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RESTRUCTURING PAPER  
ON A  
PROPOSED PROJECT RESTRUCTURING  
OF  
ORISSA COMMUNITY TANKS MANAGEMENT PROJECT  
LOAN AND CREDIT  
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## **ORISSA COMMUNITY TANKS MANAGEMENT PROJECT PROJECT RESTRUCTURING PAPER**

### **SUMMARY**

1. Shortly after project effectiveness, the State of Orissa benefitted from a national program that provides grants for repairs, renovations and restorations of tanks in States<sup>1</sup> (RRR scheme). The program offers 90% grant for tribal, KBK<sup>2</sup>, drought-prone and naxalite affected areas. Compared with the other States that benefitted from this scheme, because of RRR's selection criteria and a smaller overall number of tanks in the State, this development affected Orissa more. As a result, 10 out of the total 22 project districts became eligible for participation under RRR program. The government funded scheme has nevertheless an upper limit which makes the Bank financing still necessary. In addition, fiduciary controls and close attention to institutional/sustainability issues were considered important positive externalities of World Bank financing. The scope for Bank financing of tank rehabilitation in the State was reduced but, at the same time, the need to focus more intensively on institutional strengthening, agricultural livelihood services and some irrigation improvements in the project area were acknowledged.

2. The project envisaged the rehabilitation of 900 tanks that provide irrigation for 120 thousands hectares. Under the proposed restructuring, only 320 tanks will be rehabilitated covering 60 thousand hectares albeit with some additional irrigation work and more intensive work on institutional strengthening and agricultural livelihood services in the project area. The restructured project will necessitate the cancellation of US\$ 35.06 million (including US\$ 17.53 million from the IBRD loan and US\$ 17.53 million from IDA credit). The outcomes of the project should be achieved for the newly defined, reduced project area. As a result of more intensive assistance to Water Union Associations and Livelihood Community Services, some project targets have been marginally increased. In the context of the proposed restructuring, the Project Implementation Manual will be revisited so as to promote a greater convergence between the project and the RRR scheme. As a result of this convergence, tendering/contracting arrangements will be similar in both cases, at least within the thresholds established by the legal agreements. Moreover, the assistance provided on institutional issues under the project will be gradually extended to RRR schemes thereby making sure that lessons on participatory water management practices are adopted throughout the state.

### **PROJECT STATUS**

3. According to a recent assessment, the project will achieve its development objectives. However, it had a slow start. The slow implementation progress was largely related to the uncertainty created by the introduction of the RRR scheme about the selection of the tanks for rehabilitation that will receive Bank financing. In addition, there were large number of vacancies in the project unit and project districts, existing staff had little experience in implementing Bank-funded projects and the project did not have a director for several months in 2010. However, the present situation looks more promising as a new project director with experience in implementing Bank-funded projects is in place and the project staff acquires needed experience. Because of the

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<sup>1</sup> GoI scheme for Repair, Renovation and Restoration of Water Bodies with Domestic Support.

<sup>2</sup> The undivided districts of Koraput, Bolangir and Kalahandi (popularly known as KBK districts in Orissa) have since 1992-93 been divided into eight districts: Koraput, Malkangiri, Nawrangpur, Rayagada, Bolangir, Sonepur, Kalahandi and Nuapada. These eight districts comprise of 14 Subdivisions, 37 Tehsils, 80 CD Blocks, 1,437 Gram Panchayats and 12,293 villages.

proactive stance of the new project director, the Bank was able to reach an agreement with both Governments of Orissa and India on the revisions to the scope of the Bank-funded project soon after her appointment.

4. Few tanks had been rehabilitated but several bids had been already issued. Other examples of initial progress include: 46 crop demonstrations conducted and 24 animal health and nutrition camps held. Over 500 farmers trained on improved technological practices in crop husbandry, animal husbandry and fisheries. Training has also been provided to Water User Associations in 62 tanks. It was assessed that more involvement by the communities in the improvement and rehabilitation of their tank systems will be needed. Study tours for the representatives of the prospective beneficiary communities will take place to the already successfully implemented tank systems in the State so as to learn from their experience.

## **PROPOSED CHANGES**

5. The project envisaged the rehabilitation of 900 tanks that provide irrigation for 120 thousands hectares. Under the proposed restructuring the following changes will take place:

- Only 320 tanks will be rehabilitated covering 60 thousands hectares;
- Additional works will be carried out for lining of the main canals, improving water control structures, construction of water outlets and judicious (where justified) lining of on-farm channels;
- More intensive promotion of Water User Associations (WUAs) and livelihood support services;
- Improving the technical capacity of the Minor Irrigation Department;
- As a result, US\$ 35.06 million of funding (including US\$ 17.53 million from the IBRD loan and US\$ 17.53 million from IDA credit) will be cancelled.

6. Project Components. The following adjustments are proposed:

- Component A. Institutional Strengthening will include two new sub-components: A.1 - "Community-Based Activities"; and A.2 - "Minor Irrigation Department". The latter sub-component will be a new institutional activity of the project;
- Component B. "Tank Systems Improvements" will be renamed called under the restructured project as "Tank Systems and Irrigation Improvements" to capture the inclusion of additional work such as lining for the main canals; excavation of field channels; selective lining of field channel where justified; and construction of control structures to ensure proper water distribution;
- Learning from the experience in implementation of highly similar projects elsewhere in India, the support to foreshore area treatment under Component C would be discontinued.

7. Results/indicators

- The Project Development Objectives (PDO) will not change,
- Annex I shows the slightly revised Results Framework under the restructuring proposal;
- As the outcome indicators were designed in relative terms – they should remain basically unchanged albeit the targets would now refer to the reduced project area.
- Targets for one of the PDO Indicator measuring "Improved Tank Management" have been slightly revised, upwards, to reflect the more intensive work proposed in the relevant component;

- One new Intermediate Outcome Indicator (IOI) was added to reflect the technical assistance proposed to the Minor Irrigation Department;
  - Others IOIs remain largely unchanged. Few targets were slightly revised, upwards, to reflect more intensive activities on WUAs and livelihoods support services. Two IOIs were measured in absolute numbers and required to be adjusted to the new project scale;
  - While it is likely that land productivity will increase even faster than targets indicate, the relevant indicators were not modified as such development may take place when the project comes to a closure or even later.
8. Financing. The following changes in the project costs are proposed:
- Component A. Institutional Strengthening will be modified in the following aspects:
    - Sub-component A.1 - “Community Based Activities”: this sub-component will include, in a more intensified manner, the key activities already envisaged, focusing on supporting WUAs (called Pani Pachayats - PP) through training and capacity building for improved water management so that WUAs will have the capacity and competency to take over operations and maintenance of the tank systems and survive as self-sustainable institutions. The project will cover a reduced number of WUAs and districts. As a part of putting more emphasis on these activities than originally envisaged, the project will develop certain generic modules with the help of individual resource persons or agencies and will use a number of best practice PPs in the state as part of the training process;
    - Sub-Component A.2 - “Minor Irrigation Department”: the proposed restructuring will include financing for improving the technical capacity of the Minor Irrigation Department to plan, implement, monitor and evaluate investments in minor irrigation (which would include other irrigation investments such as boreholes, check dams, etc.)
  - Component B. Tank Systems Improvements. This component will be renamed into “Tank Systems and Irrigation Improvements” and will include tank systems improvements covering 60 thousands hectares and additional works in irrigation improvements. Estimated unit costs for tank improvements and for the additional works are, respectively, Rupees 35,000 and 12,000 per hectare. As noted above, the revised component will now also include lining for the main canals; excavation and judicious lining of field channels; and construction of control structures to enable effective water distribution.
  - Component C. Agricultural Livelihood Support Services will be modified to reflect, on the one hand, the reduction in hectares/districts covered by the restructured operation and, on the other, the more intensive emphasis given to these activities. Therefore, the reduction in this cost component is somewhat less pronounced than the reduction in the number of hectares covered. The support to foreshore area treatment under Component C would be discontinued.
  - These changes are reflected in the project cost Table below.

Project Costs (US\$ million)		
Components/Activities	Current	Proposed
<b>A. Institutional Strengthening</b>	<b>8.8</b>	<b>5.1</b>
A.1 Community Based Activities	8.8	4.0

A.2 Minor Irrigation Department		1.1
<b>B. Tank Systems and Irrigation Improvements</b>	<b>90.0</b>	<b>60.6</b>
B.1 Tank Systems Improvements	90.0	50.6
B.2 Additional Work to Improve Irrigation		10.0
<b>C. Agricultural Livelihoods Support Services</b>	<b>16.1</b>	<b>11.0</b>
C.1 Agriculture and Horticulture	7.5	5.0
C.2 Livestock	3.6	2.1
C.3 Fisheries	2.4	1.7
C.4 Foreshore Area Treatment	0.5	0.0
C.5 Agricultural Marketing	2.1	2.2
<b>D. Project Management</b>	<b>6.4</b>	<b>5.7</b>
<b>Total Baseline Cost</b>	<b>121.3</b>	<b>82.4</b>
Physical Contingencies	1.5	0.8
Price Contingencies	5.0	4.6
<b>Project Costs</b>	<b>127.8</b>	<b>87.8</b>

- Cancellations. As a result, this restructuring proposes to cancel US\$ 35.06 million from the Bank overall financing including US\$ 17.53 million from the IBRD loan and US\$ 17.53 million from IDA credit.

## APPRAISAL SUMMARY

9. Economic and financial analysis: the rate of returns for the reduced-scale project is unlikely to change in any significant manner. Some additional benefits could be expected from the additional work on irrigation, from a more intensive work with WUAs and from more emphasis on assistance for livelihoods support services. However, on the cost side, the land-coverage of the project will be reduced under this proposal to half of its original size while the overall costs of the project will be reduced to less than 40%. Marginally higher outcomes on productivity are envisaged as a result of the proposed restructuring albeit their full impact may be felt at the end of the project life or even later. A recently completed baseline study confirmed that significant room for increase in crop and livestock productivity indeed exist and can be addressed with the activities to be undertaken by the project. All things considered, the restructuring of this project is unlikely to affect economic returns in a significant manner: estimated rate of return for this project was very high, over 20%, and the sensitivity analysis showed a very favorable situation. Even if costs increase by 125% and benefits fall by 37%, still the rate of return will be over 12%.

**Results Framework and Monitoring**  
**INDIA: ORISSA COMMUNITY TANK MANAGEMENT PROJECT**

<b>Project Development Objective (PDO):</b> The proposed project development objective is for selected tank based producers to improve agricultural productivity and water user associations to manage tank systems effectively.												
<b>Revised Project Development Objective: No changes are proposed</b>												
PDO Level Results Indicators*	Core	D=Dropped C=Continue N= New R=Revised	Unit of Measure	Baseline	Cumulative Target Values**					Frequency	Data Source/ Methodology	Responsibility for Data Collection
					YR 1	YR 2	YR 3	YR4	YR5			
<b>1. Increased in crop productivity/intensity:</b>												
a. Increased in Crop Productivity:		Continue	Cumulative % increased								Survey	External M&E Agency
i. Paddy	2.88t/ha			0	0	10	20	25	Annual			
ii. Greengram	0.40t/ha			0	0	10	20	30	Annual			
iii. Mustard	0.45t/ha			0	0	10	20	30	Annual			
iv. Groundnut	1.25t/ha			0	0	10	15	20	Annual			
v. Vegetables	10t/ha	0	0	10	30	50	Annual					
b. Increased in Cropping Intensity				1.25	0	0	5	10	20	Annual		
c. % Increased in Fish Productivity				0.03t/ha	0	50	100	200	400	Annual		
d. % Increased in milk Productivity				1lt/day/cat tle	0	50	100	200	300	Annual		

2. <b>Improved Tank Management:</b> a. % of WUAs in rehabilitated tank systems satisfied with WUA operations and maintenance b. % of WUAs in rehabilitated tank systems whose O&M expenditure is as per annual O&M plan												
	Revised	%	0	0	0	50	75	85	Semi-annual	Consumer Satisfaction Survey	External M&E Agency; WUA through participatory M&E	
		%	0	0	0	80	80	85	Semi-annual	Survey	External M&E	

**INTERMEDIATE RESULTS**

**Intermediate Result (Component One): Institutional Strengthening**

- a. % WUAs holding regular General Body meetings
- b. % WUAs maintaining appropriate cash books and water regulation registers
- c. % of total current-year assessed water charge collected

**Revised Intermediate Result (Component One): Institutional Strengthening**

<i>Intermediate Result indicator One: % WUAs holding General Body Meetings</i>		Continue	%	0	40	60	80	80	80	Semi-annual	WUA records	SPU; WUA through participatory M&E
<i>Intermediate Result indicator Two: % of WUAs maintaining appropriate cash books and water regulation registers</i>		Revised	%	0	40	60	80	80	85	Semi-annual	WUA records	SPU; WUA through participatory M&E
<i>Intermediate Result indicator Three: % of total current-year assessed water charge collected</i>		Revised	%	BL <sup>3</sup>	40	60	80	90	95	Annual	WUA records	SPU
<i>Intermediate Result indicator Four: Minor Irrigation Department deemed able to implement, monitor and evaluate "minor" investments</i>		New	Qualitative Assessment	Minor Irrigation Department is weak in performing	Minor Irrigation Department is weak in performing	Minor Irrigation Department is weak in performing	Minor Irrigation Department is weak in performing	Minor Irrigation Department shows some	Minor Irrigation Department deemed able to	Semi-annual	Implementation records	External Agency

<sup>3</sup> Information to be collected by base line survey

				investment duties	performing investment duties	investment duties	performing investment duties	progress in implementation, monitoring and evaluation	implement, monitor and evaluate minor investments			
<b>Intermediate Result (Component Two): Tank Systems Improvement</b>												
<ul style="list-style-type: none"> <li>a. % tank command area irrigated (under “normal” rainfall conditions)</li> <li>b. % of middle- and tail-end farmers reporting improved water availability in rehabilitated tanks</li> <li>c. % increase in value of crop output per unit of water in command area of rehabilitated tanks</li> <li>d. % tanks with social and environment action plans prepared and implemented</li> </ul>												
<b>Revised Intermediate Result (Component Two): Tank Systems and Irrigation Improvements</b>												
<i>Intermediate Result indicator One: % tank command area irrigated (under “normal” rainfall conditions)</i>		Continue	%	54	54	70	80	80	90	Semi-annual	Implementation Records, Survey	SPU, External Agency
<i>Intermediate Result indicator Two: % of middle- and tail-end farmers reporting improved water availability in rehabilitated tanks</i>		Continue	%	0	0	0	50	60	75	Semi-annual	WUA records	SPU, WUA through participatory M&E
<i>Intermediate Result indicator Three: % increase in value of crop output per unit of water in command area of rehabilitated tanks</i>		Revised	%	BL	0	0	10	15	20	Semi-annual	Survey	External M&E Agency; SPU
<i>Intermediate Result indicator Four: % tanks with social and environment action plans prepared and implemented</i>		Continue	%	0	0	0	30	60	100	Semi-annual	TIMPs; Survey	SPU, External Agency
<b>Intermediate Result (Component Three): Agricultural Livelihoods Support Services</b>												
<ul style="list-style-type: none"> <li>a. % farmers in tank command adopting improved production techniques</li> <li>b. % of tank fishing communities in project tanks adopting improved production/harvesting techniques</li> <li>c. Increase in number of improved breed cattle in project tank areas</li> <li>d. % increase in share of final sale value obtained by farmer marketing groups in targeted commodities</li> <li>e. No. of functioning farmer marketing groups established</li> </ul>												

<b>Revised Intermediate Result (Component Three):</b>												
<i>Intermediate Result indicator One: % farmers in project area adopting improved production techniques</i>		Revised	%	10	10	15	20	30	45	Semi-annual	Implementation Records, survey	SPU, External Agency
<i>Intermediate Result indicator Two: % of tank fishing communities in project area adopting improved production/harvesting techniques</i>		Revised	%	0	10	15	20	30	45	Semi-annual	Implementation Records, survey	SPU, External Agency
<i>Intermediate Result indicator Three: Increase in number of improved breed cattle in project area</i>		Revised	Number	0	0	700	3000	5000	7000	Semi-annual	Implementation Records, Survey	SPU; External Agency
<i>Intermediate Result indicator Four: % increase in share of final sale value obtained by farmer marketing groups in targeted commodities</i>		Revised	%	0	0	2	5	10	15	Semi-annual	Implementation Records, survey	External Agency, Participatory M&E
<i>Intermediate Result indicator Five: No. of functioning farmer marketing groups established</i>		Revised	Number	0	0	25	75	150	250	Semi-annual	Implementation Records, survey	SPU

**\*Please indicate whether the indicator is a Core Sector Indicator (see further <http://coreindicators>)**

**\*\*Target values should be entered for the years data will be available, not necessarily annually.**