

Where are they now? Notes from the field:

EVALUATING THE CONSIDERABLE ACHIEVEMENTS OF A RURAL LIVELIHOODS PROJECT IN NORTH EAST INDIA

As part of an ongoing collaboration and series of evaluations with livelihoods projects in India over the several years, such as Jarkhand Opportunities for Harnessing Rural Growth (JOHAR), Bihar, and several others mainly relating to the National Rural Livelihoods Mission, which focus on women's federations and agriculture livelihoods, an Investment Centre (FAO DPI) team was requested by the World Bank to prepare the Implementation Completion and Results (ICR) reporting for the North East Rural Livelihoods Project (NERLP). The project covers 11 districts in four states, with 300 000 beneficiaries, implemented under the Ministry of the Development of North East Region (MDONER).

Jim Hancock (lead author) with **Thomas Muenzel** and **Kundan Singh** (DPI economists), together with an energetic group of national consultants such as Messrs Rajshekhkar (agriculture), Karuna Krishnaswamy (monitoring and evaluation), Amit Arora (microfinance), Shouvik Mitra (community institutions and livelihoods development) and Manu Sinha (economist), spent a couple of weeks in August-September in the North East to take a thorough

look at project performance and results. These team members have been already assisting the NERLP on project implementation and, in the last year, they have also provided guidance to the World Bank and project teams on developing thematic notes and a thorough impact evaluation, to be able to assess the full extent of project's achievements, at times under challenging conditions (lack of proper baseline assessment, etc).

The DPI assessment team was pleased to see that despite project delays and management change-over, the hard-working project district teams and NGOs had worked very closely with communities to achieve many project targets to a considerable degree. Field visits undertaken during the ICR mission showed the inclusion of large numbers of women and tribal beneficiaries, the development of strong self-help groups' federations, with rigorous finance systems and links to banks. The women and community groups interviewed could articulate meticulously benefits in terms of production and household changes, as well as their own increasing voice in matters concerning their families and the wider community. These aspects are also in line with the findings of the impact evaluations and studies.

Interestingly, there are a number of producer groups, and even producer companies, that are emerging and harnessing the collective action and networking of the women's federations for marketing, seed and fishery production, as well as the strengthening of agriculture practices packages through farmer field schools. Matching grants planned and implemented by community groups on natural resources, irrigation and market structures, show highly complementary benefits. An exciting development is the work on new producer companies on organic produce. The Government of Sikkim, for example, enthusiastically supports the NERLP model as a grassroots-based building block for contributing to its pioneering declaration as an organic state.

Interviewing an active community development group in Sikkim, on the benefits from their new local irrigations system, helping them to expand and diversify.

The lessons and experiences from the project, as well as the empowered households, form a very promising base upon which to develop further programmes on inclusive agriculture value chains in the North East, with possible DPI support work. Such work will also contribute to wider discussions between FAO India and the Government of India on the very pressing and high-level topic of sustainable agriculture transformation.

REHABILITATION OF CASCADE TANKS IN THE DRY ZONE OF SRI LANKA UNDER THE CLIMATE SMART IRRIGATED AGRICULTURE PROJECT - by M. Dinesh Kumar (DPIB Consultant).

The Government of Sri Lanka has received for financing from the International Development Association (IDA) in the form of a credit towards the cost of implementing the Climate Smart Irrigated Agriculture Project (CSIAP). The Ministry of Agriculture, Livestock Development, Irrigation and Fisheries and Aquatic Resources Development is the project's implementing agency. The project, which integrates water resources development with agricultural development, comprises three major components, namely: (i) restoration and rehabilitation of the cascade and individual tanks that dot the rural landscape of the dry zone of Sri Lanka, to improve their performance to tackle droughts and floods; (ii) introduction of climate-smart agricultural practices in the tank commands and their catchments; and (iii) value addition of agricultural produce and marketing. Under this project, around 1 500 (small and medium) tanks are to be rehabilitated from nine districts located in the dry zone of Sri Lanka, in 13 river basins over a period of six years.

Studying the Hydrology of Cascade Tanks

Tank rehabilitation is not a new idea in this part of the world, and projects involving rehabilitation of such traditional water systems had been implemented in different parts of the South Asia region (especially in the south Indian peninsula and dry zone of Sri Lanka) for several decades now, with external funding. However, the CSIAP is unique in the sense that the decisions on capacity enhancement of these tanks (through desilting and raising of tank bunds to improve their irrigation potential and flood-proofing capacity) would be based on a proper hydrological assessment of the basins in which they are located. This is to ensure optimum, basin-wide development of water resources using tank storages.

There is a separate hydrology study component in CSIAP, the objective of which is to undertake hydrological assessments and thereafter carry out planning of water resource development projects in selected river basins/watersheds in the dry zones of Sri Lanka in order to augment and assure irrigation water supply in the commands and catchments of cascade tanks using surface water resources. This would involve the use of: (i) hydrological simulation models to scientifically assess the catchment yield; (ii) engineering surveys of catchments and tanks; and (iii) water balance models used to assess water demand and supply situations and decide on the extent of augmentation of tank capacity.

Field Visits to Tank Commands in Yan Oya Basin in Anuradhapura

One of the districts where the project is to be implemented on a pilot basis is Anuradhapura in the North Central Province. Famous as an historically important 'sacred city', Anuradhapura is located close by to the district capital. It has thousands of tanks, many of which are quite large, irrigating 400-500 acres of land. Some of them were built in ancient times by the then reigning kings. With mean annual rainfall exceeding 1 200 mm, most of these tanks receive substantial amount of inflows from their catchments during normal and wet years. During the recent mission to Sri Lanka (14-25 September), we (Mr Naditha, a hydrology consultant to the World Bank office there, and I) undertook visits to three of the tanks located in Yan Oya river basin to understand the nature of the work involved for improving their irrigation performance and flood mitigation capacity. We were accompanied by the officials of the Department of Agrarian Development (under the Ministry of Agriculture) and the Department of Irrigation (under the Ministry of Water Resources and Irrigation).

Unlike what is generally perceived, these tanks are not just traditional irrigation structures. They are multiple-use wetlands, providing a whole range of goods (food, fibre, firewood and fodder) and services. Many of them had forest catchments, with large wood stock of high economic and ecological value. Wild elephants roam freely in the area, given the thick forest cover. The tanks support several aquatic species of plants and animals, including lotus and lily, local varieties of fish, crustaceans and turtles. The significant number of families that form the local fishing community survive on the fish catch from these tanks. These wetlands also invite several species of birds. The catchments and the tank bed during the dry season also serve as excellent grazing land for the cattle from the neighbourhood. It was clear that the large tanks, if rehabilitated, can provide irrigation to the local farmers during both Yala as well as Maha seasons for boosting crop production.

The spillways of all the three tanks were in a severely damaged state. Discussions with the officials of the Department of Agrarian Development revealed that the spillways lacked adequate capacity to evacuate the discharge during extreme flooding events. The design flood was underestimated owing to the use of inaccurate methods. Also, the spillway was not properly sited, in the absence of proper abutments. As part of the mission, we decided to undertake a brief training of the officers involved in the rehabilitation work, on scientific estimation of flood discharge (probable maximum flood) for the design of the spillways.

Concluding Remarks

Proper hydrological assessment of the river basins and their sub-watersheds in the project area, in which the cascade/individual tanks are located, would provide a good basis for planning their optimum development. The information and knowledge generated from these studies would go a long way in building the capacity of the staff of agencies involved in the scientific planning of water resources in the dry zone of Sri Lanka. Given the multiple use nature of the tanks, the objectives of their management can be broadened, particularly to address the concerns of livelihood of fishing communities, protection of aquatic species (plants and animals) and the recreational value of tanks, apart from enhancing their economic use value in agriculture.

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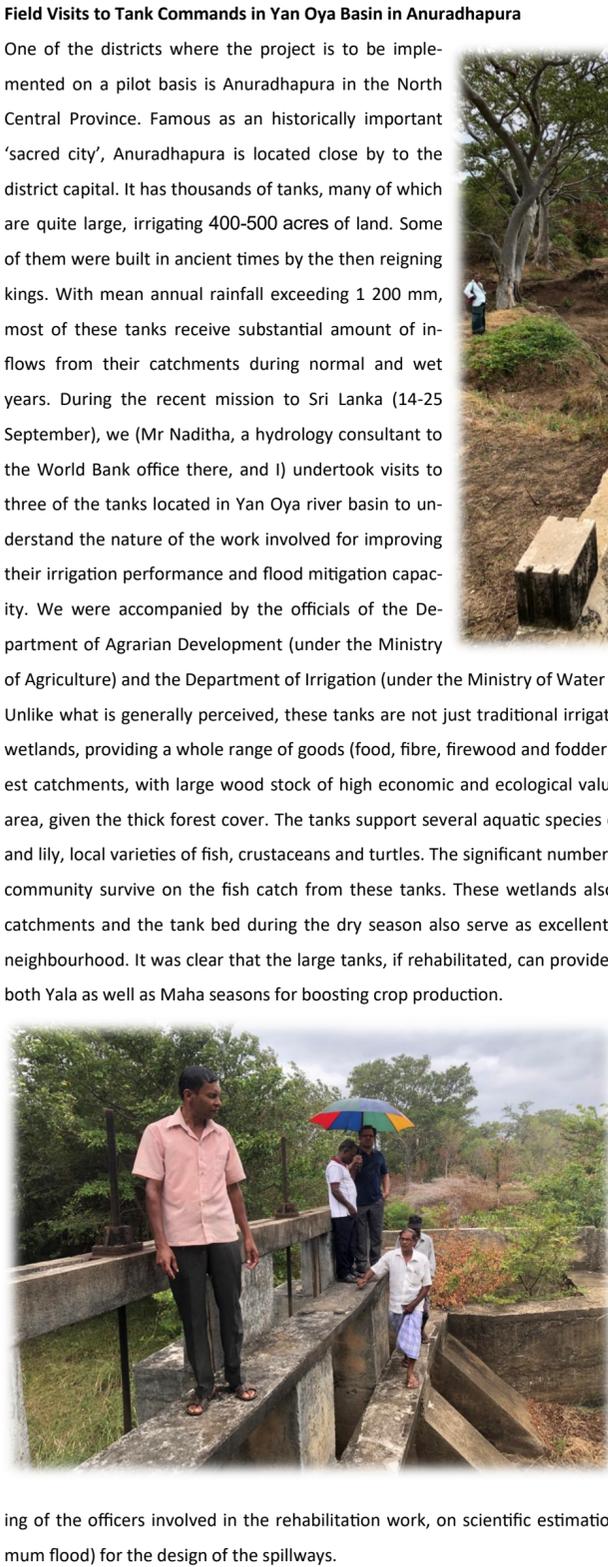
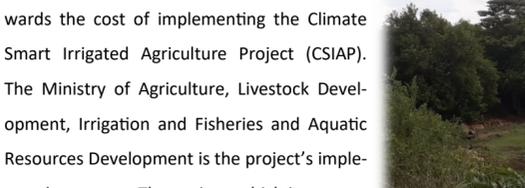
Sumbuk Block federation collection centre, Sikkim, bringing organic vegetable produce together. Sold as local, safe and tasty produce in a nearby town markets.



Ms Passang, farmer field school leader, showing the latest local seed tomato variety that she is producing to cater to local organic market production.



Interviewing an active community development group in Sikkim, on the benefits from their new local irrigations system, helping them to expand and diversify.



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