



Draft Design and Monitoring Framework

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A design and monitoring framework is an active document, progressively updated and revised as necessary, particularly following any changes in project design and implementation. In accordance with ADB's communication policy (2005), it is disclosed before appraisal of the project or program. This draft framework may change during processing of the project or program, and the revised version will be disclosed as an appendix to the report and recommendation of the President.

Asian Development Bank

DRAFT DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>1. Enhanced economic growth and reduced poverty in the selected river (sub-)basins in Orissa</p> <p>2. Institutionalization of effective mechanisms to put into operation PIM-based agriculture growth</p>	<ul style="list-style-type: none"> • Reduced poverty incidence in subproject areas • Incremental farm and allied activity incomes • Livelihoods of the poor improved with better HDIs and incomes • Replication of the institutional mechanisms across the state and the country 	<ul style="list-style-type: none"> • State and district statistics on agriculture, incomes, and HDIs • Baseline data and follow on BME reports • Annual report of MOWR and DOWR 	<p>Assumptions</p> <ul style="list-style-type: none"> • Stable political and local security conditions • Damage from natural calamities are rehabilitated and managed <p>Risks</p> <ul style="list-style-type: none"> • International terms of trade of agriculture products turns adverse
<p>Outcome</p> <p>1. Enhanced productivity and sustainability of irrigated agriculture in the selected existing schemes in the river basins</p>	<p>Following result targets specified in SIPs and achieved:</p> <ul style="list-style-type: none"> • Increased irrigated area and cropping intensity • Increased crop production, and values per ha of land • Improved efficiency in water use (area and production value per unit of water) • Increased on-farm and allied activity employment 	<ul style="list-style-type: none"> • State and district statistics • Project progress and completion reports • Project MIS comprising baseline, targets (benefits, disaggregated into gender, ethnicity, and land operational sizes), and process/management indicators 	<p>Assumptions</p> <ul style="list-style-type: none"> • Political support to sustain and proceed with reforms • Sound fiscal conditions to sustain O&M revenue and expenditure management • Project institutions including WUAs sustains their performance targets <p>Risks</p> <ul style="list-style-type: none"> • Extraordinary climates such as droughts and cyclones
<p>2. Improved institutional performance of irrigation service delivery (with PIM) and water resources management (with IWRM)</p>	<p>Following institutional performance achieved:</p> <ul style="list-style-type: none"> • Outputs for institutional actions are functional • DOWR in-house capacity to establish and operate PIM in irrigation schemes developed • Local linkages to support WUA agriculture development activities functional • DOWR and WUAs sustains irrigation facilities while fully achieving annual targets • OSG maintains full maintenance fund allocation policy while fixing necessary tariff levels for cost recovery • Appropriate institutional functions and setup is established to operate IWRM 	<ul style="list-style-type: none"> • Baseline data and BME reports • Project progress and completion reports • Project MIS comprising baseline, targets, and process indicators • DOWR's MIS for monitoring and planning irrigation scheme O&M • DOWR's annual reports 	<p>Assumptions</p> <ul style="list-style-type: none"> • (Same as above) • Beneficiary willingness to pay for set water tariffs <p>Risks</p> <ul style="list-style-type: none"> • Local or internal conflicts threatening WUA performance
<p>Outputs</p> <p>A. Productive and Sustainable Irrigated Agriculture Management Systems</p> <p>1. Participatory Planning and WUA strengthening</p> <p>(i) Participatory scheme planning with feasibility studies and subproject implementation plan (SIP)</p> <p>(ii) WUA-level micro plans</p>	<ul style="list-style-type: none"> • Subprojects appraised with SIPs with clear output targets (including market linkages) and programs, and endorsed. • For major and medium schemes WUA level micro-plans prepared and endorsed. 	<ul style="list-style-type: none"> • Prepared appraisal reports • Project progress reports • Consultants' reports • ADB review missions 	<p>Assumptions</p> <ul style="list-style-type: none"> • Participatory process is duly followed by all. • Monitoring and quality support are effective. • Beneficiaries support collective action.

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(iii) Strengthened WUAs: Viable WUAs set up to become effective community organization ready to receive investment support and to enhance agriculture production	<ul style="list-style-type: none"> • WUAs are strengthened, with achievement of targets: <ul style="list-style-type: none"> - Over 75% farmers enrolled - Elections held, (sub-) committees established, and functional with operation rules - Farmer contribution and water rate targets achieved - Target number of women and vulnerable group enrolled • WMAs endorse design • Implementation agreements are signed 	<ul style="list-style-type: none"> • Project MIS • Project progress and completion reports • Consultants' reports • ADB review missions • WUA constitution and its rules • Signed implementation agreements 	<p>Assumptions</p> <ul style="list-style-type: none"> • (Same as above) • WUAs comply with beneficiary contribution requirements
2. Irrigation and Associated Infrastructure including command area development (CAD): Good quality infrastructure designed and constructed, following appraised plan and WUA micro plans	<ul style="list-style-type: none"> • Stipulated infrastructure provided with WUA monitoring and satisfaction • Stipulated area achieved CAD and conjunctive use • RPs have been implemented prior to civil works 	<ul style="list-style-type: none"> • Project MIS • Project progress and completion reports • Consultants' reports • ADB review missions • Third party inspectors' report 	<p>Assumptions</p> <ul style="list-style-type: none"> • (Same as above)
3. Agriculture Development and Livelihood Enhancement: Stipulated services in SIPs and micro plans provided, and targets set therein are achieved	<ul style="list-style-type: none"> • WUAs achieve plan targets in cropping pattern and intensity, inputs, yield levels, etc. • WUAs establish linkages for collective input delivery, support services, and product marketing • Livelihood targets as set out in micro plans are achieved, in terms of program delivery and incomes of vulnerable people 	<ul style="list-style-type: none"> • (Same as above) 	<p>Assumptions</p> <ul style="list-style-type: none"> • (Same as above) • WUA members are willing to adopt modern agriculture practices <p>Risks</p> <ul style="list-style-type: none"> • Natural calamities • Volatile price reduction of agriculture products
4. Sustainable O&M Systems Established: Irrigation schemes operated and maintained on a sustainable basis	<ul style="list-style-type: none"> • Scheme-wise O&M rules, annual O&M plans are prepared and implemented • DOWR/ WUA allocates sufficient fund to undertake the stipulated O&M activities • WUAs collect/submit sufficient fund to support the stipulated O&M activities • Regular annual WUA audit system is operational 	<ul style="list-style-type: none"> • (Same as above) • Irrigation scheme O&M MIS (annual resource need, planned and actual mobilization at scheme and WUA levels) • Scheme performance and WUA performance audit reports 	<p>Assumptions</p> <ul style="list-style-type: none"> • (Same as above) • Damages from natural calamities duly rehabilitated • DOWR staff pay due attention to O&M performance
<p>B. Institutions Strengthened and Project Management Systems Operational</p> <p>1. Policy, Planning, and Legal Framework</p> <p>(i) State Water Policy revised and implemented, with regular review by Water Resources Board (WRB)</p> <p>(ii) State Water Plan updated with development plans for the four northern river basins</p>	<ul style="list-style-type: none"> • Revised Policy in March 2007 • Implementation status is reviewed and further actions taken guided by WRB • Expanded state water plan • Participatory basin development plans for the four river basins 	<ul style="list-style-type: none"> • Policy document • Policy review reports • Updated state water plans • Basin development plans • Refined WUA Act and Rules • Project progress reports • ADB review missions • DOWR annual report 	<p>Assumptions</p> <ul style="list-style-type: none"> • Political support to sustain and proceed with reforms • Active stakeholder support and participation

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(iii) WUA Act and Rule refined for more sustainable and inclusive PIM	<ul style="list-style-type: none"> Refined WUA Act and Rule with stronger WUA institutional continuity and head-tail representation Refined act and rule made operational 		
<p>2. DOWR Institutional Setup, Structure, Skill Mix, and Business Processes Strengthened</p> <p>(i) Institutional development vision and strategy refined</p> <p>(ii) Permanent PIM directorate established</p> <p>(iii) Quality control cell established</p> <p>(iv) DOWR capacity development plan (CDP) refined</p> <p>(v) Water and Land Management Institute (WALMI) reforms with autonomy</p>	<ul style="list-style-type: none"> Refined vision and strategy document PIM directorate set up, staff fully deployed, and made operational with training QC cell set up, staff deployed, and made operational CDP refined to meet with PIM and other requirements WALMI reformed with new director recruited from market and with stronger autonomy 	<ul style="list-style-type: none"> DOWR Institutional vision and strategy document Revised service rules (job descriptions) QC guidelines CDP document and program lists WALMI organizational rule Project progress reports ADB review missions DOWR annual report 	<p>Assumptions</p> <ul style="list-style-type: none"> Political support to sustain and proceed with reforms DOWR leadership dynamic and supportive to support the change process Staff level support for necessary reforms Active stakeholder support and participation Work effectiveness of the selected consultants
<p>3. Systems to Support Sustainable O&M</p> <p>(i) Fund allocation following Financial Commission (FC)</p> <p>(ii) Water rates revised to meet the allocation needs</p> <p>(iii) Collection improved with WUA involvement</p> <p>(iv) Land records improved providing WUA-specific data for collection/demand</p> <p>(v) Scheme MIS for O&M performance monitoring and planning</p> <p>(vi) DOWR establishes linkage between water rate collection and allocation</p> <p>(vii) Pilot delegation of water tariff collection and retention by WUAs</p>	<ul style="list-style-type: none"> Annual allocation to follow FC report recommendations Water rates revised following the change in allocation Percentage of collection against the target improved Improved data base to generate the required data MIS developed with comprehensive monitoring data Fund allocation mechanisms improved to be linked with WUA collection performance WUA performance to this end demonstrated effective 	<ul style="list-style-type: none"> FC reports OSG annual budgets Gazette notification of water rates Finance Department data on water rates collection performance Consultants reports and special study reports Project progress reports ADB review missions DOWR annual report 	<p>Assumptions</p> <ul style="list-style-type: none"> Political support to sustain and proceed with reforms DOWR leadership dynamic and supportive to support the change process Effective coordination between DOWR and Finance/Revenue Depts Staff level support for necessary reforms Active WUA support and participation Work effectiveness of the selected consultants
<p>4. Progress of Actions towards Operationalizing IWRM</p> <p>(i) Appropriate IWRM functions and institutional arrangements defined</p> <p>(ii) Legislation for IWRM organization and groundwater management defined</p> <p>(iii) River basin plans, decision support systems (DSS), and pilot basin organization (RBO)</p>	<ul style="list-style-type: none"> Institutional arrangements clarified for (a) water tariff setting, (b) allocation and entitlements, (c) instruments for water use efficiency, (d) basin planning, and (e) data management Legislative actions taken for IWRM organization and groundwater management Basin plans prepared, DSS strengthened, and RBO set up and made operational 	<ul style="list-style-type: none"> IWRM action plan State WRB reports Pilot river basin organization reports Consultants reports and special study reports Project progress reports ADB review missions DOWR annual report 	<p>Assumptions</p> <ul style="list-style-type: none"> Political support to sustain and proceed with reforms DOWR leadership dynamic and supportive to support the change process Active stakeholder support and participation Work effectiveness of the selected consultants

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5. Project Management System Established and Made Fully Operational - DOWR offices - Line agencies - Local governments - WUAs - NGOs - Private providers	<ul style="list-style-type: none"> • PMU, SIOs established and fully staffed with trained staff • Project Implementation Plan prepared and fully operated • TA consultants and NGO support team engaged and support project effectively • Accountability measures for project institutions made operational 	<ul style="list-style-type: none"> • Detailed operational guidelines • Consultants reports • Special study reports including the third party • Project progress reports • ADB review missions • DOWR annual report 	Assumptions <ul style="list-style-type: none"> • Project institutions are supportive including DOWR leadership • Sufficient counterpart funding • Active stakeholder support and participation • Work effectiveness of the consultants and NGOs
6. Training/Capacity Development: Capacities of project institutions are strengthened through training (for Project management, PIM, IWRM, & agriculture development)	<ul style="list-style-type: none"> • Capacity Development Plan (CDP) is prepared and implemented, achieving the set targets • Project institutions are fully operational through project management support 	<ul style="list-style-type: none"> • CDP • CDP implementation report (by consultants) • Project progress reports • ADB review missions • DOWR annual report 	Assumptions <ul style="list-style-type: none"> • Effectiveness of training and trainers • Retention of the developed capacities • Work effectiveness of the consultants and NGOs
Activities with Milestones		Inputs	
1. By the Government/ OSG 1.1 Establishment of DOWR PIM Directorate, PMU and SIOs by 2007, recruitment of consultants and NGOs by mid 2008. 1.2 Preparation of all project-related guidelines and manuals including project implementation plan by 2008. 1.3 Finalize FS/SIP for all major medium schemes by 2011, and minor lift schemes by 2015. 1.4 Implementation of all actions for policy and institutional strengthening between 2008-16. 2. By Consultants 2.1 Capacity development and project management activities until 2016. 2.2 Support for preparing FS/SIPs by 2011, operationalization of project arrangements and institutional actions by 2016. 2.3 Completion of training by 2016. 3. By WUAs/ Beneficiaries 3.1 Information campaign, member enrollment, participation in FS/SIP preparation, and upfront cash contribution by 2014. 3.2 Participation in design, construction monitoring, and simple civil work implementation by 2015. 3.3 Self-sustain O&M of transferred facilities by 2016. 4. By Support Organizations 4.1 FS/SIP preparation and NGO training by 2011. 4.2 Implement resettlement plans by 2011. 4.3 Detailed design and construction by 2014. 4.4 Provision of follow-up support by 2016. 5. By ADB 5.1 Project approval by early 2008. 5.2 Inception mission within 2008, mid-term review mission in 2012, and regular review missions		<ul style="list-style-type: none"> • Incremental staff, operating, and other implementation expenses • Training (through support organizations) • Mobilization of counterpart fund • International and national consultant support (158 person-months [p-m] of international and 1,818 p-m of national consultants), and NGO/CBO support to set up and strengthen 450 WUAs (807 person-year) • Arrangements for project institution training • Local resource mobilization for minor civil works, and for regular O&M including calamity fund and minor lift replacement fund • Implementing regular O&M • NGO inputs (person-months to be specified) • Training and capacity building of support organizations • Monitoring and evaluation • Staff resources and staff consultants 	
Project Cost		Total: 270 million	

ADB = Asian Development Bank, CAD = command area development, CBO = community based organizer, CDP = capacity development plan, DDS = decision support system, DOWR = Department of Water Resources, FS = feasibility studies; IWRM = integrated water resources management, HDI = human development index, MIS = management information system, MOWR = Ministry of Water Resources, NGO = nongovernment organization, OSG = Orissa state government, O&M = operation and maintenance, PIM = participatory irrigation management, PMU = project management unit, RBO = river basin organization, RP = resettlement plan, SIP = subproject implementation plan, QC = quality control, SIP = subproject implementation plan, SIO = subproject implementation office, WALMI = Water and Land Management Institute, WRB = Water Resources Board, WUA = water user association.