
EXTERNAL REVIEW OF THE WRMSP PROJECT

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List of Abbreviations

ADB	Asian Development Bank
AIS	Administration of Irrigation System
BAIS	Basin Administration of Irrigation System
DMF	Design and Monitoring Framework (LogFrame)
DPSEC	Department of Pumpstations, Energy and Communication
FAS	Financial Planning and Accounting Software
FFS	Farmer Field School
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
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
PMO	Project Management Organisation
PSC	Project Steering Committee
RESP II	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
WRMSP	Water Resources Management Sector Project
WPI	Water Productivity Improvement (SDC funded project)
WSU	WCA Support Unit

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Preface

Since 2009 SDC was financing two projects with a focus on upscaling the IWRM experiences with the International Financial Institutions, the RESP II with the Worldbank and the WRMST with the Asian Development Bank. Both Projects involved Swiss parallel non-reimbursable financing of technical assistance components while the Banks were financing infrastructure rehabilitation. Both projects had similar Outcomes and Outputs, the SDC Components were implemented from the beginning by a Project Coordination Unit (PCU) depending directly from the Swiss Coordination Office in Tashkent and project management was tendered out in 2013 and Sheladia Inc. was mandated for the management of the projects in January 2014.

The projects came to an end in June 2015 and SDC decided to have an external opinion on the achievements of the projects. Both evaluations were carried out by the same consultant under two different contracts. The RESP II project was evaluated in May jointly with a WB review mission, the WRMSP was evaluated jointly with the ADB portfolio management officer.

Since the Swiss components of both projects are so similar and had many parallels in the implementation, the findings are obviously also very similar. However, since two independent evaluation reports had to be produced, there are inevitable duplications to be found in the reports in order to keep both reports as separate and stand-alone documents.

1. Executive Summary

SDC has mandated an external review of the achievements of the Swiss financed Component 2 of the Water Resources Management Sector Project (WRMSP) after its closure on June 30th 2015. The review was carried out in parallel and in part jointly with the ADB Portfolio Management Officer Tal'at Nasirov. The main points to be assessed were (1) a review of the plan to improve the institutional setup and optimise water management at irrigation system level, (2) the achievements of the project at the Water Consumer Association (WCA) level and (3) to assess the efficiency of the approach in terms of project setup and in terms of project implementation activities.

Results Achieved

The SDC component has achieved its Outcomes as far as they were under the full control of the PCU and not depending on inputs or results from the ADB components. A comprehensive analysis of the water management institutions and procedures was carried out and reports on (1) improvement and optimisation of water management, (2) proposals on capacity building of water management organisations at all levels and (3) guidelines and proposals for O & M were prepared. Based on the reports, a capacity development program was conducted for the involved BAIS and AIS.

All WCAs are reorganised according to hydrographic principles and re-registered as non-commercial entities. An intensive training of farmers and WCA staff on institutional, technical and financial issues was conducted and all WCAs operate based on approved Operational and Financial Plans (OPFs), demand based water schedules and O&M plans. WCA General Assemblies are held regularly and 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.

The MAWR has still not established the recommended WCA support unit in the AIS but in each AIS 2 staff are assigned for support of the WCA and they have received the respective trainings from the project. However, these staff have neither specific ToRs nor the required resources to perform their task and due to their high general workload they are hardly able to provide WCA institutional support as expected. Limited but continuous support is considered crucial for the institutional sustainability of the WCAs and the present setup is not considered adequate.

20 FFS were established covering all 34 WCAs to demonstrate improved water management and agricultural practices. All FFS are equipped with water measuring and control structures. Farmer trainers are well trained and farmers appreciate and apply the water saving technologies promoted. The results on on-plot water productivity are promising, from 2012 to 2014 a 36% increase has been observed for cotton and a 21% increase was achieved for wheat on the FFS plots.

Training materials and leaflets were produced in cooperation with the RESP and a "Manual for Trainers of FFS on Rational Water Use" was distributed in the project WCAs. MAWR has distributed additional copies 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 ADB and the combination of large scale infrastructure rehabilitation with institutional and organisational support to the WCAs creates additional benefits that the individual components could not reach alone. Going together with the ADB and MAWR has thus created a leverage effect and a high visibility for the Swiss component. 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 efficient and the results achieved prove that project activities were effective.

Conclusions and Lessons Learned

The success of the WRMST 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 will require the active involvement of the Swiss Cooperation Office and it has to remain part of the future Swiss Cooperation Strategy for Central Asia.

The closure of the SDC component as planned has most likely no serious negative effect on the achievements of the component. However, the closure of the Swiss component is considered unfortunate and may be interpreted by the partners as a lack of commitment and some goodwill may be lost. No longer being actively involved at the time of the official closing of the WRMST may also have a negative effect on the recognition of the Swiss contribution.

It is very important to ensure that the experiences from the WRMSP – and the RESP II - are carried over to the planned new National Water Resource Management Project. Steps have already been taken to compile and disseminate the manuals and the documentation produced by the project. Similarly, the possibility to insert key personnel from the PCU into the new project has to be explored to facilitate the continuation and the transfer of experiences and knowledge.

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.

Supporting the establishment of an Institutional Development Department (IDD) within MAWR and its institutions as proposed in the report “Suggested Line of Action for Swiss Agency for Development and Cooperation” is also considered a good idea provided MAWR can mobilise the required resources from the GOU budget for the possibly resource and capacity intensive new department

Any future project in the water sector should have a policy dialogue component since the economic frame conditions and the enabling regulatory framework are 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 on 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, this 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 ADB approached SDC for the financing of the soft components of the Water Resources Management Sector Project (WRMSP) to combine the demand based institutional and organisational approach with substantial investments in water infrastructure rehabilitation financed by an ADB loan. One of the main justifications for SDC to join the WRMSP 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.

According to the Project Implementation Plan (PIP), the WRMSP “intends to sustain and increase agriculture production and productivity in Uzbekistan by making selected pump irrigation systems fully functional and operating in an efficient manner.”

2.2. Project Components

The Project consists of two main Components (Outputs):

- (1) Rehabilitation and Upgrading of Irrigation and Drainage Infrastructure and
- (2) Improved Water Resources Management.

Component 1 is financed by an ADB loan and a contribution by the GOU.

Component 2, is implemented under a Swiss parallel non-reimbursable contribution and supports:

- (1) Planning institutional optimisation and coordination of basin and pump system irrigation and drainage management; and
- (2) Strengthening Water Consumer Associations (WCA) and establishment of Farmer Field Schools (FFS) for the demonstration of improved water management for the tertiary distribution and the on-farm levels.

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”.

The WRMSP covers 172'669 ha of irrigated land in 7 Districts (rayons) of 3 Provinces (oblast) of Uzbekistan. Project recipients are 34 WCAs, 20 FFS plots and their farmer teachers and participating farmers as well as 4 Administrations of Irrigation Systems (AIS) in 3 Basin Administration of Irrigation Systems (BAIS). 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 Associates Inc. was mandated for the management of the project in January 2014.

2.3. Scope of the External Review

On February 2, 2015 the main investment Component 1 was extended until the end of 2015 and based on the present project review a further extension at least until the end June 2016 will be necessary (see ADB Aide Memoire, Annex 6.3). SDC decided not to extend the duration of its Component 2 and closed it on June 30, 2015 as initially planned.

The joint review missions of the ADB and SDC regularly assessed all the components of the project, those implemented by the Project Management Organisation (PMO) as well as those implemented by SDC. Since the SDC component closed in June 2015, SDC decided to have an external opinion of the project and in particular of the Component 2 (April 2012 – June 2015). The TORs of the review are given in Annex 6.1

Main points to be assessed were:

- (1) review of the plan to improve the institutional setup and optimise water management at irrigation system level,
- (2) the achievements of the project at the Water Consumer Association (WCA) level and
- (3) to assess the efficiency of the approach in terms of project setup and in terms of project implementation activities.

The review was carried out jointly with an ADB review and the SDC consultant (Chris Morger) and the National Water Program Officer (Sohib Akramov), worked in parallel with the ADB Portfolio Management Officer (Tal'at Nasirov) during the field visits. Due to Visa Problems, the consultant could join the review mission only from Tuesday October 20, 2015. The programme of the mission is provided in Annex 6.2.

The present report provides the findings on the SDC Component, 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 component has achieved the Outputs as far as they were under the full control of the Project Coordination Unit (PCU) and not depending on inputs or results from the ADB component and activities implemented by the Project Management Organisation (PMO). This assessment is mainly based on the "Final Report for the period April 1, 2012 – June 30, 2015" on the Swiss parallel non-reimbursable financing prepared by Sheladia Associates Inc. and the "Assessment of the level of farmers' satisfaction with performance of water consumers' associations and farmer Field Schools in 2014". The information of the reports was cross checked and assessed by 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) and the Basin Administration of Irrigation Systems (BAIS).

The following details of the achievements follow the Updated Design and Monitoring Framework (DMF, in SDC terminology Logical Framework) of the Swiss Contribution to WRMSP (Annex 6.3).

3.1.1. Output 2.1 Improved inter-farm water management

This output comprised a comprehensive analysis and assessment of the institutional set-up and coordination of basin and pump irrigation and drainage management carried out by a team of an international and two national consultants. The following 4 reports were produced: (1) Plan to Improve and Optimize Water Management at Irrigation System Level Based on Integrated Water Resources Management Principles; (2) Proposals for Capacity Development; (3) Guidelines and Proposals for Operation, Maintenance, and Water Management Planning for Integrated and Coordinated Operation of Inter-farm and On-farm Infrastructure with Case Study of Narpay

Irrigation Subproject; and (4) Suggested Line of Action for Swiss Agency for Development and Cooperation.

The reports provide a comprehensive and in-depth analysis of the organisational structure of water management and operation and management practises and make valuable proposals for improvements. Establishing an Institutional Development Department (IDD) for capacity development of WMO and WCA staff is certainly desirable given the huge capacity development needs and so is the proposed MIS and Monitoring and Evaluation unit. Also improving the hydro meteorological data collection and update the irrigation norms also makes sense to improve water resources management. Streamlining the institutional setup and establish a strategic planning and development division with the provision of adequate staff, equipment, funds, facilities and supplies is also not questioned. However, while all of the proposals make sense, the cost aspects are touched only marginally by saying that “provision of adequate funds for various categories of activities is crucial” (Paragraph 70 in the Final Report of the Consultant). Lack of sufficient resources and funds is considered as one of the root causes of many of the problems in the irrigation sector and without addressing this issue, progress will most likely remain very slow. While the reports prepared by the consultants were approved by MAWR in December 2013, it appears that not much follow-up has been initiated to implement the recommendations.

The report on “Suggested Line of Action for SDC” makes the following 5 proposals:

1. Updating Parameters and Procedures for Estimating Irrigation Requirements
2. Establishing Institutional Development Department and its Associated Units
3. Enhancing Institutional Capacity in Fergana and Zarafshan Valleys
4. Enhancing Initiatives at Water Consumers' Association Level
5. Enhancing Hydro-meteorology

Some of these action lines may be taken up by the new National Water Resources Management Project in Uzbekistan. Action lines 2 and 3 could possibly be addressed via Component 2 Strengthening of Institutional Capacities and action lines 1 and 5 via Component 3 Water Information System. Action line 4 however would need a new project similar to the WRMSP or the RESP II and it is a component of the SDC regional program in the NWRM project in Tajikistan.

The Capacity building program of the WRMSP

Based on the proposals for capacity building, the project provided 19 sets of computers and multifunctional printers for the involved AIS offices and developed and conducted a training program for AIS and BAIS staff. In total 145 persons were trained (all men!) on hydrometry and water planning as well as on technical and institutional support of WCAs. It was also recommended to establish WCA Support Units (WSU) within the AIS of the project area but unfortunately these units have not been established yet. Continuous support to the WCAs is considered essential to assure institutional sustainability of the associations and the alternative to assign 2 AIS staff the WCA support function is considered unsatisfactory. These staff have neither clear TORs nor the necessary financial resources for the task and due to their generally high workload they are hardly able to provide WCA institutional support as expected.

Nevertheless, during the field visits it could be observed that the relations between WCAs, AIS and BAIS staff are rather good and relaxed and especially AIS staff are ready and willing to provide support to WCAs within the limitations they have. Present support is mainly focussed on water planning.

3.1.2. Output 2.2 Improved on-farm water management

In brief, this Output comprised the following activities:

- realignment of 38 existing water users associations based on hydraulic principles, and re-organizing them into 34 non-commercial WCAs;
- introduction of sound governance and management procedures in all 34 project WCAs;
- provision of office equipment, generators, and bicycles for all 34 WUAs;
- training of farmers and WCA staff (institutional, technical and financial issues), all WCAs operate based on approved Operational and Financial Plans (OPFs), demand based water schedules and O&M plans;
- publication and dissemination of manuals on (1) training of trainers on WCA operations; (2) basics of PC operation, (3) Farmer Field School (FFS) trainings; (4) WCA accounting; and (5) WCA training modules as well as FFS booklets and posters;
- establishment of 20 FFS reaching all 34 WCAs to demonstrate improved water management and agricultural practices;
- construction of water measurement and regulating structures at canals of all 20 FFS and at two demo WCAs Ganijon Dekhkanov in Besharik and Narpay Suv Tarmogi in Narpay;
- conducting of two study tours to Italy and France for key water management experts to learn best IWRM and water saving practices;
- conducting of two conferences with Italian water management specialists to share participatory water management experiences;
- surveying 398 farmers to assess their satisfaction with WCA activities.

Improved WCA Operations

All 34 WCAs have been trained and are able to prepare operational and management plans, demand based water schedules and operational and financial management plans (OFP). According to the assessment of farmer satisfaction in 2014 WCA Management Board Chairmen rated the following trainings as particularly useful: improved water accounting (79%), easier water monitoring (62%), more accurate bookkeeping (62%), simplified financial planning and control (56%) and realistic water scheduling (56%). The share of farmers rating the handling of duties of the different WCA staff as successful is over 84% for all staff levels with a high of 93% for the WCA Board Chairman.

Annual WCA General Assembly meetings are held regularly and attendance has increased from 70% in 2013 to 83% in 2014. This is an indicator that members consider these assemblies useful and not just a formality. The farmer satisfaction survey showed, that in 2014 the percentage of farmers which are fully satisfied with the WCA performance is 70% and only 3.5% are dissatisfied. Similarly, the percentage of farmers that rated the condition of the irrigation system as good increased from 30% in 2012 to 70% in 2014.

The WCA survey of the assessment of farmers' satisfaction with WCAs and FFSs performance in 2014 also showed that the situation regarding water related conflicts has improved as compared with 2012. Over 85% of the farmers are of the opinion that conflicts occur either only rarely or never. These results are taken as a clear indication that the performance of the WCAs in terms of management and service delivery has reached a rather high level and this is attributed to the project support.

On the other hand, 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 in 2014 it is reported as only 38%. The collection rate for the state quota crops cotton and wheat through state loan tranches

was 84% in 2014. As a consequence, WCAs had to reduce their actual expenditures to only 60% of the budgeted amount, mainly at the cost of proper maintenance of the on-farm irrigation and drainage network. In addition, the average debt of the 34 WCAs in 2014 is reported to be over UZS 80 million (CHF 29'000). While this is a point of serious concern, it is clearly outside the influence of the project. Without a change in the system of state quota crops the financial sustainability of WCAs will most likely remain highly questionable.

An additional activity under this Output which was not foreseen in the Project Document or the DMF was the construction of water control and measurement structures in 2 demonstration WCAs. This was approved by the PSC in February 2013 and construction of a total of 54 control structures and 134 measuring structures was completed in October 2014. While the structures are highly useful, well-built and high quality gates were provided for water control, it is considered unfortunate that support to the WCAs on the use of the structures was limited to only one growing season. Due to the closing of the project in 2015 the longer term effect of the structures on water management and distribution and on eventual conflicts cannot be monitored and analysed further. Such field based data and evidence are considered very useful and they provide the field based evidence necessary for policy dialogue. It is thus recommended to integrate follow-up and analysis of the effect of the structures into the planned new SDC financed National Water Resources Management Project in Uzbekistan.

For a third demo WCA in Furkat the PSC approved the construction of control and measurement structures and a detailed plan was developed and construction bids were received in February 2015 but due to time limitations construction was not implemented.

Improved On-plot Productivity and Water Usage Efficiency

The Farmer Field Schools (FFS) are considered a real success story of the project and field schools were established in 20 sites covering all 34 WCAs. Each site is equipped with measuring and control structures and necessary equipment (augers, piezometers, portable weirs, plastic sheets and pipes) were provided. During the project 160 FFS classes were attended by more than 3'700 farmers (3.5% 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 considered 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 and wheat has increased by 36% and 21% respectively since 2012.

The PCU has developed a "Manual for Trainers of FFS on Rational Water Use" and 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. Many of them confirmed that they are regularly contacted by farmers also from neighbouring WCAs for advice and they also stated that they will continue to organise FFS on their plots even after project closure.

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/PMO-ADB-SDC) and complementarity of activities, and
- 2) project implementation activities (trainings, equipment, support to WCAs) in relation with the overall context.

3.2.1. Project Set-up and Coordination

The partnership between SDC, ADB and MAWR for the implementation of the WRMSP has several advantages. The combination of the SDC approach and its focus on institutional and organisational issues of water management and on methods and tools for WCA operation and management with the substantial investments in irrigation infrastructure financed through the ADB loan and the GOU creates synergies and benefits that the individual components could not achieve alone. This outweighs by far the possibly higher transaction costs due to the multi-partner set-up. Nevertheless, most of the impact created to date – more efficient water management and distribution, increased water productivity, institutionally sound WCAs - are considered mainly due to the SDC component since pump station rehabilitation is not yet completed and thus potential benefits have not materialised yet. Appropriate institutional support is able to produce benefits and impact in a relatively short period (3 years) while the effects of more efficient pumps or rehabilitated canals will take much longer to become visible. In the long term, however, the impact created by the institutional support can only be maintained if the water supply via the new pumps is assured. Additional impact will then be achieved by the more reliable and efficient water supply.

The teaming up with the ADB 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 ADB loan component. With a comparably small grant, Switzerland could gain a lot of goodwill and reputation within the ADB, the GOU and in the region. It is considered unlikely that a standalone SDC project could have achieved the same effect. 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. Coordination needs could thus be kept minimal.

3.2.2. Project Implementation Activities

The SDC component and institutional support in general is by nature highly training intensive and this is always staff intensive. In addition, project activities are spread over 7 rayons in 3 oblasts and 2 river basins, Zarafshan and Syr Darya. The PCU thus had to setup field offices with dedicated local staff in all of them. Considering the number of trainings provided and activities carried out, the general impression is that project implementation was quite efficient. Feedback from individual farmers also confirmed that the trainings were useful and effective. 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 the 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 and hampered by a serious lack of resources and capacities.

4. Conclusions and Lessons Learned

The WRMSP has confirmed again 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 from the earlier projects have been transferred, continuously adapted, improved, simplified and integrated into the WRMSP/RESP. This continuation is considered a key factor that the project could achieve excellent results in a relatively short time. The methods and tools are appreciated by the GOU/MAWR and although the project had no specific policy component, many of the approaches piloted and developed in SDC financed projects have found their way into Government decrees and provisions. Similarly, project FFS were regularly visited as demonstration sites by workshops organised by the Government Water Management Organisations. Non exhaustive lists on this are provided in Annexes 6.5 and 6.6.

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. The financial sustainability of WCAs 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 WRMSP but will most likely be a component of the planned “Uzbekistan National Water Resources Management Project” (Component 1: Water Strategy and facilitation of water legislation improvement).

Pump irrigation is considerably more expensive than gravity irrigation and should thus be used preferably for high value crops using efficient irrigation equipment such as drip or sprinkler. Water is pumped to about 50% of the irrigated land in Uzbekistan. The cost of pumping is not charged to the farmer and full cost recovery of water delivery will not be possible under the present state crop system. Pump irrigation can be justified for socio economic reasons to provide employment and income to the farming families and to ensure food security but the impact on the state budget is not negligible.

The decision of SDC not to extend the Swiss component beyond the June 2015 is not considered to have negative consequence in terms of WCA functionality, capacities and management. What the project could achieve has been achieved and an extension in parallel to the ADB components would not significantly change that. However, the closure of the Swiss component as planned is considered unfortunate and may be interpreted by the partners as a lack of commitment and some goodwill may be lost. According to the SCO, the decision was explained and extensively justified with the partners and while MAWR and ADB regretted the decision, they also showed understanding. Nevertheless, no longer being actively involved in the WRMSP at the time of the official closing may affect the recognition of the Swiss contribution to that project.

There will be a short gap between the Swiss involvement in the WRMSP and RESP II and the new National Water Resources Project in Uzbekistan. It is thus very important to ensure a smooth transfer of the experiences to the new project for upscaling and the SCO has already taken steps to facilitate this transfer of knowledge. Of particular importance are the continuous monitoring and capitalisation of the experiences and especially the assessment of the effect of the water control and measuring structures in demo WCAs on water management and distribution. The experiences and lessons learned from the activities will provide grass-root evidence which is important for the policy dialogue component of the new water management project. Similarly, it is considered desirable to explore the possibility to integrate or associate important and essential staff from the WRMSP/RESP PCU to the new project for this transfer of experiences and knowledge.

At the regional level SDC has similar IWRM projects in other Central Asian countries such as the NWMP in Tajikistan. It is therefore considered important that the exchange of the experiences between the countries is actively promoted and facilitated by the respective Swiss Cooperation Offices. The tools, methods and approaches developed in the WRMS/RESP II are considered valuable for the Tajik NWRM project. HELVETAS Swiss Intercooperation who is implementing the project in Tajikistan has already contracted PCU staff for support, training of trainers and adaptation of the tools to the NWRM.

5. Possible Elements for Future Projects

The up-scaling of the institutional support for WCAs combined with large infrastructure rehabilitation financed by international financing agencies is considered a success and therefore opportunities in similar setups are considered a good option for a future engagement. The approach, tools and methodologies for WCA institutional support and FFS are proven and they are able to create considerable synergies when combined with infrastructure rehabilitation. Involvement of national actors and institutions is considered a key element and a firm commitment is crucial to assure the sustainability of the interventions.

The report “Suggested Line of Action for Swiss Agency for Development and Cooperation” mentions the establishment of an Institutional Development Department (IDD) at the Main Water Management Department under MAWR and this is certainly an option. However, such an IDD will require considerable resources and without an assurance of the required long term financing by the GOU there is a high risk that the sustainability of the Department may be jeopardised.

The approach taken in the new “National Water Resources Management Project in Uzbekistan” (Component 2 – Strengthening of institutional capacities) to develop first a strategic vision on the support of water management institutions is considered less risky. Nevertheless, the assumption of the Project Document that “MAWR can lobby its Government for an increase of budgetary means and human resources” is considered an important precondition.

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 and policy dialogue is a component of the planned National Water Resources Project in Uzbekistan. However, policy dialogue 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. It is therefore important that a long term commitment is taken by SDC if a future engagement is considered and this requires that policy dialogue 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. 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. 810366942 (B Mandate)

External Review of the WRMSP

Background

The Water Resources Management Sector Project (WRMSP) intends to sustain and increase agriculture production and productivity in Uzbekistan by making selected pump irrigation systems fully functional and operating in an efficient manner. The Project consists of two main Components: (1) Rehabilitation and Upgrading of Irrigation and Drainage Infrastructure and (2) Improved Water Resources Management. WRMSP is funded by US\$ 100 million loans of the Asian Development Bank (ADB) and a US\$ 44.05 million contribution by the Government of Uzbekistan (GoU).

As a part of its sector investment plan, GOU identified a list of priority projects throughout the country and the project worked in 7 Irrigation schemes in the Fergana Valley and Zarafshan River Basin.

Given its past successful experiences in introducing integrated water resources management (IWRM) approaches in Uzbekistan, ADB has suggested to the Swiss Agency for Development and Cooperation (SDC) to collaborate in WRMSP, through a parallel grant financing arrangement for Component 2: Improved Water Resources Management. The Uzbek Government has subsequently confirmed its interest in parallel SDC grant funding and further application of the IWRM approach in this project.

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 Project Management Office (PMO) a temporary unit established by 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 2015 the project duration extended until end 2015. SDC decided not to extend the duration of its project and closed 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 Asian Development Bank, which were done by its team 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 ADB 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 Institutional optimization and coordination of basin and pump system irrigation and drainage management after the project intervention: (i) institutional and organization structures of Basin Administration of Irrigation System (BAIS), Administration of Irrigation System (AIS), Main Canal Administration (MCA), Department of Pump Station Operations (DPSO), Water Consumer Associations (WCA), local government, and other relevant stakeholders; (ii) coordination between water management stakeholders; (iii) developed options and plans to improve (a) the institutional and organization structures, (b) management and operational procedures and systems, and (c) coordination between stakeholders; and (iv) developed and implemented a capacity development program to support the recommendations.
- 2) Water Consumer Associations: (i) WCA social mobilization and formation, (ii) training and coaching of the WCAs to become fully functional and operational including optimization of on-farm water supply, and (iii) establishment of farmer field schools (FFS) that provided demonstrations of improved water management for the tertiary distribution and the on-farm levels.

Assess the efficiency of the approach, in terms of project set-up (coordination MAWR/PMO-ADB-SDC, complementarity of activities) and in terms of project implementation activities (trainings, construction, support to WCAs) in relation with the overall context.

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 WRMSP project materials,
- Interviews with stakeholders in Tashkent including SCO, implementing agency, Ministry of Agriculture and Water Resources (MAWR) and the Project Management Office (PMO) officials and other donors representatives – Asian Development Bank(ADB);
- Visits to the project sites (exact places to be defined by PCU/SCO in accordance with the ADB), 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 : 9 days (including travel)
- Reporting/debriefing : 3 days

Total : max. 15 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

.....
Ilaria Dali, Director of cooperation
SCO Tashkent

Annex 1 – Background documentation

- Report and Recommendations of the President to the Board of Directors of ADB (RRP); Proposed Loans Republic of Uzbekistan: Water Resources Management Sector Project; (ADB 40086);
- Project Administration Memorandum of ADB (PAM); Republic of Uzbekistan: Water Resources Management Sector Project;
- SDC Credit proposal, Project document;
- Project Agreements and contractual arrangements;
- Aid Memos of WRMSP Joint monitoring missions;
- Minutes of the PSC;
- Annual Progress Reports;
- Yearly Plans of Operations;
- Farmers Satisfaction Survey report;
- 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

Preliminary schedule of Review Mission of ADB/SDC Water Resources Management Sector Project (WRMSP)

October 19 –26, 2015

No	Time	Activity	Comments
1. Friday –16.10.2015			
1.1		Initial meeting with PMO and SDC	PMO/SDC Offices
2. Monday–19.10.2015			
2.1	08.05 – 9.00	Travel Tashkent – Samarkand (flight HY 1315)	SDC – by car
2.2	9.00 – 11.00	Travel to Narpay rayon	
2.3	11.00 – 13.00	<ul style="list-style-type: none"> • Narpai pump station • «Narpai Suv Tarmogi» WCA • «Mustaqillik» FFS 	
2.4	15.00 – 18.00	<ul style="list-style-type: none"> • Suvli pump station • “ Togay bobo” FFS 	
2.5	Evening	Night in Samarkand	«Grand Samarkand» Hotel
3. Tuesday – 20.10.2015			
3.1	09.35 – 10.25	Travel Samarkand – Tashkent (by car)	SDC – by car to Ferghana
3.2	13.05 – 14.00	Travel Tashkent – Ferghana (flight HY 1413)	
3.3	14.00 – 15.30	Travel to Furkat	
3.4	15.30 – 18.00	<ul style="list-style-type: none"> • Furkat-1 pump station • «Aminjon Dekhkonov» WCA • «Rost makon » FFS 	
3.5	Evening	Night in Ferghana	«Asia Ferghana» Hotel
4. Wednesday – 21.10.2015			
4.1	09.00–10.00	Travel to Dangara	
4.2	10.00 – 13.00	Dangara pump station	ADB only
4.3	15.00 – 18.00	<ul style="list-style-type: none"> • “Syrdarya” WCA • “Abbosjon” FFS • Demo WCA Ganijan Dekhanov, Besharik • Meeting Poziljon Rasulov, head Joint Dispatch Center Ferghana 	SDC only with Mr. Jurabek, BAIS
	Evening	Night in Ferghana	«Asia Ferghana» Hotel
5. Thursday – 22.10.2015			
5.1	09.00 – 10.00	Travel from Ferghana to Namangan, by car	
5.2	10.00 –13.00	Travel to pump station Kizil Ravat-2	ADB only
5.3	15.00 – 18.00	<ul style="list-style-type: none"> • Bulokboshi pump station • Ququmboy Hazinasi WCA • «Beshkurgondurdonasi» FFS 	SDC only
5.4	Evening	Night in Namangan	«Namangan-S» Hotel

6. Friday – 23.10.2015			
6.1	08.00 – 13.00	Travel from Namangan to Tashkent by car	
6.2	15.30 - 17.00	Debriefing with SDC	SDC Office
7. Monday – 26.10.2015			
7.1	9.00 -10.00	Debriefing with PCU	PCU Office
	10.30– 11.30	Debriefing with PMO	PMO Office
		Final meeting with MAWR	MAWR

From ADB: Tal'at Nasirov, Portfolio Management Officer

From PMO/MAWR:

Participants from SDC: Sohib Akramov, National Water Program Officer,
Chris Morger, Swiss Consultant (from 20/10/2015 onwards)

6.3. ADB Aide Memoire (Draft 26/10/2015)

AID MEMOIRE

Loan 2492/2493-UZB: Water Resources Management Sector Project Project Review Mission, 16 – 26 October 2015

I. INTRODUCTION

1. A joint project review mission (the Mission) of the Asian Development Bank (ADB) and Swiss Agency for Development and Cooperation (SDC) was fielded during 16 – 26 October 2015 to (i) assess the project implementation progress; (ii) review the status of actions agreed during the previous mission; (iii) conduct a site visit to project area; and (iv) identify any issue requiring urgent attention of the government, ADB and SDC, and make recommendations for their appropriate solutions in consultation and agreement with the executing agency.¹

2. The Mission visited all project facilities and held meetings with staff of the Ministry of Agriculture and Water Resources (MAWR), Project Management Office (PMO), Project Implementation Units (PIU), Basin Irrigation System Administrations (BISAs), Irrigation System Administrations (ISAs), Water Consumers Associations (WCAs), consultants and contractors to discuss various implementation aspects of the project. A wrap-up meeting was held in the MAWR on 26 October 2015, where mission findings presented in this Aide Memoire (AM) were discussed. A list of persons met is in Appendix 1.

II. BACKGROUND

3. ADB approved two loans of total \$100 million [\$85.0 million from OCR (L2492) and \$15.0 million from ADF (L2493)] on 17 December 2008 to finance the project. The loans became effective on 8 October 2009. The original loan closing date is 30 June 2015, which has been extended to 31 December 2015 due to delays in project implementation.

4. The Project has three components: (i) rehabilitation and upgrading (R&U) of irrigation and drainage infrastructure, comprising two core and five noncore subprojects in the Fergana Valley and Zarafshan River Basin;² (ii) improved water resources management through capacity development in water use efficiency and productivity; and (iii) project management. Feasibility studies for two core subprojects were prepared during the project preparation technical assistance.

5. In April 2010, the Swiss Confederation represented by the Swiss Agency for Development and Cooperation (SDC) approved a non-reimbursable financial contribution of \$2.693 million to implement the project's component 2 for improved water resources management. This grant-component is administered and implemented by the SDC based on their policies and procedures as agreed with the government and implemented by an international consultant, Sheladia Inc. The collaboration between ADB and SDC includes: (i) joint project review missions, (ii) project discussion meetings, and (iii) sharing the project progress reports.

6. At the request of the Government, ADB financing was reduced in May 2014 from \$100 million to \$91.5 million with partial loan cancellation as a result of savings.³

¹ The Mission comprised T. Nasirov, Portfolio Management Officer (Mission Leader), ADB, Uzbekistan Resident Mission; S. Akramov, National Program Officer, Swiss Cooperation Office in Uzbekistan, and C. Morger, Consultant, SDC.

² Pump stations with associated irrigation facilities.

³ ADB's financing decreased for \$8.5 million, including \$1.4 million from L2492, and \$7.1 million from L2493.

III. MISSION FINDINGS

A. Overall Implementation Progress

7. As of 26 October 2015, the implementation progress is estimated at 76% against the elapsed time period of 97%. All contracts have been awarded. Cumulative contract awards and disbursement under two loans are \$80.3 million (88%)⁴ and \$61.7 million (68%)⁵ respectively.

B. Status of the Loan Project Components

8. **Component 1 – R&U of Irrigation and Drainage Infrastructure.** The Project was designed to be implemented over six years. Feasibility studies for two core-subprojects, Narpay in Zarafshan River Basin and Besharyk in Fergana Valley were developed under project preparation technical assistance financed by ADB. The preparation of tender design and bidding documents for the core subprojects were started in August 2010 and completed in October 2010. Two contracts have been awarded in February-March 2011 China IPPR International Engineering Corporation (PCR). Rehabilitation of two core-subprojects' irrigation facilities (Besharyk and Narpay pump stations) for \$27.7 million started in April-May 2011 and completed in March 2014.

9. Selection of the noncore subprojects and preparation of their feasibility studies had to start immediately after loan effectiveness. Five noncore subprojects—Suvli in Samarkand Province, Furkat-1 and Dangara in Fergana Province; and Kizil Ravat-2, and Buloqboshi in Namangan Province—were selected during the early implementation stage following the selection criteria agreed between ADB and MAWR. The feasibility studies were approved late, on 12 July 2012. Out of five ongoing noncore subproject contracts: (i) four⁶ were awarded to consortium of Kubota Corp (Japan) and Ortex (UK) in December 2012 for \$41.2 million equivalent; and (ii) one⁷ to China IPPR International Engineering Corporation (PCR) for \$8.8 million equivalent. The contracts became effective in February-April 2013, and were to be completed in February-April 2015, and accepted in June–September 2015. The general scope of the contracts includes: (a) equipment, such as pumps, motors, and other mechanical and electrical equipment required for pump stations; and (b) civil works, such as installation of pumping equipment, refurbishment of pumping station buildings, and rehabilitation of irrigation canals. The general physical implementation status of the contracts as of 30 September 2015 ranges between 39-72%. The total disbursed amount under all five contracts is about \$31.8 million (77%). The general issues comprise: delayed design, supply and installation of equipment. Details on current status of R&U of irrigation and drainage infrastructure for five noncore subprojects are given in Appendix 2.

10. Consulting contract for \$4.043 million was signed on 9 April 2010 with association of Dongshin Engineering and Consultant Co. Ltd (Korea), Korea Rural Community Corporation (Korea), Engineering Consultants Pvt. Ltd. (Sri Lanka) and Rhythm Plus (Uzbekistan) to provide the services of 146 person-months of international and 440 person-months of national consultants. The consultants commenced their services on 1 June 2010. As of 30 September 2015, the consultant provided 157.8 person-months (p/m) of international and 636.3 p/m of national consultants' inputs for \$4,072,616.89, including: (a) paid services for \$3,787,895.98, (b) unpaid dues accrued for \$244,710.91, and (c) services rendered but not invoiced (September 2015) for \$40,010.

11. **Component 2 – Improved Water Resources Management.** The implementation of this component started on 1 April 2012. The following activities have been completed so far (i) preparation of water management plan; (ii) preparation of capacity development recommendations for various water management institutions; two trainings of 27 ISA staff designated to support WCAs as trainers; training of 37 certified hydrometers for project ISAs and MAWR; training of 81 BISA/ISA staff on water planning; provision of 19 personal computers and 19 multifunctional units to four project area ISAs (iii) preparation of instructions to develop O&M and water management plans, which include a case study for Narpay subproject; (iv) realignment of existing water users associations based on hydraulic principles, and re-organizing them into 34

⁴ \$74.1 million under L2492 and \$6.2 million under L2493.

⁵ \$55.8 million under L2492 and \$5.9 million under L2493.

⁶ Furkat-1, Suvli, Kizil-Ravat-2, and Buloqboshi pump stations.

⁷ Dangara pump station.

non-commercial WCAs; (v) introduction of sound governance and management procedures in all 34 project WCAs; (vi) provision of office equipment, generators, and bicycles for all 34 WUAs; (vii) training of farmers and WCA staff; (viii) publication and dissemination of manuals on training of trainers on WCA operations; basics of PC operation, Farmer Field School (FFS) trainings; WCA accounting; WCA training modules as well as FFS boklets and posters; (ix) establishment of 20 FFS to demonstrate improved water management and agricultural practices; (x) construction of water measurement and regulating structures at canals of all 20 FFS and two demo WCAs Ganijon Dekhkanov in Besharik PS command area and Narpay Suv Tarmogi in Narpay PS; (xi) conducting of two study tours to Italy and France for key water management experts to learn best IWRM and water saving practices; (xii) conducting of two conferences with Italian water management specialists to share participatory water management experiences; (xiii) surveying 398 farmers to assess their satisfaction with WCA activities.

12. In total 72 trainings were conducted on institutional, legal, financial and technical aspects of WCA operations, with 1,888 participants, including 153 women. The trainings focused on basics of WCA operations and practical application of concepts learned.

13. Overall, 190 trainings on annual irrigation and related agricultural cycles were conducted at 20 FFS plots to promote simple and affordable water saving technologies and improved productivity. The trainings were attended by 4,682 people, including farmers, WCA specialists and representatives of local water management organizations.

14. According to the Farmers Satisfaction Survey (2015), WCA Management Board Chairmen pointed out the key benefits of the training were improved water accounting (79%), easier water monitoring (62%), more accurate bookkeeping (62%), simplified financial planning and control (56%) and realistic water scheduling (56%).

15. This component was completed on 30 June 2015. The overall implementation progress of this component is 100%. The Implementation Progress of activities under this component is described in Appendix 3.

C. Compliance with Loan Covenants

16. Compliance with loan covenants is satisfactory. Out of 22 loan covenants, 11 have been complied with, 10 are being complied with, and 1 is not yet due. The details on status of compliance are in Appendix 4.

D. Safeguards and Social Development

17. Safeguards: The Mission has confirmed that there is no change on land acquisition although the length of the discharge pipeline has been reduced under the final approved design. Therefore, no additional document related with Land Acquisition and Resettlement Plan (LARP) implementation will be required. Submission of semi-annual environmental monitoring report is pending.

18. Gender: The original Gender Action Plan (GAP) was revised by PMO to improve selected activities and targets in 2011. In September 2013 a gender consultant was hired on intermittent basis to institutionalize GAP's implementation. As part of GAP's implementation: 11 thematic trainings were conducted for women in each 7 subproject areas; 68 women participated in the "increase professional development of WCA's" training; 70 women in - "build up Field Farmer School (FFS); and 25 - in "increase professional development of FFS". To increase women's participation in the project planning process 2 project monitoring group meetings were conducted in Narpay and Suvli in 2013. But women's representation in WCA, FFS trainings is still low (vary from 3% to 8%) and GAP's successful implementation is challenging. This requires some revisions to the GAP to ensure its effective implementation. To do this the EA/PMO has sent an official request to ADB to consider and decrease a GAP' indicator on percentage of qualified women in PMO/PIUs/WCA from 25% to 6%. The planned level of this indicator was overestimated during the design stage and requires revision to correspond with the real situation in the sector. In 2014, the PMO's Safeguard and Social Protection Specialist was assigned to assist with GAP's implementation and monitoring. This specialist attended the sub-regional workshop on gender mainstreaming on 6-7 October 2014 (Tashkent) to raise a level of understanding of ADB's gender mainstreaming policies and improve skills in GAP's implementation. Under the current GAP a social survey will be conducted in November-

December 2015 with a special focus on women's representation in the sector (in particular in WCA) with providing a good analysis/reasons of women's low participation to better justify the proposed revision of the gender targets. More efforts need to be made by EA/IA to strengthen GAP's implementation in the context of gender capacity building and work on media product's development (video, leaflets, etc.) with the relevant partners and organizations.

19. According to the results of the survey undertaken by SDC during project inception period, 3.5% of the project area farmers are women. The rate of woman's participation in the WCA and FFS trainings exceeded this indicator and reached 7.6% and 4.5% respectively. Throughout the project the necessity and advantages of woman's involvement in the WCA decision making was communicated to water consumers. In 2015 nine women were employed as accountants and 13 as technical personnel in the project WCAs as compared to only five women accountants hired by WCAs in 2013. However, no women occupied positions of WCA managers or hydro technicians.

20. During the project WCA General Assembly meetings held in February 2015, nine women were elected as members of WCA boards and one woman as member of the revision commission. Total number of women elected to WCA management bodies in 2015 increased by 50% compared to 2014.

III. MISSION FINDINGS, RECOMMENDATIONS, AND FOLLOW-UP ACTIONS

21. **Possible Partial Cancellation of Uncommitted Loan Funds.** The last ADB's mission fielded on 17-26 August 2015 recommended to consider the possible partial cancellation of loan funds which would not be utilized. This would reduce the amount of commitment charge being paid by the Government. On 2 September 2015, the MAWR submitted to the Inter-Ministerial Steering Committee the request for endorsement of partial cancellation of \$8.5 million from L2492. This request has not been yet endorsed by the Inter-Ministerial Steering Committee.

22. Variations to five noncore subproject contracts:

- Variation No. 3 to four non-core subproject contracts (Suvli, Bulokboshi, Furkat-1, Kizil Ravat-2 pump stations). The variation was originally submitted to MFERIT on 16 March 2015 and finally registered on 26 August 2015 after three rounds of clarifications. The equipment was cleared by customs office and delivered to construction site.
- Variation No. 4 to four non-core subproject contracts (Suvli, Bulokboshi, Furkat-1, Kizil Ravat-2 pump stations). The variation was originally submitted to MFERIT on 4 May 2015 and finally registered during 9-28 September 2015 after two rounds of clarifications.
- Variation No 1 to one non-core subproject contracts (Dangara pump station). The variation was originally submitted to MFERIT on 19 March 2015 and finally registered on 30 September 2015 after three rounds of clarifications.

23. **Variation No 4 to consulting contract** for contract management. The consulting contract was amended to extend the completion date till 31 December 2015. The PMO originally submitted contract variation to MFERIT on 16 March 2015. MFERIT provided comments on 4 April 2015. The PMO and consultant addressed MFERIT's comments and resubmitted revised contract variations on 17 August 2015. The variation was returned with comments again on 21 October 2015. The PMO and consultants shall address the MFERIT's comments and resubmit revised variation.

24. There is outstanding payment for \$ 244,000 due to the international consultant. Despite several discussions and reminders during last two ADB's missions the issue still has not been resolved. The ongoing construction works cannot continue without proper supervision by international consultant. Thus the pending variations shall be resolved and outstanding amount paid to the consultant.

25. **Completion dates for 5 non-core subproject contracts.** The original completion date for pumping facilities expired in February-April 2015 and has not been still revised despite several

ADB's reminders.⁸ While about 80-90% of equipment supplied to the site the installation and civil works progress is below 60%. It is obvious that pump stations cannot be completed by 31 December 2015. The Employer and contractors are now negotiating the revised completion date of pumping facilities. The contractor (Kubota-Ortex) proposed (letter of 15 October 2015) to complete all works by 30 June 2015 with operational acceptance by 30 September 2015 after guarantee tests. The mission advised to MAWR that: (a) completion date shall be revised in line with relevant clauses of the contract conditions; (b) the extended time shall be reasonable to complete and accept all works. These revised dates for completion and operational acceptance shall be submitted for review and endorsement by the Inter-Ministerial Steering Committee.

26. **Extension of the loan closing date.** As described above, the current loan closing date of 31 December 2015 is not sufficient to complete 5 non-core subprojects. The request for extension of the loan closing date shall be submitted by the Ministry of Finance (Borrower) at least by 30 November 2015.

27. The following actions shall be undertaken to improve the project progress:

No.	Action	Responsible Agency(ies)	Agreed Date
1.	To make all possible efforts for endorsement of partial cancellation of uncommitted loan funds by the Inter-Ministerial Steering Committee	MAWR, and PMO	5 Nov 2015
2.	To make all possible efforts for (a) positive registration by MFERIT of Variation No. 4 to consulting contract; and (b) payment of outstanding amount due to the consultant.	MAWR, and PMO	6 Nov 2015
3.	Submission to the Inter-Ministerial Steering Committee the updated construction period for 5 non-core subproject contracts and proposed conditions for extension of the original completion dates	MAWR, PMO	10 Nov 2015
4.	To make all possible efforts for submission of MOF's request for extension of the loan closing date	MAWR, and PMO	30 Nov 2015

28. It is understood that the mission findings are subject to approval by higher authorities of the government and ADB.

V. ACKNOWLEDGEMENT

29. The Mission thankfully acknowledges the assistance of MAWR, PMO, PIUs, local administrations, consultants, contractors, and other stakeholders in facilitating the visits and meetings and providing the information.

Signed in Tashkent on: 27 October 2015.

Tal'at Nasirov
Mission Leader
Portfolio Management Officer
Asian Development Bank
Uzbekistan Resident Mission

Ilaria Dali
Director of Cooperation
Swiss Agency for Development and
Cooperation

⁸ This issue was advised to MAWR and Borrower via (i) Aide Memoir of review mission fielded on 12-22 May 2015; (ii) Letter of 29 May 2015 to MOF; (iii) Aide Memoir of review mission fielded on 17-27 August 2015; and (iv) Letter of 25 Sep 2015 to MOF.

6.4. Updated Design and Monitoring Framework WRMSF

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Sustained and increased agriculture production and productivity</p>	<p>Cropping intensity increases by 5% from present levels</p> <p>Crop yields increase by 5% from present levels</p>	<p>Provincial and district statistics</p> <p>Project performance monitoring and reports by the PMO</p> <p>ADB review missions</p>	<p>Assumption</p> <p>Improvements in infrastructure and water management continue beyond Project life</p> <p>Risks</p> <p>Adverse policy changes in quotas, prices, and marketing</p> <p>Commodity price shocks</p>
<p>Outcome</p> <p>Irrigation systems fully functional and operated in an efficient manner</p>	<p>Water conveyance losses reduced by 10%</p> <p>20% improvement in energy efficiency</p> <p>Improved facilities and services benefit irrigated area of 70,830 ha and 250,000 people</p>	<p>Provincial and district statistics</p> <p>Project performance monitoring and reports by the PMO</p> <p>ADB review missions</p>	<p>Assumptions</p> <p>Rehabilitated infrastructure maintained to operate at capacity</p> <p>Improvements in water management can be expanded beyond the project sites</p>
<p>Outputs</p> <p>1. Rehabilitation and upgrading of irrigation infrastructure</p> <p>1.1 Rehabilitation and upgrading of pump stations</p>	<p>7 pump stations rehabilitated</p>	<p>Project performance monitoring and reports by the PMO</p>	<p>Assumption</p> <p>Work completed and sufficient funds available to maintain rehabilitated pump stations</p>
<p>1.2 Rehabilitation and upgrading of inter-farm canals and structures</p>	<p>Facilities and services improved in irrigation service area of 70,830 ha</p> <p>19.3 km of inter-farm canals rehabilitated</p> <p>8 control structures on canals rehabilitated</p>	<p>Project performance monitoring and reports by the PMO</p> <p>Annual reports of MAWR</p>	<p>Risk</p> <p>Delays in the disbursement of the Amelioration Fund for drainage rehabilitation works</p>

<p>2. Improved water resources management</p> <p>2.1 Improved inter-farm water management</p>	<p>Plan to improve water management institutions and procedures implemented in Zarafshan and Fergana valleys</p> <p>Capacity development program implemented for improved water management of inter-farm and on-farm infrastructure</p> <p>Inter-farm and on-farm water management and O&M plans implemented for each subproject</p> <p>Water delivery to farm gate is timely and adequate</p>	<p>BISA and other water authority records</p> <p>Project performance monitoring and reports of the PMO</p> <p>ADB review missions</p>	<p>Risks</p> <p>System not fully maintained and operated according to design</p> <p>Lack of MAWR support and funds to implement plans for subproject management and O&M</p>
<p>2.2 Improved on-farm water management</p>	<p>250 water measurements structures constructed</p> <p>20 portable fumes made available</p> <p>100% coverage of subproject command area by trained WCAs reorganized on hydrographic boundaries and reregistered as non-commercial entities</p> <p>Existing 38 WUAs in 6 project rayons reorganized, following hydrographic principles, into 33 WCAs and re-registered</p> <p>34 computer sets (each comprising a computer, a printer, and a generator) and 70 bicycles provided to WCAs</p> <p>20 FFS plots established to demonstrate improved irrigation and related agronomic practices for wheat and cotton</p> <p>One 11-day course for training of trainers on water saving technologies conducted for 8 persons designated from 4 project IASAs, and field staff</p>	<p>BISA and other water authority records</p> <p>Project performance monitoring and reports</p> <p>ADB review missions</p>	<p>Risk</p> <p>BISA has limited capacity to fully implement all water management practices</p>

	<p>One-day training courses covering 17 themes on WCA operations conducted for 240 council members and technical staff of WCAs from 7 project rayons (max 30 participants per session)</p> <p>One-day training of trainers courses covering five themes on water saving technologies conducted for farmer trainers; and staff from field, BISAs, ISAs, WCAs, and agriculture departments from 6 project rayons</p> <p>10 one-day training sessions conducted at 20 FFSs for 4,000 farmers</p> <p>One-week international study tour of selected stakeholders conducted</p> <p>8 leaflets on water saving irrigation and farming practices produced and 1,000 copies of each distributed to trainees</p> <p>All WCAs monitor water distribution and have on-farm water management plans in place</p>		
<p>3. Effective project management 3.1 Efficient and effective project management system operational</p>	<p>All subprojects fully meet the selection criteria</p> <p>Subproject feasibility studies approved on 12 July 2012</p> <p>Results-based monitoring and reporting system fully functional</p> <p>Financial management and reporting system provides comprehensive and timely reports</p>	<p>Project performance monitoring and reports of the PMO</p> <p>ADB review missions</p> <p>Annual audit reports</p>	

<p>Activities with Milestones</p> <p>1. Rehabilitation and Upgrading of Irrigation Infrastructure</p> <p>1.1. Approval of feasibility study reports for noncore subprojects (12 July 2012)</p> <p>1.2. Prepare detailed engineering designs for noncore subprojects (February 2013 - October 2013)</p> <p>1.3. Prepare environmental assessments noncore subproject according to the environment assessment and review procedures (2011-2012)</p> <p>1.4. Prepare resettlement plans, if required (2013)</p> <p>1.5. Prepare bidding documents and contracts (June 2010 – August 2012)</p> <p>1.6. Supervise construction of subprojects (January 2011 - April 2015)</p> <p>1.7. Operate and maintain works and equipment of the subproject (throughout project implementation)</p> <p>1.8. Evaluate impact of the subproject (October-December 2015)</p> <p>2. Improved Water Resources Management</p> <p>2.1. Improved inter-farm water management</p> <p>2.1.1. Assess institutions and agencies for water resources, inter-farm irrigation, and drainage management in Zarafshan and Fergana valleys (April-June 2013)</p> <p>2.1.2. Assess management procedures for water resources, inter-farm irrigation, and drainage management in Zarafshan and Fergana valleys (April-June 2013)</p> <p>2.1.3. Develop options and plan for improved institutional framework and management procedures for water resources, inter-farm irrigation, and drainage management in Zarafshan and Fergana valleys (July-August 2013)</p> <p>2.1.4. Develop and implement a capacity building program for water resources, inter-farm irrigation, and drainage management in Zarafshan and Fergana valleys (June 2013- December 2014)</p> <p>2.1.5. Develop O&M and water management plans for integrated and coordinated operation of inter-farm and on-farm infrastructure for each subproject (2013-2015)</p> <p>2.2. Improved on-farm water management</p> <p>2.2.1. Mobilize communities, reorganize WUAs located within subprojects rayons to WCAs on hydrographic principles, get them re-registered as non-commercial entities, and train them (2012-2015)</p> <p>2.2.2. Improve measurement capability in all on-farm systems of the subprojects (2013-2015)</p> <p>3. Effective Project Management</p> <p>3.1. Establish PMO in Tashkent and 2 PIUs (one in Samarkand city and one in Fergana city (Sept 2009)</p> <p>3.2. Contract implementation consulting package support (Jan 2011-April 2015)</p> <p>3.3. Develop a results-based monitoring system (July-December 2010)</p> <p>3.4. Implement gender action plan (2011-2014)</p> <p>3.5. Oversee and monitor safeguards activities (throughout the implementation period)</p> <p>3.6. Strengthen project management capacity (technical, financial, implementation) for annual work planning and the successful implementation and monitoring and evaluation according to results-based monitoring principles (throughout the implementation period)</p>	<p>Inputs</p> <ul style="list-style-type: none"> • ADB OCR: \$85 million • ADB ADF: \$15 million equivalent • UZB Govt: \$48 million • Swiss Govt \$2.693 million <hr/> <p>ADB = Asian Development Bank, ADF = Asian Development Fund, BISA = Basin Irrigation System Administration, Govt = Government, ha = hectare, km = kilometer, MAWR = Ministry of Agriculture and Water Resources, O&M = operation and maintenance, OCR = ordinary capital resources, PIU = project implementation unit, PMO = project management office, Q = quarter, WCA = water consumers' association, WUA = water users' association.</p> <hr/> <p>Source: ADB staff estimates</p>
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6.5. Policy Impact

Policy Impact of the Swiss IWRM Program in Uzbekistan

Year	Approach developed by SDC	Documents of Uzbek Government
2008	Including WUA Irrigation Service Fees as a separate line in the allocation of state financing for cotton and wheat production	Decree of the Ministry of Finance (December, 2007) on state financing of cotton and wheat for 2008
2009	Law to specify status of WCAs, acceptance of IWRM principles, establishment of WCAs along the hydrographic boundaries and IMT	Amended law on water and water use endorsed by President of Uzbekistan on December 25, 2008
2010	Increase WCA share in the allocation of state financing for cotton and wheat production up to 2%	Decree of the Ministry of Finance (December, 2010) on state financing of cotton and wheat for 2011
2013	Promotion of simple and affordable water saving technologies and efficient water use through capacity building of WCAs and farmers	State program on land reclamation and rational water use for 2013-2017 (April 19, 2013).
2013	Establishment of WCA Inter-ministerial working group for examining the WCA performance problems and preparing recommendations to resolve them	Cabinet of Ministers' letter No. 03/6-44 as of May 13, 2013
2013	Exemption of the RESPII WCAs from the repayment of the WB loans for rehabilitation of the infrastructure and maintenance machinery	Presidential Decree № PP-2099 (December 25, 2013) on state budget parameters planned for 2014
2014	Introduction of various water saving technologies, equipment of WCAs and farmers canals with water regulating and measurement structures, conducting trainings of state water management organizations and WCA specialists, awarding the best performing WCAs and farmers.	Decree of the Cabinet of Ministers of Uzbekistan №39 (February 24, 2014) on measures to support implementation of a state program on land reclamation and rational water use for 2013-2017
2014	Set of specific recommendations on improving the existing legislation regulating WCA operations	MAWR letter (September 2014) to the Ministry of Justice
2014	Scaling up of WCA training program nationwide	MAWR letter (October 2014)
2015	Nationwide distribution of SDC project materials at the request of MAWR	Decree of MAWR and request by SIC ICWC (February 2015)

6.6. Workshops at Project FFS Plots

List of regional “open day” workshops conducted by the local Water Management Organizations at FFS plots with participation of PCU experts, field staff and FFS trainers

Date	Venue	Participants	Topic
19.06.2013	FFS plot of farm «OSIYO PAXTACHI ABDUNAZAR», Pakhtachi district of Samarkand region (WRMSP)	150 specialists of BAIS, AIS, WCA and farmers from all districts of Samarkand region	Demonstration of use of black film in furrows to irrigate cotton and use of polyethylene pipes
11.07.2014	FFS plot of farm «Khazrat Mirzo Ali», Ulugnor district of Andijan region (RESPII)	200 specialists of AIS, WCA and farmers from three districts of Andijan region	Demonstration of portable irrigation set with flexile hose
25.06.2014	FFS plot of farm «Mekhrinisa Boymatova», Dangara district of Ferghana region (WRMSP)	180 specialists of AIS, WCA and farmers from three districts of Ferghana region	Demonstration of use of black film in furrows to irrigate cotton
25.04.2015	FFS plot of farm «Narzi Oyim», Alat district of Bukhara region (RESPII)	200 specialists of AIS, WCA and farmers from three districts of Bukhara region	Demonstration of land levelling with use of laser leveling equipment
30.05.2015	Republican workshop, organized by MAWR and conducted in the field with visits to various sites in Kashkadarya province including demonstration of RESPII demo WCA “Avtonomov” in Mirishkor rayon and its FFS plot.	200 staff of BAIS and other local water management organizations and 80 representatives of Cabinet of Ministers and the other national organizations in charge of water management.	Demonstration of water saving technologies used in the province