the power. Where do the CSOs stand vis a vis markets and what is their ability to transact things vis a vis the state? This is the central question in any work on governance. In the absence of traditional politics how does the Civil Society become stronger? Also the term Civil Society has to be clarified further because different people define it in different ways.
- There is a need to differentiate between setting up of mass organisations and networks. The various member organisations of a network may have some workable understanding and may be ready to help or support each other on certain things. But they do not maintain their own understanding of things as an organisation.
- The task of the Civil Society is to strengthen social capital. Welfare legislations are never crystallised because its anomalies are not challenged in the court. PRI act has been in existence for the last ten years and SAKTI plans to challenge it on the grounds of conflicting rules.
- In the context of PIM and WUAs, the presence of a centralised authority to solve problems, which can be sorted out at the local level, is not desirable. In certain types of resource management CBOs can be there. They should not be strictly directly elected like in a PRI. The problem today is that they are being seen as a parallel force. However CBOs need to be a part of the overall PRI system.
- The debates on institutions and organisations have challenged Weber's theory of rationalisation in the context of organisation, as it presupposes some consent and a need to rationalise. Building of that consent itself takes a lot of toll in terms of

bringing people of varied interests together for one kind of work. Civil Society itself is divided either on the basis of division between labour and capital or on the basis of identities like caste, gender. As far as this project is concerned the focus is on marginalized people.