Water Resources, Livelihood Security and Stakeholder Initiatives in a River Basin Context

Minutes of project meeting at WTC, Coimbatore, 22 February 2005

Multi stakeholder meeting, Mon 21 Feb
The meeting was conducted from 10.00 am to ca: 05.30 pm. Besides the project team, members representing different stakeholders e.g. farmers, NGOs and government departments participated. During the day the issues presented were followed by intensive discussions and reflections from and among the stakeholders. The entire meeting was recorded on both audio and video. These recordings will be available to stakeholders in the basin.

Participants agreed that a basin stakeholder forum will be set up. The focus of discussion by the forum could either be on the allocation of water to different groups or on environmental concerns in the basin. Under preliminary chairmanship of Prof. Sivanappan a first meeting will be held the first week of April. WTC/TNAU will assist in setting up the meeting and provide facilities. The project team will also give support to this initiative. Some preparatory work needs to be done before the meeting in April.

After completion of the joint CA-report a status paper for the basin will be prepared by the project team and circulated among the stakeholders, including the government departments, for getting their responses.

Project meeting, Tue 22 Feb
Preliminary findings from the three studies were presented.

1)Water Budget:
Quantity
Data showed similar, or worse, drought in years 82-83 to 90-91. During the years, 82-83 and 85-86 to 90-91 LBP farmers received less water than 01-02 and 02-03 (average releases to Old Ayacut Areas and around 25 000 MCFT to LBP) that are considered as severe drought years. In 85-86 releases for LBP were less than 5 000 MCFT, compared to an average of 20 – 40 000 MCFT. It would be interesting to find out why farmers today say that they experience the worst situation ever even if data indicate similar conditions two decades ago. Have the farmers forgotten the hard years or have water use and consumptive water use changed and increased substantially over this time, thus leaving less water for actual use? Newspaper reports from this time might give an answer. More data, including data for drought year 03-04, that will give basis for further analysis will be collected during Feb-March 2005. Since some of the data that were collected Feb-Aug 2004 indicate inconsistency, e.g. an increase from average 8 000 to 24 000 MCFT to Kalingaryan Canal in 88-89, a quality check is necessary before more results can be gained.

2) Water Quality
The Water Technology Centre, TNAU has done water and soil quality sampling in three clusters near Mettupalayam and Sirumugai. It was decided that this data would be coded and included in the final report for use by researchers and stakeholders. Data on environmental hot spots were presented It was clear that the ground water in the two selected villages near Mettupalayam was severely polluted by the neighbouring industries. The livelihood in one

cluster close to the river was not affected as much as, because they had the option of pumping water from the river. Industries in the area also arranged supply of drinking water to the villages. These options were not available in the other two clusters. The SIV affected village is still suffering from residual pollution and it may take several years to recover the original status. In the Kalingarayan Canal the large volume of freshwater dilutes the effluents to such an extent that the water quality generally is satisfactory for irrigation. However the farmers argue that yields are affected by the pollution. It is also possible that the quality of the crop may be affected by pollution. However, such investigators are beyond the scope of the present study. The impact of fertilizers on groundwater quality was also studied. Using a model it was determined that the efficiency of fertilizer use in three villages in the basin was around 30%. Hence it is not surprising that high nitrate levels are observed in the groundwater. MSE has carried out sample surveys of 60 farmers in the Kalingarayan command and 55 farmers in the three clusters. The results of the survey will be included in the final report.

3)Water access and Livelihood

The report was prepared in two parts. One is at macro level based on secondary data collected from the government departments. The data relate to Taluk and districts falling under Bhavani basin. One of the major findings of the study was the reduction in the area irrigated by about 45% between the two points of time, 1995-1996 and 2002-2003. Mostly irrigated areas were affected during the drought and the worst sufferers are from the well irrigation area. Relatively the effect of drought or scarcity condition in non-command area is less.

The next part of the study is a household survey in four water regimes i.e from the Old Ayacut, New command area (head and tail-reach) and non-command area. The linkages between water access and livelihoods are covered by the survey across different regions and the difference in livelihoods between normal and scarcity year (2003-2004). Overall the same result as we found in macro-level analysis also relevant from the field survey. On average, about 90% of the household income of the farmers is obtained from irrigation. The dependency of small and marginal farmers on water for their livelihood is more in irrigated areas compared to non-command areas. Because of the high level of dependency on irrigation the farmers in the command areas are also affected by the drought. Hence the collective action related to irrigation is quite high in irrigated areas compared to others. In addition a special study was conducted on water rights especially the role of negotiated water rights systems among farmers and its impact on their livelihoods. From the discussion at the meeting it was suggested to look at the coping mechanisms by farmers during the severe scarcity times like cropping insurance, etc. but it was mentioned that based on a study by TNAU that no such state support is available to farmers during scarcity times. It was also suggested to look into the relationship between water availability and poverty based on the household survey.

Integration of three parts

One of the suggestions is to have livelihood impact as a common thread for integrating three issues in the report. It was suggested that basin specific policy strategic assessment be done based on our study. Some policy suggestions can be made to further discussion during this part of the report. Specific policy suggestions should look into the aspects relating to drought management, coping mechanisms and strengthening the drought preparedness. One other area which could be considered are water rights relating to water quality for example there would be no point in providing saline irrigation water. Quantity-quality relationships in the basin could also be examined. It was noticed that the water quality of the river was poorer during years of low flow. The effect of rainfall on ground water quality was more complex. For

some parameters like TDS, the quality was worse in the post-monsoon period. In the Kalingarayan canal, flushing of pollutants takes place once the canal is opened. Common water sharing formula between the old and new ayacut as well as up-stream and down-stream areas will be examined, i.e. renegotiation of existing water rights in the basin. The risk associated with the drought in the old and new ayacut will be examined in terms of poverty focus.

Reports and publications

The Comprehensive Assessment of Water Management in Agriculture, CA, has two publication reports series: Scientific Reports (SR) and Working Papers (WP). A SR should present new and interesting findings and are carefully peer reviewed by different IWMI experts to guarantee a high quality level. WPs are reports of less scientific strength but with interesting data and findings. SRs and WPs are published as hard copies as well as for free down loads on the CA website.

Scientific report
The information and main results from all working groups will be synthesised into a joint report that will be published within the CA Scientific Report series. The report will focus on new findings and be around 20-30 pages. Prof Lundqvist will lead the synthesis integrating all working groups.

Sub-reports
Each of the three sub-projects will submit a separate project report. If any of these reports reach peer-review standard and can present interesting new findings it may be accepted as a separate CA-SR. Interesting findings of average standard might instead be accepted as a report within the CA-WP series. Minimum requirement for each team is to submit only the sub report.

Multi Stakeholder Report
A report presenting the discussion and views of various stakeholders will be submitted to the CA and Sida.

Tamil papers
Summary of synthesis
Summary of stakeholder report

Video
Will be available for stakeholders.

Time plan

All sub-reports should be ready by end of April and the synthesis will be submitted to IWMI/CA before the end of May. After peer review by CA-IWMI, necessary alteration and acceptance the final report will be submitted by the latest August 2005.

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