

TERMS OF REFERENCE

SUNEI MEDIUM IRRIGATION SYSTEMS

STRENGTHENING PANI PANCHAYATS THROUGH NGO SERVICES

BACKGROUND

1. The Government of Odisha through the Government of India has availed a multi-tranche financing facility (MFF) loan from the Asian Development Bank (ADB) signed 2008-09 to partly finance the implementation of the Odisha Integrated Irrigated Agriculture and Water Management Investment Program (OIIAWMIP). It intends to apply part of the proceeds of this loan for payments to NGO services for beneficiary mobilization of Pani Panchayats (PPs or water user associations) of the concerned subprojects. The executing agency for the project is the Department of Water Resources (DOWR), Odisha State Government.

2. The main objective of the OIIAWMIP is to enhance rural economic growth and reduce poverty in the four northern river basins (Brahmani, Baitarani, Burhabalanga, and Subrenerekhha river basins) and a part of Mahanadi Delta areas, while institutionalizing effective mechanisms to put into operation PIM-based agriculture growth. This is achieved through its two components.

- A. Productive & sustainable irrigated agriculture management system.
- B. Institutional strengthening & project management.

3. Component A will produce (i) subproject implementation plans with feasibility and safeguard assessments specifying output targets and program delivery schedules for all sub-components, prepared with PPs; (ii) PPs preparing the PP-level micro plans for irrigated agriculture development and achieving the set institutional development targets (e.g., membership enrolment, registration, functional committees, organized collective action, especially in agriculture, including irrigation O&M and water management and cash contribution for minor works); (iii) irrigation and associated infrastructure with expanded field channels and conjunctive use with groundwater in tail ends, delivered through improved quality control systems; (iv) enhanced agriculture production and incomes delivered through set programs in subproject implementation plans (SIPs) where PPs are developed as cohesive platforms to extend linkages with input delivery, technical support, product marketing and post-harvest activities; (v) enhanced incomes of the vulnerable groups through set programs in SIPs organized through PPs; and (vi) efficient and sustainable O&M systems established at the levels of individual PPs, their higher tier committees, and the scheme wide levels, with clear O&M plans.

4. Component B will culminate in (i) improved capacities and operational effectiveness of institutions to support sound irrigation service delivery and support services (with clear operational guidelines, and encompassing DOWR [including its new PIM/CAD directorate, quality control cell, and autonomous training institute], other line agencies, local government institutions, PPs, supporting NGOs and private agents); and (ii) progressive development of IWRM institutions, capacities, and instruments with a consultative approach, including the activation of the State Water Resources Board (a sector apex body), establishment of a state water tariff commission and a pilot river basin organization, and integrated and participatory basin development and management plans for the concerned river basins. These will be

achieved through the agreed institutional reform actions and capacity development support through consultants with training.

5. The loan will comprise four (or more) tranches launched on the basis of the progress of preparing and implementing subprojects, each carrying its own terms and conditions. Of the possible total loan amount of about \$187.5 million (ADB-157.50 & OFID-30) million, its first tranche of \$46.5 million (\$16.5 million financed by ADB and \$30 million financed by OPEC Fund for International Development, with the latter covering the cost of irrigation infrastructure) is expected to cover all expenditures incurred in the first two years of the 8-year implementation period, along with a part of the expenditures in years 3 – 4 for infrastructures of subprojects taken up in tranche-1, including the financing of the NGO services for strengthening the PPs for the first two years. The financing for the subsequent period, including the remainder of the NGO contract, is to be covered by the subsequent tranches.

6. To implement the OIIAWMIP, the DOWR has constituted a Command Area Development and Participatory Irrigation Management Directorate (CAD/PIM Directorate) for more effectively integrating irrigation system management and on-farm development through participation of the PPs. A Project Management Unit (PMU) has been established within the CAD/PIM Directorate operating under the overall guidance of a Special/Additional Secretary with the overall responsibility for project implementation.

7. The PMU is responsible for delivering Component A of the project, which is the productive and sustainable irrigated agriculture and management system. The PMU has full authority to execute the project and liaise with ADB. Specifically, the PMU is: (i) coordinating with other agencies concerned, (ii) preparing an overall implementation plan and annual project budget, (iii) reviewing and approving subproject feasibility studies, (iv) monitoring the activities of the subproject implementation offices (SIOs), (v) maintaining financial accounts, (vi) preparing periodic reports on implementation progress, (vii) establishing and maintaining a Management Information System, and (viii) monitoring overall project progress and evaluating environmental impact and project benefits.

8. At the subproject level, OIIAWMIP is being implemented through SIOs. The goal of the SIO is two-fold: (i) to rehabilitate and modernise the infrastructure so that a fully functioning irrigation system is completed, and (ii) to improve PPs who shall be independent self-sustaining entities capable of interacting with DOWR and other Government agencies to ensure that they receive necessary services and that are capable of fulfilling their own responsibilities.

9. The inter-departmental coordination at the subproject level is being provided through a District Level Coordination Committee under the leadership of the District Collector. Members of the Committee include Agriculture, Fisheries, Forestry and other allied sectors as well as representatives of any livelihood programs. The Committee is expected to meet on a regular basis with the SIO to identify overlapping activities and to develop synergies between and among different departments and correlated programs to enhance their effectiveness.

10. To support project implementation at the field level and to facilitate the formation and institutional strengthening of the PPs, the project proposed to utilize the services of NGO-Packages to recruit: a) a Coordinator (PIM Specialist) for each SIO, and b) adequate number of Specialists in: (i) PIM (in addition to the Coordinator, who will also function as a PIM Specialist) , (ii) Agriculture (at least one Specialist per SIO with Marketing expertise) and (iii) Water Management, including Command Area Development (CAD) work, to each of the SIOs and c) PP-level facilitators/Community Organizers (COs). Three Specialists as specified below will

form an SST and each SST will be allocated about 6-9 PPs and these teams are expected to be based within the assigned cluster of PPs. All these specialists will work with WUAs and farmers (as extension workers). The number of Specialists in a given SIO (and therefore, the number of SSTs in that SIO) would depend primarily on the size of the command area and the number of PPs covered by the SIO. The number / density of COs would depend on the number of beneficiaries per PP, status of PPs and logistical considerations. It is expected that, on the average, two COs would cover three PPs for an initial period of one year with possibility of extension for an additional 8 to 12 months, based on performance and project needs.

OIIAWMIP requires four "Packages of NGO services" for its Tranche I Project.

NGO Services Package - 1: Taladanda Major Irrigation System

NGO Services Package - 2: Gohira Medium Irrigation System

NGO Services Package - 3: Sunei Medium Irrigation Systems

NGO Services Package - 4: Remal Medium Irrigation Systems

In addition, WALMI, a government entity, has been awarded a contract for strengthening 21 PPs in the Taladanda Major Irrigation System.

This particular Request for Proposal (RFP) is for Package-3, Sunei Medium Irrigation Systems.

SCOPE OF SERVICES

A. Objective

11. The objective of the NGO inputs is to facilitate formation, mobilization and institutional strengthening of the PPs in the Sunei Medium Irrigation Systems, and to take up the task of:

- Planning, implementing and monitoring rehabilitation and O&M of minor and sub-minor canals of the subprojects,
- Planning, implementing and monitoring construction and O&M of CAD works and on farm water management, including equitable water distribution and progressive transfer of these facilities for operation and maintenance to PP,
- Planning, implementing and monitoring of agriculture, associated post-harvest operations (such as marketing and processing) and livelihood enhancement of the users, and
- Increasing participation of women and economically vulnerable sectors of the community.

B. Expected Outputs

12. The NGO engaged for this work will also be responsible for providing support and training to the Specialists and facilitators that they field. The NGO will provide Specialists to SIOs. The Specialists will form multi-disciplinary teams or Support Service Teams, SSTs. The expected outputs from the SSTs are:

- Effective mobilization of all PP members to participate in the activities of the PP,
- Effective participation of the PPs in planning, implementation and monitoring of subprojects and associated infrastructure,
- Functional PPs that are able to: a) manage and execute O&M of PP command (minor/sub minor) of irrigation system, b) manage water effectively, and c) plan and support

- agricultural production,
- Train farmers to make them capable of managing water and agricultural production to obtain high yields, able to grow rabi and diversified crops,
- Train them for increased incomes and living standards, and
- Increased participation of women and weaker sections of the community.

C. Implementation Arrangement

1. Experts Inputs to SIOs to Assist PPs

13. There will be one SIO for each of the irrigation system and as indicated earlier, the NGO will be requested to provide following staff to the Sunei SIO: (i) a SIO-NGO Coordinator (PIM Specialist), (ii) an additional PIM Specialist, (iii) two Agriculture Extension Specialists with expertise in on-farm water management (OFWM) and diversified cropping and water management and additional experience in agricultural marketing skills, (iv) two Command Area Development Specialists, and (v) fourteen (14) Community Organizers. NGO is expected to provide inputs over a period of two years from April 2011. It may be noted that SSTs are already functioning in Sunei and the work is in progress temporarily through one service provider until the end of March 2011. In a three-year project cycle about a year has been completed and the new NGO is expected to provide these services for the balance two-year period. The staffing schedule is given in Table-1, shown below. CAD-PIM Staff and PIM Advisers of ISPMCs will act as “Mentors”, provide technical advice, supervise the work of SSTs and the COs and conduct performance assessment of SSTs and COs as well as the process, inputs and outputs of the NGO. For administrative purposes all the Specialists will be responsible to the Deputy Subproject Manager and their activities will be coordinated by the SIO-NGO Coordinator. The SIO-NGO Coordinator will:

- Be responsible for administration,
- Provide coordinating support,
- Channel funds and other assistance to Support Services Team,
- Evaluate requests for grant funds from PPs for Agricultural Support Services, including related assets/equipment,
- Ensure that the Support Services Team have sufficient and appropriate training (pre-service and in-service) to undertake their responsibilities,
- Resolve issues that Support Services Team Members might have with either the NGO for which they are working or with the SIO management, and
- Ensure that the relevant experience of the NGO is transmitted to the Support Services Team to enable them to effectively carry out their assignments.
- NGO staff will work as collaborators and be responsible for the outcomes.

Table -1 NGO Staffing Schedule for Sunei

Irrigation System	Staff/PPs	Year		
		1	2	3
Sunei (20 PPs and 9400 ha)	PPs	20	20	20
	COs	14	14	14
	SIO-PIM Sp. (Coordinator)	1	1	1
	SIO- (other) PIM Specialists	1	1	1
	SIO-Ag. Specialists	2	2	2
	SIO- CAD and Water Mgt. Specialists	2	2	2

Note: As stated earlier, NGO starts mobilizing staff for Year 2 and the NGO Contract would end at the end of year 3.

2. The Support Services Team, SST

14. As mentioned earlier, SIO Specialists will be grouped into SSTs and each SST will be assigned a cluster of PPs (of 7-12). SST specialists will be based (live) within the assigned cluster. NGO will maintain an office within each of the PP clusters. SIO-NGO Coordinator is responsible for coordinating and managing the services of Specialists and SSTs. In order to provide the required Specialist inputs in an integrated manner, SSTs will be formed with the following three Specialists to provide two years of inputs to a cluster of PPs.

- PIM Specialist/Institutional Development Specialist
- Agriculture Extension Specialist / Agri-business and Marketing Specialist
- Water Management /CAD Specialist

15. The Specialists will spend minimum of two third of their time with the PPs, COs and farmers within PP clusters.

16. In addition to the SSTs, there will be Community Organizers (COs), on the average two COs for three PPs for a minimum of 12 months, with possibility of extension.

3. Staff Inputs Required during the Subproject Cycle for SSTs

17. In general, for the major and medium projects each Support Services Team, SST, will cover about 3,500 ha (approximately 7-10 PPs, assuming an average of about 450 ha per PP). It should be noted, however, that the exact number of PPs per SST may need to be adjusted depending on the specific conditions of the selected subproject. For example, the extent covered by PPs could vary from about 200 to 1,400 ha across subprojects and even within subprojects. Moreover, other factors such as the number of villages and farm families covered by PPs and the distance between villages within PPs could also vary significantly. Therefore, the number of PPs assigned to a particular SST as well as the number of Community Organizers (COs) per SST would vary across subprojects (irrigation systems) and also within subprojects.

18. As part of Subproject Cycle is already completed, it is expected that the majority of the members of the Support Services Team employed by the NGO will work with a specific PP for one years while few members of the team (and COs) will move on to a new PP cluster after

about 12 months (see the withdrawal process in Phase 4 as illustrated in Figure 1 at the end of this section). For example, on the average, within a 3-year (full) Subproject Cycle, a CAD/Water Management Specialist would complete her/his work in about 24 months and the Agriculture Specialists will also withdraw little earlier than the PIM Specialists. The density of PIM Specialists is higher than that of other Specialists. Considering the present status of PPs, more intensive and frequent inputs of PIM Specialists are proposed. Technical inputs of agriculture and water management would be required more during PP micro planning stage. This stage has been completed in Sunei. However, intensive agriculture and associated water management interventions (including participatory Command Area Development, CAD work) are being initiated. It is a multi-disciplinary effort and the three Specialists must work as a team for most of the time. It is assumed that the services of the Water Management and CAD Specialist would be required especially for CAD planning and implementation stage. Towards the end of CAD implementation (that is after about 12 months of mobilization) the inputs of Water Management/CAD Specialist could be reduced to periodic visits to PP areas for guiding PPs and farmers on the monitoring and implementation of planned irrigation schedules and O&M activities. Agriculture expertise may be required more during the crop production phase. Staff input schedule in Table 1 is based on these demands. It is also intended that the SST and the COs will identify and train 1-2 local facilitators, who may work as “Volunteers” or paid by the PP assuming that the PP has developed its capacity within the initial year.

4. NGO Selection Process

19. The PMU will apply the following criteria for selection of NGOs:

- **Work experience.** Experience should be relevant to Participatory Irrigation Management (PIM) and strengthening PPs, participatory community mobilization and providing services and working with farmers/Farmers’ Organizations (FOs like PPs) on PIM, including O&M and participatory CAD work, irrigated agriculture, agri-business/marketing and capacity building. The NGO should have a proven track record in community development in an agrarian setting and be non-political in the conduct of its field activities. The prime qualification is NGO’s ability/competence (as demonstrated by earlier work) to perform the tasks as described later in this TOR under **Scope of Work**. An assessment will be done mainly on the basis of recently completed assignments and the qualifications of the Specialists and NGO’s capacity to mobilize adequate number of Facilitators/Community Organizers (COs). Evaluators may also undertake field visits to check “on-the-job performance”.
- **Geographic location.** Ideally the NGO would be locally based. NGOs having experience in areas covered by this assignment would be assigned additional marks. However, a more experienced national or regional NGO with a proven record in handling integrated PIM-agriculture support services may have the comparative advantage in Trache-1 subprojects of OIIAWMIP. If the NGO is nationally/regionally based, any field staff that are engaged should be with local language skills.
- **Legal status.** The registration of the NGO under the Societies Registration Act should be up-to-date.
- **Related experience.** The NGO should have been operating for a minimum of 5 years and have worked with irrigation related activities for a minimum of 5 years.
- **Audits, accounts, and annual reports** for the last three years. Records must be maintained and up-to-date.
- **Accountability and transparency principals.** The NGO will agree to adhere to principles of accountability and transparency as defined by the Society.

- NGO should be willing to closely follow the strategy and approach proposed in the TOR.

20. The selection process will follow Consultant Qualification Selection (CQS) procedures, according to Asian Development Guidelines for Selection of Consultants (2010). Selection of an NGO is on the basis of extended EOI and negotiating a combined technical-financial proposal). Under CQS, the extended EOI is advertised, requesting interested NGOs to submit legal documents, audit reports, project experience, and coordinator and SST candidate CVs, etc., as specified in the paragraph above.

21. After selection, the NGO will be provided with Request for Proposal (RFP) and prepare combined technical-financial proposal. The technical proposal is a compilation of proposed CVs and work plan.

D. Specific Scope of Work

22. The PPSU staff and ISPM Consultants will be primarily responsible for technical supervision and assessing the performance of NGOs, including the day-to-day work of NGO-SIO Coordinator, SST Specialists and the COs.

23. Following selection and induction of the COs, the SIO Coordinator and other SIO Specialists staff; the PMU with the technical support of PPSU staff and ISPMC Consultants, will conduct an orientation workshop to provide them with a clear understanding of the project, its objectives and components and their specific roles. This orientation workshop will educate the COs, SIO-SST Specialists and the Coordinator on detailed methodologies of (i) participatory planning at PP level, (ii) plan implementation by the PPs, including CAD work by PPs, division of irrigation O&M responsibilities between DOWR and PPs, and (iii) PP Organizational Development including the role and functions of sub committees, conflict management, self Monitoring and Evaluation.

24. NGO staff will support PP election process. In PPs where elections are held, SST staff and the COs will motivate PP members to vote and educate them in selecting leaders. In subprojects where PPs have not yet been formed, the SST will support the establishment of PPs and specifically will:

- Organize a series of meetings with the farmers to create awareness (as explained in Step-1 in the Planning Process below) and discuss: the requirement for organizing in terms of the PP Act and Rules, the advantages of undertaking such a step, the rights and responsibilities that this would confer on them, the manner in which the organization would be structured, the qualities of leaders required for PP development and so on.
- Work with DOWR to establish an electoral role and ensure that:
 - i. The process for conducting the election is in accordance with the PP rules,
 - ii. That farmers are aware of the process,
 - iii. That they participate, and
 - iv. Serve as an advocate of the farmers in their relationship with DOWR and other service providers until the PP Executive Committee has been elected and can assume this role.

25. With the completion of the election and in subprojects where PPs with elected Executive Committees already exist, the primary role of the SST and COs/facilitators will be to facilitate the participatory implementation of the subproject cycle by the PPs and farmers at that level. This is illustrated in Figure 1. The SST (Specialists) and facilitators will create awareness and mobilize PPs, Chak Committees (CCs), higher level Farmers' Organizations (FOs, like Distributary Committees) and farmers for PIM, agricultural development, agri-business and related services.

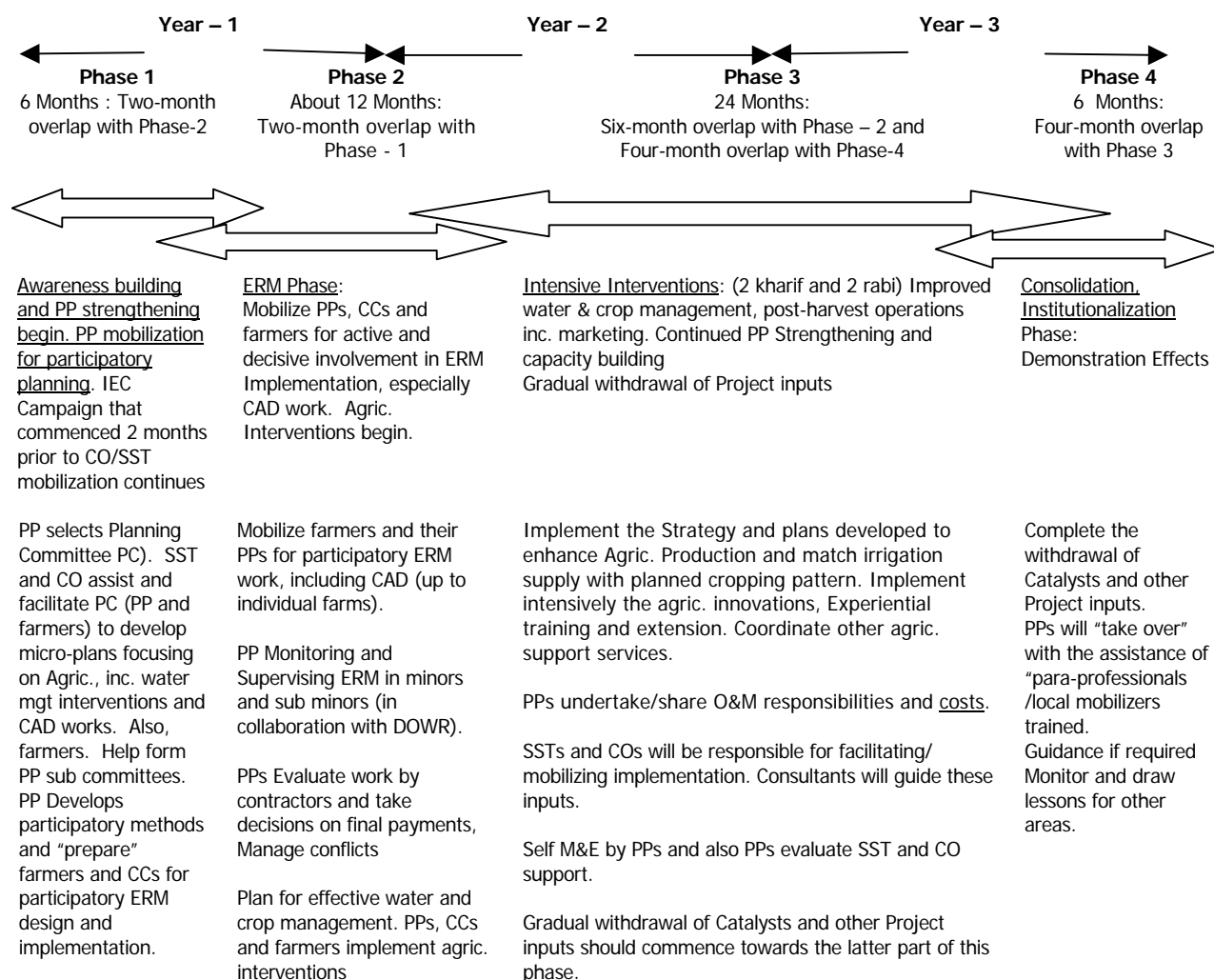
26. In addition, NGO Coordinator, SSTs and COs will support the formation and operationalisation of higher-level farmers' organizations at different levels such as Distributary and irrigation system-level committees. NGO staff will mobilize PPs and higher-level organizations in participatory planning and implementation of Operation and Maintenance at respective levels.

27. In general, SSTs are responsible for the following:

- i. Facilitate and assist (including the provision of technical assistance) PP-level planning (as stated earlier, this activity is almost completed)
- ii. Develop PP Organizational Structure, including the formation of sub committees of elected PPs,
- iii. Developing the capacity of PPs,
- iv. Facilitate and assist the implementation of the Plan by the PP and farmers
- v. Mobilizing PPs and farmers for their active and decisive involvement in the participatory Rehabilitation, Extension and Upgrading (ERM) process. This includes the Command Area Development (CAD) work by PPs themselves with technical assistance and part funding by OIIAWMIP
- vi. Strengthen PPs and higher-level Farmers' Organizations' capacity in post ERM Operation and Maintenance (O&M) of Irrigation and matching irrigation with profitable cropping patterns and agricultural practices, agri-business and related services.

28. This step-by-step implementation / development approach is illustrated in Figure-1 and the following sections outline the activities in different steps of the process.

Figure 1: Three-Year Subproject Cycle in Major and Medium Irrigation Systems¹



Notes on overlapping mechanism:

- i. Phases 1 and 2: Selective construction work, where PP active participation is not essential, may begin before the end of Phase-1. Also, Phase-1 activities like strengthening PPs and agriculture and livelihood aspects of detailed planning could be continued in the first month of Phase-1.
- ii. Phases 2 and 3: Some interventions like participatory variety selection, IPM, fertilizer management, livelihood interventions etc could begin before the completion of ERM.
- iii. Phases 3 and 4: Gradual withdrawal of SSTs and other Project support to PPs would begin before the end of Phase 4. Project-led interventions could continue in Phase-4 with limited support staff.

ERM – Extension, Rehabilitation and Modernization
 SST – Support Service Team, PC – Planning Committee, CO-Community Organizer
 CAD – Command Area Development, M&E – Monitoring and Evaluation
 CC – Chak Committee

¹ This may vary from about 2.5 to 4.0 years, depending on many factors. Hence, what is presented could be regarded as the "average" for planning/budgeting/staffing purposes. This may be shorter in Minor (lift) systems.

E. Capacity Building

29. **Step-1: Awareness Building, Assessing Present Status and Feasibility Checking.** In Sunei, Awareness building phase has been initiated): Awareness building aims at informing and educating all those stakeholders who are directly or indirectly involved in the process of OIIAWMIP. The SSTs will share with farmers their knowledge on OIIWMIP in general, and PIM in particular. They will explain the micro-planning process (the need, participatory planning methodology and expected outcomes) and PP participation in infrastructure rehabilitation, extension and modernization (ERM) and system O&M, agriculture and associated water management improvements. Awareness building would include:

- Organizational development and Social Capital/benefits that could be achieved through collective action,
- PIM and PP Act, PP management and leadership development, Participatory methods focusing participation of all PP members in decision-making,
- Farmer/PP Responsibilities and Rights related to: providing inputs and making decisions on participatory ERM design and construction,
- How they could provide organized inputs and play a decisive role in the ERM process
- and could organize post ERM water management and agricultural development, including:
i) the purchase of agricultural inputs and ii) enhance
- agricultural knowledge through collective action like Farmers' Field Schools (FFC) and receiving other agricultural support services,
- Interactions with DOWR, DA, Private sector and other agencies,
- Financing (incl. various sources of PP incomes), Financial management, and
- Conflict resolution.

30. **Assessing Present Status:** The team will assess: (i) status of PP, Chak Committees and higher level Farmers' Organizations (FOs) like Distributory Committees, if any. Assessment would include: organizational development and capacity of PP, awareness of PP Act, involvement in O&M and relationship with DOWR, sources of funding, and willingness to engage with the Project; (ii) PP stakeholders would be identified by social mapping and vulnerable groups identified for inclusive development and social impact assessment; (iii) existing resource use focusing on land and water, agricultural practices and productivity; (iv) Minor canal system and CAD condition and O&M practices. Accurate assessment will identify constraints, opportunities and potential for interventions (Please note that "present status" is being assessed and would be completed soon. The NGO may not undertake this activity).

31. **Step-2: PP Develop the PP Vision.** Having examined the present status and potential, the team will assist the PP in developing a "PP Development Vision". For example, SST (including the PP-level Facilitator) will explain the potential and the achievements of similar PPs elsewhere and motivate the PP Executive Committee and the general members (farmers) to think how the PP as well as, irrigated agriculture and farmers' incomes etc should "look like" in five years. They will discuss how they could realize such a vision .

32. **Step-3: Developing the Plan.** At this crucial stage the Planning Team will discuss options and best practices with PPs and farmers. *In participatory planning the Team would not just facilitate farmers to get together and plan what they want. They should be made aware of what is happening elsewhere, or what the Planning Team think would be the best practice for that PP.* These will be compared with present practices, debated, experience shared and some

training imparted to reach a consensus on what should be done. Next resourced micro-plans will be jointly developed detailing activities, by who and when, and estimate the cost. Activities would include: (i) PP involvement in ERM and CAD works ; (ii) O&M of the minor canal system, on-farm water management and conjunctive use potential; (iii) PP organizational development; (iv) agricultural and livelihoods development including crop and variety selection, planting schedules, agronomic practices including control of pests and diseases and use of fertilizers, marketing; (v) inclusive social development and gender. Self-monitoring and evaluation methods will be defined and links with DOWR and other agencies and the private sector will also be worked out in detail (Please note that PPs of Remal almost completed this stage. However, as new functions are added, planning may be considered as a continuing process).

33. **Step-4: Agreement.** After development of a micro-plan a micro-plan Agreement will be prepared for signature with the PP for its implementation, detailing scope, costs, responsibilities and implementation schedule. The Agreement will required the PP to open two bank accounts as per the provisions of the PP Act and Rules: (i) O&M Account to receive grant in aid from the DOWR and farmer contributions towards minor canal ERM and CAD works; and (ii) Works Account for minor canal ERM and CAD works to be carried out by the PP. Registers to be maintained by the PP will include membership and accounts.

F. PP Organizational Development

34. CO is the main actor in empowering PPs. S/he is the main “trainer” responsible for capacity building. Initially, the Facilitators will start inter-personal communication through household visits and small group meetings. In addition, community organizations and individuals having interest in the PIM and empowerment of farmers will be trained to conduct household contact, group discussion, village/Chak meeting on regular basis.

35. As much as possible NGO will focus on experiential training. Here the NGO should adopt the principle of “learning by doing” and capacity building activities, where formal training would be just an integral component. Formal training, when conducted, should always be linked with the activity plans of the PP mobilization, irrigation management (O&M), agricultural production and marketing program. In a typical irrigation system, the CO will first promote dialogue among community members and educate them on PIM concepts, principles, strategy and approach. The community would initiate dialogue about the required leadership pattern as well. The process would also determine the willingness of each and every member of the community to the strategy proposed. In addition to dialogue and similar interactions, the NGO, through its CO, would mobilize collective action, which would help the community members to change their mindset and behavioural patterns. This process (of mobilizing people for collective action) could be initiated soon after the CO entered the community (during the Planning Phase). The underlying theme would be “learn-by-doing” and “change mindset through collaborative and collective action.” This effort would be strengthened by providing formal training and expert inputs as required. COs will also link the farmers/PP with others, including service providers.

36. Organizational development and capacity building is a continuous process and should not be considered as a “one-time event”. Ideally, a PP should evolve as an independent business entity undertaking multiple functions where irrigation O&M and water management remain as the focus activity. A “matured” PP would undertake other support services including input-output marketing and post-harvest services as well as agri-business. This will enhance farmer capacity to gain access to complementary inputs and their ability to combine them properly to maximize profits.

37. Therefore, the development of PP should be an evolutionary process. NGO is expected to catalyze this with an efficient mobilization process. SST, especially the PP-level Facilitator, with the guidance of SST Specialists, will organize farmers into Chak groups/small groups, which could be considered as “building blocks” of organizational development. As suggested earlier, such groups/organizations may mobilize resources such as labour and savings for “mutually beneficial collective action” e.g. activities that would derive benefits to all the members of the organization- - such as CAD and irrigation water management within field channels, maintenance/cleaning of channels etc. With such strong Chak Committees/small groups, PP would be strengthened.

38. At this stage, following PP Act, COs will assist in the constitution of PP Sub-Committees. She/he will assist in a series of parallel activities like the establishment of PP office, maintaining records/accounts and gradually develop PP capacity. Areas of capacity building will include the following:

- PP management and leadership, Participatory methods focusing on the participation of all the PP members in decision-making,
- Collective behaviour, Social Capital
- Communication Strategy: Mechanism for effective communication between farmers and Chak Committee at Chak level, PP and its General Body, PP and DOWR
- Interactions with DOWR and other agencies,
- All aspects of PIM
- Financing (including various sources of PP incomes), Financial management, including simple book keeping and accounting
- Social Audit and conflict resolution
- Water allocation rules and methods
- Water distribution rules and methods: available options
- Selection of crops and cropping patterns
- Matching crops demand and irrigation supply: define water distribution rules/irrigation schedules and methods for the crops and cropping pattern selected for a particular season
- Implementing the agreed irrigation schedule and crop production schedule
- Planning and implement collective action required for O&M, including managing irrigated agricultural production process, including marketing, and ensure collective action
- Monitoring, evaluating and making adjustments as and when necessary

39. When the PP reaches an adequate level of “maturity” in terms of organizational strength and resources, it may involve in collective purchasing of (agricultural) inputs and similar activities. Depending on the maturity, PPs or higher-level organizations may add more profitable business activities/enterprises such as output marketing and organizing production. They may commence organizing farmers for market-oriented production, undertaking forward contracting for identified markets etc. Such activities would require more advanced organizational skills. In other words, a “matured” PP would undertake other support services including input-output marketing and post-harvest services as well as agri-business. This will enhance farmer capacity to gain access to complementary inputs and their ability to combine them properly to maximize profits.

40. The NGO’s Agricultural Specialist will work closely with PPs and guide the COs to identify the linkages between water management and cropping potential, and will assist PPs at every step of agricultural production, from selection of crops and cropping patterns and

application of inputs to identification of markets and marketing. The SST will link PPs with private sector vendors, and other agricultural support resources.

41. Agriculture capacity building will also follow “experiential learning” approach rather than formal class-room type training. It is requested to focus much on low-cost and much effective “on-site” training/capacity building. Thus a new training method is proposed, as the main tool of capacity building in agriculture, which increases the contact hours between the trainer and farmer. This method, namely, Farmers’ Field School”, FFS, has been adopted widely in India and other countries in the region and has demonstrated its effectiveness. The distinguished features of the Farmer Field School (FFS) method are as follows:

- 2-3 trainers needed in each session (some are farmers)
- Usually conducted in farmers’ fields
- As much as possible, FFSs, should be Chak-based. If any Chak is too big (and having many famers), then two Groups may be formed for FFSs. Conventionally, FFSs are composed of socially equal individuals (gender, farm size, language) to encourage full participation. However, as we work in irrigation systems, Chak should be the Base Unit (because it is the lowest hydraulic unit). Therefore, irrespective of social status / Caste, farm size etc., all the farmers within a Chak should get together for agriculture and water-based collective action.
- Farmer groups to be trained will come from same water course/Chak in the irrigation system
- Lecturing is minimized
- Farmers learn from each other
- Experiential learning is fostered via the conduct of field activities
- Several weekly/bi-weekly sessions lasting 3-4 hours are held during the crop season
- Farmers are encouraged to experiment in their study field cum demonstration plot
- Farmer trainers may be identified from each FFS class

a. Assistance to PPs in Marketing and Agri-Business

42. The Agriculture Specialist, in collaboration with Agric. Marketing Specialist, will assist PPs in selecting crops with market potential. Marketing Specialist is expected to link PPs and farmers with input and output markets in agriculture, both within and outside project areas. Focus would be profitable diversified cropping in the rabi season.

43. Within the intervention period (see Figure 1) the Specialist should establish appropriate business linkages between the PPs/FOs and the organized input and output Markets, Private Sector, Banks and other appropriate lending institutions. The Specialists should aim at developing an “entrepreneurial culture” within PPs.

44. Agricultural Marketing Specialists will be required to ensure collection and dissemination of information on agricultural markets for relevant crops, information on products, markets and services, such as banking and credit facilities and processing facilities available in the area and outside. Access to up-to-date market information is critical for PPs.

45. S/he is expected to establish and develop contacts for PPs with lending institutions and assist them in obtaining loans for their cropping ventures; assist PPs in preparing proposals for new production, marketing and basic processing ventures; assist in analyses and evaluation of financial viability of these proposals; appraise credit investment proposals; assist in promoting

investments within the area; assist in developing a monitoring program for crop enterprises and agricultural input-output business opportunities developed for PPs and assist in planning and implementation of training programs; assist in analyses of constraints.

b. Facilitating PP Inputs to ERM Design Process

46. The following is a general guide for ERM participatory design:

- Organize sub groups/committees to identify ERM needs, dialogue and negotiations with design staff (DOWR). Provide farmer and PP inputs during participatory ERM design
- Farmers walkthrough organized by PP and Chak Committees
- Participatory Walkthrough (PWT), Farmers and Design Staff
- Design options by DOWR and Consultants
- Present the Design options to PP
- Design Options discussed by PP
- PP General Body endorse (minimum two-third majority of its members)
- PP-DOWR Agreement on post ERM O&M signed (Contents of a Model Agreement will be provided at this stage).

c. Facilitating PP Inputs during the Implementation of ERM Works (Implementation of ERM)

47. This would include the following tasks.

General Work

- Mechanisms for PP inputs to other ERM works (duties of PP Works Committee and mechanisms for communication as suggested under ERM Design above);
- Mechanisms for PP to Monitor and Supervise ERM works in collaboration with DOWR;
- PP Evaluate work by contractors and take decisions on final payments in minor canals;
- Farmers through their PP to provide other inputs and/or undertake ERM works, especially for field channel development and in minor canals, as appropriate;
- Mechanism to manage conflicts and maintain transparency;
- When PPs and farmers are actively participated in ERM, they would be sensitized and develop an “ownership feeling” for post ERM management of irrigation system;
- Facilitation the participation of PPs in ERM works should aim at; and
 - Fostering a sense of ownership and reinforce responsibility to maintain the irrigation system; and
 - Building the capacity of PPs to operate the system effectively and to appreciate maintenance needs.

CAD Work

- Form a sub-committee (Works Committee) which would be entrusted with CAD implementation;
- Develop a detailed activity plan, based on the planning of CAD activity during the micro-planning stage (who will do what and how, etc., including for beneficiary contribution and participation, procurement of services/material, etc.); and
- Undertake work according to the plan: e.g. arrange for technical inputs and quality assurance, organize beneficiary contributions, Agreement on work and payment schedule, MOU between SIO and the PP, surveys, detailed design, estimating costs,

developing K-2 Contracts for the PPs to undertake CAD work, General Body (GB) approval, hiring services, procurement, construction, supervision/monitoring (Decide on mechanisms for monitoring and sharing progress with members, and maintaining transparency) performance-based payments.

d. Facilitating PP Inputs in Irrigation O&M, Water Management, Agricultural Production, Marketing, Associated Services and Livelihood Activities for the Poor and Vulnerable Groups

48. In general, the NGO staff will:

- Mobilize benefiting farmers and their PPs for collective action related to Irrigation O&M, water management, agricultural production, marketing and related services. Catalyze farmer participation in O&M, on-farm water management and agricultural production, marketing and other related activities;
- Assist farmers and their organizations (mainly PPs) in achieving Project targets (performance of participating NGO would be assessed based on the level of achievement of these targets);
- Conduct assessment of institutional strengthening of PP and assist in preparation of refresher trainings as required
- Assist in conducting refresher Training for PP
- Motivate and assist PP and members/farmers in paying water fee/rate
- Facilitate the formation of higher-level Farmers' Organizations like Distributory-level FOs; Project/Irrigation System-level FOs; and Apex-level FOs;
- Develop effective partnerships between the PPs and DOWR;
- Create an enabling environment and motivating women as well as under privileged groups/individuals to actively participate in FOs;
- Help PPs internalize a "Self-M&E" program within PPs and other FOs, employing corrective mechanisms and conflict management; and
- Document Process and Report.

49. NGO-SIO Coordinator, SST Specialists and the COs should also mobilize and assist PPs to promote livelihood options for women, the landless labors, other weaker sections like ST and SC, especially through agriculture based micro- enterprises. Such activities may include, but not limited to: savings groups and household-based income-generating activities (especially for women) to such ventures as: fisheries, livestock, crop storage, value addition/agro-processing, collective handling of input and output marketing through PPs and higher-level organizations etc.

50. OIIAWMIP explicitly recognizes that improved water management and agricultural support services are critical to optimize productivity increases from ERM works. The NGO, in collaboration with PMU and the other staff of SIOs will implement a capacity development program to assist PPs and farmers with improved farm practices. The NGO Specialists and COs will work directly with PP and farmers in their own irrigation systems and fields and mobilize and support them in all aspects of irrigated agricultural production process and marketing. They will work with PPs/farmers to prepare detailed activity plans, including (a) the detailed cropping calendar for PP area/Chak area/or farmer groups operating in a contiguous tract of fields, b) matching irrigation/water management schedule with cropping schedule, (c) plan for supply and application of other inputs such as fertilizer, pest and disease control inputs etc, and (d) plan for

harvesting and post-harvest operations, including marketing. They will link PPs with private sector vendors, and other agricultural support resources.

51. Subsequently the Specialists will continue to provide technical assistance and facilitate (through COs) to ensure that farmers and PPs implement the plans and achieve planned targets. Agriculture, On-Farm Water Management, and Marketing Specialists based at the SIO will help coordinate local DA staff and programs to support PPs in the subproject areas.

e. Strengthening DOWR

52. NGO is not directly involved in DOWR strengthening/capacity building. However, in the process, the NGO will help develop effective partnerships between PPs and DOWR and strengthen DOWR as well. Within DOWR, the Project will strengthen existing capacity and support new activities and institutional arrangements to maximize the project development objectives and improve overall management and development of irrigation systems. This process would improve DOWR capacity and performance in non-technical functions. More specifically, the following activities facilitated by the NGO would strengthen DOWR capacity:

- (i) PP strengthening and facilitating shared management (PP and DOWR);
- (ii) PPs collaborating with DOWR in participatory ERM (design and implementation), and O&M; and
- (iii) PP-DOWR-Deptt of Agriculture partnership building.

f. Water Rates/Fees

53. ERM, intensive capacity development, facilitating/guiding PPs and agricultural support services will help PPs develop into effective organizations. PPs will assist farmers in all aspects of the agricultural production process, including water management. The resulting benefits from increased agricultural productivity will provide a natural stimulus for farmers to participate and contribute to the sustainability of the PPs and their irrigation systems.

54. With this, especially with PPs taking over the governance of irrigation at the PP command level, it is expected that the PP members will pay water rates as per the PP Act and contractual agreements between PP and DOWR. This is related to the strength of PPs, sense of ownership and degree to which a particular PP would assume responsibility and authority for system management and farmer capacity to pay the water rates, which in turn would depend on the efficiency of agricultural production process. As the NGO is responsible for mobilizing farmers/PPs towards these ends, the NGO will also take the responsibility for mobilizing farmers to pay water rates.

g. Project Assistance for Agriculture Support Services

55. The major part of funds allocated to OIIAWMIP Agriculture component will be handled directly by the PMU through the SIOs. However, **the Project will extend limited financial support to the selected NGO (through the respective SIO), exclusively to promote PP inputs and services to farmers in promoting collective action.** Such activities may include, but not limited to, common assets owned and managed by the PPs for the benefit of all the farmers in its area of coverage (such as seed drills, weeders, soil-testing kits/equipment,

storage or other facilities required for marketing / post harvesting operations of a special crop, demonstrations etc). While such funding should not be used to provide free inputs to selected farmers, PP may request funding for few essential “demonstrations” or small-scale assistance projects, for example, to promote rabi and diversified cropping. Proposals will be submitted when cropping and marketing plans are completed by PPs. Installation of field channels or an on-farm water management plan is a prerequisite to avail of funds related to diversified cash cropping. The underlying assumption is: PP strengthening will develop social capital that can be leveraged for involvement in input purchases, marketing, and other activities to enhance productivity and incomes.

h. SST and PP-level COs Withdrawal Plan

56. The NGO should have “withdrawal” plan. In the OIIAWMIP PP strengthening strategy is planned to phase out PP mobilization inputs gradually (final phase in Figure 1). For example, in any selected irrigation system, for about 24 months (completing the first two phases and part of phase 3 in Figure 1), the experienced CO will live in the village and work with farmers and PP. By the end of this period, s/he could identify 1-2 capable and committed youths from within the villages/PP/Chak areas and train them (mainly through an experiential learning process) to “take over” her/his functions. At the end of the initial period the experienced CO could leave the community and the trained youths/volunteers will take over the role of Change Agent/ Catalyst. If the PP has matured and converted into a business organization in true sense, the PPs may “absorb” the experienced PP-level CO as it would be profitable to the organization and its membership. Alternatively, the NGO, PPSU, and the ISPM Consultants may use the experienced PP-COs in new sets of irrigation systems / subprojects of the Project.

G. NGO Staff and Other Services/Inputs

a. NGO Staff Inputs

57. The key personnel’s performance and new personnel’s CVs will be regularly evaluated by the PPSU staff and ISPM Consultants and the approved of the Executing Agency (based on performance assessment). This is mandatory for employing and maintaining ALL categories of NGO staff at ALL levels and ALL stages of the project/subproject cycle.

58. NGO's technical proposal should propose the SIO-NGO and other SIO specialists (CVs) and a work plan. Method of recruitment of other staff is given below.

59. Table-1 provides approximate numbers and timing of staffing for a typical 3-year Subproject Cycle. The NGO should understand that about a year of the Subproject Cycle is already completed.

60. NGO should provide two senior qualified professionals as the Coordinators of NGO services. In addition, NGO should provide Specialists and COs to SIOs to form SSTs. At least 10 percent of NGO staff should be women and higher percentage would be encouraged. But what is more vitally important is to give gender equity training to all the staff [what gender equity means, why it is important, strategies to mobilize women, tools to do so, monitoring methods, but with the need to stay focused on the project objectives for the general PP membership].

b. Method of Recruitment

61. As mentioned earlier, NGO's technical proposal should propose the Coordinators and SIO-SST specialists (CVs) and a work plan. Throughout the contract period, COs should be recruited from the market. As the COs are required in large numbers, this will help recruit the best available in the market for these important posts. The selection should be made in collaboration with PMU, PPSU and the relevant ISPM Consultants. NGO is required to advertise these positions widely in Newspapers and Internet. The Project has the right to accept or reject any staff proposed by the NGO.

c. Supervisory Responsibilities

62. **PPSU Staff and ISPM Consultants will be responsible for guiding and providing technical supervision to NGO work at ALL levels.** ISPMCs are also responsible for performance assessment. PPSU and SIO will collaborate. For administrative purposes, the SIO-NGO Coordinator attached to each SIO will report directly to PIM Director of PIM/CAD Directorate of Department of Water Resources with the attesting of Subproject Manager in a respective SIOs. All other NGO staff, including SST Specialists and COs will report to SIO-NGO Coordinator for administrative purpose. The SIO-NGO Coordinators will coordinate the SST work (refer Terms of Reference for qualifications and duties). At subproject level, NGO performance will be monitored by PPSU and ISPMC. SIO Deputy Manager will facilitate (i) coordination of SIO's multidisciplinary activities undertaken by SIO Subproject Manager, and (ii) Collaborate with PPSU and ISPMC in performance assessment of the NGO staff. The performance of individual NGO personnel will be regularly monitored by PPSU and ISPMC (in collaboration with SIO and supported through monthly and quarterly evaluations in the first year of engagement and semi-annual after first year. Evaluation will be against the set performance targets and capacity strengthening programs. There would also be periodic consultation and coordination meetings with NGO's senior management/ backstopping staff.

H. Disbursement of Agriculture Support and PP Capacity Building Funds

63. The Project, through SIO, will transfer limited amount of funds to a NGO for PP-based agricultural support services and collective action. Respective PPs will submit applications to SIO (through SST Coordinator) for such funding. Prior to this step, such applications should be checked and recommended by the ISPMCs' PIM Adviser (National). NGO staffs (especially the SSTs) are expected to provide technical assistance, mobilize PPs to undertake appropriate agricultural support services for the benefit of their members. SSTs and the COs are responsible for guiding PPs in the implementation of these activities, maintain records and accounts and furnish the SIO with progress reports and financial statements.

I. Procedure for Monthly Payments and Logistical Arrangements

64. Payments for personnel will be on a monthly basis and will be based on the staff services provided for that particular month. SIO-NGO Coordinator in each subproject office will submit "monthly time sheets" indicating the daily activities and presence in the assigned area to the SIO Deputy Manager. With the attesting of the SIO (regarding the successful delivery of inputs by individual staff member), the NGO will be provided with the payments on a monthly basis from the SIO. Salaries will be paid by the NGO to respective staff, on the basis of the contracts between the NGO and the concerned personnel submitted as a proof of remuneration

under the contract between DOWR and the NGO. SIO and PMU may take necessary steps, including (but not limited to) the checking of pay slips, cheques and bank accounts, to make sure that NGO staff members are paid the amounts stated in the contracts.

65. A CO is expected to use a motorcycle and a minimum monthly travel allowance, which is included in the remuneration package (salary) of a CO. NGO will facilitate the purchase of motor cycles by the selected COs (by arranging credit facilities etc), if required. Field travel of SIO-NGO Coordinator will be provided by the Project. The NGO is expected to provide transport facilities to other Specialists. As stated earlier, SIO-SST Specialists are expected to live within PP clusters and spend over two thirds of their time in working with COs and PPs/farmers.

a. Replacing Staff

66. NGO should undertake the responsibility of replacing staff, if they leave the jobs for some reason or if the NGO is requested to replace staff by the Project due to unsatisfactory performance. Project will undertake evaluations and NGO should take prompt action, including changing/replacing staff.

b. Scheduling Staff Inputs

67. As mentioned earlier, an indicative plan of NGO personnel inputs, including the quantity (numbers) and timing of the required staff (COs, SST and SIO) are given in Table 1. In OIIAWMIP Irrigation Systems, the exact number and timing of mobilizing these professionals will depend on the actual demand. This would depend on several factors including: the number and size of irrigation systems selected within the PP cluster, location of systems, road network, strength of PPs, time taken for ERM work, farmers/PPs capacity in CAD work, status of agriculture and farmers response to interventions etc. The NGO should be capable of mobilizing field staff, especially COs, as and when necessary.

68. The NGO has indicated its capacity and willingness to recruit suitable COs and Specialists and should include the costs of recruitment in its cost proposal. The actual demand may differ slightly from what is indicated in Table 1 and the NGO should be in a position to meet the demand.

69. NGO should take the responsibility of replacing the vacancies arising from COs leaving the Project voluntarily or due to unsatisfactory performance, in a timely manner.

J. Terms of Reference of NGO Staff

a. NGO Coordinators and PIM Specialist

70. **NGO-SIO Coordinator** will be technically supervised by the PPSU staff and ISPMCs but administratively report directly to the SIO Manager SIO and coordinate all the NGO activities within the assigned SIO area. NGO-SIO Coordinator will guide and manage the NGO Staff and undertake monitoring and reporting as well. NGO Coordinator will work collaboratively with other Specialists of NGO staff as well as with ISPMCs and others at SIO. Under the direct supervision of ISPMCs, she/he will be responsible for “monitoring and driving” the SSTs (SIO Specialists), COs and other stakeholders to achieve the OIIAWMIP goals at PP level.

71. **Qualifications and Experience for PIM Specialist:** Candidates holding MSW/MA Social Science are preferred; however, candidates possessing post-graduate qualifications in Agriculture or Engineering with considerable experience in PIM and/or community mobilization could be considered. Candidates should have at least 3 years of practical (field) experience in supervising Community Organizers. Candidates with Bachelor's Degree plus 4 years experience or holding a diploma and at least 5 years experience may also be considered.

72. **SIO NGO coordinator (also a PIM Specialist)** should have a Masters Degree and minimum 7 years experience in forming water user association (WUA) and/or other similar beneficiary organizations in terms of awareness and member enrolment, establishment of organizational setup and leadership, operations of the established functions, resource mobilization, and networking. She/he should also have adequate and relevant experience as a leader/coordinator of multi-disciplinary teams. Minimum 5 years of relevant experience as well as a proven track record are necessary.

73. **Specific Duties and Responsibilities:** The SIO-NGO Coordinator will undertake the responsibility to perform following specific duties:

- (i) Coordinate the NGO work within the assigned SIO. Guide and monitor the work of SIO NGO staff, report the progress to Head SIO on a monthly basis. Provide (overall) administration and financial supervision of NGO activity;
- (ii) Provide technical assistance and guide the work of PIM Specialists of the SSTs;
- (iii) Work with SIO Specialists, COs and PPs to enhance PIM, complete participatory CAD Work successfully and integrate agriculture support services into PP based Post-ERM development process of OIIAWMIP systems, with special emphasis on efficient water management by PPs, enhanced kharif
- (iv) Production and diversified rabi cropping. Towards this end, the Coordinator will be responsible for the following tasks;
- (v) Ensure; (a) the (technical) quality and feasibility of PP plans, especially the CAD work, Irrigation O&M and Water Management and Agricultural Development plans (including agri-business and marketing), and (b) Plan implementation;
- (vi) Coordinate and facilitate the implementation of the OIIAWMIP CAD work, PIM and Agriculture Strategy (including agri-business and marketing) and Plans;
- (vii) Arrange/organize, follow-up, monitor and report the progress of:
 - (a) Inputs of other stakeholders like the DA to PP strengthening / empowering including day-to-day support for PP plan implementation.
 - (b) **Liaise and lead dialogue** with DOWR, DOA, higher level Farmers' Organizations (like Distributory and Project level FOs), other relevant Government and Non-Government agencies, private sector and others to coordinate relevant inputs/services.
 - (c) Assist and guide the capacity building of PPs and plan and organize special on-the-job capacity building programs for COs and SST.
- (viii) Undertake any other relevant activity assigned by the ISPMCs' PIM Advisers or the Head, SIO.

b. Other PIM Specialists

74. **Specific Duties and responsibilities:** Each of the PIM Specialists will report directly to the SIO-NGO Coordinator and work under close supervision of TA PIM Specialists and the coordinator. She/he will undertake the responsibility of "mentoring and driving" the COs on a day-to-day basis to achieve the PIM, Agriculture and Irrigation O&M and water management,

including CAD goals. She/he will be based in the assigned cluster of PPs within the irrigation scheme and spend over two thirds of time in working with COs and PPs/farmers.

75. The major roles and functions of other PIM Specialists include:

- i. **Guide COs** in social mobilization, changing the “mindset” of stakeholders and institutional development, especially PP strengthening.
- ii. Ensure a) the quality and feasibility of PP plans, especially the CAD, Irrigation O&M and Water Management and Agricultural Development plans, and b) Plan implementation.
- iii. Under the guidance of the TA Consultants and the SIO NGO Coordinator, coordinate and facilitate the implementation of the OIIAWMIP PIM and Agriculture Strategy and Plans.
- iv. Arrange/organize services such as:
 - a) DOWR and other inputs (like DA) to PPs strengthening / empowering PPs including day-to-day support for PP plan implementation. Liaise and lead dialogue with DOWR, DA, higher level Farmers’ Organizations (like Distributory and Irrigation System-level FOs), other relevant Government and Non-Government agencies, private sector and others to coordinate relevant inputs/services,
 - b) Special on-the-job capacity building programmes for COs (in addition to the major role as a “mentor”),
- v. Monitor and Evaluate, M&E, of PPs with special emphasis on PIM and Agriculture, including water management, and
- vi. Assist in Information, Education and Awareness Building (IEA) Activities, as directed by the TA and Coordinator.
- vii. Assist Marketing Specialist (by organizing PPs/FOs) to establish appropriate business linkages between the PPs/FOs and the organized input and output Markets, Private Sector, Banks and other appropriate lending institutions.
- viii. Provide (overall) administration and financial supervision of NGO activity (including timely reporting). Report on expenditures, activities, progress and issues to SIO-NGO Coordinator.
- ix. Undertake other task assigned by the Coordinator or TA Team through the Coordinator.

c. Agricultural Extension Specialist

76. **Qualifications and Experience:** Post-graduate education in agriculture. Minimum 2 years of relevant experience as an extension worker. (OR a relevant Bachelor’s Degree with at least 5 years experience OR Agriculture Diploma plus 7 years of extension field experience).

77. **Specific Field Experience:** Minimum 2 years field experience (for Master’s Degree holders OR 3 years for Bachelor’s and 5 for Diploma holders) in (i) irrigated agriculture (extension) in related to the adoption of agricultural technology. and (b) “on-farm water management”; (ii) training and working with farmers in developing and implementing cropping and irrigation schedules. Plus experience in training of farmers and other trainers. Preference will be given to those who have expertise in (i) working with farmers in irrigated rabi (diversified cropping), (ii) Conducting Farmers Field Schools (FFS), and (iii) PIM and working with PPs.

78. **Detailed Tasks** will include the following:

- (i) Report directly to Head, SIO. Cooperate with NGO Coordinator in providing guidance and assisting the SSTs and PP-level Facilitators/COs.

- (ii) Provide Technical Assistance and guide and monitor the agriculture activities of PPs through the COs, report the progress to Coordinator and Head SIO on a monthly basis;
- (iii) Work collaboratively with the PIM and other Experts and in assessing the present status, potential and constraints related to agriculture (during Participatory Detailed Design process) and provide technical guidance and assist the development of Agriculture Plans by PPs;
- (iv) Based on (iii), guide COs in assisting and facilitating PPs in the implementation of Detailed Agriculture Plan of respective PPs;
- (v) Guide and assist in developing PP (and higher-level FOs,) capacity in relation to improved agriculture including water management, agri-business and marketing;
- (vi) Assist and enhance the capacity of Community Organizers and PPs in implementing and monitoring above plans;
- (vii) Undertake any other relevant tasks assigned by SIO.

d. Agricultural Marketing/Agri-business Specialist

79. **Qualifications and Experience:** Masters Degree in a field related to the expected duty (e.g. Agricultural Marketing, Enterprise development, Commerce, Business Management) preferably with specialized training and a minimum of 2 years post-qualification experience (OR a relevant Bachelor's Degree with at least 3 years experience OR or Agriculture Diploma plus 5 years of marketing experience) in linking farmers/farmer organizations with input and output markets. Emphasis is on diversified crops and value-addition. Experience and knowledge on rural agriculture is essential. Preference is for professionals with diverse experience in agricultural marketing in the rural sector

80. **Detailed Tasks:** The major responsibility of Marketing Specialist is to link PPs and farmers with input and output markets in agriculture, both within and outside project areas. Focus would be profitable diversified cropping in the Rabi season. Specialists should provide inputs to Agriculture Specialists in selecting crops based on demand for outputs and linking PPs with private sector/markets, including the arranging of forward contracts. (Important: Marketing Specialist is not just an "advisor", she/he should be capable of linking organized farmer groups, such as PPs and higher level WUAs with organized markets, preferably through contractual agreements)

81. The Specialist should aim at developing an "entrepreneurial culture" within WUAs.

82. Marketing Specialist will be required to ensure collection and dissemination of information on agricultural markets for relevant crops, information on products, markets and services, such as banking and credit facilities and processing facilities available in the area and outside. Access to up-to-date market information is critical for PPs.

83. She/he will assist in crop diversification or specialization depending on the circumstances, coordination of seasonal schedules, economizing on irrigation water, enhancing crop protection and be responsible for making PPs' agricultural marketing more efficient and profitable.

84. She/he is expected to establish and develop contacts for PPs with lending institutions and assist them to obtain loans for their cropping ventures; assist PPs and other Specialists in preparing proposals for new production, marketing and basic processing ventures; assist in analyses and evaluation of financial viability of these proposals; appraise credit investment

proposals; assist in promoting investments within the area; assist in developing a monitoring programme for crop enterprises and agricultural input-output business opportunities developed for PPs and assist in planning and implementation of training programs; assist in analyses of constraints.

85. Marketing Specialist will always be accountable to the PPs and farmers. It is assumed that PPs would develop as business entities and employ Marketing staff in the future.

e. Command Area Development and Water Management Expert

86. Qualifications and Experience: Minimum Bachelor's Degree in Civil/Irrigation/Agricultural Engineering and minimum 3 years of job-related field experience. Post-graduate education preferred. Diploma holders with minimum 5 years experience are also eligible to apply. Experience should be related to: (i) Command Area development (CAD) work (working with Farmers on CAD Work) and (ii) Irrigation O&M and water management with PPs. Preference will be given to those who have experience in On-Farm Water Management and training of farmers and trainers.

87. Specific tasks will include the following:

- (i) Based on the technical guidelines for irrigation system water management and CAD Work prepared by the Component TA, work with PPs in developing Command Area Development and Water Management Plans;
- (ii) Work collaboratively with the PIM and Agriculture Experts of SST to: (a) Review, assess, and synthesize information to determine the technical potential for kharif cropping and diversified cropping in rabi, and (b) Review and assess the feasibility of matching irrigation management plans/scheduling for kharif and rabi cropping schedules;
- (iii) Based on (ii) above, work collaboratively with PIM and Agriculture Experts to assist PPs and farmers in selecting crops and cropping patterns as well as cultivation calendar matching with availability of water, and (c) help/collaborate with PPs/Farmers/DOWR to develop seasonal water management practices, including on-farm water management methods;
- (iv) Assist and enhance the capacity of PPs, farmers, Community Organizers and other stakeholders in implementing and monitoring above plans. Design and conduct capacity building focusing on "experiential method" ("learning by doing"). Ensure that the targets are achieved in time;
- (v) Assist PPs in CAD work from the participatory design stage through construction to O&M of CAD work. Provide technical assistance / train concerned persons in water course and field channel construction and other On-farm developments. Expert's assistance in CAD work includes, (a) liaison with CADA and DOWR, (b) linking PPs with CADA, DOWR and other relevant Government authorities/agencies and private service providers, (c) assist PP, especially its Works Committee in developing detailed activity plans, procurement of services, construction supervision/quality control;
- (vi) Conduct training for PPs on O&M;
- (vii) Support preparation and implementation of plans capacity building related to other relevant aspects such as: conjunctive use and managing water-logging and drainage problems in PP areas;
- (viii) Monitor and report the progress PP level CAD Work, water management plans and other aspects indicated above (conjunctive use, drainage etc);
- (ix) Develop and help internalize Self Monitoring and Evaluation of Irrigation O&M and water management by PPs;
- (x) Undertake any other relevant task assigned by the SIO.

f. Community Organizer (CO)/PP-Level Facilitator

88. The key staff for PP strengthening would be the PP-level Facilitator / Community Organizer. The Community Organizer will act as a “Catalyst” in catalyzing the OIIAWMIP PIM and Agricultural Development Process at irrigation system and PP as well as Farm level. CO will work directly under the overall supervision of the SST and report to the Coordinator of SST.

89. **Qualifications:** Bachelor’s Degree, preferably in Social Science or Agriculture/Agric. Engineering with minimum 2 years experience in mobilizing communities. Diploma holders (in relevant subjects) with 4 years experience and proven capacity would also be considered.

90. **The Specific Role Organizer, CO:** The key role of the CO is to facilitate and mobilize farmers and FOs in tasks listed under the TOR of NGO(s). Other roles and responsibilities of the CO could be defined as:

- learn and understand individual and group behaviour, attitudes, need for changing attitudes, if necessary; identify conflicts and help the community develop proper conflict management strategies;
- educating PP officials and Chak Committee Representatives on their rights and responsibilities, participatory decision-making, leadership qualities, the need for respecting the majority’s opinion;
- educating farmers and PPs on the strength of collective action and mobilizing them for collective action;
- work with people to develop and internalize methods to maintain transparency;
- arrange for external assistance/expertise when she/he doesn’t possess skills.

91. In this context, the CO will have to perform different roles, depending on the need:

- as an educator, information provider
- as an organizer of collective action
- as a facilitator for linking the community with government agencies and the private sector
- as an encouraging companion
- as a close friend
- as a coordinator
- as an investigator using participatory methods
- as a helper in conflict management.

K. Reporting

92. **Progress reports:** The **NGO will provide an Inception Report within six weeks of signing the contract.** In consultation with PPSU staff and ISPM Consultants, SIO and PMU, the NGO should conduct participatory workshops to develop/refine the final Action Plan(s). Thereafter, monthly progress reports, quarterly reviews together with financial statements should be submitted to the PPSU staff and the national PIM Adviser of ISPMCs. He will check and recommend to Head, SIO.

93. The **Quarterly Reports** should include:

- (i) Detailed progress in relation to: a) scope of work stated in the TOR, and b) activity plans developed by the NGO and agreed by the PMU,
- (ii) Financial progress against the targets,
- (iii) Issues affecting project implementation and their corrective measures, and

(iv) Other agreed upon monitoring parameters.

94. The NGO should report the progress using the indicators agreed upon at the inception. It should be noted that the accounts and related financial statements will be audited periodically in accordance with sound auditing standards by independent auditors acceptable to DoWR and ADB. Also, ADB may audit accounts during review missions.

L. Estimated Costs for Sunei NGO Services

95. The overall indicative budget for Strengthening Pani Panchayats through NGO Services for Sunei Medium Irrigation System is **Rs.75,45,340.00** including non competitive amount of **Rs.14,18,000.00**.

FIGURE 1A. ORGANIZATIONAL ARRANGEMENTS FOR PROGRAM IMPLEMENTATION

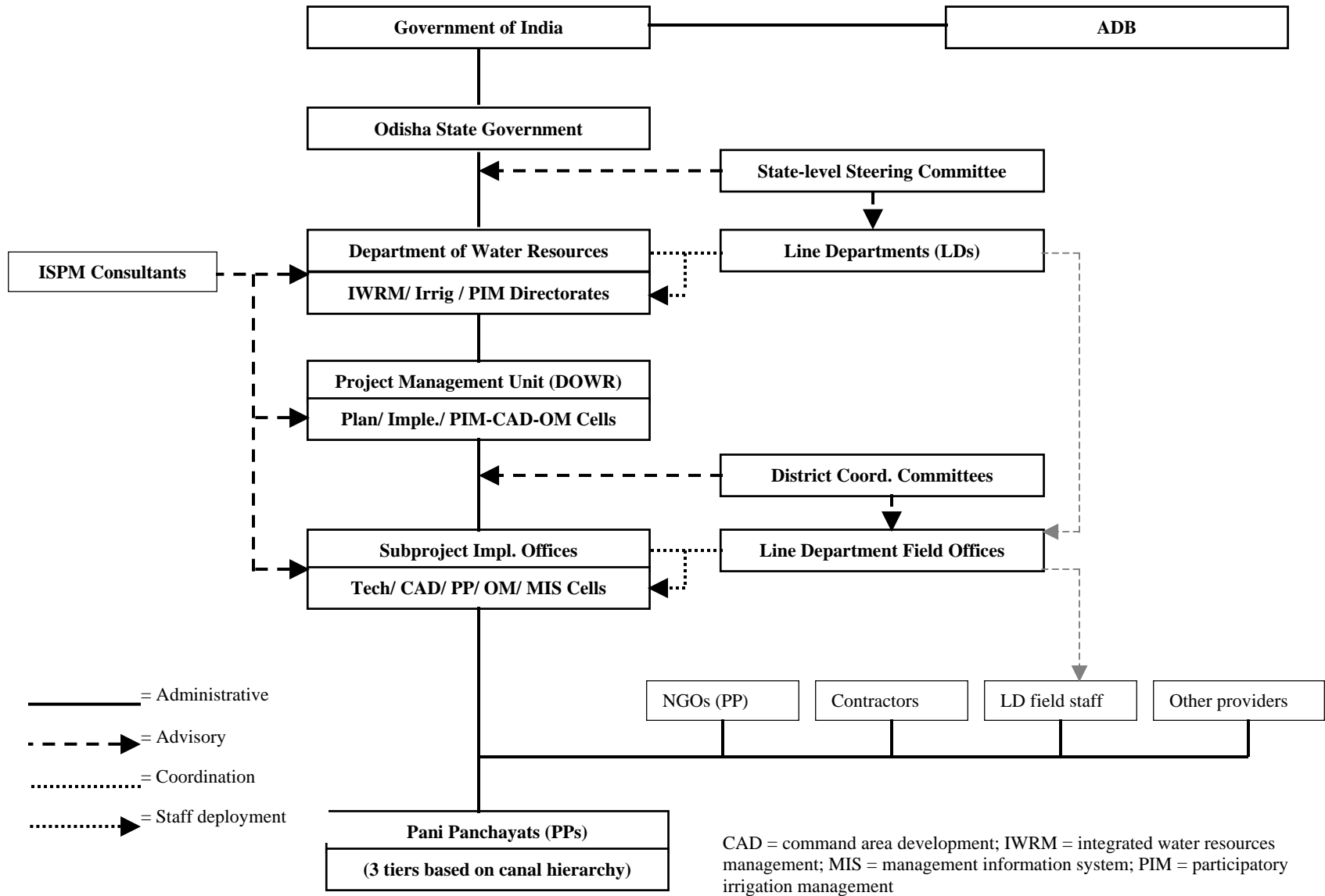
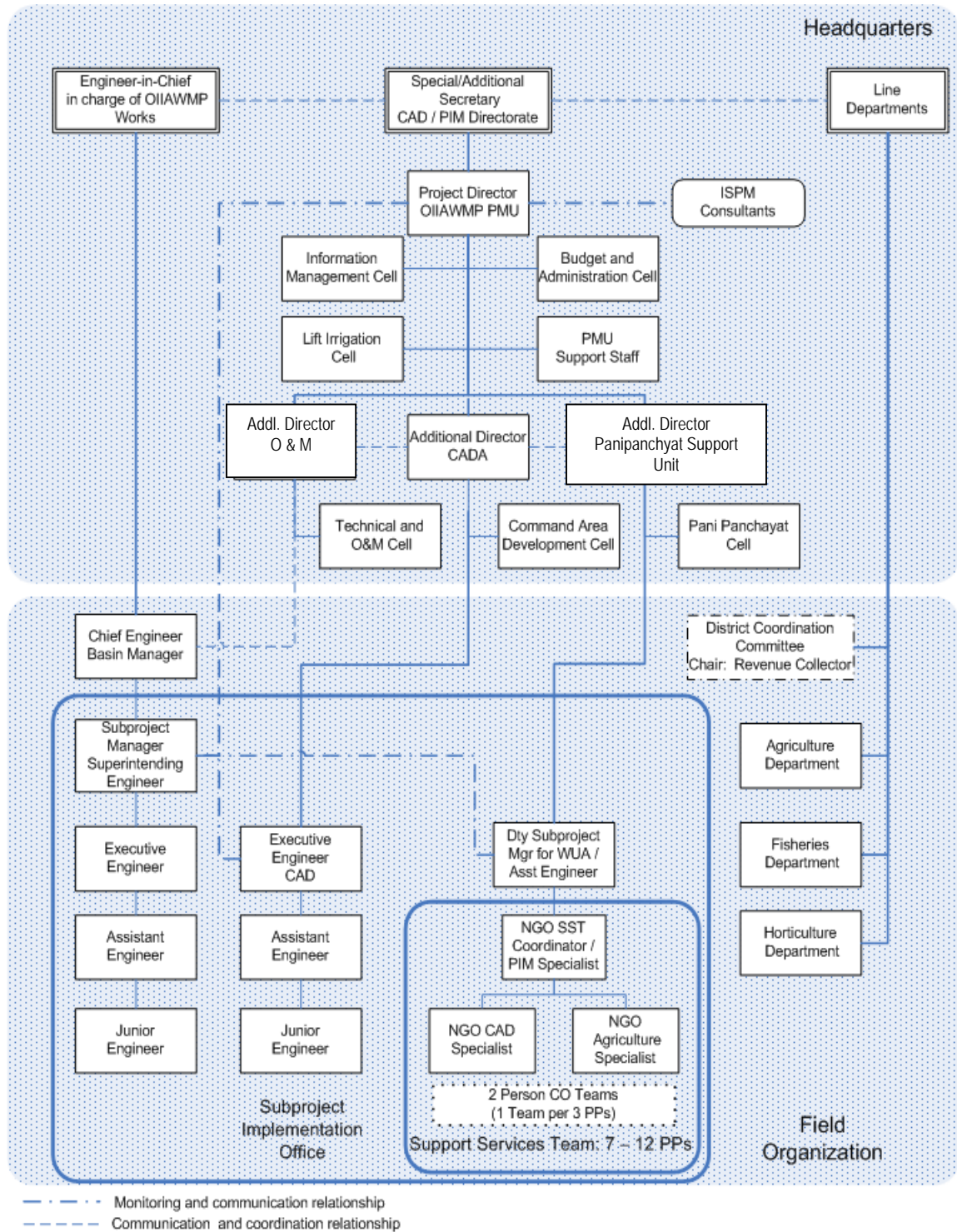
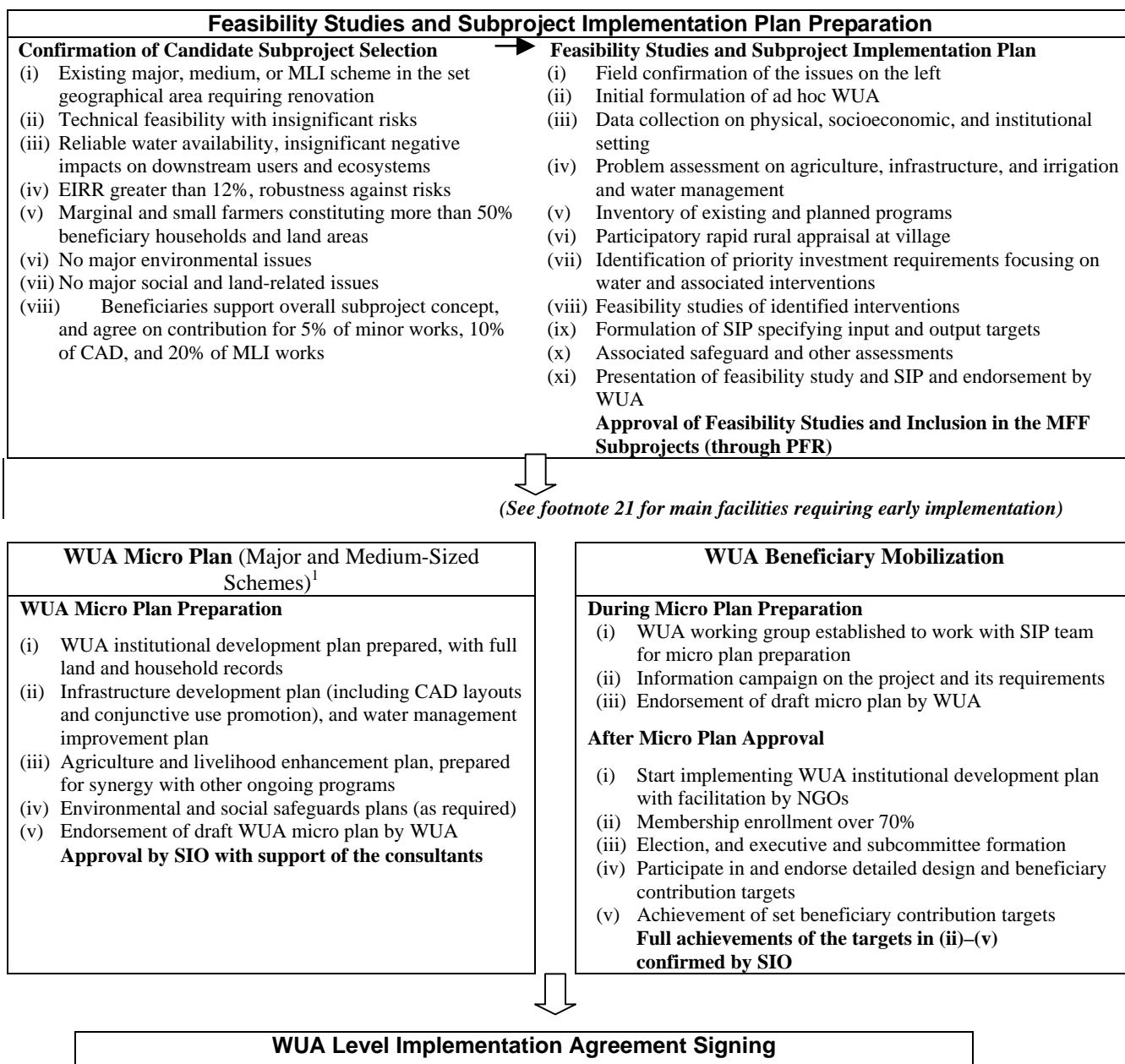


FIGURE 1B. ORGANIZATIONAL STRUCTURE OF PMU AND SIO



CAD = command area development, CADA = Command Area Development Authority, CO = community organizer, ISPM = institutional strengthening and project management, NGO = nongovernment organization, PIM = participatory irrigation management, OIIAWMP = Odisha Integrated Irrigated Agriculture and Water Management Project, O&M = operation and maintenance, PMU = project management unit, PP = pani panchayat (water user association), SST = support service team.

FIGURE 2. SUBPROJECT IMPLEMENTATION PROCEDURE AND ARRANGEMENTS



¹ Implementation will be based on the canal units constituting individual WUAs. Facilities encompassing more than one WUA (e.g., branch canals) will be implemented on the basis of the progress of the institutional development of the concerned WUAs. For main and key distributaries requiring early works for timely availability of water across the subprojects, however, detailed design and procurement of civil work may be initiated upon completion of the feasibility study and SIP preparation and endorsement of the concerned WUA project-level committee.

Implementation agreement to stipulate (i) schedules, programs, and responsibilities of the concerned organizations to implement the micro plans and (ii) WUA responsibilities including efficient and equitable water use (e.g., field channels, instruments such as special levy for high water consuming crops, etc.) and beneficiary contribution – to be signed by heads of the SIO and the WUA

Construction of Irrigation and Associated Infrastructure	
<p>Preconstruction</p> <ul style="list-style-type: none"> (i) Implementation of resettlement plan with support of NGOs (ii) Tender process of construction works (for main, distributary, and branch canals and structures) (iii) WUA engaged for minor infrastructure within their territories with necessary training (iv) WUA training on construction monitoring and O&M 	<p style="text-align: center;">→</p> <p>Construction</p> <ul style="list-style-type: none"> (i) Improved construction supervision including internal technical audit (ii) WUA monitors construction works of contractors (iii) WUA implements minor infrastructure (iv) Consultant quality control specialist signs off prior to payments (v) Full disclosure of contract information at sites

Agriculture and Livelihood Support
<p>Agriculture Development Support</p> <ul style="list-style-type: none"> (i) Agriculture plan refined with WUA subgroups (ii) Agriculture extension focus on groups with better group performance (iii) Demonstration beneficiaries to repay the cost of inputs to WUA as seed money to continue program (iv) Group leaders trained as WUA extension officers to disseminate improved technology within WMA (v) New cropping management with intensification, diversification, seed multiplication, water saving, and other new technologies (vi) Facilitation of forming farmer links for input delivery and output marketing (vii) NGOs and private providers engaged to enhance program effectiveness <p>Livelihood Enhancement Programs</p> <ul style="list-style-type: none"> (i) Programs for the poor (e.g., vegetable gardeners and fodder collectors) with a focus on women organized (ii) Promote self-help group formation and forming links with existing poverty reduction programs (iii) Delivery of services for practical knowledge of income generation, e.g., livestock breeding <p style="text-align: center;">Program completion report prepared by SIO and submitted to PMU after WUA endorsement</p>

Infrastructure Completion and O&M
<p>WUA Managed (minor) Facilities</p> <ul style="list-style-type: none"> (i) Preparation of O&M plan by WUA with trained project staff with the consultant O&M specialist (ii) Test run and joint confirmation of the quality of infrastructure constructed (iii) On-the-job training for O&M up to full year, in preparing and implementing (a) seasonal operation plans with efficient water management, (b) annual maintenance plans with joint canal walk-through, and (c) resource mobilization plans (iv) WUA establishes O&M reserve fund using up front cash contribution and maintains the fund with appropriate replenishment mechanism (v) Close monitoring of status of O&M <p style="text-align: center;">Facility O&M transfer agreement signed between SIO and WUA</p> <p>Jointly Managed Facilities</p> <ul style="list-style-type: none"> (i) Preparation of scheme O&M plan, and MIS for scheme O&M performance monitoring and planning (ii) Test run for joint confirmation of structure capacity (iii) Joint decision making on system O&M, including seasonal operation plans, maintenance plans with joint walk-throughs, and resource mobilization plans (iv) Policy measures to enhance resource mobilization <p style="text-align: center;">Progressive O&M transfer at this level envisaged in the medium term</p>

Regular Monitoring for Sustainable O&M
<p>Project to maintain annual technical, social, and financial audit of WUA through field project staff and engagement of NGOs, with a particular focus on the performance of O&M at system, distributary, and WUA levels</p>

CAD = command area development, EIRR = economic internal rate of return, MFF = multitrance financing facility, MIS = management information system, MLI = minor lift irrigation, NGO = nongovernment organization, O&M = operation and maintenance, PFR = periodic financing request, PMU = project management unit, SIP = subproject implementation plan, SIO = subproject implementation office, WUA = water user association.
 Source: Asian Development Bank.