
EXTERNAL REVIEW OF THE RESP II PROJECT

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List of Abbreviations

ADB	Asian Development Bank
AIS	Administration of Irrigation System
BAIS	Basin Administration of Irrigation System
FAS	Financial Planning and Accounting Software
FFS	Farmer Field School
GEF	Global Ecological Fund
GOU	Government of Uzbekistan
IBRD (WB)	International Bank for Reconstruction and Development (World Bank)
IDA	International Development Association
I&D	Irrigation and Drainage
ISF	Irrigation Service Fees
ITC	International Technical Consultant (M/S BRL Ingénierie & Holis Konsalt)
IWRM	Integrated Water Resources Management
IWRM-FV	Integrated Water Resources Management in Ferghana Valley (SDC funded project)
MAWR	Ministry of Agriculture and Water Resources
MIS	Management Information System
NGO	Non Governmental Organization
OFP	Operational and Financial Management Plan
OGME	Oblast Hydro-Ameliorative Expedition
O&M	Operation and Maintenance
PAD	Project Appraisal Document
PIP	Project Implementation Plan
PIU	Project Implementation Unit of Rural Restructuring Agency
PSC	Project Steering Committee
RESPII	Rural Enterprise Support Project Phase II
RRA	Rural Restructuring Agency
RTAS	Rural Training and Advisory Services
SANIIRI	Central Asian Scientific and Research Institute of Irrigation
SDC	Swiss Agency for Development and Cooperation
SIC-ICWC	Scientific Information Center of the Interstate Commission for Water Coordination
ToR	Terms of Reference
ToT	Training of Trainers
WUA	Water User Association
WCA	Water Consumer Association
WCG	Water Consumer Group
WFM	Water Flume Meter
WMSDP	Water Management Skills Development Project (SDC funded project)
WRMSP	Water Resources Management Sector Project
WPI	Water Productivity Improvement (SDC funded project)
WSU	WCA Support Unit

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1. Executive Summary

SDC has mandated an external review of the achievements of the 2nd Phase of RESP II project prior to its closure on June 30th 2015. The review was carried out in parallel and jointly with the WB consultant. The main points to be assessed were the achievements of the project in view of their sustainability, the efficiency of the approach in terms of project setup and project implementation and the performance of the implementing agency in view of the two implementation modes self-implementation and external implementer.

Results Achieved

The SDC components have achieved their Outcomes as far as they are under the full control of the PCU and not depending on inputs from the WB components. All WCAs are up and running and are able to prepare OFPs, demand based water schedules and O & M plans and annual WCA General Assemblies are held regularly. Farmer satisfaction with WCA performance as well as with the condition of the irrigation system has increased substantially over the project period.

The financial situation of the WCAs remains critical due to the unfavourable economic frame conditions and particularly because of the state quota crop system. Cotton and wheat are barely profitable and this affects the ISF collection rate and financial sustainability is thus questionable.

In the 2nd Phase the MAWR has still not established the WCA support unit in the AIS but the AIS have assigned 2 staff for support of the WCA. However, these staff have neither ToRs nor the required resources to perform their task and none of them are judged capable to support WCAs on institutional issues. Limited but continuous support is considered crucial for the sustainability of the WCAs and the present setup is not considered adequate.

The MIS has only this year been installed in two more AISs. While data entry is ongoing, further technical support can most likely be mobilised locally after the closing of the SDC components but it is considered crucial to continue monitoring of the effect on water distribution for at least one growing season. Similarly the control and measuring structures at pilot WCAs will only be completed after June 2015 and again further monitoring is considered crucial to capitalise the experiences and carry them over to the planned new National Water Resources Project. The same applies for the recently supplied laser levelling equipment.

FFS are established in 62 WCAs, farmer trainers are well trained and farmers appreciate and apply the water saving technologies promoted. The results on on-plot water productivity are excellent, since 2010 a 70% increase has been observed. 1'000 copies of the "Manual for Trainers of FFS on Rational Water Use" were distributed in the project WCAs and MAWR has asked for 1'500 additional copies to be distributed nationwide. This is considered as an indicator that the MAWR has acknowledged the project achievement and recognised the value of the FFS.

Efficiency of the Approach

The teaming up with the WB and the combination of institutional and organisational support to the WCAs with large scale infrastructure rehabilitation creates additional benefits that the individual components could not reach alone. Going together with the WB and MAWR has thus created a leverage effect and a high visibility for the Swiss components. Project coordination could be kept lean because the components had not much overlap but were complementing each other.

Taking into account the high training intensity of the SDC components, project implementation is considered rather efficient and the results achieved prove that project activities were effective.

Project Implementation Mode

The main issue regarding the implementation mode is considered the clear definition of roles and responsibilities between SDC and the PCU and the Project Document specifies this clearly. Efficient implementation is possible with self-implementation or with external implementation and the review could not identify a marked difference in performance before and after outsourcing. In general it is suggested to outsource projects of the size of the RESP II but this should be done

right from the beginning. Tendering project implementation 18 months before closure has delayed project implementation, creates a high risk and is considered the worst possible timing.

Conclusions and Lessons Learned

The success of the RESP II is mainly due to the long-term engagement and the continuation of the SDC support in the irrigation sector and IWRM and the successful transfer of experiences, tools and methodologies as well as key personnel from the earlier projects.

The economic frame conditions need to be addressed at the policy level and any future project should thus include a policy dialogue component. Because this is a political process, it cannot be outsourced to a consultant or an NGO and it requires the active involvement of the Swiss Cooperation Office and it has to be part of the future Swiss Cooperation Strategy for Central Asia.

The closure of the SDC project as planned has very likely no serious negative effect on the achievements of the components. However, it is considered a high reputational risk for SDC and much of the goodwill created earlier could be at stake. No longer being actively involved at the time of the official closing of the RESP II may have a negative effect on the recognition of the Swiss contribution.

It is very important to assure that the experiences from the RESP II are carried over to the planned new National Water Resource Management Project. A mechanism must be found to continue with the monitoring of the components that have been implemented only this year but where the effects have not been assessed sufficiently (pilot WCA control and measuring structures, MIS, laser levelling). Similarly, the possibility to insert key personnel from the PCU into the new project has to be explored.

SDC should pro-actively facilitate and support the exchange of experiences between the nationally implemented regional water projects (e.g. RESP II and NWRM project in Tajikistan)

Elements for Future Projects

Upscaling the SDC approach with the international financial institutions is considered a good and effective option to combine institutional support to WCAs with infrastructure rehabilitation. However, the commitment and the ownership of the MAWR is considered crucial for the sustainability of the interventions.

Any future project in the water sector should have a policy dialogue component since the economic frame conditions and the enabling regulatory framework is essential for the sustainability of WCAs and in particular for their financial sustainability.

For the time being nationally implemented IWRM projects are recommended but with a view of the regional water problematic. For regional level projects a window of opportunity will be crucial and joint or at least well-coordinated interventions with other donors are recommended.

The FFS approach is highly successful in addressing water use efficiency and productivity and it has been acknowledged by the MAWR and the Cabinet of Ministers has approved a state program in support of land reclamation and rational water use. Support to such a state program could provide an opportunity for a future project. However, such a project should be limited to the technical assistance of national institutions and ownership and leadership needs to be with the national partners.

2. Introduction

2.1. Background of the Project

The Swiss Agency for Development and Cooperation (SDC) contributed to the reform of the irrigation sector in Central Asia since 2001 with several mainly regional projects in Uzbekistan, Kyrgyzstan and Tajikistan. These projects concentrated foremost on institutional, organisational and managerial issues related to enhancing judicious water use, equitable water allocation and distribution as well as efficient water use and water productivity. SDC has gained considerable experiences and its expertise and the comprehensive approach to irrigation management is recognised in the sector, by the Government of Uzbekistan (GOU) but also by the World Bank (WB) and the Asian Development Bank (ADB).

The two approaches, institutional support as promoted by SDC and infrastructure rehabilitation mainly financed by the international financial institutions are highly complementary. Consequently, the GOU and the WB approached SDC for the financing of the soft components of the Rural Enterprise Support Project II (RESP II) to combine the demand based institutional and organisational approach with substantial investments in water infrastructure rehabilitation financed by a WB loan. One of main justifications for SDC to join the RESP II project was the opportunity to further test and mainstream its approach, methods and tools outside the earlier pilot project setting in combination with large infrastructure rehabilitation investment in order to achieve greater coverage and impact.

The overall objective of the RESP II as defined in the WB Project Appraisal Document (PAD) is to “increase the productivity and financial and environmental sustainability of agriculture and the profitability of agribusiness in the project area”. The outcomes defined for the SDC components address strengthening of the Water Consumer Associations (WCA) and the WCA support services (Sub-component 2b) and support for improved irrigation and drainage technology through Farmer Field Schools (FFS) to achieve higher on plot water productivity and water use efficiency (Sub-component 2c). The outcomes of the SDC component are thus in line with the Swiss Cooperation Strategy Central Asia 2012 – 2015 and address particularly the strategic Outcome 3: “In the project areas, increased water management efficiency and productivity are resulting from the replication and adoption of IWRM”.

2.2. Project Components

Overall, the RESP II includes 3 components:

Component 1: Rural Enterprise Finance (financed by WB/GOU)

Component 2: Irrigation and Drainage with the following sub-components

Sub-component 2a: Rehabilitation of Irrigation and Drainage Systems (WB)

Sub-component 2b: Strengthening of WCAs and WCA support (SDC)

Sub-component 2c: Support for improved irrigation and drainage technology (partially SDC)

Component 3: Rural Training and Advisory Services (WB)

The RESP II covers 250'000 ha of irrigated land in 7 districts (rayons) of Uzbekistan. Project recipients are 65 WCAs, 62 FFS plots and their farmer teachers and participating farmers and well as the 7 Administrations of Irrigation Systems (AIS). The SDC component was implemented from the beginning by a Project Coordination Unit (PCU) depending directly from the Swiss Coordination Office in Tashkent. In 2013 the project was tendered out and Sheladia Inc. was mandated for the management of the project in January 2014.

2.3. Scope of the External Review

In February 2014 the WB increased the project loan to 103 mio USD and extended the project duration until the end of 2016. SDC decided not to extend the duration of its project and close it on June 30, 2015. The joint review missions of the WB and SDC regularly assessed all the components of the project, those implemented by the Rural Reconstruction Agency (RRA) as well as those implemented by SDC. Since the SDC components come to a close in June 2015, SDC decided to have an external opinion of the project and in particular of the sub-components 2b and 2c of the Phase 2 (March 2012 – June 2015). The TORs of the review are given in Annex 6.1

Main points to be assessed are

- 1) the achievements of the project with a focus on the sustainability,
- 2) the efficiency of the approach in terms of project set-up and project implementation and
- 3) the performance of the implementation agency comparing the two implementation modes self-implementation by SDC and implementation by an external consultant.

The review was carried out in parallel to a WB review, the SDC consultant (Chris Morger) worked jointly with the WB consultant (Samvel Ghazaryan) during the field visits and he also contributed the parts on the SDC Sub-components to the WB Review Aide Memoire. The programme of the mission as well as the WB Aide Memoire are provided in Annexes 6.2 and 6.3 respectively.

The present report provides the findings on the SDC components, lessons learned and possible elements for future projects.

3. Findings of the Review

3.1. Review of the Achievements of the Project

In general it can be stated that the SDC components have achieved their Outcomes as far as they are under the full control of the Project Coordination Unit (PCU) and not depending on inputs from WB components and activities of the Rural Reconstruction Agency (RRA) or their international technical consultant (ITC). This assessment is mainly based on the Progress Report No 5 as per end of 2014 but also on a draft of the farmer satisfaction survey carried out by the PCU and on observations during the field trip and discussions with Water Consumer Association (WCA) staff and members, Farmer Field School (FFS) trainers as well as with staff of the Administration of Irrigation Systems (AIS), local rayon Hokims and the RRA.

The following details of the achievements refer to the Logical Framework of the Swiss contribution to RESP II for Phase 2 (Annex 6.4)

Sub-component 2b: Strengthening of WCAs and the capacity to train and strengthen WCAs

The main indicators for the two outcomes of this component are:

- 1) all WCAs are up and running in a transparent and efficient manner and those WCAs that have received loans are able to service them and
- 2) 7 AIS units and related staff are capable and qualified to continue in post project period.

All 65 WCAs have been trained and are able to prepare operational and management plans, demand based water schedules and operational and financial management plans (OFP) and annual General Assembly meetings are regularly held (Output 1). The farmer satisfaction survey showed, that between 2011 and 2014 the percentage of farmers which are fully satisfied with the WCA performance increased from 65.8% to 73.2%. Similarly, the percentage of farmers that rated the condition of the irrigation system as good increased from 39% in 2010 to 68.9% in 2014

(Indicator Output 2). This is a clear indication that the performance of the WCAs in terms of management and service delivery has substantially improved due to the project support.

However, the financial situation of the WCAs remains critical and cannot be considered as sustainable. This is mainly due to the unfavourable economic frame conditions for agricultural production and particularly for the main state quota crops cotton and wheat. As a consequence, irrigation service fee (ISF) collection rates are low throughout and even decreased by 1.4% in 2014 to 38%, although total revenues of WCAs have increased due to increased service fees. The collection rate for the state quota crops cotton and wheat through state loan tranches are equally low and they decreased from 45% in 2013 to 42% in 2014. This is a point of serious concern but outside the influence of the project and without any change in the system the financial sustainability of WCAs remains highly questionable.

In addition, none of the WCAs were judged to be able to carry loans for equipment as planned in the WB component and the 43 excavators were provided as a grant to the WCAs and not under a repayable loan agreement. Nevertheless, the provision of canal cleaning equipment to WCAs has a positive effect on the maintenance work, from those WCAs that received equipment 86% exceeded 75% of their planned O & M target while for the other WCAs only 77% achieved this benchmark (Indicator Output 2).

Regarding Outcome 2, capable AIS, it is unfortunate that MAWR did not establish the WCA support unit in the rayons as foreseen as a key project commitment of the GOU in the Project Implementation Plan (PIP). Continuous support to the WCAs is considered essential to assure institutional sustainability of the associations and the alternative to assign 2 AIS staff a WCA support function is considered unsatisfactory. These staff have neither clear TORs nor have the necessary financial resources been assigned for the task. While the designated AIS staff have been trained by the project, their ability to provide support is rated as adequate as far as water planning issues are concerned but they lack capacities to support WCAs on institutional or administrative issues. Outputs 4 and 5 are thus considered as not achieved but due to constraints outside the control of the PCU.

Output 6 relates to the installation and operation of the Management Information System (MIS) in a total of 3 AISs. During the first phase the MIS was installed and tested in Mirishkor district in Kashkadarya. The software was updated and adjusted and a generic MIS package was developed and installed in Dargom and Amu Karakol canals in Pastargom and Alat rayons respectively. The installation took place only recently in March 2015 but a brief demonstration in Dargom during the mission showed that already much progress has been made and data entry was on going.

Since the software was developed in Uzbekistan (SIC-ICWC) and the MIS responds to a real need of the AISs for water planning and reporting it is considered that further progress will be made and the necessary technical support can and will be mobilised from the software developers if needed. However, due to the closure of the SDC component in June 2015, the effect of the MIS on water allocation and delivery to the WCA in terms of quantity and equity cannot be analysed and capitalised for the benefit of the planned new Uzbekistan National Water Resources Management Project and to carry over the results from the earlier projects.

Additional activities under this sub-component not foreseen in the Project Document or the Logframe include the construction of water control and measurement structures in 7 demonstration WCAs. In one WCA (Mirishkor) construction is already completed, two are expected to be completed by the end of June and for the remaining 4 SDC has taken a commitment to complete them even beyond the official closing date of the component and to provide the necessary support. It is anticipated that all construction will be completed by the end of September 2015. While these structures are highly useful, well-built and high quality gates were provided for water control, it is considered unfortunate that no further support is provided to the WCAs on the use of the structures and that due to the closing of the project the effect of the structures on water management cannot be monitored and analysed for at least one full growing

season. Again such field based data could be very useful to be carried over and integrated into the planned new SDC project.

SDC also provided 7 sets of laser levelling equipment and scrapers which were handed over to the demonstration WCAs. An eighth set was provided to the Tashkent Institute of Irrigation and Melioration (TIIM). The equipment arrived only this year and first use has been made and could be observed in action in Alat. Levelling is key to reach uniform water distribution and high water efficiency in surface irrigation systems and thus the provided equipment will be very useful. Nevertheless, here again a longer support from the project is considered necessary to experiment with a technology that is new in Uzbekistan and where experience and expertise is not readily available. Monitoring and analysis of the effect of levelling on water distribution, irrigation efficiency and water productivity would also be necessary in this case, information which again should be carried over to the new National Water Resources Management Project.

Finally, SDC has provided 18 cargo bikes to those WCAs which were not provided with maintenance equipment under the IDA funding. The bikes are highly appreciated since they can be used on canal embankments for inspection and supervision.

Sub-component 2c: Support for improved irrigation and drainage technology

The main outcome indicators for the Swiss part of this component are

- 1) FFS are up and running and simple and affordable technology packages are developed and disseminated and on-plot productivity and water usage efficiency has improved, and
- 2) Close interaction results in synchronisation of planning and sharing of materials with the RESP II Component 3 Rural Training and Advisory Services (RTAS) and relevant Swiss projects.

The FFS are considered a real success story of the project and field schools are established in 63 WCAs (Indicator Output 1). In 2014 310 classes were attended by more than 7000 farmers (3% women). It is reported that the technologies disseminated are taken up by farmers not only within the project WCAs but also in neighbouring areas. Such independent and autonomous replication is an excellent indicator that the technologies are useful and appreciated by the farmers. Further, the survey and the analysis of the water productivity on the FFS plots showed, that the water productivity of cotton as well as wheat has increased by 70% since 2010. Between 2010 and 2014 the water productivity of cotton has increased from 0.51 kg/m³ to 0.86 kg/m³ for wheat the respective values are 0.68 kg/m³ and 1.15 kg/m³.

The PCU has developed a "Manual for Trainers of FFS on Rational Water Use" and 1'000 copies were printed and distributed within the project. The MAWR requested another 1'500 copies for distribution nationwide and the Cabinet of Ministers of Uzbekistan approved the decree No 39 on February 24, 2015 in support of the implementation of a state program on land reclamation and rational water use. This is considered as an indicator that the MAWR has acknowledged the project achievement and recognised the value of the FFS.

The FFS farmer trainers met were all knowledgeable and experienced in efficient water management and able to explain the different technologies disseminated (Indicator Output 2). However, AIS staff were unfortunately not regularly involved in the trainings as assumed in the Project Logframe.

Outcome 3 refers to the new irrigation technologies to be demonstrated on RRA demonstration plots. Since the establishment of the demo plots is delayed for reasons beyond the control of the PCU, none of the activities foreseen by the SDC component could be carried out.

The second outcome of this sub-component relates to the exchange of experiences and coordination with the RTAS component and relevant Swiss projects, mainly the Skills Development Project. Regular meetings are held between the different stakeholders and training

materials are regularly shared. RTAS staff are also attending project trainings and experts from the Skills Development Project assisted in the development of training materials.

3.2. Efficiency of the Approach

The efficiency of the approach is assessed at two levels:

- 1) project set-up and coordination between the partners (MAWR-RRA-WB-SDC) and complementarity of activities, and
- 2) project implementation activities (trainings, equipment, support to WCAs) in relation with the overall context and the government response to the challenges in the sector.

Project Set-up and Coordination

While it appears obvious that a project set-up with several partners increases transaction costs and thus has a likely negative effect on project efficiency, the selected partnership for the RESP II has nevertheless advantages which outweigh the potential disadvantages. The most important positive aspect is seen in the comparative advantages of the partners and the synergies that have materialised between the SDC approach and its focus on institutional and organisational issues of water management, on methods and tools for WCAs with the substantial investments in irrigation infrastructure financed through the WB loan. Both components combined create benefits that a single component alone could not achieve.

In that respect the teaming up with the WB has produced a leverage effect for the Swiss component and, vice versa, the institutional support provided by SDC contributed significantly to the valorisation of the rehabilitated infrastructure. Similarly, the visibility of the Swiss contribution is highly enhanced by the weight added through the WB loan and with a comparably small grant, Switzerland could gain a lot of goodwill and reputation within the WB and the GOU. Very likely this could not be achieved in a standalone SDC project. These factors outweigh the slightly higher transaction costs by far, the more so since the components were designed complementing each other but without much overlap and coordination needs could thus be kept minimal.

Project Implementation

The SDC components are highly training intensive and this is always staff intensive. In addition, project activities are spread over 7 rayons and the PCU thus had to setup field offices with three staff each in all of them. However, considering the number of trainings provided, the general impression is that project implementation was efficient. Feedback from individual farmers also confirmed that the trainings are effective and the reported autonomous replication also shows that. Similarly, the farmer satisfaction survey shows that the members are satisfied with the WCA performance as well as with the condition of the irrigation canals and that level of satisfaction has consistently increased over the project period. This is taken as an indicator that the trainings and the support of the project were in fact effective and also efficient. All this was achieved in a context which is rather complex and where the government response to the challenges of the sector are not always straightforward.

3.3. Performance of the Implementing Agency

The main issue regarding the performance of the implementing agency concerns the implementation mode, self-implementation or implementation via an external implementer (consultant). The circumstances in Uzbekistan are considered rather special since it is hardly possible for international consulting companies or NGOs to get registered locally. All the consultants of SDC projects therefore have a special status and they are somehow linked to the Coordination Office/Swiss embassy. It is therefore inevitable, that the SDC Coordination Office has to play a role and facilitate the operation of international partners.

The key issue, self-implementation as in the RESP II until the end of 2013 or implementation via an external consultant as from 2014 onwards, is not considered a question of principle. Both implementation modes are possible and the case of the former SDC Regional Hydromet Project is a good and also successful example of self-implementation. The important issue in a self-

implemented project is a clear definition of roles and responsibilities between SDC and the PCU. The Project Document states the responsibilities of the PCU clearly: “The Swiss PCU will be fully in charge of recruitment, financial, technical and other implementation aspects of the Swiss financed TA for Sub-components 2b and 2c.” and it also says “SDC will ensure that the Swiss PCU is adequately staffed to perform its tasks in an efficient and effective manner”. If these guidelines are respected and implemented then self-implementation is very similar to external implementation and should not create additional work for the SDC Coordination Office.

Nevertheless, for projects of that size and in coordination with the MAWR and the Worldbank it is recommended to outsource project implementation to an external consultant. However, in that case the outsourcing should be done right from the beginning. The actual process of tendering the implementation 18 months before closure is considered the worst possible timing. It takes time to tender the services and it takes time for an external consultant to get familiar with the setup and to get fully operational. This has the effect that project implementation is most likely being delayed.

It is not possible to assess the performance of the implementation agency before and after outsourcing it since the time for the comparison is too short and during an evaluation mission there is no time to go into details. The impression persists that from a technical point of view project implementation was at a rather high level before and did not much change after the transition to external implementation. The annual reports show that and the objectives of the project have largely been achieved as far as they are under full control of the PCU. Sheladia certainly has brought in specific expertise especially in structural design, construction and supervision and possibly also in project management. However, such expertise could have been contracted by the PCU without going through a tendering process for the implementation as a whole. Outsourcing was also not without risk and the fact that the first teamleader of Sheladia had to be changed shows that.

4. Conclusions and Lessons Learned

The Phase 2 of the RESP II has confirmed that the tools and methods developed in the earlier SDC irrigation projects (IWRM-FV, WPI-PL) are valid and work under real field conditions. WCA support and FFSs are valuable and efficient approaches to make WCAs operational, water management more productive and the service provision appreciated by the farmers. This is mainly due to the long-term experience of SDC in the sector and the fact that experiences and tools as well as key personnel from the earlier projects have been transferred and integrated into the RESP II. This continuation is considered a key factor that the project could achieve excellent results in a relatively short time.

The economic frame conditions for irrigated farming and especially the state quota crop system for cotton and wheat are the main reason for the financial difficulties and problems WCAs are facing. The low ISF collection rate is a consequence of the low profitability of the farms and the low ability to pay and the financial sustainability of WCAs is thus remains highly questionable. Further Trainings of WCA staff and FFSs will not change this situation, this will have to be addressed at the policy level, a component that was not part of the RESP II but will be a component of the planned “Uzbekistan National Water Resources Management Project” (Component 1: Water Strategy and Water Code).

Given the unfavourable economic frame conditions the decision of SDC not to extend the Swiss components beyond the June 2015 is not considered to have serious consequence in terms of WCA management. What could be achieved has been achieved and an extension parallel to the WB components until the end of 2016 would not significantly change that. However, the closure of the Swiss component as planned is considered a high reputational risk. Switzerland is considered a dependable partner by GOU and the WB with a long-term view and not following the decision of the RESP II partners to extend may be viewed as a lack of commitment by them

and a lot of goodwill may be lost. Similarly, no longer being actively involved at the time of the official closing of the RESP II may have a negative effect on the recognition of the Swiss contribution.

In view of the very likely gap between the Swiss involvement in the RESP II and the planned new National Water Resources Project it is very important to assure a smooth transfer of the experiences to the new project. Of particular importance are the monitoring and capitalisation of the experiences of tree activities that have been completed only recently: the effect of the water control and measuring structures in demo WCAs on water management and distribution, the effect of the MIS at the two new AISs on water allocation and distribution to the different WCAs and the effect of laser levelling on on-farm water distribution and efficiency. The experiences and lessons learned from these activities are considered important for the policy dialogue component of the new water management project. Similarly, it is considered important to assure the carryover of important and essential staff from the RESP PCU to the new project to assure continuity.

Finally, SDC has similar IWRM projects in other Central Asian countries (e.g. the NWMP in Tajikistan) and the exchange of the experiences between the countries should be actively promoted and facilitated by the respective Swiss Cooperation Offices. The tools, methods and approaches from the RESP II are considered valuable for the Tajik NWRM project, the more so since in Tajikistan there was a gap in the implementation of IWRM related projects since the IWRM-FV and the WPI-PL projects.

5. Possible Elements for Future Projects

Since the up-scaling of the institutional support for WCAs combined with large infrastructure rehabilitation financed by international financing agencies is considered a success, opportunities in similar setups are considered a good option. The approach, tools and methodologies are proven and the synergies created by the combination with infrastructure rehabilitation outweigh by far the additional costs due to the additional transaction costs for coordination. Involvement of national actors and institutions is considered a key element, but a firm commitment is crucial or the sustainability of the interventions is not assured.

Any future project should incorporate a policy dialogue component since WCAs can only become financially sustainable if the frame conditions are adjusted and the policy framework is changed. However, policy dialogue is not an easy process, it is extremely time consuming and quick results cannot be expected. In addition, policy dialogue is a political process and thus requires the active involvement of the Swiss Coordination Office and it cannot be subcontracted to consultants or NGOs. It is thus important that a long term commitment is taken by SDC if a future engagement is considered and this required that it is anchored in the future Swiss Cooperation Strategy for Central Asia.

For the time being, working at the national level is recommended but always with a view of the regional water problematic. In that respect similar or parallel projects in the different countries in Central Asia are recommended with a strong component of exchange of experiences between the national projects. For regional level interventions the right window of opportunity will be crucial and joint or at least well-coordinated interventions with other donors are recommended.

The FFS have showed that the potential to increase water productivity at plot level is rather high (+ 70% since 2010). Similarly the FFS approach has been acknowledged by the MAWR and the Cabinet of Ministers approved a state program in support of land reclamation and rational water use. Support to such a state program could provide an opportunity for a future project. However, such a project should be limited to the technical assistance of national institutions and ownership and leadership needs to be with the national partners.

6. Annexes

6.1. TORs of the Mission



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Department of Foreign Affairs FDFA
Swiss Cooperation Office, Tashkent SCO TA

Terms of references

Contract no. 81032664 (B Mandate)

External Review of the RESP II Project

Subject: External Review of the RESP II Project
Project: Central Asia: Up-scaling of Integrated Water Resource Management (IWRM) with the World Bank Rural Enterprise Support Project RESP II Swiss Government Parallel Non-reimbursable Financing for Sub-Components 2b and 2c Phase 2 (March 2012 to June 2015)

Background

To increase the efficiency of the water management system in Central Asia and in particular in Uzbekistan, a combination of improved water infrastructure, adequate human and technical capacity, strengthened institutions and better-integrated water resource management is needed. In addition, irrigation methods applied at farm level should promote water savings and prevent from excess irrigation, water logging, and salinization. SDC contributed to the reform of the irrigation sector in Central Asia since 2001 with several projects promoting IWRM approaches. On request of the World Bank and of the Government of Uzbekistan, SDC engaged since 2009 in the Rural Enterprises Support Programme II (RESP II) of the World Bank with a parallel financing which covers the soft component, capacity-building for the Water Consumers Associations (WCA) and some small equipment, whereas the World Bank covers the infrastructure and economic components (a loan of about 68 mio USD). This was a very good opportunity to scale up what SDC had achieved in previous projects in the Ferghana Valley. The SDC contribution was integrated in the RESP II planning framework and the overall budget for SDC phase I and II is of about 8.5 mio CHF.

The overall objective of RESP II is to increase the productivity and financial and environmental sustainability of agriculture and the profitability of agribusiness in the project area. RESP II covers 250,000 ha of irrigated land. Direct project recipients include 65 WCAs, 62 farmers operating Farmers' Field School plots, and 7 Administrations of Irrigation Systems – AIS (decentralized units of the Ministry of Agriculture and Water Resources – MAWR) and their related staff. Project area private farmers, dekhan farmers and kitchen garden holders are expected to indirectly benefit from the better water distribution gained through project activities.

The RESPII includes 3 components:

1. Rural Enterprise Finance Component is a credit line for farmers (up to 36 mio USD).
2. Irrigation and Drainage Component including:
 - Rehabilitation of irrigation and drainage infrastructure (WB)
 - Strengthening of Water Consumer Associations (WCA) and WCA support (SDC)
 - Support for improved irrigation and drainage technology, partially SDC
3. Rural Training and Advisory Services (WB).

The project was implemented from the beginning by a Project Coordination Unit (PCU) depending directly from the Swiss Coordination Office in Tashkent and from the Government side by the Rural Restructuring Agency (RRA) an agency of the Ministry for Agriculture and Water Resources (MAWR). Due to management and planning weaknesses in the PCU and lack of capacities at the SCO to ensure an effective self-implementation, the project was tendered out in 2013 and Sheladia Inc. was mandated for the management of the project in January 2014.

In February 2014 the project loan amount of the WB was increased to 103 mio USD and the duration extended until end 2016. A GEF Project "Sustainable Agriculture and Climate Change Mitigation" for 12 mio USD was integrated. SDC decided not to extend the duration of its project and close it on June 30, 2015. However, construction works that have been started will be brought to conclusion beyond that date.

Scope of the External Review

SDC participated all along the project to the Joint Review missions of the World Bank, which were done by a consultant hired by the WB but who would look at all the components of project, including those implemented by SDC. However, since the project comes to a close, SDC decided to have an external opinion on the achievements of the project. The External Evaluator will work jointly with the WB Consultant especially for the field visits, but can also organise his own activities within the scope of this mandate.

The main points to be assessed are :

- 1) Review the achievements of the project especially in view of their sustainability; systems and procedures in WCAs and AISs, institutional set-up of WCAs, infrastructure (newly constructed small infrastructure at demo WCAs), but also managerial and technical specific competences of WCAs and AIS personnel designated by MAWR to support WCAs. Identify if possible challenges due to framework conditions and/or gaps in the project definition or implementation.
- 2) Assess the efficiency of the approach, in terms of project set-up (coordination MAWR/RRA-WB-SDC, complementarity of activities) and in terms of project implementation activities (trainings, equipment, support to WCAs) in relation with the overall context and government response to the challenges of the sector.
- 3) Evaluate the performance of the implementing agency, with a comparison between the two implementation modes (self-implementation, external implementer)

Methodology

The External reviewer/Consultant will have to acquire a preliminary knowledge of the project by reviewing background documents related to the water sector in Uzbekistan and the Swiss policies and projects in this sector in Uzbekistan. A tentative list of these documents is presented in Annex 1.

During the review mission, the main approach will be:

- Review of RESPII project materials,
- Interviews with stakeholders in Tashkent including SCO, implementing agency, Ministry of Agriculture and Water Resources (MAWR) and Rural Restructuring agency (RRA) officials and other donors representatives – World Bank(WB);
- Visits to the project sites (exact places to be defined by PCU/SCO in accordance with the WB), interviews and group discussions with beneficiaries, state water management organisations, local authorities and the other stakeholders.
- Separate briefings/debriefings with SDC in Tashkent and Bern if needed.

Tentative Time Schedule

See draft programme in annex 2.

Time allocation:

The following time allocation is suggested:

- Preparation : 3 days
- Field trip : 14 days (including travel)
- Reporting/debriefing : 3 days
- Total : max. 20 days

Reporting

A draft report (electronic) in English language is to be submitted to SDC HQ and the Swiss Cooperation Office in Tashkent within two weeks after return from the mission. The revised final report is expected two weeks after SDC staff has commented the draft.

Report outline

1. Executive Summary.
2. Findings of the Review
3. Lessons learned;
4. Possible elements for future projects.

The report should not amount to more than 10 pages, plus annexes.

The consultant

SDC

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Chris Morger

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Ilaria Dali, Director of cooperation
SCO Tashkent

Annex 1 – Background documentation

- SDC Cooperation Strategy for Central Asia;
- RESPII Project Appraisal Document;
- RESPII Project Implementation Plans;
- SDC Project document for the Phase 2;
- SDC Credit proposal phase 2
- Project Agreements (including addendums) and contractual arrangements;
- Aid Memos of RESPII Joint monitoring missions (phase 2);
- Minutes of the PSC;
- Annual Progress Reports;
- Yearly Plans of Operations;
- Farmers Satisfaction Survey report;
- End of Phase report phase 1
- Legal documentation related to the sector (to be reviewed in Tashkent);
- Books, brochures, booklets and other materials published within the project implementation (to be reviewed in Tashkent);

6.2. Program of the Mission

As of: 23/04/2015

RESP II – Component 2 “Irrigation and Drainage”
 Program Joint WB/SDC Supervision Mission for sub-components a, b and c
 04.05 - 16.05.2015

N°	Day/Time	Component	Object	Remarks
1. Monday - 04.05.2015				
1.1.	12.00 - 14.30		Meeting with SDC Consultant	During the Lunch
1.2.	14.30 - 16.30		Meeting of SDC Consultant with PCU at PCU	Night in Tashkent
2. Tuesday - 05.05.2015				
2.1.	09.00 - 12.00		WB / SDC meeting at RRA	
2.2.	TB confirmed		WB / SDC meeting at MAWR	Night in Tashkent
3. Wednesday - 06.05.2015				
3.1.	11.15 - 12.20		Flight from Tashkent to Andijan	airways flight
3.2.	14.00 - 17.00	2a	Visit of on-farm Canal 122-1-1 (Contract N°RESP2/CW/NCB/09/02-14 UZ) and Canal 15-X (Contract N°RESP2/CW/NCB/09/02-15 UZ) in Ulugnor.	
3.3.	17.00 - 19.00	2b/2c	Visit to construction site at WCA "Ulugnor" in Ulugnor Visit to FFS "Begijon"	
3.4.	Evening		Night in Ferghana	Hotel Asia Ferghana
4. Thursday - 07.05.2015				
4.1.	09.00 - 17.00	2a	Visit of on-farm Canal Oktepa (Contract N°RESP2/CW/NCB/09/02-11 UZ) and on-farm Canal Katortol-1 and Yanglobod-6 (Contract N°RESP2/CW/NCB/09/02-09 UZ) in Yazyavan.	
4.2.	Evening		Night in Ferghana	Hotel Asia Ferghana
5. Friday - 08.05.2015				
5.1.	09.00 - 11.00	2c	Visit to FFS "Far Kumkishlok" in Yazyavan	
5.2.	11.00 - 14.00	2b	Visit to construction site at WCA "Khonobod" in Yazyavan.	
5.3.	14.00 - 16.00	2b	Visit to WCA "Obi-Khayot"	
5.4.	17.00 - 19.00		Flight from Ferghana to Bukhara	airways flight
5.5.	Evening		Night in Bukhara	Hotel Asia Bukhara
6. Saturday - 09.05.2015				
6.1.	08.00 - 15.00	2a	Visit of inter-farm Canal Bakt (Contract N°RESP2/CW/NCB/09/17 UZ) and on-farm Canal Norhosa (Contract N°RESP2/CW/NCB/09/02-25 UZ (lot 1) and RESP2/CW/NCB/09/02-26 UZ (lot 2)) in Alat.	
6.2.	16.00 - 18.00	2b/2c	Visit to construction site at WCA "Suvchi denov" in Alat Visit to WCA "Besharik Nur Zamini" Visit to FFS "Narzi Oyim"	
6.3.	Evening		Night in Bukhara	Hotel Asia Bukhara
7. Sunday - 10.05.2015				
7.1.	08.00 - 10.00		Travel from Bukhara to Mirishkor	
7.2.	10.00 - 12.00	2b/2c	Visit to WCA "Jeynov-2 kanali" in Mirishkor Visit to FFS "Kholikulov Sattor"	
7.3.	14.00 - 19.00	2a	Visit of on-farm Collector "Elobod Zarchashmasi" (Contract N°RESP2/CW/NCB/09/02-01 UZ), Canal X-1/X-2 - Aqueduc (Contract N°RESP2/CW/NCB/09/02-03 UZ) and Canal 35-K-3/4 (Contract N°RESP2/CW/NCB/09/02-04 UZ) in Mirishkor.	
7.4.	Evening		Night in Karshi	Hotel Gissar netegas
8. Monday - 11.05.2015				
8.1.	08.00 - 11.00		Travel from Karshi to Samarkand	by car
8.2.	11.00 - 16.00	2a	Visit of on-farm Canal R-5 (Contract N°RESP2/CW/NCB/09/02-19 UZ), Canal Navoi (Contract N°RESP2/CW/NCB/09/02-17 UZ) and Canal R-14 (Contract N°RESP2/CW/NCB/09/02-18 UZ) in Pastdargom.	
8.3.	16.00 - 18.00	2b/2c	Visit to construction site at WCA "Pastdargomlik Anhor Suvchilari" in Pastdargom Visit to MIS "Dargom" Visit to FFS "Nigina"	
8.4.	Evening		Night in Samarkand	Hotel Grand Samarkand
9. Tuesday - 12.05.2015				
9.1.	8.00 - 11.30		Travel from Samarkand to Bayavut	by car
9.2.	11.30 - 12.30	2b/2c	Visit to construction site at WCA "Bayavut-3" in Bayavut Visit to FFS "Khumoyun"	
9.3.	14.00 - 19.00	2a	Visit of on-farm Canal MK1 and pumping station (Contract N°RESP2/CW/NCB/09/02-02 UZ) and inter-farm Canal Levaya Vetka (Contract N°RESP2/CW/NCB/09/04 UZ) in Bayavut.	
9.4.	19.00 - 21.00		Travel from Bayavut to Tashkent	by car
10. Wednesday - 13.05.2015				
10.1.	During the day	2b/2c	Optional: Visit to construction site at WCA "Kushtepa Suvchi" Visit to FFS "Abdujabbor ota"	Optional Program was dropped, Reporting and Office Work in Tashkent instead
10.2.	During the day	2a	Visit of on-farm Canals R-8 / R-5-1 (Contract N°RESP2/CW/NCB/09/02-22 UZ) and on-farm Canals R-3, R-3-1 and R-7 (Contract N°RESP2/CW/NCB/09/02-10 UZ) in Buka.	dropped
10.3.	During the day		Desk work	Night in Tashkent
11. Thursday - 14.05.2015				
11.1.			Reporting	
11.2.	TBD		Debriefing: WB, RRA, MAWR	Night in Tashkent

12.	Friday - 15.05.2015		
12.1.	TBD	Debriefing: SDC	TBD
12.2.		Departure of WB consultant	Night in Tashkent
13.	Saturday - 16.05.2015		
13.1.		Departure of SDC consultant	

Remarks:

- 1). On-site cars will be provided by SDC, RRA and ITC.
- 2). From SDC side, field visits will be covered by SDC
- 3) Other projects: SDC "Skills Development Project"

General list of participants (10):

From WB	Mr. S. Ghazaryan - WB representative
From RRA	Mr. N. Utaev - RESP II Coordinator – Component 2a Mr. R. Stratjtdinov - RESP II Coordinator – Component 2b/2c
From SDC	Mr. Chris Morger- Independant expert Mr. Thierry Umbehr - Regional Advisor for Water and Disaster Risk Reduction Mr. S. Akramov - SDC, National Program Officer Mr. J. Fredericks - ITL, PCU Mr. J. Twarowski - Vice President - Sheladia Associates
From ITC	Ms. O. Islamova - PCU, Deputy Team Leader Mr. Philippe Goral - Team Leader - ITC Mr. A. Djalilov - Deputy Team Leader - ITC Mrs. Axelle Nos - Project coordinator

6.3. WB Aide Memoire

REPUBLIC OF UZBEKISTAN

World Bank/FAO Implementation Support Mission (04-16 May, 2015)

Rural Enterprise Support Project Phase II Irrigation and Drainage component¹

Sustainable Agriculture and Climate Change Mitigation Project (GEF) Mitigate Irrigated Land Degradation component

Introduction

1. This review assesses progress since the last implementation review and support mission (October 2014) of the Irrigation and Drainage (I&D) component of the Rural Enterprise Support Project Phase II (RESP-II) and the Mitigate Irrigated Land Degradation (MILD) component of the GEF funded Sustainable Agriculture and Climate Change Mitigation Project (SACCM). The mission worked closely with the Rural Restructuring Agency (RRA) and International Technical Consulting team (ITC) for infrastructure design and works supervision from “*M/S BRL Ingenierie*” and “*Holis Konsalt*” (France/Uzbekistan), Swiss Agency for Development and Cooperation (SDC) and its Project Coordination Unit under Sheladia Associates (PCU). The assessment is based on documents review, discussions held as well as field visit verification. The review summarizes the main conclusions and recommendations of the mission. Findings and recommendations were discussed and agreed with the RRA and SDC PCU management. Mission would like to express appreciation and thanks to the RRA, ITC and SDC PCU staff for their valuable assistance and excellent cooperation.

2. The mission visited 14 construction sites under 12 on-going and completed contracts for rehabilitation of inter-farm and on-farm irrigation canals, drainage collectors and ancillary structures, as well as 8 Water Consumer Associations (WCAs) and 6 Farmer Field Schools (FFS) in 6 project *rayons* of Mirishkor (Kashkadarya), Ulugnor (Andizhan), Yazyavan (Fergana), Alat (Bukhara), Bayavut (Syrdarya) and Pastdargom (Samarkand). The objective of site visits was to assess the implementation performance and quality of works under the on-going and completed civil works contracts, quality of engineering design, efficiency of the supervision procedure applied as well as institutional aspects of WCA development in the framework of the RESP-II. The mission held discussions with the *rayons'* *Hokims*, relevant staff of Administration of Irrigation Systems (AIS), WCAs, contractors, site supervisors and farmers.

Sub-Component 2a: Rehabilitation of Irrigation and Drainage Systems

Physical and Financial Progress

Inter-farm Systems. Entire proposals selected for implementation packaged under 20 contracts. These include rehabilitation of: (i) 18 inter-farm canals with total length of about 104.2 km and command area of about 70,030 ha; (ii) 9 collectors with total length of about 86.9 km and service area of about 26,570 ha; and (iii) 10 tube-wells with command area of about 6,720 ha. Development of engineering designs for schemes under 20 contracts completed. Summary of implementation status is provided in the Table 1 below. Details are provided in the ITC Progress Report No.16.

3. Sixteen civil works contracts (Nos. 01, 03, 04, 05, 06, 08, 09, 10, 11, 12, 13, 14, 15, 17, 18 and 19) have been completed so far in 7 Project area *rayons*. They consist of rehabilitation works for: (i)

¹ Reviewed by Samvel Ghazaryan, Irrigation and Rural Infrastructure Engineer, FAO/TCIC (FAO CP) in cooperation with Christoph Morger, Senior Advisor Water for Food, HELVETAS Swiss Intercooperation, contracted by SDC for assessment of parallel financing activities.

drainage collectors with total length of about 68.3 km including 11 structures for service area of about 25,150 ha; (ii) irrigation canals with total length of 100.65 km including 144 structures for command area of about 49,970 ha; and (iii) 10 tube-wells with 10 structures for service area of about 6,720 ha. The aggregate cost of these investments is about UZS 15.99 billion, including VAT (equivalent to approximately USD 7.25 million).

4. Works under one contract GR-84-3 (2.56 km and 17 structures for 960 ha) in Ulugnor *rayon* are still on-going. This investment is valued at UZS 710.12 million, including VAT (equivalent to approximately USD 0.31 million). As of 01 May, 2015 the value of completed works under this contract is about UZS 124.65 million or some 18%. Anticipated completion of works under these contracts is by the end of 2015.

5. Bidding documents for the last two contracts for rehabilitation of Gijigen canal in Buka *rayon* and additional works on UR-11 canal in Mirishkor *rayon* are ready for bid advertisement. However, the bids have been suspended by the MAWR with the reasoning that the targeted command area under the RESP-II have already been achieved and to proceed with the further rehabilitation works a formal agreement from the Ministry of Economy is required. The mission was informed that a preliminary agreement with the Ministry of Economy has been achieved to proceed with the component implementation and the suspended bids would most probably be advertised by the end of May 2015.

6. The contract (RESP2/CW/NCB/09/07 UZ) for rehabilitation of KRS canal and Avzikent collector in Pastdargom *rayon* has been terminated due to poor performance of the contractor with 35% of works completed and to be re-tendered. Anticipated bid announcement for remaining works is end of June 2015 with the intended completion of works mid-2016.

7. **On-farm Systems.** Investments are considered for on-farm system improvement in command areas of 24 project area WCAs. The selected proposals consist of 30 canal systems and a drainage collectors packaged under 24 contracts and include rehabilitation of on-farm irrigation network for a command area of over 30,250 ha (156.1 km) and improved drainage network for an area of about 5,950 ha (52.14 km). Development of engineering designs for selected schemes are completed. Summary of status as of the 01 May 2015 is provided in the Table 2 below. Details are provided in the ITC Progress Report No.16.

8. Four civil works contracts (Nos. 02-01, 02-17, 02-18 and 02-19) have been completed so far in 2 Project area *rayons*. They consist of rehabilitation works for: (i) drainage collectors with total length of about 52.14 km including 11 structures for service area of about 5,950 ha; and (ii) irrigation canals with total length of 19.04 km including 122 structures for command area of about 4,380 ha. The aggregate cost of these investments is about UZS 4.14 billion, including VAT (equivalent to approximately USD 1.79 million).

9. Works under eighteen contracts are on-going in 7 Project area *rayons*. They consist of rehabilitation of on-farm irrigation networks with total lengths of about 128.3 km including 479 structures and a pumping station for a command area of 24,690 ha. These investment are valued at UZS 19.13 billion, including VAT (equivalent to approximately USD 8.6 million). As of 01 May, 2015 the value of completed works under these contracts is about UZS 4.78 billion or some 25%. Anticipated completion of works under these contracts is by the end of March 2016.

10. Bidding documents for other two contracts for rehabilitation of 5.86 km (including 63 structures) of on-farm systems for command area of 780 ha in Ulugnor *rayon* (WCA Ok-Oltin and WCA Dustlik) are ready for bid advertisement. The bids have been suspended by the MAWR as in the case with the inter-farm systems described above. The mission was informed that a preliminary agreement with the Ministry of Economy has been achieved to proceed with these contracts as well and these bids would also be advertised by the end of May 2015. The estimated cost of these investments is UZS 1.56 billion, equivalent to USD 0.68 million.

11. Design documents for another contract, rehabilitation of on-farm canal 34-X-1 (2.87 km and 13 structures for 400 ha) in WCA “Uzbekiston” in Ulugnor *rayon* is currently at expertise review stage as per the legislation of the Republic of Uzbekistan. Anticipated bid advertisement for this contract is by end of June 2015. Estimated cost of this contract is about UZS 1.02 billion, equivalent to USD 0.4 million.

12. Thus, as of 01 May 2015 the total cost of committed contracts under the sub-component 2a is about USD 16.86 million. Assuming that all the works currently pending for bidding would be implemented, the total cost of contracts would not exceed USD 20.76 million (including USD 9.31 million for inter-farm and USD 11.45 million for on-farm), or some 89.2% of total allocated funds of USD 23.27 million.

13. Total command area that would benefit from the improved irrigation and drainage infrastructure under the sub-component 2a is over 139,500 ha. Additional areas of about 35,000 ha would benefit from the improved measuring and regulating structures in the 7 demonstration WCAs and 62 Farmers Field Schools (FFS) under the sub-component 2b and 2c described further in this report. Thus, the overall benefiting area would be over 175,000 ha exceeding the 91,000 ha identified in the PAD. The overall actual per hectare investment cost is about USD 152 against USD 255 provided in the PAD. This include some USD 95 per hectare for inter-farm systems and about USD 318 per hectare for on-farm networks. As of 01 May 2015 the overall disbursement of loan funds from the Civil Works category is some USD 7.10 million, or about 49.3% of total USD 14.42 million allocation.

Key Issues

14. The overall progress in implementation of works since the last mission is at satisfactory level. Works under the on-going contracts are on schedule. The overall level of contract management is of acceptable level. However, still there is an obvious need for continuous improvement in engineering designs quality and application of adequate supervision practice. Particular attention should be paid to adequacy and soundness of proposed design solutions for structures, and what is more important to ensure that the implemented works are in compliance with the design documents and in accordance with the acceptable engineering standards. This observation is general for both inter-farm and on-farm works.

15. The main observations are missing headwalls in culvert structures, inadequate design for maintenance roads with missing stabilized gravel layer and required compaction, missing items in the BoQs, use of inadequate construction materials in some cases, etc. Furthermore, the overall quality of the prefabricated parabolic flumes used in different contracts are poor, and the quality of gates structures (metal works) to be improved significantly in general. In some of the cases inadequate qualification of site supervisors has also been observed by the mission. The mission however, would like to note the improved quality of concrete lining and L-shaped concrete blocks under most of the contracts.

16. Particularly, the mission would like to express its concern with poor level of design solutions and inadequate quality of works in 3 sites visited under the contracts RESP2/CW/NCB/09/02-03, RESP2/CW/NCB/09/02-19 and RESP2/CW/NCB/09/02-17. Inadequate quality of works for rehabilitation of an aqueduct under the contract RESP2/CW/NCB/09/02-03, Rehabilitation of on-farm canals X-1/X-2 in Mirishkor *rayon*, to be re-done and improved in accordance with the recommended revised design documents, including pipeline pillars, bank protection measures for pillars headwalls and paining of pipes. The construction garbage of existing structures to be removed from the site.

17. With regard to contracts RESP2/CW/NCB/09/02-19 and RESP2/CW/NCB/09/02-17 the works need to be completed in accordance with the design documents. Wherever possible, before the final hand over, it is recommended to implement additional works to improve the culverts structures and maintenance roads to a minimum acceptable engineering standards.

18. Another observation of the mission, that is negatively affect the overall performance, is delay in payment of 28% Government's contribution under the civil works contracts. The mission was ensured that all the required measures have been undertaken and all the Government's share would be provided on a regular basis to ensure timely completion of contracts.

19. As it was recommended and agreed during the previous mission the completion date of the contract between the RRA and ITC need to be extended to 31 December 2016 to ensure completion of all the planned activities. The main activities required from the ITC during 2015 and 2016 would consist of supervision of works. Therefore, there would be also requirement for additional re-allocation of funds and activities within the existing contract. It was reported that the recommended extension is in process and would be completed within the shortest possible period of time.

Sub-Component 2b: Strengthening of WCAs and the capacity to train and strengthen WCAs.

20. The main activities under the sub-component are financed through the SDC parallel financing. Although the WB increased the loan amount in February 2014 and extended the duration of the project until the end of 2016, SDC decided not to extend its support to the sub-components and this parallel financing is thus coming to an end on June 30, 2015.

21. All the training activities planned for the reporting period have been undertaken in accordance with the agreed schedule and detailed data are provided in the SDC PCU annual Progress Report No.4 for the period January 01-December 31 2014. During meetings with WCA chairpersons and staff it was observed that they all have the basic skills to manage the associations and plan and operate the irrigation systems. The WCAs operate based on operational and financial management plans (OFP), demand based water schedules and O&M plans.

22. Farmers met during the mission were satisfied with the performance of the WCA management and they also confirmed that the annual general assembly was held regularly as planned. The recent survey of farmer satisfaction confirms a positive trend as compared with a similar survey in 2011.

23. While the overall level of capacities and professional skills of WCA staff is considered adequate, there are still variations regarding the implementation of the plans and the WCA administration and management and a continuous support is still considered necessary. To ensure sustainability and provide the necessary support and capacity building it was foreseen that the Government of Uzbekistan (GoU) as a key project commitment establishes a WCA support unit in each of the project *rayons* with 2 – 3 assigned AIS staff. Due to budget limitations the MAWR was not in a position to establish these dedicated units but two staff members of each AIS have been assigned for WCA support function. These AIS staff have been trained by the SDC PCU. An assessment of these 14 AIS trainers showed that while their ability to conduct trainings on water related issues was adequate, they still lacked sufficient capacities to support WCAs on institutional or administrative issues. Due to the closure of the SDC component a solution needs to be found in order to assure the continuous support of WCAs.

24. The main issue for sustainability of the WCAs is still their overall weak financial performance. This is mainly due to the unfavorable economic frame conditions for agricultural production and especially for the main crops cotton and wheat. The effect of this are low ISF collection rates and in 2014 even a decrease of 1.4% to 38% was observed, although total revenues have increased due to increased service fees.

25. As pointed out by previous review missions, the ISF collection rates through state loan tranches for cotton and wheat are equally low and in 2014 only 42% of the state quota for cotton financing allocated for WCA ISF were actually transferred to the WCA accounts (45% in 2013). This is the more serious since the contributions for the state quota crops represent the bulk of the WCA income. Again, it is recommended that ISF transfers through state loan tranches should be allocated at least same priority as payments to other service providers (seed, fertilizer, machinery). Without any change in the system, the financial sustainability of the WCAs remains highly questionable.

26. Financial issues, budgeting and payments received etc. are in general considered rather complex since not all transactions are made in cash or bank transfers but as in kind contribution. Amounts received were not reported as a percentage of the operational and financial management plans (OPF) but as a proportion of actual expenditures made. Especially canal maintenance is often not paid by the farmers but they contribute to the work in kind. This questions the usefulness of the OPFs and it should be discussed whether two accounting systems may be more appropriate for WCAs, one for monetary transactions and items that are usually paid and another one for the in kind contributions. In any case to compare the financial performance of the WCA it is suggested to develop a clear procedure and key figures for a realistic and meaningful comparison. Annex 9 of PCU Annual Progress Report #5 for year 2014 provides an overview of project WCA's financial status.

27. The Involvement of other water users such as Rural Settlement Councils and *makhallyas* in the WCAs activities allowed WCAs to improve water distribution and collection rate. In Honobod WCA visited in the Yazyavan District of Ferghana province it was reported that the Katortol *makhallya* contributed about 20% of the fees collected while using only 10% of the water. However, *makhallyas* do not contribute service fees in all WCAs, e.g. in Padstargom district of Samarkand province they pay no service fee but they clean their own canals and they also employ and pay their own *mirabs* (water masters). This practice should be reviewed and if *makhallyas* are members of the WCA they should also contribute to the financing of the association.

28. Planned construction of water control and measurement structures in 6 demonstration WCAs under the SDC financing is still on-going, one in Mirishkor is already completed. Observation in the field showed that construction quality was in general good although more attention needs to be given to the correct positioning of the measuring gauges. In particular the gates are well made and of good quality and the practice of the SDC PCU to contract these gates to specialized metal works companies is recommended. By the end of June it is expected that in 2 out of 6 WCA works will be completed and SDC has taken a commitment to finish all construction even beyond the official closing date of the component and the necessary support will be provided. It is now expected that the works in the remaining 4 WCAs will be completed by the end of September. However, there will be a need to provide support to the WCAs on the proper use of the structures after construction and to follow up on the effect on water distribution and water productivity. A solution needs to be found to assure this support in the absence of the SDC support staff.

29. SDC provided seven sets of laser levelling equipment with scrapers and handed them over one per demonstration WCA. An additional eighth set was provided to the Tashkent Institute of Irrigation and Melioration (TIMM). Since the equipment was provided only recently, the same question for training, support for the use of it and follow up on the effect of levelling on water productivity as above remains.

30. SDC also provided 18 cargo bikes for the WCAs which were not provided with maintenance equipment under the IDA funding.

31. Testing of the Management Information System (MIS) developed under the SDC first phase activities and installed at dispatch points in Mirishkor canal in Kashkadarya was completed and the MIS software was updated and adjusted accordingly. The generic MIS package developed was installed in Dargom and Amu Karakol canals in Pastdargom and Alat *rayons* in March 2015 on hardware also provided by the SDC component. However, here again there is the question of on-the-job training for the relevant responsible staff and at least one irrigation season would be required to complete the test operation. Due to the closure of the SDC component a solution needs to be found in order to assure the smooth introduction of the systems.

Sub-Component 2c: Support for improved irrigation and drainage technology.

32. In total 62 Farmers Field Schools (FFS), construction of minimum required management structures, provision of necessary materials and equipment for demonstration of simple water saving

technologies as well as planned trainings and farmers-to-farmers exchange visits have been organized and successfully undertaken under the SDC parallel financing as per the approved work plan. In 2014, 310 FFS classes allowed the demonstration of simple and affordable technology packages to 7,289 farmers (3% women). The SDC PCU also developed a “Manual for trainers of FFS on rational water use” and 1,000 copies were printed and distributed within the Project. The MAWR requested another 1,500 copies for distribution nationwide and the Cabinet of Ministers of Uzbekistan approved the decree No 39 on February 24, 2015 in support of the implementation of a state program on land reclamation and rational water use. Between 2010 and 2014 the water productivity at the 62 FFS plots increased from 0.68 kg/m³ to 1.15 kg/m³ for wheat and from 0.51 kg/m³ to 0.86 kg/m³ for cotton. Details are provided in Annex 12 of PCU Annual Progress Report #5 for year 2014.

33. Activities planned for 7 demonstration plots with the total command area of about 100.2 ha under the IDA financing are still lagging behind the agreed schedule. However, since the last mission development of detailed engineering designs have been completed and submitted for technical expertise review and approval as per the legislation of Uzbekistan. Anticipated bid announcement for works implementation and supply of goods is end of June 2015, provided that all the formalities with design review and approval by several expert commissions are completed timely. Details on proposed activities are provided in the Table 3 below.

34. The main activities planned for demonstration plots would include laser leveling of selected plots (estimated about 41.4 ha), demonstration of modern techniques such as drip, sub-surface irrigation (estimated about 32.5 ha), hose reel sprinkler (estimated about 9 ha), other irrigation techniques applicable for gravity irrigation as well as 3 greenhouses for high value crop production. Required improvement of existing irrigation canals, drainage networks and structures in the demonstration plot areas are considered. The estimated cost of the proposed investments is about USD 1.95 million. As it was agreed initially, the SDC PCU committed to finance the activities for laser leveling, however, due to the closure of the SDC component all the activities planned on demonstration plots would be financed from the GEF grant under the Promoting Technologies and Practices to Mitigate Irrigated Land Degradation (PTPMILD) component of the Sustainable Agriculture and Climate Change Mitigation Project (SACCM) and IDA loan under the RESP-II.

35. Development of 63 digital maps for the 63 project area WCAs have been completed by the ITC. Training of relevant staff from the project area AISs and WCAs for use and updating of maps has been conducted and financed by the SDC. Handover of the maps to WCAs and AISs is completed.

Conclusion

36. The overall conclusion with regard to parallel financing activities is that there is an obvious need for further continuous support in all aspects of WCA operation, especially in the financial management and legal issues as well as improved control and measurement of water use at on-farm level in demonstration WCAs and at least one season for testing and assistance in application of developed MIS systems. As it was highlighted during the previous mission the best option in the current situation would be to target hand over of the responsibility for further support to WCAs hand over to AISs by the end of June 2015, so they will be in a position to start WCAs support activities and use of the MIS software on their own with limited guidance from the SDC PCU. Thus, the opinion of the mission on necessity to extend the completion date of on-going parallel financing up to the completion date of the entire RESP-II, remains unchanged.

37. Summary of the key actions to be taken over the next six months are presented below. The overall I&D component (RESP-II) implementation performance since the last mission in October 2015 is rated as **moderately satisfactory**. The mission still is not in a position to rate the implementation performance of the MILD component of the GEF funded SACCM at this stage as the main activities are related to the 7 demonstration plots described above.

38. Key Actions over the Next Six Months

Activity		Dead-line	Responsible Institution
I Sub-Component 2 (a)			
1.	Two bids for rehabilitation of Gijigen canal and additional works on UR-11 canal will be advertised.	31 May 2015	RRA/ITC
2.	Bid for terminated works under the contract RESP2/CW/NCB/09/07 UZ will be advertised.	30 June 2015	RRA/ITC
3.	Bids for two contracts for rehabilitation of on-farm systems in Ulugnor <i>rayon</i> (WCA Ok-Oltin and WCA Dustlik) will be advertised. by the 31 May, 2015.	31 May 2015	RRA/ITC
4.	Bid for rehabilitation of on-farm canal 34-X-1 in WCA "Uzbekiston" in Ulugnor <i>rayon</i> will be advertised.	30 June 2015	RRA/ITC
5.	Completion of works under on-going on-farm contracts.	31 March 2016	ITC
6.	Rebuild the aqueduct under the contract RESP2/CW/NCB/09/02-03 in accordance with the improved design and adequate materials use.	In the timeframe of the current contract.	ITC
7.	Improve works under the contracts RESP2/CW/NCB/09/02-19 and RESP2/CW/NCB/09/02-17 in accordance with the design documents and adequate technical solutions.	In the timeframe of the current contract.	ITC
8.	Contract amendment between the RRA and ITC.	Immediate	RRA/ITC
II Sub-Component 2 (b)			
9.	Provide recommendations for the designated staff in AISs for the follow up support to project area WCAs.	30 June 2015	SDC
10.	Develop a mechanism and procedure for handover of office equipment and developed materials, software and database under the SDC RESP-II parallel financing activities to project area AISs.	30 June, 2015	MAWR/SDC
11.	Completion of Farmer Satisfaction Survey and submission of the	31 August, 2015	SDC PCU

	report		
12.	Completion of works in 6 demonstration WCAs and hand over of assets and materials developed to the respective AISs.	31 December, 2015	SDC PCU
III Sub-Component 2 (c)			
13.	Bid announcement for 7 demonstration plots.	30 June, 2015	RRA/ITC
14.	Initiation of works on 7 demonstration plots.	01 August, 2015	RRA/ITC
GEF funded MILD component of the SACCAM			
15.	Initiation of works on 7 demonstration plots.	01 August, 2015	RRA/ITC

39. Status of Recommendations and Agreed Actions from the October 2014 Implementation Support Mission

Activity		Dead-line	Responsible Institution	Status
I Sub-Component 2 (a)				
1.	Completion of works under the inter-farm on-going contracts Nos. 04, 11 and 17.	31.12.2014	ITC	Completed.
2.	Completion of works under the inter-farm on-going contracts Nos. 07, and 14.	28.02.2015	ITC	Contract 14 completed. Contract 07 terminated to be re-tendered
3.	Handover of bidding documents for Gijigen	31.11.2014	ITC	Completed.
4.	Bid advert for Gijigen.	31.12.2014	RRA	Suspended due to the MAWR decision.
5.	Completion of on-farm works for WUA “Elobod Zarchashmasi”.	30.04.2015	ITC	Completed.
6.	Completion of works under on-going on-farm contracts.	31.10.2015	ITC	On-going as per the schedule.
7.	Handover of bidding documents for entire project on-farm works.	30.11.2014	ITC	Completed.
8.	Bid announcement for the last batch of on-farm works.	31.12.2014	RRA	Completed. However, 3 contracts suspended because of the MAWR decision.
9.	Measures to improve on situ concrete casting and joints quality.	Immediate	ITC	Improvements observed. To be continued.
10.	Contract amendment between the RRA and ITC.	Immediate	RRA/ITC	In process.

II Sub-Component 2 (b)				
11.	Establishment of 7 WSUs or other appropriate set up with in the 7 project area AISs and capacity building.	31.10.2014 - continuous	MAWR/RRA/SDC PCU	Due to lack of financial means 2 designated staff from each AIS in the project area will be responsible for continuous support of the WCAs.
12.	Develop a mechanism and procedure for handover of office equipment and developed materials, software and database under the SDC RESP-II parallel financing activities to project area AISs.	31.12.2014	MAWR/RRA	On-going.
13.	A comparative analysis of the WCAs' actual performance during the project period of 2011-2014 with relevant conclusions and recommendations.	30.01.2015	SDC PCU	Would be provided as a section in SDC completion report.
14.	Completion of works in 6 demonstration WCAs and hand over of assets and materials developed to the respective AISs.	01.06.2015	SDC PCU	On-going. In spite of closure of the project the SDC will continue and finalize these activities.
15.	Procurement of 18 mini-bikes	30.04.2015	SDC PCU	Completed.
III Sub-Component 2 (c)				
16.	Completion of engineering designs for 7 demonstration plots.	15.11.2014	ITC	Completed with delay.
17.	Handover of bidding documents for 7 demonstration plots.	15.12.2014	ITC	In process. Still under the expertise review.

6.4. Logical Framework RESP II Phase 2

Annex 5: RESP II: Specific logical framework for Phase 2 of the Swiss contribution (based on the WB Project Appraisal Document and Project Implementation Plan)

Hierarchy of objectives	Relevant key indicators for Swiss TA ²	Means of Verification	Assumptions
Overall project development objective of RESP II (as per GoU/WB PIP)			
To increase the productivity and financial and environmental sustainability of agriculture and the profitability of agribusiness in the project area.	Overall farmer productivity and income in project regions have increased	RRA/WB end-of-project report/survey	
Overall Objective of I&D Component 2 (as per GoU/WB PIP) To achieve improved water management of irrigated areas through investments in (i) the rehabilitation of critical inter-farm and on-farm irrigation and drainage infrastructure; (ii) strengthening of Water Consumer Associations (WCA) and the institutional capacity to train and support WCAs to operate and maintain on-farm I&D systems; and (iii) demonstration plots for farmers field schools and demonstration of applied modern water management techniques in the seven project districts.	Required PAD indicators 1. Amount of maintenance conducted by WCAs (that receive IDA/GoU loans) 2. Water users satisfied with WCA performance 3. Trainings provided by designated AIS staff and units	End of project survey End-of-project survey End of project survey	PAD and PIP are implemented as per plan
Phase 2 of Swiss TA to Sub-component 2b: Strengthening of WCAs and the capacity to train and strengthen WCAs			
Outcome 1: All WCAs function in a transparent and efficient manner to the satisfaction of their members. Those WCAs that receive GoU/IDA loans, are able to service the related loans and to operate and maintain the infrastructure and equipment received.	62 WCAs up and running, of which loan receiving WCAs are able to service loans and adequately O&M on-farm systems	Project and RRA ITC reports	Context fosters financial viability of WCAs
Outcome 2: Designated AIS units and staff are able to independently support the WCAs and perform water management and scheduling tasks in a transparent and efficient manner.	7 AIS units and related staff qualified to continue in post project period	End of Project Report	GoU designates AIS unit and related staff for WCA support

² The baseline is available for indicators from the WB Results Framework and will be further specified in the PCU monitoring system

Outputs		Output indicators		
For Outcome 1: Capable WCAs				
Output 1	Planning, management and governance functions of 62 WCAs are strengthened,.	By 2015 62 WCAs operate based on approved realistic (1) operational and financial management plans, (2) demand based water schedules, (3) O&M plans	Annual project reports, WCA reports,	WCAs that do not receive loans still maintain commitment
Output 2 ^{*3}	Efficient and demand oriented water planning and use are introduced in all WCAs	By 2015 those WCAs that received equipment loans, are in a position to conduct 75% of planned O&M of their on-farm irrigation systems.	WCA performance monitoring reports	Loans are disbursed and implemented timely
Output 3*	Financially viable WCAs are able to perform the necessary O&M tasks to the satisfaction of the farmers	The farmer satisfaction survey of 2014 provides statistical evidence of a remarkable increase of satisfaction as per baseline of 2011	2014 farmer satisfaction survey results in comparison to 2011 survey	WCAs that do not receive loans still maintain commitment
For Outcome 2: Capable Administrations of Irrigation Systems				
Output 4	Based on GoU initiated institutional changes in AIS, human capacities are trained and organisational structures and processes are built up,	7 Administration of Irrigation Systems units are revamped and related staff are capable of conducting WCA support	Annual project reports	Sufficiently qualifies staff designated by 7 AIS
Output 5	AIS staff and AIS units increasingly perform the required WCA related functions and tasks in an independent and professional manner.	By 2015, designated AIS staff (WSU) in 7 AIS units conduct 70 trainings for WCAs per year (up to 20 participants per training)	Training reports	GoU designates AIS unit and related staff for WCA support/low turnover of staff

³ Achievement of outputs with * are partially dependent on the timely completion of the activities by the Rural Restructuring Agency

Output 6	Hydrographic water management and scheduling models, systems, procedures, and contractual arrangements are developed, tested and introduced in at least two new canals at AIS level.	3 MIS are installed at AIS canals and operated by AIS	Annual reports, AIS reports	AIS provide space, qualified operators, and Internet access
Activities per output				
<u>List of activities for output 1:</u> <ul style="list-style-type: none"> Equip WCAs not covered by WB/RRA loans with small tools (approximately 15 WCAs) Equip 7 demo WCAs (1 per rayon) with WFM and control structures Encourage wives of temporarily absent landowners to obtain official authorization to fully participate in all WCA related activities Training of WCA specialists: <ul style="list-style-type: none"> Legal aspects of WCA establishment and operations arrangement (31 trainings) WCA development (31 trainings) Financial management at WCA (25 trainings) Accounting and reporting at WCA (25 trainings) Operation and maintenance of irrigation and drainage network at WCA (31 trainings) Water resources management at WCA (31 trainings) 				
<u>List of activities for output 2:</u> <ul style="list-style-type: none"> Assist WCA with O&M needs assessment, prioritisation, planning and implementation Assist WCAs to prepare 5-year operational and financial management plans 				
<u>List of activities for output 3:</u> <ul style="list-style-type: none"> Conduct end of project farmer satisfaction survey and compare with 2011 baseline 				
<u>List of activities for output 4:</u> <ul style="list-style-type: none"> Conduct 2 national and 1 international study tour Training of trainers (ToT) for AIS WCA specialists: <ul style="list-style-type: none"> Legal aspects of WCA establishment and operations arrangement (7 trainings) WCA development (7 trainings) Financial management at WCA (7 trainings) Accounting and reporting at WCA (7 trainings) Operation and maintenance of irrigation and drainage network at WCA (7 trainings) Water resources management at WCA (7 trainings) 				

List of activities for output 5:

- Facilitate 7 AIS units and staff to conduct WCA trainings

List of activities for output 6:

- Finalize 1 AIS canal level MIS and introduce it at 2 other AIS canals
- Train 14 AIS staff in system operation
- Provide related equipment to 2 AIS

Phase 2 of Swiss TA to Sub-component 2c: Support for improved I&D technology

Outcome 1: On-plot-productivity and water usage efficiency has improved by dissemination of irrigation and drainage technology packages, water management systems and agronomic production techniques.		55 FFS are up and running Simple and affordable technology packages are developed/disseminated	Annual progress and FFS monitoring reports	Farmers are willing and able to adopt demonstrated technologies
Outcome 2: Expertise, experiences and resources are pooled with RESP II Component 3 RTAS and relevant Swiss projects.		Close interaction results in synchronisation of planning and sharing of materials	Annual Swiss TA, RTAS and other Swiss project progress reports	RTAS component is open to interaction
For Outcome 1:				
Output 1	Farmer field schools (FFS) and related FFS plots in the 55 WCAs (excluding WCAs with RRA demonstration plots) are established and run by the Swiss TA, introducing realistic, simple and affordable agricultural production and irrigation technologies.	By 2015 55 FFS are fully equipped and operational	Annual progress and monitoring reports	Local authorities approve and support FFS
Output 2	Trained FFS plot operators and designated AIS staff is able to independently continue to provide irrigation related extension advice to farmers.	By 2015 55 FFS plot operators and 7 designated AIS staff are trained and conduct 5 training classes per FFS (up to 20 participants per class)	Annual progress and training monitoring reports	GoU designates AIS unit and related staff for FFS support/ low turnover of staff
Output 3*	New irrigation technologies are demonstrated on the RRA demonstration plots.	By 2015 7 RRA demo plots are operational	Annual progress and monitoring reports	Demo plots set up and RRA ITC provides adequate training materials and support

For Outcome 2:				
Output 4	Regular meetings are held with RTAS as well as with other relevant Swiss projects.	Quarterly meetings conducted and documented	Annual Swiss TA, RTAS and other Swiss project progress reports and minutes of meetings	RTAS and other Swiss projects are willing to collaborate
Output 5	Experiences and expertise and the related extension materials are exchanged, and working plans synchronised as far as possible.	Concrete examples of successful cross- fertilisation	Annual Swiss TA, RTAS and other Swiss project progress reports	RTAS and other Swiss projects are willing to share experiences
Activities per Output				
<u>List of activities for output 1:</u> <ul style="list-style-type: none"> • Establish remaining 22 FFS and equip their FFS plots • Encourage wives of temporarily absent landowners to obtain official authorization to fully participate in all FFS related activities Training of FFS farmers: <ul style="list-style-type: none"> • Spring works and field preparation for sowing (186 trainings) • Irrigation norms and intervals definition (186 trainings) • Water saving at field level, use of foil and other mulching materials (186 trainings) • Technological irrigation schemes applicable for demo plots irrigation (124 trainings) • Autumn and winter activities at FFS demo plots (124 trainings) 				
<u>List of activities for output 2:</u> Training of trainers (ToT) for designated AIS and FFS specialists: <ul style="list-style-type: none"> • Use of tenziometers, salinometers and levelling instruments (7 trainings) • Use of different mulching materials to reduce water losses at irrigated fields (7 trainings) • Improvement of technological irrigation schemes and conditions of their use (7 trainings) 				
<u>List of activities for output 3:</u> <ul style="list-style-type: none"> • Assist RRA in land preparation activities at 7 selected RRA demo plots 				
<u>List of activities for output 4:</u> <ul style="list-style-type: none"> • Regularly organise and conduct meetings with RTAS and other relevant Swiss projects 				
<u>List of activities for output 5:</u> <ul style="list-style-type: none"> • Publicize posters, brochures and booklets, participate in workshops, etc. 				