

WATER USERS COOPERATIVE SOCIETY AND AGRICULTURE DEVELOPMENT AT SUBPROJECT AND STATE LEVEL IMPLEMENTATION

I. WUCS DEVELOPMENT

A. Goal

1. The goal is a significant improvement in water use efficiency coupled with an increase in agricultural productivity which in turn should lead to substantial improvement the income of farmers.

B. Objective

2. The modernisation of irrigation infrastructure under IWRM approach including the high intensity and medium intensity of WUCS enable WUCS fulfilling their responsibilities including irrigation management: equitable distribution of water to farmers: O&M of minor canal system and collection of irrigation water charges: and capable of interacting with service agencies including KNNL/CADA, Agriculture Department, Horticulture Department and other Departments to ensure that they receive necessary services.

C. Outputs

- (i) At least 90 % of WUCS confirm receipts of agreed water service
- (ii) More than 75 % of WUCS operation and monitoring handed over systems: including fee collection
- (iii) At least 30 % of WUCS management board are women

D. Impact

3. Enhanced availability of water resources through judicious use of water and agriculture as a profitable enterprise.

II. WUCS INSTITUTIONAL STRENGTHENING STRATEGY

4. The WUCS Institutional Strengthening Strategy is planned at two levels

- (i) Selected sub project level (High Intensity)
- (ii) State level (Medium Intensity)

A. Selected Subproject level

5. In each of the selected sub project level namely Gondhi, Vijayanagara Channel and part of Tungabhadra Left Bank Canal the capacity building of WUCS is proposed to be carried out in four phases with specific tasks and stipulated time frame for each phase. These four phase envisage capacity building of WUCS on various fronts like organizational building and engagement in planning, executing modernization and irrigation management.

B. State Level

6. At the State level, a Medium Intensive Intervention Program is taken up to cover the capacity building of all the WUCS. It is believed that there are certain areas which need hands on experience approach primarily to induce WUCS into irrigation management, for instance

community mobilization to enhance real membership, crop intensification and diversification and regular O&M through water charges collection and remittance of water rates, which requires activities like hand holding at WUCS level. The lessons drawn from the experiences from the intensive intervention program would be developed into ready capsules and disseminate to the larger WUCS in the State.





7. The total WUCS identified in the State is 3,120 covering an area of 16,29402 ha and the medium intensive intervention program is targeted to 3,000 WUCS.

III. WUCS STRENGTHENING AT SUBPROJECT LEVEL

8. The WUCS Institutional Strengthening Strategy is planned in four phases with specific tasks and stipulated time frame for each phase. These four phase envisage capacity building of WUCS on various fronts like organizational building and engagement in planning, executing modernization and irrigation management.

9. The detailed activities proposed under the four phases are given in the Table 1 below.

Table 1: WUCS Institutional Strengthening Strategy

| Phase 1 (8Months) | Phase 2 (4Months) | Phase 3 (18 Months) | Phase 4 (18 Months) |
|---|--|---|---|
| <i>Mobilization</i> | <i>Modernization Planning</i> | <i>Executing Modernization Plan</i> | <i>Irrigation Management</i> |
| | | <i>These two phases may overlap</i> | |
|  |  |  |  |
| <ul style="list-style-type: none"> • Establishing and registering WUCS where they are not yet formed; • Creating awareness among farmers about the role and function of WUCS in irrigation service delivery including crop water planning, water management, minor and CAD system O&M, water charge collection and remittance; • Creating awareness among WUCS / members on program objectives and activities and their role in it; • Mobilizing non-member farmers to become members of their WUCS; • Training all WUCS office bearers on internal administration of WUCS as per Cooperative Societies Act; • Establishing WUCS Office, equipping WUCS with relevant information and records and updating their records to current status; • Discussing and signing of MOU between all WUCS and KNNL; and • Participatory bench marking of WUCS on its current level of functioning related to internal administration and irrigation management with its members. | <ul style="list-style-type: none"> • Preparation of WUCS CAD system improvement plan; and • Preparation of the WUCS agriculture development plan | <ul style="list-style-type: none"> • Implementation of the WUCS CAD system improvement plan; • Implementation of the WUCS agriculture development plan; and • Continued training of WUCS on various topics | <ul style="list-style-type: none"> • Handing over of minor canal and CAD system to WUCS • Preparation of minor canal and CAD system Asset Management Plan • Participatory bench marking of WUCS • Preparation and implementation of participatory WUCS action plan • Constitution of Water User Project Level Federation |

A. Phase 1 – Mobilization (8 Months)

10. WUCS institutional strengthening process under the project will start with the WUCS Mobilization Phase. Under this phase the following activities will be implemented:

- (i) Establishing and registering WUCS where they are not yet formed;
- (ii) Creating awareness among farmers about the role and function of WUCS in irrigation service delivery including crop water planning, water management, minor and CAD system O&M, water charge collection and remittance;
- (iii) Creating awareness among WUCS / members on project objectives and activities and their role in it;
- (iv) Mobilizing non-member farmers to become members of their WUCS;
- (v) Training all WUCS office bearers on internal administration of WUCS as per Cooperative Societies Act;
- (vi) Establishing WUCS Office, equipping WUCS with relevant information and records and updating their records to current status;
- (vii) Discussing and signing of MOU between all WUCS and KNNL; and
- (viii) Participatory bench marking of WUCS on its current level of functioning related to internal administration and irrigation management with its members.

1. Establishing and registering a WUCS for the Gondhi Left Bank command area

11. CADAs have a well-established process of forming and registering WUCS. Following the same process the WUCS will be established and registered in those areas where they have not yet been formed by the concerned CADAs. The process will commence with awareness generation activity in the WUCS area carried out by the SST. This will include awareness on objective for forming a WUCS, its functions and the benefits to its members under the Irrigation Act. During the awareness campaign the farmers will also be informed about the project, its objectives and benefits they will accrue from it. The SST will mobilize and motivate the farmers to become WUCS member by paying up their share capital contribution. After the awareness and mobilization campaign the CADA cooperation staff will initiate the process of forming and registering the WUCS.

2. Creating awareness among farmers about the role and function of WUCS

12. To create awareness among farmers about the role and function of WUCS, the WUCS managing committee with support of the SST will hold village meetings (during evenings) in which they will hold discussions with the members and non-members on the roles and responsibilities of WUCS as per the provisions of the Karnataka Irrigation Act, 1965 and Karnataka CADA Act, 1980. The meeting will also hold discussions on the internal administration procedures of the WUCS as per the provisions of the Karnataka Cooperatives Societies Act, 1959. The relevant sections of these Acts will be distributed among the farmers in Kannada language. The discussions will focus on the benefits to farmers on becoming WUCS members and the longer range vision and objectives of farmer managed irrigation programme being promoted by the government.

13. During the meeting folk art forms like folk songs and folk theatre may be used to create awareness. The PMU will identify some Bheedhi Nataka Groups (folk / street theatre group) in the subproject area and work with it to develop these folk songs and theatre for performance. Other awareness generation methods such as wall writing slogans, posters, leaflets and banners in Kannada language may be developed by the PMU for use in the subproject villages.

3. Creating awareness on project objectives and activities

14. There will also be a need to create awareness on project objectives and activities among the WUCS members, the expected benefits and their role in it to motivate the farmers to actively participate in the project through their WUCS. Similar awareness generation methods as described in the section above will be used for this purpose. The PMU will prepare the awareness generation material like posters, leaflets, etc. which will be used by the SST in village meetings with farmers. It is expected that by this means information about the project will be disseminated to all the farmers and an understanding of the project components and activities will grow among them.

4. Mobilizing non-member farmers to become members of their WUCS

15. Following the awareness generation meetings it is expected that the still non member farmers will start getting motivated to become members. The WUCS Secretary along with the SST will follow up by meeting these farmers in groups and individually answering their queries and apprehensions and get them to become members. The membership procedure will be as per the provision in the Karnataka Cooperatives Societies Act, 1959. It is anticipated that increasing the membership of the WUCS to the proposed 90% of the farmers will take time and the effort will need to continue into the subsequent phases but during the mobilization phase effort to make at least 51% farmers' members of WUCS will be achieved.

5. Training WUCS office bearers on WUCS administration

16. The internal administration of WUCS is governed by the clauses of the Karnataka Cooperative Societies Act, 1959. Currently, the CADAs are providing training to the WUCS office bearers (managing committee members and secretary) on administration of WUCS through the Regional Institute for Cooperative Management, Bengaluru. RICM has developed a detailed training module/programme on this and has experienced faculty imparting the training. The PMU will make arrangement with the RIMC to provide this training to the office bearers of all project WUCS.

17. Post training the SST will assist the WUCS office bearers in updating the WUCS record and bring the administration of the WUCS to current status. Henceforth, the WUCS office bearers will be responsible to maintain all WUCS records up to date.

6. Establishing WUCS Office and equipping WUCS with updated information / records

18. The WUCS will be supported to establish an office in a convenient place which is easily accessible to all members without any social or legal restriction. The office place should also be such selected that change in office bearers do not require for a change in location of the office. The WUCS Secretary would set up his working office here and conduct all WUCS administration work from this premises including maintaining all WUCS records and conducting WUCS managing committee meetings.

19. The minimum information and records to be maintained by the WUCS are:

- (i) WUCS registration records – WUCS Bylaws, registration certificate, membership list, WUCS map¹
- (ii) Meeting records - meeting notice file, general body minutes register, managing committee meeting register

¹ WUCS map based on digitized cadastral map will be prepared by the PMU with assistance of KNNL / CADA and supplied to the WUCS.

- (iii) Communication records – letter head, letter file, inward and outward register
- (iv) Accounts records - PAN, TIN, cash book, ledger book, receipt book, asset register, accounts register, annual audit report, bank book
- (v) Water management records – MOU, minor canal and CAD system design layout map, O&M works register, gauge register with calibration chart for the measuring points, water charges register, annual action plans, participatory bench marking records

20. The SST will assist the WUCS Secretary to set up these records. Some of these records such as the WUCS and minor canal and CAD system design layout maps will have to be prepared and supplied by the PMU, while the other records registers and files will have to be created by the WUCS itself. Some WUCS may already have few of these records, which the SST will assist the WUCS Secretary to update to current status. Other records will be freshly created by the WUCS Secretary assisted by the SST.

21. The WUCS will require a bank account into which project funds may be transferred to pay for activities being executed by them. Those WUCS that already have a bank account; it will be used for the purpose. But for those WUCS that do not yet have a bank account, the SST will assist the WUCS managing committee to open a bank account in a local nationalized or cooperative bank with the President and the Secretary as joint operators. SST will also assist WUCS to obtain PAN (Permanent Account Number) and TIN (Tax Identification Network Number) registration from the Income Tax Department as they are required by the WUCS to carry out contractual works.

22. Additionally, all WUCS will be provided with Kannada language copies of the Karnataka Cooperative Societies Act, 1959 and Rules, Karnataka Irrigation Act, 1965 and Rules, Karnataka CADA Act, 1980 and rules and a compendium of government orders relevant to WUCS functioning.

23. By the end of the mobilization phase it is proposed that the office of the WUCS will be established along with their updated records.

7. Discussing and signing of MOU between all WUCS and KNNL

24. Once the WUCS have achieved the required membership level of 51% of farmers the process of signing the MOU will be started. A MOU with all required information including the bulk water allocation, volumetric water rates, etc. will be prepared by the concerned Executive Engineer (KNNL) will be drafted and given to the concerned WUCS. The KNNL staff / SST will discuss in detail the MOU with the WUCS general body to explain all the clauses of the MOU and address all their queries. Based on the discussion an agreement will be arrived on the MOU including the bulk water allocation, volumetric water rates, etc. After this the MOU will be signed between the WUCS and the KNNL.

8. Participatory bench marking of WUCS

25. Before commencing implementation of project activities related to system modernization, CAD works and agriculture development it is proposed to bench mark the WUCS on its current level of functioning related to internal administration and irrigation management to create a baseline. The bench marking will be carried in a general body meeting of the WUCS using a participatory process. The PMU will identify the bench marking indicators and the tool for bench marking based on a quantified participatory assessment approach in consultation with the WUCS. The bench marking tool will be a Quantified Participatory Assessment chart designed such that WUCS can make objective self- assessment of its current performance standards based on the identified indicators. The SST will train and assist the WUCS in carrying out the bench marking exercise. The first

bench marking result will be the base line performance level of the WUCS. The bench marking exercise will be repeated at regular intervals (annually or semi-annually to the end of the tranche period and afterwards) to assess the change in the performance level of the WUCS. Comparative analysis of the bench marking results will provide understanding of improvements achieved and gaps still in the level of performance of the WUCS and lead to remedial action for the WUCS action plan.

26. By the end of the mobilization phase all WUCS will have a working office, updated records, trained office bearers and agreed and signed complete MOUs with the KNNL.

B. Phase 2 – Modernization Planning (4Months)

27. The next phase in WUCS institutional strengthening strategy is the modernization planning that will be executed over a period of 3 months. The main system modernization planning and execution will be carried out by KNNL and contractors in which the WUCS are expected to play no role. However, the WUCS will have a major role to play in CAD system improvement and agriculture development planning and execution. Therefore, under this phase the following activities will be implemented:

- (i) Preparation of WUCS CAD system improvement plan; and
- (ii) Preparation of the WUCS agriculture development plan

1. Preparation of WUCS CAD system improvement plan

28. The CAD system improvement interventions are already detailed out in an earlier section of the report. Within this the actual layout of the field irrigation channels, field drains and other OFD works will have to be finalized with the WUCS and farmers. The CADA staff assisted by the SST will hold discussion with the WUCS on the required CAD works within their jurisdiction. For this a joint walk through will be carried out by the farmers, the CADA staff and the SST and a cadastral based resource and transect map prepared identifying the required CAD works. Based on the works identified the CADA staff will prepare the design and layout plans. These layout plans will be discussed with the WUCS for final endorsement as agreement may be required from individual farmers to allow works across or along their fields. The SST will assist the WUCS Secretary to convene these meetings with the farmers for discussion.

2. Preparation of the WUCS agriculture development plan

29. Similarly, agriculture development plan for each WUCS needs to be prepared in consultation with the farmers. The proposed project agriculture strategy and interventions is detailed in an earlier section of the report. Based on this and the current cropping practice in the WUCS area and in discussion on desired / willingness to change by the farmers, the SST will prepare a detailed agriculture development plan with the WUCS. A walk through and a cadastral based resource mapping exercise jointly conducted by the farmers and the SST will help identify the potential for improved agriculture practice with reference to field characteristics such as soil type, land level, etc. The plan would propose the seasonal cropping pattern, the improved agronomic practices to be implemented, the training and demonstration programme (Farmer Field Schools, etc.) for the farmers on the new practices including nutrition management, integrated pest management and the handling of agri-chemicals and particularly pesticides, the improved agricultural inputs and their possible source for farmers to purchase from, etc.

30. By the end of the modernization planning phase a CAD system improvement and an agriculture development plan will be prepared and endorsed by the WUCS for implementation.

C. Phase 3 - Executing Modernization Plan (18 Months)

31. After the preparation of their CAD system improvement and agriculture development plans the WUCS will start implementation of these plans. This will happen during the phase 3 when the following activities will be implemented:

- (i) Implementation of the WUCS CAD system improvement plan;
- (ii) Implementation of the WUCS agriculture development plan; and
- (iii) Continued training of WUCS on various topics

1. Implementation of the WUCS CAD system improvement plan

32. Given the usual short periods between standing crops in the field it is expected that the CAD work implementation will take about 18 months. It is proposed that the CAD works be implemented by the WUCS themselves using the current procedure being followed under the Government of India's CAD&WM scheme. The CADA engineering staff will supervise the implementation process with regular field assistance from the SST while the WUCS Secretary will be made responsible to maintain the works records like the measurement book and the muster role. For supply of materials like pipes and cement, etc. bulk procurement may be done by the SIO and then distributed to the WUCS who would maintain its asset register to account for the material received. For labour work payment, the SIO Manager will transfer the amount to the WUCS account from which the WUCS Secretary will make payments based on the muster role and the MB. The SST will assist the WUCS Secretary in this task.

2. Implementation of the WUCS agriculture development plan

33. The 18 month execution phase will give 3 cropping season to the farmers to implement the WUCS agriculture development plan. It should be noted, however, that implementation of the WUCS agriculture development plan will continue beyond this phase into the next phase and perhaps also beyond. The farmer training and demonstration programmes will be implemented by the SST with resource person support from the agriculture department, the local Krishi Vigyan Kendra and other agriculture support agencies. Purchase of agriculture inputs may be carried out as bulk procurement by the WUCS assisted by the SST. This way quality agriculture inputs at competitive costs may be made available to the farmers.

3. Continued training of WUCS on various topics

34. This phase will also be used for continuing systematic training of WUCS and farmers on a range of topics that would support future sustainable O&M of their irrigation system by the WUCS. This will include training on crop water budgeting, irrigation scheduling, equitable distribution of water to farmers, on farm application, asset management plan based minor canal operation and maintenance, etc. There will be additional agriculture development related trainings that may arise during implementation of the WUCS agriculture development plan. Additionally, some refresher training on WUCS administration to the office bearers and member awareness campaigns may be required. The PMU will be responsible for designing the modules and preparing the training material for these trainings. It will also conduct the ToT for these trainings for the SST.

35. By the end of this phase all WUCS will have an improved CAD system in place in its command area. The WUCS agriculture development plan would be in an advanced stage of implementation with clear indication of achieving the agriculture development result indicators identified in the Project DMF. Also all WUCS would have been provided with the requisite training to take over the responsibility of irrigation management in their command areas along with the minor canal and CAD system operation and maintenance.

D. Phase 4 – Irrigation Management (18 Months)

36. Under this phase the following activities will be implemented:
- (i) Handing over of minor canal and CAD system to WUCS
 - (ii) Preparation of minor canal and CAD system Asset Management Plan
 - (iii) Participatory bench marking of WUCS
 - (iv) Preparation and implementation of participatory WUCS action plan
 - (v) Constitution of Water User Project Level Federation

1. Handing over of minor canal and CAD system to WUCS

37. On completion of modernization of the minor canal system and the CAD system, the KNNL / concerned CADA will be in the position to hand over the restored systems to design level to the WUCS for future O&M as per the clauses of the MOU. From this point onwards it will become the responsibility of the WUCS to operate and maintain the system and provide irrigation service to its members. To facilitate the handing over process the KNNL / CADA will prepare a detailed record and layout map of the minor canal and CAD system in the WUCS command including the structural specifications such as design flow and discharge levels of canal, weirs, outlet points, channels, drains, etc; the design standards to be maintained of included structures; and other technical details as necessary. This record and layout map will become the basis for preparation of the WUCS minor canal and CAD system Asset Management Plan.

2. Preparation of minor canal system Asset Management Plan

38. On completion of the modernization of the minor canal system modernization, the KNNL engineers and the SST will assist the WUCS to prepare an Asset Management Plan for operation and maintenance of the minor canal system. Similarly, the CADA engineering staff and the SST will assist the WUCS to prepare an Asset Management Plan for operation and maintenance of the CAD system. The PMU will develop the process and format for preparing the minor canal and CAD system Asset Management Plan and train the KNNL / CADA staff and the SST in its use. The minor canal and CAD system Asset Management Plan will then become the basis for the WUCS to carry out on-farm water management and maintain the system structures.

3. Participatory bench marking of WUCS

39. The WUCS will continue its regular participatory bench marking exercise as described earlier to self assess and monitor its performance. The SST will assist the WUCS in this.

4. Preparation of participatory WUCS action plan

40. To formalize the process of operation, maintenance and management of its irrigation system, each WUCS will be trained to prepare its action plan covering all its responsibilities mandated under the MOU including receiving bulk water from KNNL on volumetric basis, preparing irrigation plan for the command area, managing irrigation service to its members, equitably distributing water to farmers, improving on farm water application, collecting and remitting water charges to KNNL and maintaining the minor canal and CAD system to design standards.

41. To facilitate the WUCS action plan preparation process the PMU will design a work book with simple and standard formats for requisite data collection for seasonal crop planning and water demand estimation, irrigation scheduling and rotational supply to outlets and irrigation channel, farmer crop area estimation for raising water charges and

maintenance plan derived from the Asset management Plan. The work book will incorporate the participatory bench marking format in it to integrate the WUCS performance monitoring and planning process. Additionally, actions for flood management and conjunctive use of canal and groundwater may be included. The PMU will also develop the training module for use of the work book for plan preparation and train the KNNL / CADA staff and SST on it. The PMU will prepare the work book and the training material in Kannada language.

42. Post training, the KNNL / CADA staff and SST will facilitate the WUCS to prepare their crop season plans on the items listed above with the use of the work book. They will also support the WUCS in implementing it. At the beginning of each cropping season the WUCS will self-assess its performance using the participatory bench marking tool. An analysis of the results will help it identify the functions in which it has showed improved and where there are still gaps in performance. Hence the bench marking assessment of a preceding season will feed into the action planning for the next season.

43. For each round of seasonal planning, using the work book, a WUCS will prepare in consultation with its farmers the season's crop plan and estimate the irrigation water required before each cropping season (kharif and rabi). The WUCS will indent this bulk amount for supply to KNNL making certain that it generally does not exceed its allocated volume agreed in the MOU. The WUCS will also submit its desired irrigation supply schedule for the season. The SST will assist the WUCS in preparing the crop water plan, the indent and the irrigation supply schedule.

44. The water indent and the supply schedule will be presented to the concerned Irrigation Consultative Committee (ICC) for discussion and finalization. WUCS representatives should be made members of the ICC to facilitate their representation and participation in discussions when the operation schedule for the irrigation project is finalized. In the ICC the seasonal water allocation for the WUCS and their supply schedule will be finalized and agreed upon depending on the indent and the availability of water in the project and the expected inflows. In case a WUCS indents more bulk water supply than its allocated volume, the ICC will decide on whether it could be sanctioned and supplied. The decision made in the ICC will become the seasonal volume of bulk water to be supplied by KNNL to a WUCS.

45. Subsequent to this agreement, the KNNL will supply irrigation water in bulk to the WUCS at its bulk supply point from where the WUCS will supply water to its farmers on the agreed rotational schedule. KNNL and WUCS will keep record of the actual bulk water supplied to the WUCS at its supply point based on monitoring of the measuring devices installed at these points. At the end of each cropping season KNNL will raise the water charge demand on the WUCS determined on volumetric rate agreed in the MOU and the actual bulk water supplied. The WUCS will apportion the water charge demand among its farmers on mutually agreed criteria and collect the water charges from them and remit it to the KNNL bank account.

46. For maintenance of the minor and CAD system within its command the WUCS will prepare annual maintenance plan using the Asset Management Plan and a walk through. The SST will assist the WUCS in identifying the maintenance works required and in preparation of the work estimates according to KNNL / CADA schedule of rates. The KNNL / CADA engineers will review the estimates and make any corrections therein.

47. Implementation of the minor canal system maintenance work will be carried out through the water charge amount apportioned to WUCS as per the recent decision of the

Government of Karnataka in its 2012-13 Budget.² The cost of maintenance of the CAD system works will be borne by the farmers through their contribution.

48. The irrigation management phase, being of 12 month duration, will allow the SST to hand hold the WUCS through a complete annual operational cycle covering two cropping seasons. It is expected that during this period sufficient training will be received by the WUCS to be able to continue the work book based annual planning and implementation process with minimal support from the KNNL / CADA staff even after withdrawal of the SST at the end of this phase.

49. From this point onwards the WUCS will continue to receive irrigation service form KNNL as per the provisions of the MOU and manage its irrigation system using the Asset Management Plan, participatory bench marking and work book based action planning process.

5. Constitution of Water User Project Level Federation

50. Once all the WUCS have reached a level of functional effectiveness the process for formation of the Water Users Project Level Federation may be started by the SST. However, before this is taken up, it is proposed that AC-IWRM under the project review the experience of functioning of Project Level Federation nationally in Karnataka and other States and internationally to design a well structure strategy for formation and institutional strengthening of Water Users Project Level Federation in the State. This would include the guidelines, procedures and tools for Federation functioning, training modules for the Federation members and facilitators, training material for these trainings, etc. The AC-IWRM will then train the KNNL / CADA staff and the SST on this strategy which they will implement in the project to form the Water Users Project Level Federations.

51. Therefore at the end of all four phase the project will have WUCSs with membership level of 90%; MOUs with KNNL; a functional office with updated records; a modernized minor and CAD system; an operational minor and CAD system Asset Management Plan; regular annual plans for WUCS functioning; regular participatory bench marking of its performance and an agriculture development plan in implementation resulting in improved agriculture production and farm household income.

IV. SUBPROJECT IMPLEMENTATION METHODOLOGY

52. The subproject implementation methodology covering irrigation planning and implementation including the preparations and carrying out main activities and responsibilities of various implementing agencies like PMU, PSC, PIO and SST are shown in table below.

Table 2: Irrigation Planning and Implementation—Main Activities and Responsibilities

| | Activity | Main responsibility | Follow-up |
|---|---|---------------------------------|-----------|
| 1 | Awareness Campaign | | |
| | Information dissemination and knowledge building throughout Project target area | PIO, SST with WUCS support | |
| | Preparation of water awareness materials including modernization under IWRM approach in Kannada | PSC, PIO, SST with WUCS support | |
| | Gender awareness campaign | PIO and SST | |
| | Script preparation for folk play (Bayalu Nataka) | PSC, PIO with SST | |
| | Enactment of open theater play | PIO to engage and | |

² In the Agriculture Budget 2012-13 Government of Karnataka has declared its intension to make available 70% of the water charge collected by a WUCS for O&M works within its command. It is expected that WRD will soon order the procedure for this apportionment.

| | Activity | Main responsibility | Follow-up |
|---|---|--|--|
| | | monitor and SST to facilitate | |
| | Materials on sub project and sub basin in Kannada | PSC and PIO and SST to assist | |
| | Village consultation meetings | SST | |
| | Main system walk through/feedback survey (to be undertaken before construction and during construction) | PIO/PSC, SST and WUCS | PMU/PSC on technical design components |
| 2 | Training Designs | | |
| | Preparation of WUCS Benchmark Formats | PIO, SST with WUCS support and with inputs from PSC | |
| | Benchmark survey | SST with WUCS support | To submit filled in formats to PIO |
| | Preparation of training modules and methods on various items like WUCS roles, responsibilities, financial management based on Karnataka Irrigation Act, Karnataka Command Area Act & Karnataka Cooperative Act, its rules and regulations MOU and handing over, | PSC, PIO and SST with the involvement of WUCS | |
| | Gender development programs | PIO and SST in consultation with WUCS and inputs from PSC | |
| | Irrigation Management | PSC, PIO and SST with the involvement of WUCS | |
| | Water Management in different cropping systems | PSC, PIO and SST with the involvement of WUCS | |
| | SRI Paddy and Farm Mechanizations a. SRI (Paddy) method of cultivation b. Farm mechanization c. Exposure visits | PIO and SST with the involvement of WUCS and inputs from PSC | |
| | Exposure Visits to best practices of PIM and Irrigated agriculture a. Interstate b. Within the State | PIO and SST with the involvement of WUCS and inputs from PSC | |
| | Improved Cropping Systems a. Crop Intensification Soil testing and its importance, b. INPM, Bio-pesticides and Bio-fertilisers, d. Organic farming | PIO and SST with the involvement of WUCS | |
| | WUCS as multi-purpose organization | PSC, PIO and SST with the involvement of WUCS | |
| | Training modules checked & approved | PMU | PMU reviews and endorse training modules |
| | Publication of training modules and other support materials | PIO | |
| 3 | Community Mobilization | SST with WUCS support | PIO to monitor |
| 4 | Management Information System of Project (Kannada and English) a) Project b) Canal Network, c) Organisational structure of | PIO and SST with WUCS support and inputs from PSC | |

| | Activity | Main responsibility | Follow-up |
|----|---|---|---|
| | KNNL/CADA/WUCS Agriculture profile | | |
| 5 | MIS of WUCS (Kannada and English) | PIO and SST with WUCS support | |
| 6 | Records/Book Keeping (Kannada) | PIO and SST with WUCS support | |
| 7 | Work Book Formats Preparation and Printing | PIO and SST with WUCS support and inputs from PSC | |
| 8 | Performance Indicators and PSA Charts in Kannada | PSC, PIO and SST with WUCS support | |
| 9 | Materials on Measuring Devices in Kannada and English | PSC, PIO and SST with WUCS support | PIO and SST to enable WUCS get regular gauge analysis |
| 10 | Compendium of Government Orders related to Irrigation and WUCS in Kannada | PMU | |
| 11 | Flood Management Guidelines | PSC, PIO and SST with WUCS support | |
| 12 | Ground water mapping and Conjunctive Use | PMU, PIO and SST | |
| 13 | Identification of CAD works a. Walkthrough survey on field channels to identify works b. Prioritization of works and approve in GB meeting c. Preparation of estimates | PIO and SST with WUCS support | PMU to make periodic progress |
| 14 | Social audit boards | PIO and SST with WUCS support | |
| 15 | Construction of CAD works with standard designs | | |
| | Technical training to WUCS on sustainable quality and quantity of construction works | PSC, PIO with SST | On site regular visits by SST |
| | Identification and prioritization of works through participatory walk through survey | WUCS with support from PIO and SST with inputs from PSC | |
| | Preparation for works during pre closure and closure | WUCS with support from PIO and SST with inputs from PSC | |
| | Facilitating identification of materials | PIO with SST | |
| | Carrying out construction of CAD works by WUCS | WUCS Training by PIO and SST and inputs from PSC | |
| | Recording Measurement Book | PIO with SST | |
| | Financial Management | PIO with SST and inputs from PSC | |
| 16 | Operation and maintenance | | |
| | WUCS engaging their own secretaries and laskhars /neergantis | WUCS Training by PIO and SST | |
| | Micro plan preparation including area irrigated, water charges and water rates and collection (Work Book Exercise) | Community Training provided by Project | PIO tests different models with WUCS |
| | Works contract with WUCS | PIO | |
| | MOU for water management with WUCS | PIO and SST staff with WUCS support | |
| | Water rates prepared according to volumetric supply and timely supplied to WUCS | PIO and SST with WUCS support | |
| | Collection of water charges by WUCS and remittance to WRD/KNNL through WUCS | Community mobilization by SST and WUCS | Comparative progress |
| 17 | Monitoring and evaluation | | |

| | Activity | Main responsibility | Follow-up |
|----|---|---|---|
| | Following construction, review of scheme implementation in order to identify problems and improve procedures for future subprojects | PIO with SST with inputs from PSC | PIO with SST |
| | Spot checks of subprojects during implementation | Safeguards and Quality Monitoring Cell | Identifies problems and solutions, provides feedback to PIO |
| | Socio-economic evaluation of 20% of subprojects about 1 year after construction | Safeguards and Quality Monitoring Cell with inputs from PSC | Identifies problems and solutions, provides feedback to PIO |
| 18 | Formation of Main System WUCS Federation | | |
| | Fulfill the eligibility requirement to form federation at all the primary level WUCS | PIO and SST with WUCS | |
| | Facilitate identification of chief promoter to form federation as required by Cooperative Act | PIO and SST with WUCS | |
| | Preparation of Bylaws of WUCS Federation | PIO and SST with WUCS | Wetted by Registrar of Cooperatives |

V. STAFFING REQUIREMENTS AND ORGANISATION

A. Project Organizational Framework

53. WUCS and Agriculture Development project activities will be implemented by the Project Implementation Office (PIO) that will be established in each irrigation project that will be taken up for modernization under the Program. The PIO will be under a Project Manager reporting to the Program Director. The Project Manager will be of the rank of a Superintending / Executive Engineer. Under the PIO dedicated Irrigation Sup-divisions will be established with the requisite irrigation staff such as Assistant Executive Engineers, Assistant Engineers, Junior Engineers and other technical staff full time working in the Program. The number of dedicated sub-divisions under the PIO will be determined (as per WRD norms) by the command area and quantity of works to be covered by the PIO. The CADA staff deputed to the PIO will be an Assistant Engineer, Assistant Agriculture Officer and the Senior Inspector of Cooperative Society. Additionally, the PIO will be provided with WUCS Support Service Teams as described above.

54. The CADA staff and the SST of the PIO will be responsible for forming and strengthening the WUCS, implementing the CAD and on-farm works, provide training support to the WUCS and coordinating with the Agriculture Department to ensure that farmers receive extension services. At the same time, the irrigation staff of the PIO will undertake the responsibility to support the WUCS in carrying out O&M of handed over irrigation systems and provide irrigation service.

55. The SST will be mobilized through a Service Provider (Civil Society Organization) comprising four persons, two community organizer (one male and one female), a participatory on-farm water management agent, and an agricultural extension agent who will all work closely with the WUCS and the KNNL / CADA counterpart staff. A SST will provide support to about 10 WUCS. Since Gondhi Project under Tranche 1 has 10 WUCS, only one SST is proposed under tranche 1 in Gondhi Project PIO. However, in the subsequent tranches the number of SST assigned to a PIO will be calculated on the basis of the total number of WUCS under the Project divided by 10. The SSTs will be provided with a series of milestones to be achieved within a specified schedule as a basis for evaluating their

performance. It is expected that the SST will provide support to each WUCS for a period of 48 months.

B. Staff Requirement

56. The staff requirement for carrying out WUCS and Agriculture Development project activities are as follows:

1. KNNL – Irrigation Staff

- (i) Executive Engineer: Officer in charge of water allocation to each of WUCS by entering into Memorandum of Understanding on water management, water rate preparation based on the volumetric supply. He/She plays crucial role in consolidation of water budgeting at the project level (Full Time).
- (ii) Assistant Executive Engineer: Officers in charge of planning and consolidation of action of WUCS in their sub division level jurisdiction under Gondhi (Full Time).
- (iii) Assistant Engineer (AE) /Junior Engineer (JE) (4), As per the WUCS bylaws, he/she is the competent authority in the board of directors of WUCS and is instrumental in preparation of crop water budget, O&M and WUCS development plan (Full Time).

2. CADA

- (i) Irrigation Engineer (1), Officer to facilitate WUCS on CAD WM works and O&M action plan, technical support to WUCS (Full Time)
- (ii) Assistant Agriculture Officer (1), Officer in charge of carrying out on farm development plans under each WUCS and consolidation at Project level (Full Time).
- (iii) Senior Inspector of Cooperative Society (1), Officer in charge of facilitating the WUCS internal administration and compliance with Cooperative Law (Full Time).

3. WUCS Support Service Team

- (i) Community Organiser (2): One female and one male community organizers will be working with the WUCS mobilizing farmers to become members of the WUCS, internal administration of WUCS, motivation towards water charges collection and O&M. As women constitute predominant position in agriculture, need to draw focused gender plans to enhance their participation in WUCS functions. (Full Time).
- (ii) Water Management Extension Agent (1): To work closely with WUCS and KNNL on water management issues like crop water plan, volumetric supply, gauge measurements, water use efficiency, different modes of irrigation system, Memorandum of Understanding, Water Distribution, FIC, etc. Assist PMU in preparation of training calendar (Full Time).
- (iii) Agricultural Extension Agent (1): To enable WUCS to carry out prepare action plan for water budgeting, crop calendar, FFS, Demonstrations, INM and IPM, Balanced inputs, etc Assist PMU in preparation of training calendar (Full Time).

57. The number of SSTs required for WUCS strengthening for Gondhi and other subprojects are as follows:

Table 3. Typical WUCS Strengthening Team for Approximately 10 WUCS

| | | Y1 | Y2 | Y3 | Y4 | Y5 | Total |
|---|------------------------------|------|----|----|------|------|-------|
| 1 | Community Organiser (Female) | 0.25 | 1 | 1 | 0.25 | 0.25 | 2.75 |
| 2 | Community Organiser (Male) | 0.25 | 1 | 1 | 0.25 | 0.25 | 2.75 |
| 3 | Water Management Agent | | 1 | 1 | 1 | 1 | 4 |
| 4 | Agricultural Extension Agent | | 1 | 1 | 1 | 1 | 4 |
| | Total | 0.5 | 4 | 4 | 2.5 | 2.5 | 13.5 |

WUCS Starting Each Year

| | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|------------------------------|----|----|----|----|----|----|----|----|-------|
| Gondhi | 10 | | | | | | | | 10 |
| Vijayanagara | | 12 | 13 | | | | | | 25 |
| TLBC | | 25 | 30 | 30 | | | | | 85 |
| Total number starting | 10 | 37 | 43 | 30 | 0 | 0 | 0 | 0 | 120 |

WUCS Under Strengthening in Any Year

| | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |
|---------------------------------|----|----|----|-----|-----|-----|----|----|
| Gondhi | 10 | 10 | 10 | 10 | 10 | 0 | 0 | |
| Vijayanagara | 0 | 12 | 25 | 25 | 25 | 25 | 13 | |
| TLBC | 0 | 25 | 55 | 85 | 85 | 85 | 60 | 22 |
| Total number in progress | 10 | 47 | 90 | 120 | 120 | 110 | 73 | 22 |

Number of WUCS Strengthening Teams 15 WUCS per team, rounded

| | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |
|---------------------------------|----|----|----|----|----|----|----|----|
| Gondhi | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| Vijayanagara | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 0 |
| TLBC | 0 | 2 | 4 | 6 | 6 | 6 | 4 | 1 |
| Total number in progress | 1 | 4 | 7 | 9 | 9 | 8 | 5 | 1 |

Team Build-up by Year

| | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |
|------------------------------|----|----|----|----|----|----|----|----|
| Gondhi | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vijayanagara | 0 | 1 | 1 | 0 | 0 | 0 | -1 | -1 |
| TLBC | 0 | 2 | 2 | 2 | 0 | 0 | -2 | -3 |
| Total change per year | 1 | 3 | 3 | 2 | 0 | 0 | -3 | -4 |

Personnel Requirements

| Gondhi | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|------------------------------|------|----|----|------|------|----|----|----|-------|
| Community Organiser (Female) | 0.25 | 1 | 1 | 0.25 | 0.25 | 0 | 0 | 0 | 2.75 |
| Community Organiser (Male) | 0.25 | 1 | 1 | 0.25 | 0.25 | 0 | 0 | 0 | 2.75 |
| Water Management Agent | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 4 |
| Agricultural Extension Agent | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 4 |
| Total | 0.5 | 4 | 4 | 2.5 | 2.5 | 0 | 0 | 0 | 13.5 |

| Vijayanagara - start Y1 | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|--------------------------------|----------|------------|----------|----------|------------|------------|----------|----------|-------------|
| Community Organiser (Female) | 0 | 0.25 | 1 | 1 | 0.25 | 0.25 | 0 | 0 | 2.75 |
| Community Organiser (Male) | 0 | 0.25 | 1 | 1 | 0.25 | 0.25 | 0 | 0 | 2.75 |
| Water Management Agent | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| Agricultural Extension Agent | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| Total | 0 | 0.5 | 4 | 4 | 2.5 | 2.5 | 0 | 0 | 13.5 |

| Vijayanagara start Y2 | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|------------------------------|----------|----------|------------|----------|----------|------------|------------|----------|-------------|
| Community Organiser (Female) | 0 | 0 | 0.25 | 1 | 1 | 0.25 | 0.25 | 0 | 2.75 |
| Community Organiser (Male) | 0 | 0 | 0.25 | 1 | 1 | 0.25 | 0.25 | 0 | 2.75 |
| Water Management Agent | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 4 |
| Agricultural Extension Agent | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 4 |
| Total | 0 | 0 | 0.5 | 4 | 4 | 2.5 | 2.5 | 0 | 13.5 |

| TLBC - start Y1 | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Community Organiser (Female) | 0 | 0.5 | 2 | 2 | 0.5 | 0.5 | 0 | 0 | 5.5 |
| Community Organiser (Male) | 0 | 0.5 | 2 | 2 | 0.5 | 0.5 | 0 | 0 | 5.5 |
| Water Management Agent | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 8 |
| Agricultural Extension Agent | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 8 |
| Total | 0 | 1 | 8 | 8 | 5 | 5 | 0 | 0 | 27 |

| TLBC - start Y2 | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Community Organiser (Female) | 0 | 0 | 0.5 | 2 | 2 | 0.5 | 0.5 | 0 | 5.5 |
| Community Organiser (Male) | 0 | 0 | 0.5 | 2 | 2 | 0.5 | 0.5 | 0 | 5.5 |
| Water Management Agent | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 8 |
| Agricultural Extension Agent | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 8 |
| Total | 0 | 0 | 1 | 8 | 8 | 5 | 5 | 0 | 27 |

| TLBC - start Y3 | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Community Organiser (Female) | 0 | 0 | 0 | 0.5 | 2 | 2 | 0.5 | 0.5 | 5.5 |
| Community Organiser (Male) | 0 | 0 | 0 | 0.5 | 2 | 2 | 0.5 | 0.5 | 5.5 |
| Water Management Agent | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 8 |
| Agricultural Extension Agent | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 8 |
| Total | 0 | 0 | 0 | 1 | 8 | 8 | 5 | 5 | 27 |

| Total - person years | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|------------------------------|------------|------------|-----------|-------------|-----------|------------|----------|----------|--------------|
| Community Organiser (Female) | 0.25 | 1.75 | 4.75 | 6.75 | 6 | 3.5 | 1.25 | 0.5 | 24.75 |
| Community Organiser (Male) | 0.25 | 1.75 | 4.75 | 6.75 | 6 | 3.5 | 1.25 | 0.5 | 24.75 |
| Water Management Agent | 0 | 1 | 4 | 7 | 9 | 8 | 5 | 2 | 36 |
| Agricultural Extension Agent | 0 | 1 | 4 | 7 | 9 | 8 | 5 | 2 | 36 |
| Total | 0.5 | 5.5 | 16 | 14.5 | 10 | 7.5 | 0 | 0 | 121.5 |

| Total - person months | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Total |
|------------------------------|----|----|----|----|----|----|----|----|-------|
|------------------------------|----|----|----|----|----|----|----|----|-------|

| | | | | | | | | | |
|------------------------------|-----|----|----|------|------|----|----|----|------|
| Community Organiser (Female) | 3 | 21 | 57 | 81 | 72 | 42 | 15 | 6 | 297 |
| Community Organiser (Male) | 3 | 21 | 57 | 81 | 72 | 42 | 15 | 6 | 297 |
| Water Management Agent | 0 | 12 | 48 | 84 | 108 | 96 | 60 | 24 | 432 |
| Agricultural Extension Agent | 0 | 12 | 48 | 84 | 108 | 96 | 60 | 24 | 432 |
| Total | 0.5 | 7 | 28 | 26.5 | 17.5 | 15 | 0 | 0 | 1458 |

58. The number of SSTs required for WUCS strengthening for Gondhi and other subprojects are as follows:

59. The total WUCS identified in the State is 3120 covering an area of 16,29402 ha and the medium intensive intervention program is targeted to 3000 WUCS. The SST shall comprise two experts representing community mobilization and agriculture development. Each SST shall cover 50 WUCS and there shall be 10 SSTs covering 500 WUCS per year (supporting two seasons). This medium intensive intervention program will be carried out for 6 years.

60. The Terms of Reference for SSTs for capacity building in subprojects are as follows:

a. Terms of Reference for WUCS Support Service Team for Gondhi Subproject

i. Introduction

61. In Karnataka, agriculture is the backbone of the economy providing employment to more than 60% of the workforce. Hence, its development is central to Government of Karnataka's (GoK) rural poverty reduction strategy. However, the low performance of the existing irrigation infrastructure seriously constrains agricultural productivity, growth and diversification. To address this issue, GoK since late 1990s has progressively initiated policy, programme and institutional actions for improving irrigation and water resources management in the State. Specific steps taken include (i) issuing the State Water Policy based on IWRM principles (2002), (ii) establishing a legal framework for farmer participation in irrigation management through Act No. 24 of 2000 as an amendment to Karnataka Irrigation Act 1965 and forming and strengthening WUCS, (iii) enacting the CADA Act (1980) and establishing and strengthening Command Area Development Authorities (6 CADAs) (iv) substantially increasing irrigation water tariff and O&M financing, and (iv) capacity strengthening of the Water Resources Department (WRD) etc. In line with this, GoK initiated formation of WUCS, renovation of irrigation infrastructure, and progressive transfer of O&M responsibility to WUCS.

62. The current investment program (the Program) funded by Asian Development Bank is a support to GOK aiming at strengthening its efforts mentioned above within an IWRM perspective.

63. In order to enhance the water security and river environment in selected water-scarce river basins in Karnataka, the multi-tranche financing facility (MFF) modality has been adopted under the current Program, with an overall objective to improve water resources management, with the establishment of (i) improved water resources management following the principles of integrated water resources management (IWRM); and (ii) irrigated agriculture development of existing major and medium schemes, with necessary institutional strengthening. The specific objectives entail expanding access to water through water management, enhance incomes of cultivators, and improve water quality in the rivers, with improved water use efficiency, land productivity, and sustainability in these sectors.

64. The irrigation project under Tranche 1 scheme is the Gondhi Anicut project in Bhadravathi Taluk, Shimoga District. The project has a command area of about 4445 ha with 9 existing WUCS in the right bank canal command and 1 WUCS to be formed in the left bank canal command. The program is to be implemented by Karnataka Neeravari Nigam Limited (KNNL) through a dedicated Program Management Unit (PMU) under a Program Director (Chief Engineer, Irrigation Central Zone, Munirabad) and supported by a Project Implementation Office (PIO) under the charge of Executive Engineer incharge of Gondhi Anicut. The PIO comprises of irrigation and CADA staff deputed to it from Gondhi Anicut Irrigation Division and Bhadra CADA. To augment the strength of the PIO and for the purpose of providing institutional strengthening support to the WUCS including facilitating their effective participation in project planning, implementation and monitoring activities and preparing them for post project responsibility of operation, maintenance and management of the minor canal systems and command area, it is proposed to engage a WUCS Support Service Team (SST) through an experienced local Civil Society Organization. The detailed Terms of Reference for the SST is given in the sections below.

ii. Objective

65. The objective of the assignment is to assist the PMU/PIO in institutional strengthening of Gondhi Anicut project WUCS by providing training, capacity building and hand holding support to the WUCS. The specific tasks include:

- (i) Create awareness on IWRM approach based irrigation modernisation among the WUCS;
- (ii) Assist the WUCS to effectively participate in the planning, implementation and monitoring of project interventions related to water management, agriculture development;
- (iii) Capacitate the WUCS to become effective irrigation water managers by providing them training and guidance in minor canal system and command area operation, maintenance and management;
- (iv) Assist PMU/PIO in planning, implementation and monitoring of project activities related to WUCS institutional strengthening, command area development, water management and agriculture development; and
- (v) Motivate and mobilize WUCS to establish the Gondhi Anicut Water User Project Level Federation,

iii. Expected Outputs

66. The expected outputs from the SST are:

- (i) Formation and strengthening of 10 WUCS with signed complete MOUs and handing over of minor canal system and CAD works for O&M;
- (ii) Awareness among WUCS on IWRM approach based modernisation of the project;
- (iii) 10 WUCS CAD works and agriculture development plans prepared, and implemented using participatory processes;
- (iv) 10 WUCS benchmarked for internal administration, water management, agriculture and operation and maintenance using participatory processes;
- (v) 10 WUCS Action Plan prepared and implemented including asset management based O&M planning, seasonal crop and irrigation planning and seasonal benchmarking using participatory processes;
- (vi) Gondhi Anicut Water User Project Level Federation formed and functioning; and

- (vii) Progress reports on project activities implemented at proposed frequencies to the SIO/Manager and PMU/Program Director.

67. The CSO engaged for this work will also be responsible for providing support and training to the SST that they field.

iv. Support Service Team

68. The SST will be contracted through an experienced local Civil Society Organization (CSO). Recruitment of the SST will be the responsibility of the Program Director based on the SST Terms of Reference and Request for Proposal finalized by the PMU. The contracted CSO will be responsible for recruiting, fielding, and maintaining the SST. However, the SST will report to the Project Manager. In selecting the CSO, the following basic criteria will apply:

- (i) **Work experience:** Experience should be relevant to irrigation, irrigated agriculture, participatory irrigation management, community mobilization and capacity building. The CSO should have a proven track record in PIM and be non-political in the conduct of its field activities;
- (ii) **Geographic location:** Ideally the CSO should be locally based. If nationally-based, the SST members engaged should have working knowledge (speaking, reading, writing) in Kannada;
- (iii) **Legal status:** Registration of the CSO under the statutory Act it is registered should be up-to-date;
- (iv) **Age related experience:** The CSO should have been operating for a minimum of 8 years and have worked with PIM related activities for a minimum of five years;
- (v) **Audits, accounts, and annual reports:** Records of the CSO must be maintained as per statutory requirements and up-to-date; and
- (vi) **Accountability and transparency principals:** The CSO will agree to adhere to principles of accountability and transparency as defined by the PMU.

69. The Support Services Team (SST) will comprise of four members - two Community Organizers (Female and Male), one Water Management Extension Agent and one Agricultural Extension Agent.

70. The SST members will have the following minimum qualification and experience:

Table 4: Minimum qualification and experience of SST member

| Sl. No. | Position | Minimum Qualification | Minimum Experience |
|---------|----------------------------------|--|---|
| 1 | Community Organizer (Female) | Master in Social Works / Master in Rural Sociology | 5 years experience in PIM / farmer organization |
| 2 | Community Organizer (Female) | Master in Social Works / Master in Rural Sociology | 5 years experience in PIM / farmer organization |
| 3 | Water Management Extension Agent | BE Agriculture / Civil Engineering | 5 years experience in CAD and on farm water management |
| 4 | Agricultural Extension Agent | Graduation in Agriculture | 5 years experience in agriculture extension / development |

71. All the proposed members of the SST should have working knowledge (speaking, reading, writing) in Kannada.

72. The CSO engaged to provide the services of the SST will be responsible for supporting the Team in the form of:

- (i) Managing the activities of the Team;
- (ii) Ensuring that they have sufficient and appropriate training to undertake their responsibilities; and
- (iii) Ensuring that the relevant experience of the CSO is transmitted to the SST to enable them to effectively carry out their assignments.

v. Implementation Arrangement

73. The institutional strengthening process for WUCS adopted under the project is in four sequential phases implemented over a period of 48 months in Tranche 1:

| | | |
|---------|------------------------------|-------------|
| Phase 1 | WUCS Mobilization | (8 Months) |
| Phase 2 | Planning Modernization | (4 Months) |
| Phase 3 | Executing Modernization Plan | (18 Months) |
| Phase 4 | Irrigation Management | (18 Months) |

74. Under WUCS Mobilization Phase the following activities will be implemented:

- (i) Establishing and registering WUCS where they are not yet formed;
- (ii) Creating awareness among farmers about the role and function of WUCS in irrigation service delivery including crop water planning, water management, minor and CAD system O&M, water charge collection and remittance;
- (iii) Creating awareness among WUCS / members on program objectives and activities and their role in it;
- (iv) Mobilizing non-member farmers to become members of their WUCS;
- (v) Training all WUCS office bearers on internal administration of WUCS as per Cooperative Societies Act;
- (vi) Establishing WUCS Office, equipping WUCS with relevant information and records and updating their records to current status;
- (vii) Discussing and signing of MOU between all WUCS and KNNL; and
- (viii) Participatory bench marking of WUCS on its current level of functioning related to internal administration and irrigation management with its members.

75. Under the Planning Modernization Phase the following activities will be implemented:

- (i) Preparation of WUCS CAD system improvement plan; and
- (ii) Preparation of the WUCS agriculture development plan

76. Under the Executing Modernization Plan Phase the following activities will be implemented:

- (i) Implementation of the WUCS CAD system improvement plan;
- (ii) Implementation of the WUCS agriculture development plan; and
- (iii) Continued training of WUCS on various topics

77. Under the Irrigation Management Phase the following activities will be implemented:

- (i) Handing over of minor canal and CAD system to WUCS
- (ii) Preparation of minor canal and CAD system Asset Management Plan
- (iii) Participatory bench marking of WUCS
- (iv) Preparation and implementation of participatory WUCS action plan
- (v) Constitution of Water User Project Level Federation

78. The PMU will detail the process, methods, tools and the results to be achieved in implementation of each of these activities in a program guideline. Based on this the work implementation schedule for WUCS institutional strengthening will be prepared with clearly demarcated timeline and mile stones. The SST will institutionally strengthen the WUCS

adhering to these guidelines following the laid out timelines and milestones. Payment to the CSO will be linked to the achievement of these milestones.

79. The scope of work of the individual SST member is as follows:

Table 5: Scope of work of SST member

| Sl. No | Member | Scope of Work |
|--------|--------------------------------------|--|
| 1 | Community Organisers (Female & Male) | <ol style="list-style-type: none"> 1. Awareness generation among farmers on program and WUCS functions and assist CADA in mobilizing farmers to form WUCS; 2. Assist WUCS secretary in mobilizing membership; 3. Assist WUCS secretary in mobilizing women farmers to become WUCS members and increase women participation in WUCS; 4. Assist WUCS in establishing office, update books and maintain transparency and accountability; 5. Assist WUCS in conducting benchmarking on internal administration and irrigation management; 6. Assist PMU in carrying out training needs assessment, preparing training modules, materials and training calendar; 7. Organize and carry out training and capacity building activities according to the prepared training calendar; 8. Organize training programs for WUCS officer bearers in RICM and exposure visits within the state and outside the state; 9. Facilitate consultation meetings between KNNL, CADA and WUCS on MOU, CAD works and agriculture plans and WUCS action plan for O&M and irrigation management; 10. Create awareness and mobilize the WUCS to form the Water User Project Level Federation; 11. Assist PMU in monitoring implementation of social, gender and vulnerable groups safeguard actions; and 12. Monitor and report progress to SIO Manager and PMU. |
| 2 | Water Management Extension Agent | <ol style="list-style-type: none"> 1. Awareness generation on IWRM based modernisation and irrigation management; 2. Assist WUCS in conducting benchmarking on internal administration and irrigation management; 3. Facilitate consultation meetings between KNNL, CADA and WUCS on MOU, CAD works and agriculture plans and WUCS action plan for O&M and irrigation management; 4. Assist WUCS in preparing and implementing a CAD and on farm development plan; 5. Assist KNNL / CADA in handing over of minor canal and CAD system to WUCS through the laid down procedure; 6. Assist WUCS in preparing an Asset Management Plan for its minor canal and CAD system; 7. Assist WUCS in preparing and implementing a workbook based WUCS action plan covering benchmarking, O&M planning and irrigation management; 8. Train WUCS to carry out systematic gauge recording on measuring devices at different water supply points; 9. Carry out training and capacity building of WUCS on on-farm water application and improved irrigation practices; 10. Assist WUCS in mobilizing members for 100% water charges collection; 11. Create awareness and mobilize the WUCS to form the Water |

| | | |
|---|------------------------------|--|
| | | User Project Level Federation; and 12. Monitor and report progress to SIO Manager and PMU. |
| 3 | Agricultural Extension Agent | <ol style="list-style-type: none"> 1. Awareness generation on IWRM based modernisation and agriculture development; 2. Benchmarking of actual crop pattern, localization pattern, productivity standards of various crops; 3. Assist PMU and facilitate WUCS in designing appropriate cropping pattern based on the soil and water characteristics, crop budget and productivity of various crops in the command area; 4. Assist WUCS in preparing and implementing agriculture development plan; 5. Facilitate and carry out demonstrations and farmer field schools on agriculture improvement; 6. Liaison with KVKs, Rice Research Station, Agriculture and Horticulture Departments, Raithu Samparka Kendra and other agriculture support agencies to engage with and support WUCS in agriculture development; 7. Assist WUCS in preparing and implementing a workbook based WUCS action plan covering benchmarking, O&M planning and irrigation management; 8. Assist WUCS in developing linkages with agri-business partners and marketing and credit agencies; 9. Assist PMU in monitoring implementation of agriculture related environment safeguard actions; and 10. Monitor and report progress to SIO Manager and PMU. |

vi. Procurement of CSO-SST

80. The Procurement of CSO-SST services will be embedded within project support consultants. These four individual experts will be part of Project Support Consultant Team.

vii. Contact Person

81. For further details and RFP interested CSOs may contact the KISWRMIP Program Director at:

Address:

Email:

b. Terms of Reference for WUCS SST for State Level

i. Introduction

82. In Karnataka, agriculture is the backbone of the economy providing employment to more than 60% of the workforce. Hence, its development is central to Government of Karnataka's (GoK) rural poverty reduction strategy. However, the low performance of the existing irrigation infrastructure seriously constrains agricultural productivity, growth and diversification. To address this issue, GoK since late 1990s has progressively initiated policy, programme and institutional actions for improving irrigation and water resources management in the State. Specific steps taken include (i) issuing the State Water Policy based on IWRM principles (2002), (ii) establishing a legal framework for farmer participation in irrigation management through Act No. 24 of 2000 as an amendment to Karnataka

Irrigation Act 1965 and forming and strengthening WUCS, (iii) enacting the CADA Act (1980) and establishing and strengthening Command Area Development Authorities (6 CADAs) (iv) substantially increasing irrigation water tariff and O&M financing, and (iv) capacity strengthening of the Water Resources Department (WRD) etc. In line with this, GoK initiated formation of WUCS, renovation of irrigation infrastructure, and progressive transfer of O&M responsibility to WUCS.

83. The current investment program (the Program) funded by Asian Development Bank is a support to GOK aiming at strengthening its efforts mentioned above within an IWRM perspective.

84. In order to enhance the water security and river environment in selected water-scarce river basins in Karnataka, the multi-tranche financing facility (MFF) modality has been adopted under the current Program, with an overall objective to improve water resources management, with the establishment of (i) improved water resources management following the principles of integrated water resources management (IWRM); and (ii) irrigated agriculture development of existing major and medium schemes, with necessary institutional strengthening. The specific objectives entail expanding access to water through water management, enhance incomes of cultivators, and improve water quality in the rivers, with improved water use efficiency, land productivity, and sustainability in these sectors.

85. The irrigation projects under state level capacity building program covers about 3000 WUCS spread under 6 CADAs and 3 Neeravari Nigams namely Karnataka Neeravari Nigam Limited, Cauvery Neeravari Nigam Limited and Krishna Bhagya Jala Nigam Limited.

Table 6. CADA wise distribution of WUCS in Karnataka

| Sl. No. | Name of the CADA | Area Irrigated | Target No. of WUCS | Achievement as of 31-01-2012 | | | | | |
|---------|----------------------------------|----------------|--------------------|------------------------------|--------------------|-------------|--------------------|--------------|--------------------|
| | | | | Registration | | MOU | | Handing Over | |
| | | | | No. of WUCS | Corresponding area | No. of WUCS | Corresponding area | No. of WUCS | Corresponding area |
| 1 | Tungabhadra Project | 363000 | 835 | 516 | 217860.76 | 293 | 68319.18 | 293 | 68319.18 |
| 2 | Malaprabha & Ghataprabha Project | 348239 | 607 | 591 | 291317.96 | 495 | 245852.32 | 495 | 245852.32 |
| 3 | Cauvery Basin Project | 429880 | 627 | 627 | 430660 | 328 | 169296 | 328 | 169296 |
| 4 | Upper Krishna Project | 267050 | 545 | 540 | 264600 | 449 | 220010 | 449 | 220010 |
| 5 | Bhadra Reservoir Project | 157323 | 348 | 310 | 122571 | 162 | 68551 | 99 | 39532 |
| 6 | Irrigation Project Zone | 71899.11 | 160 | 135 | 60459.46 | 100 | 43143.25 | 100 | 43143.25 |
| | Total | 1637391 | 3122 | 2719 | 1387469.18 | 1827 | 815172 | 1764 | 786153 |

86. For the purpose of providing institutional strengthening support to the WUCS including facilitating their effective participation in project planning, implementation and monitoring activities and preparing them for post project responsibility of operation, maintenance and management of the minor canal systems and command area, it is proposed to engage WUCS Support Service Team (SST) comprising one community mobiliser (female/male) and one agriculture agent through an experienced local Civil Society Organizations. The detailed Terms of Reference for the SST is given in the sections below.

87. The program is to be implemented by Karnataka Neeravari Nigam Limited (KNNL) through a dedicated Program Management Unit (PMU) and supported by a Project Implementation Office (PIO) under the charge of Superintendent Engineer incharge of respective projects. The PIO comprises of irrigation and CADA staff deputed to it from respective projects and concerned CADA.

ii. Objective

88. The objective of the assignment is to assist the PMU/SIO in institutional strengthening of WUCS at State level by providing training, capacity building and hand holding support to the WUCS. The specific tasks include:

- (i) Create awareness on IWRM approach based irrigation modernisation among the WUCS;
- (ii) Assist the WUCS to effectively participate in the planning, implementation and monitoring of project interventions related to water management, agriculture development;
- (iii) Capacitate the WUCS to become effective irrigation water managers by providing them training and guidance in minor canal system and command area operation, maintenance and management;
- (iv) Assist PMU/SIO in planning, implementation and monitoring of project activities related to WUCS institutional strengthening, command area development, water management and agriculture development; and
- (v) Motivate and mobilize WUCS to establish the Water User Project Level Federation,

iii. Expected Outputs

89. The expected outputs from the SST are:

- (i) Formation and strengthening of 3000 WUCS with signed complete MOUs and handing over of minor canal system and CAD works for O&M;
- (ii) Awareness among WUCS on IWRM approach based modernisation of the project;
- (iii) 3000 WUCS CAD works and agriculture development plans prepared, and implemented using participatory processes;
- (iv) 3000 WUCS benchmarked for internal administration, water management, agriculture and operation and maintenance using participatory processes;
- (v) 3000 WUCS Action Plan prepared and implemented including asset management based O&M planning, seasonal crop and irrigation planning and seasonal benchmarking using participatory processes;
- (vi) Gondhi Anicut Water User Project Level Federation formed and functioning; and
- (vii) Progress reports on project activities implemented at proposed frequencies to the SIO/Manager and PMU/Program Director.

90. The CSO engaged for this work will also be responsible for providing support and training to the SST that they field.

91. The broad tasks include:

Table 7: Training categories and themes

| Sl. No. | Training Categories | Training Themes |
|---------|---------------------|-----------------|
| | | |

| | | |
|---|---|---|
| 1 | Institutional Development and capacity building | Project awareness |
| | | Irrigation management |
| | | WUCS formation and office bearers workshop |
| | | Work book (water budgeting and crop plan) and MOU |
| | | Participatory Self-Assessment orientation workshop |
| | | WUCS water charge management |
| | | WUCS federation workshop |
| 2 | Agricultural productivity improvements | WUCS soil testing and micro nutrient application |
| | | System of rice intensification and farmers field schools |
| | | Mixed cropping & horticulture workshop |
| | | Micro irrigation & gravity pipe workshop |
| | | Agriculture technology, seed and fertilizer, INM and IPM workshop |
| 3 | Gender awareness | Promotion of women in water management |
| | | Women participation in WUCS federation |
| | | Training for women directors of WUCS |
| | | Follow up workshop on gender development |

i. Support Service Team

92. The SST will be contracted through an experienced local Civil Society Organization (CSO). Recruitment of the SST will be the responsibility of the Program Director based on the SST Terms of Reference and Request for Proposal finalized by the PMU. The contracted CSO will be responsible for recruiting, fielding, and maintaining the SST. However, the SST will report to the Project Manager. In selecting the CSO, the following basic criteria will apply:

- (i) **Work experience:** Experience should be relevant to irrigation, irrigated agriculture, participatory irrigation management, community mobilization and capacity building. The CSO should have a proven track record in PIM and be non-political in the conduct of its field activities;
- (ii) **Geographic location:** Ideally the CSO should be locally based. If nationally-based, the SST members engaged should have working knowledge (speaking, reading, writing) in Kannada;
- (iii) **Legal status:** Registration of the CSO under the statutory Act it is registered should be up-to-date;
- (iv) **Age related experience:** The CSO should have been operating for a minimum of 10 years and have worked with PIM related activities for a minimum of five years;
- (v) **Audits, accounts, and annual reports:** Records of the CSO must be maintained as per statutory requirements and up-to-date; and
- (vi) **Accountability and transparency principals:** The CSO will agree to adhere to principles of accountability and transparency as defined by the PMU.

93. The Support Services Team (SST) will comprise of two members – one Community Organizers (Female/Male) and one Agricultural Extension Agent.

94. The SST members will have the following minimum qualification and experience:

Table 8: Qualification and experience of SST members for State level

| Sl. No. | Position | Minimum Qualification | Minimum Experience |
|---------|---------------------|--------------------------|-----------------------|
| 1 | Community Organizer | Master in Social Works / | 5 years experience in |

| | | | |
|---|------------------------------|---------------------------|---|
| | (Female/Male) | Master in Rural Sociology | PIM / farmer organization |
| 2 | Agricultural Extension Agent | Graduation in Agriculture | 5 years experience in agriculture extension / development |

95. All the proposed members of the SST should have working knowledge (speaking, reading, writing) in Kannada.

96. The CSO engaged to provide the services of the SST will be responsible for supporting the Team in the form of:

- (i) Managing the activities of the Team;
- (ii) Ensuring that they have sufficient and appropriate training to undertake their responsibilities; and
- (iii) Ensuring that the relevant experience of the CSO is transmitted to the SST to enable them to effectively carry out their assignments.

v. Implementation Arrangement

97. The institutional strengthening process for WUCS adopted under the project will be carried out in team i.e. each team of SST will carry out the tasks in 50 WUCSs. These SST team shall report to Superintendent Engineer of the respective irrigation projects. The capacity building activity is spread across 6 years starting from 2015 covering 500 WUCS each year. The PMU will hire SST from experienced CSO.

98. The PMU along with CADA Directorate will detail the process, methods, tools and the results to be achieved in implementation of each of these activities in a program guideline. Based on this the work implementation schedule for WUCS institutional strengthening will be prepared with clearly demarcated timeline and mile stones. The SST will institutionally strengthen the WUCS adhering to these guidelines following the laid out timelines and milestones. Payment to the CSO will be linked to the achievement of these milestones.

99. The scope of work of the individual SST member is as follows:

Table 9: Scope of work of SST members at State level.

| Sl. No | Member | Scope of Work |
|--------|---------------------------------------|---|
| 1 | Community Organisers (Female/Male) | 13. Awareness generation among farmers on program and WUCS functions and assist CADA in mobilizing farmers to form WUCS; 14. Assist WUCS secretary in mobilizing membership; 15. Assist WUCS secretary in mobilizing women farmers to become WUCS members and increase women participation in WUCS; 16. Assist WUCS in establishing office, update books and maintain transparency and accountability; 17. Assist WUCS in conducting benchmarking on internal administration and irrigation management; 18. Assist PMU in carrying out training needs assessment, preparing training modules, materials and training calendar; 19. Organize and carry out training and capacity building activities according to the prepared training calendar; 20. Organize training programs for WUCS officer bearers in RICM and exposure visits with in the state and outside the state; 21. Facilitate consultation meetings between KNNL, CADA and WUCS on MOU, CAD works and agriculture plans and WUCS |

| | | |
|---|------------------------------|--|
| | | <p>action plan for O&M and irrigation management;</p> <p>22. Create awareness and mobilize the WUCS to form the Water User Project Level Federation;</p> <p>23. Assist PMU in monitoring implementation of social, gender and vulnerable groups safeguard actions; and</p> <p>24. Monitor and report progress to SIO Manager and PMU.</p> |
| 2 | Agricultural Extension Agent | <p>11. Awareness generation on IWRM based modernisation and agriculture development;</p> <p>12. Benchmarking of actual crop pattern, localization pattern, productivity standards of various crops;</p> <p>13. Assist PMU and facilitate WUCS in designing appropriate cropping pattern based on the soil and water characteristics, crop budget and productivity of various crops in the command area;</p> <p>14. Assist WUCS in preparing and implementing agriculture development plan;</p> <p>15. Facilitate and carry out demonstrations and farmer field schools on agriculture improvement;</p> <p>16. Liaison with KVKs, Rice Research Station, Agriculture and Horticulture Departments, Raithu Samparka Kendra and other agriculture support agencies to engage with and support WUCS in agriculture development;</p> <p>17. Assist WUCS in preparing and implementing a workbook based WUCS action plan covering benchmarking, O&M planning and irrigation management;</p> <p>18. Assist WUCS in developing linkages with agri-business partners and marketing and credit agencies;</p> <p>19. Assist PMU in monitoring implementation of agriculture related environment safeguard actions; and</p> <p>20. Monitor and report progress to SIO Manager and PMU.</p> |

vi. Procurement of CSO-SST

100. The Procurement of CSO-SST services will be procured by PMU.

vii. Contact Person

101. For further details and RFP interested CSOs may contact the KISWRMIP Program Director at:

Address:

Email: