

6. Recommendation

6-1 Project Design

(1) Revising PDM and PO with suitable and measurable indicators

The Minutes of Meetings (M/M) which was signed together with the Record of Discussions (R/D) stipulates that the Objectively Verifiable Indicators are determined separately for 1st and 2nd batch WCAs after the commencement of the Project. As mentioned in the previous section 3-3, evaluating the degree of achievements is difficult due to lacking the target figures of indicators and including unsuitable indicators in the present PDM. The team recommends revising the PDM especially by introducing the following indicators for measuring the achievement of project purpose:

- 1) The collection rate of irrigation service and other fees is increased to 60% in the 1st batch WCAs and to 30% in the 2nd batch WCAs.
- 2) More than 50% of WCA members regard that the WCA's capacity (organization management, efficiency, finance, technique) is improved.
- 3) More than 50% of WCA members increase their participation to WCA's activity.
- 4) More than 70% of irrigated land in the model area is irrigated based on WCA's distribution plan.
- 5) Farm land in the model area that cannot be irrigated is decreased by 10%.

In addition, it is recommended that actual revenue per hectare to be studied to assess the reliability as an indicator of irrigation service fee. Furthermore, the activity of intensive repair works in the model area is recommended to be included as the PO activity 0-1 and 0-2. The recommended PDM and PO are attached in ANNEX-11.

6-2 Policy and Institution of Irrigation Sector

(1) Promoting dissemination on water management improvement

While the GoU has been taking various measures such as facility repair of internal canals and support to WCAs' activities with assistance from Japan as well as other donors, continuous efforts are required to solve the problems concerning water management. Legal justification is considered necessary in order to promote WCAs' water management improvement activities and to establish promotion system of supporting activities. The Team, therefore, recommends that law/regulations be prepared to enhance WCAs' water management.

6-3 Empowerment of WCA

(1) Formulating a framework to deal with both hardware and software aspects of WCAs

The Project has conducted repair works and provided excavators to improve water management by WCAs. As a result of combining these hardware aspects with software ones, it is observed some positive events such as 1) positive change in WCA members' attitude, 2) more participation in WCA

activities and 3) increase in irrigation service fee collection. The supports of hardware aspects by the Project, however, are limited. The Team recommends that the GoU make a framework to deal with these aspects in connection with support activities for WCAs.

(2) Preparing and implementing dissemination plan

Although BISM and ISDs conduct trainings and instructions for routine works of WCAs, their activities are not necessarily systematic. Thus, it is difficult for them to accumulate experience and lessons learned. The Team, therefore, recommends that BISM and ISDs prepare a dissemination plan (particularly for ISDs) and conduct support activities based on the plan.

6-4 WCA support system through BISM/ISD

(1) Involving Khokimiyats into the activities

The Team found that Khokimiyats are deeply involved into water management and maintenance/management of facilities (e.g. intermediation between WCAs and ISDs concerning water utilization in case of water shortage, conflict solution among WCAs, etc.). The Team, therefore, recommends that the Project, considering local-specific situations, provide Khokimiyats with information concerning the activities and establish cooperative relationship with them in order to disseminate and enhance the products generated by the Project.

(2) Improving training methods for BISM and ISD

Same texts and methods are applied for training for WCAs, BISM and ISDs. Basically BISM/ISDs have difficulty to understand the trainings that are not related to their expertise. The Team, therefore, recommends to modify the composition of training subjects and training contents based on expertise of each participant and to improve the training methods, for instance, by conducting supplementary trainings on the subjects that are not well understood.

(3) Providing training certificates

It will be difficult for WCAs to self-evaluate the level of acquired knowledge from the trainings, seminars, etc. On the other hand, disseminating the acquired knowledge to others is important. Provision of training certificate will, thus, be useful to foster the WCA staff for improving water management and to make them recognize their responsibilities. Accordingly, the team recommends to establish a certification system of the GoU and/or the Project in order to acknowledge their completion of training for qualified participants.

6-5 Feasibility and sustainability of the technologies introduced by the Project

(1) Introducing clarification map in the WCA activity and training

In the intensive repair works, the Project is making clarification map with photographs on current

condition of irrigation facilities. Currently only the project utilizes the maps, but basically, all WCA members should clearly understand the current condition of irrigation facilities. In addition, putting clarification maps on the wall in the WCA office can help WCA members recognize current status of common properties and also prevents from stealing water. The Team, therefore, recommends introducing a training component related to preparation of clarification maps and utilization of these maps considering the capacity of WCA members.

(2) Applying Japan's empirical advantage for WCA improvements

Japan has over 60 years' history of water users association named Land Improvement District (LID). Some of the LID knowledges have already included in the modules. These empirical advantages have, however, not been shown clearly and some are lacking. Furthermore, the LID manual indicates useful information of the writing strategy. For further application of these Japan's empirical advantage, the Team recommends revising the modules and enriching by referring to the system and manual.

(3) Disseminating the method of minor repair for flume joint water leaking

In order to stop leaking water from flume joints, the Project has developed a cheap, quick and simple method by adjusting the Japan's method and by using locally available materials. The remaining problem for application is the durability, which cannot be proved within the project period. Since this method is appreciated by WCA members in the demonstration activities, it can provide additional option to the conventional method developed by the Central Asian Scientific Research Institute of Irrigation (SANIIRI). The Team, thus, recommends emphasizing dissemination of the method during the remaining project period.

(4) Developing syphon intake pipe and preparing manual

In order to control excessive water intake by making holes on the flume wall, the Project has developed a syphon intake pipe with local materials. This is appreciated by a WCA in demonstration activities although further improvement of the developed pipe is necessary. The Team, thus, recommends preparing a manual for the dissemination while pursuing further technical improvement.

6-6 Training materials

(1) Revising training modules

So far the Project has prepared total of four training modules, which are made with power point. These modules have, however, several points to be improved on the contents and presentation. Some parts of the contents are not logical (e.g. a module has the topic of introduction and others do not),

and are not suited as power point visual aids (e.g. some words of font 10 are too small to be shown to audiences). The Team, thus, recommends revising the modules and materials to be compiled not as power point visual aids but as text books. The audio visual aids should be prepared separately from the text books.

(2) Preparing audio visual aids for presentation

The prepared training materials need further improvement for training of trainers (TOT) because they lack contents of communication skills and lecturer's attitudes and they had very limited involvement of counterparts during the preparation. The Team, thus, recommends conducting the TOT through the following activities:

- 1) to transfer technologies of how to make audio visual aids to counterparts
- 2) to make counterparts prepare the audio visual aids of at least several parts of the revised text books
- 3) to train presentation skills with the prepared aids
- 4) to give counterparts presentation opportunities to WCA members with the prepared aids and trained skills

6-7 Dissemination of the project products

(1) Starting preparation of a decree for establishing a special federation

The possibility was expressed by Uzbekistan side to set a special federation, which will take over all the project products (knowledge, technologies, etc.) and will work for consultation of WCAs by collecting service fees. The federation will disseminate the project products after the termination. The Team, thus, recommends starting preparing a decree for establishing the federation.

(2) Applying the project products into the existing trainings

According to the survey done by the Team, the Ministry of Agriculture and Water Resources (MAWR) and SANIIRI conduct training programs. BISM also conducts regular training programs for ISDs and WCAs. If even a part of the project products such as text books and audio visual aids is applied for the program, it will contribute to disseminating parts of the products to other WCAs than the project pilot WCAs. The Team, thus, recommends keeping tight contact with the MAWR and SANIIRI and delivering the training materials (text books and visual aids) to BISM outside of the pilot WCAs.

6-8. Others

(1) Strengthening publicity activities

The Project is implementing for MAWR, BISM, ISD and WCA in the model area as the target but

the dissemination of information on the activity is not sufficient. This review survey found the change of awareness of WCA members and their activity; it is not widely acknowledged. In order that the activities are sustained, it is important to produce the environment that draws attention. The Team, therefore, recommends strengthening publicity activities for concerned parties including counterparts, Khokimiyats, and others in order to disseminate the project activities.

(2)Enhancing the data analysis and utilization of Drip Irrigation Technique

Drip Irrigation demonstration farm is established by the Project to conduct an economic analysis of advanced on-farm water distribution technique, while the implementation structure of MAWR of this activity is not yet established. The Team recommends appointing a responsible person from MAWR to enhance the data analysis and utilization activity of Uzbekistan side.



Project Design Matrix (PDM)

Project Title: Project for Water Management Improvement

Target Area:

- Tashkent Region (under Chirchik-Ohangaran BISM)
- Syrdarya Region (under Lower Syrdarya BISM)
- Djizak Region (under Lower Syrdarya BISM)

Project Period: 3.5 years (from November 2009 to April 2013)

Target Groups: 6 pilot WUAs (2 from each region)

Date: August, 2009

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal			
Water management conducted by WUAs in Chirchik-Ohangaran BISM and Lower Syrdarya BISM is improved.	1. Gap between planned and actual quantity of distribution water is decreased from -- % to -- % in the target regions. 2. Water is distributed on time in the target regions. 3. Water loss in the process of distribution is decreased by -- % in the target regions.	Baseline survey Water distribution record of WUAs	The current policy on water management is maintained.
Project Purpose			
Water management conducted by pilot WUAs is improved.	1. Gap between planned and actual quantity of distribution water is decreased from -- % to -- % in the command area of the pilot WUAs. 2. Water is distributed on time in the command area of the pilot WUAs. 3. Water loss in the process of distribution is decreased by -- % in the command area of the pilot WUAs.	Baseline survey Water distribution record of WUAs Report from Project	Staff of ISDs in the target regions participate in TOT.
Outputs			
1. Training system for WUAs is strengthened.	1-1. More than -- kinds of training materials for pilot WUA staff prepared. 1-2. More than -- staff of BISM and ISDs participated in TOT and able to conduct training for WUA staff. 1-3. More than -- times of trainings for pilot WUA staff conducted.	Baseline survey Report from Project	Trained staff of BISM and ISDs continue to work.
2. Capacity of pilot WUA staff for water distribution is improved.	2-1. More than -- staff of pilot WUAs participated in the trainings on water distribution. 2-2. Water distribution plan formulated every year based on the trainings by pilot WUAs. 2-3. Water distribution records kept based on the trainings by pilot WUAs.	Baseline survey Water distribution record of WUAs Report from Project	Trained staff of pilot WUAs continue to work.
3. Capacity of pilot WUA staff for maintenance of irrigation and drainage systems is improved.	3-1. More than -- staff of pilot WUAs participated in the trainings on maintenance of irrigation and drainage systems. 3-2. Maintenance plan formulated every year based on the trainings by pilot WUAs. 3-3. Maintenance records kept based on the trainings by pilot WUAs.	Baseline survey Maintenance record of WUAs Report from Project	
Activities	Input		
1-1. To set criteria for selection of pilot WUAs after surveying the situations of WUAs in the regions and reviewing the existing studies/projects on capacity-building of WUA.	Japanese side :	Uzbek side :	Staff of BISM and ISDs continuously participate in the activities and trainings.
1-2. To undertake field surveys of candidate pilot WUAs and select pilot WUAs.	1. Dispatch of Experts	1. Assignment of counterpart personnel	
1-3. To conduct detailed baseline survey for the selected pilot WUAs.	(1) Long-term experts	(1) Project Director	
1-4. To review the contents of existing teaching materials developed by other donors and the extent of their utilization by WUA.	- Chief Adviser	(2) Project Manager	Staff of pilot WUAs continuously participate in the activities and trainings.
1-5. To prepare training materials (e.g. manuals for WUA, teaching materials for TOT) in relation to output 2 and 3 based on the results of activity 1-4.	- Strengthening WUA	(3) Counterparts at central level	
1-6. To conduct a series of trainings of trainers (TOT) for the staff of BISM and ISDs.	- Operation and Maintenance of Irrigation Systems	(4) Counterparts at local level	
1-7. To conduct a series of trainings for leaders of pilot WUAs.	- Project Coordinator		
2-1. To understand the current situation of water distribution and analyze the problems based on the results of activity 1-3.	Chief advisor and/or Project Coordinator may serve concurrently as one of the sector experts.	2. Provision of Land, Building and Facilities (Both central and local level)	
2-2. To support the formulation of a plan of water distribution through trainings.	(2) Short-term Experts	3. Allocation of operational costs for the Project (staff's salary, utilities at offices, etc.)	
2-3. To support the implementation of the distribution of irrigation water according to the plan made through activity 2-2 and conduct monitoring.	2. Provision of Equipment		
3-1. To understand the current situation of maintenance of irrigation and drainage systems, and analyze the problems based on the results of activity 1-3.	3. Training for Counterparts		
3-2. To support the formulation of a plan of maintenance of irrigation and drainage systems through trainings.	4. Allocation of Operational Costs for the Project		
3-3. To support the implementation of minor repair works of basic infrastructure of irrigation and drainage systems according to the plan made through activity 3-2.			
3-4. To support the implementation of periodical maintenance of irrigation and drainage systems according to the plan made through activity 3-2 and conduct monitoring.			
			Pre-conditions
			Important facilities/systems of irrigation and drainage are functional in the target regions.

Plan of Operation (PO)

Date: August 2009

Outputs	Activities	2009				2010												2011												2012												2013			
		11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4		
	0-1	To support the implementation of intensive repair works on 1st batch pilot WCAs																																											
	0-2	To support the implementation of intensive repair works on 2nd batch pilot WCAs																																											
Output 1: Training system for WUAs is strengthened.	1-1.	To set criteria for selection of pilot WUAs after surveying the situations of WUAs in the regions and reviewing the existing studies/projects on capacity-building of WUA.																																											
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	1-7.	To conduct a series of trainings for leaders of pilot WUAs.																																											
Output 2: Capacity of pilot WUA staff for water distribution is improved.	1st Batch	2-1.	To understand the current situation of water distribution and analyze the problems based on the results of activity 1-3.																																										
		2-2.	To support the formulation of a plan of water distribution through trainings.																																										
		2-3.	To support the implementation of the distribution of irrigation water according to the plan made through activity 2-2 and conduct monitoring.																																										
	2nd Batch	2-1.	To understand the current situation of water distribution and analyze the problems based on the results of activity 1-3.																																										
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Output 3: Capacity of pilot WUA staff for maintenance of irrigation and drainage systems is improved.	1st Batch	3-1.	To understand the current situation of maintenance of irrigation and drainage systems, and analyze the problems based on the results of activity 1-3.																																										
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Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Were the input made as planned?		Have the Japanese experts dispatched as planned?		Records on Japanese experts	Project records	Document review, interviews	<ul style="list-style-type: none"> ● A total of three long-term experts were dispatched as scheduled, in the field of i) chief advisor/strengthening of WUAs, ii) maintenance and management of irrigation facilities, and iii) coordination/planning of trainings. The period for each expert will be from November 2009 to November 2011. ● In addition, a total of four short-term experts were dispatched in the field of i) facility maintenance, ii) database survey and iii) sector survey.
		Has the counterpart training conducted as planned?	Comparison with the planned figures	Records on counterpart training	Project records	Document review, interviews	Training activities are carried out in accordance with PO. C/Ps and WCA staff pointed out that trainings should be conducted in autumn and winter which is an agricultural off-season.
		Have the equipment and machinery provided as planned?	Comparison with the planned figures	Records on equipment provision	Project records	Document review, interviews	The equipment and machinery were provided as planned. Main equipment and machinery include three excavators and 12 damas (vehicle).
		Have the counterpart personnel assigned as planned?	Comparison with the planned figures	List of counterpart personnel	Project records	Document review, interviews	<ul style="list-style-type: none"> ● A total of seven counterpart personnel have been assigned (one from MAWR, three from BISM, three from ISD). According to R/D, four C/Ps were planned to be assigned besides Project Manager (PM) at MAWR, however, only PM is assigned. The Consultation Team understood the situation. ● Trainers are appointed at each region.
		Have the physical facilities provided as planned?	Comparison with the planned facilities	Information on the facilities	Project records, opinions of experts	Interviews, site visit	<ul style="list-style-type: none"> ● Regarding the facilities provided from the Uzbekistan side, the project office have been provided for Japanese experts in Tashkent. Although there is no facilities strictly provided for the Project in the sites, there is a meeting room at each site (Qarasha, Dustlic, Puski Bloq, Gliston, Jumble Ota, and Samarand). ● Regarding the Japanese side, intensive repair works and installing a demonstration farm for water saving irrigation were conducted and also siphones were provided. The large-scale rehabilitation works are not included in the PDM, however, the Project considered that the those components are necessary in order to generate expected results.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Achievement		Have the budgets to cover operational costs allotted as planned?	Comparison with the planned figures	Records on budgetary allocation	Project records	Document review, interviews	<ul style="list-style-type: none"> ● A total of 398,001USD was allotted as a local cost from the Japanese side by the end of June 2011. ● A total of 123,000,000UZS (approximately 70,000 USD) was allotted as a local cost from the provincial/district governments by the end of June 2011. ● A total of 34,762,500UZS (approximately 20,900USD) was allotted as a local cost from the central government and its local branches by the end of June 2011.
	Have the outputs been produced properly?	Have the training materials been compiled and distributed to BISM/ISD and WCAs?	Degree of achievement	Information on the progress of the compilation and distribution	Project records and personnel, BISM/ISD officials, WCA staff	Document review, interview and discussion	A total of six kinds of training modules/manuals and three pamphlets have already been compiled.
		Have BISM and ISDs participated in TOT and been able to conduct training for WCAs?	Degree of achievement	Information on the TOT trainings	TOT training records and personnel, BISM/ISD officials, WCA staff	Document review, interview and discussion	Six staff have already participated in the trainings.
		Have the trainings for pilot WCAs been conducted?	Degree of achievement	Information on the technology dissemination to the WCAs	Training records and personnel, BISM/ISD officials, WCA staff	Document review, interview and discussion	88 trainings have already been implemented for pilot WCA staff.
		Have the members of pilot WCAs participated in the trainings on water distribution?	Degree of achievement	Information on the technology dissemination to the WCAs	Training records and personnel, BISM/ISD officials, WCA staff	Document review, interview and discussion	12 staff of pilot WCAs have participated in the trainings.
		Has the water distribution plan been formulated by pilot WCAs?					The training about theory on how to make a water distribution plan has been conducted and a practical water distribution plan was made in the model area of each 1st batch pilot WCA with assistance of the Project.
		Have the water distribution records been kept by pilot WCAs?					The training about theory for making water records has been conducted. The plan has not been formulated.
		Have the staff of pilot WCAs participated in the trainings on maintenance of irrigation and drainage system?	Degree of achievement	Information on the technology dissemination to the WCAs	Training records and personnel, BISM/ISD officials, WCA staff	Document review, interview and discussion	A total of 12 staff of pilot WCAs have already participated in the 51 trainings.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results																																																
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Is the Project Purpose likely to be achieved?		Have the maintenance plans been formulated by the pilot WCAs?	Degree of achievement	Information on the making of plan	Maintenance plan, WCAs	Document review, interview and discussion	The trainings about theory on how to make a maintenance plan have been conducted. The plan has not been formulated.																																																
		Have the maintenance records kept by pilot WCAs?	Degree of achievement	Information on the making of records	Maintenance records, WCAs	Document review, interview and discussion	The trainings about theory on how to keep maintenance records have been conducted. The record has not been kept.																																																
		Gap between planned and actual quantity of distribution water is decreased from -- % to -- % in the command area of the pilot WUAs.	Degree of achievement	Information on planned and actual quantity of water distribution	Water distribution records, BISM/ISD officials	Document review, interview and discussion	An analysis found that the gap is controlled not only by WCA's under-qualified water management but also by the distribution volume from the ISD to the WCA and timing of the distribution. Accordingly, the gap decrease does not indicate improvements of the WCA's water management. The indicator is, thus, not suited to measure the improvement.																																																
		Water is distributed on time in the command area of the pilot WUAs.	Degree of achievement	Information on the timing of water distribution	Water distribution records, BISM/ISD officials	Document review, interview and discussion	same as above.																																																
		Water loss in the process of distribution is decreased by -- % in the command area of the pilot WUAs.	Degree of achievement	Information on water loss	Water distribution records, BISM/ISD officials	Document review, interview and discussion	An analysis found that water loss during water distribution is controlled by not only repair conditions of facilities but also amounts of the distribution. Accordingly the water loss decrease does not indicate improvements of the WCA's water management. The 3rd indicator is, thus, not suited either.																																																
		Has the water fee collection rate been increased?		Information related to the water users fee collection	Record of water users fee collection, BISM/ISD officials, WCA staff	Document review, interview and discussion	<ul style="list-style-type: none"> ● recommended indicator ● The below table shows the water fee collection rate at each WCA in 2009, 2010 and 2011 (tentative). <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">1st batch</th> </tr> <tr> <th></th> <th>2009</th> <th>2010</th> <th>2011 (tentative)</th> </tr> </thead> <tbody> <tr> <td>Qarasha</td> <td>26%</td> <td>52%</td> <td>60%</td> </tr> <tr> <td>Dustlik</td> <td>13%</td> <td>9%</td> <td>38%</td> </tr> <tr> <td>Pastki</td> <td>17%</td> <td>0%</td> <td>51%</td> </tr> <tr> <td>Avarage</td> <td>18.7%</td> <td>20.3%</td> <td>49.7%</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">2nd batch</th> </tr> <tr> <th></th> <th>2009</th> <th>2010</th> <th>2011 (tentative)</th> </tr> </thead> <tbody> <tr> <td>Jambul</td> <td>14%</td> <td>21%</td> <td>20%</td> </tr> <tr> <td>Gulistan</td> <td>5%</td> <td>6%</td> <td>10%</td> </tr> <tr> <td>Samarqand</td> <td>34%</td> <td>0%</td> <td>3%</td> </tr> <tr> <td>Avarage</td> <td>17.7%</td> <td>9.0%</td> <td>11.0%</td> </tr> </tbody> </table>	1st batch					2009	2010	2011 (tentative)	Qarasha	26%	52%	60%	Dustlik	13%	9%	38%	Pastki	17%	0%	51%	Avarage	18.7%	20.3%	49.7%	2nd batch					2009	2010	2011 (tentative)	Jambul	14%	21%	20%	Gulistan	5%	6%	10%	Samarqand	34%	0%	3%	Avarage	17.7%	9.0%	11.0%
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Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
		Have the evaluation result on capability of WCA and consciousness of member's participatory activity in pilot WCA been improved?	Levels of improvement	Questionnaire for WCA staff	Results of questionnaire and discussion with WCA staff	Document review, interview and discussion	<ul style="list-style-type: none"> ● recommended indicator ● Format of questionnaire is being prepared. ● According to the interview with WCA staff, members have better understanding of water utilization and WCAs' functions.
		Have sqm in model area where water is supplied based on distribution plan by pilot WCA been increased?	Levels of application of plan	Information related to the water distribution	Record of water distribution, BISM/ISD officials, WCA staff	Document review, interview and discussion	<ul style="list-style-type: none"> ● recommended indicator ● There is no distribution plan concerning internal canals in model area and cannot be measured at the time of Mid-term Review.
		Have sqs in model area which cannot be irrigated been reduced?	Level of improvement	Information related to the intake of irrigation water	Record of water distribution, BISM/ISD officials, WCA staff	Document review, interview and discussion	<ul style="list-style-type: none"> ● recommended indicator ● It was observed that land in model area that cannot be irrigated have been reduced mainly due to the intensive repair works.
	Have the activities been implemented as scheduled?	Have the activities been timely implemented?	Comparison with the PO	Actual implementation schedule	Project personnel, Project records	Document review, interviews	Currently, the activities are carried out to some extent in accordance with PO, despite the initial delay.
		Has there been any change in the activities and schedule of implementation from the original PO?	Comparison with the PO	Actual implementation schedule	Project personnel, Project records	Document review, interviews	The Project carried out a part of intensive repair works and installing a demonstration farm for water saving irrigation which are not specified in the PDM.
	Have there been any problem related to the management of the Project?	Have the Project activities been properly monitored?	Frequency and contents of monitoring	Monitoring mechanism, monitoring results	Project personnel, Project records	Document review, interviews	Regarding the monitoring by using PDM, Objectively Verifiable Indicators at the Project Purpose level are not proper. It is difficult, therefore, to monitor and manage the Project.
		Has the decision making mechanism of the Project been functional?	Existence of problems and countermeasures	Information on the JCC and other decision making mechanisms	Project personnel, Project records	Interview, discussion with Project staff	Joint Coordination Committee has a decision-making function. It was held on 1st of April, 2011 and main topics were i) the progress of the Project, ii) plan of the fiscal year 2011 and iii) other issues to be shared by all stakeholders.
		Has the communication among JICA HQ, JICA country Office, MAWR the BISM/ISD and the Project been smooth?	Existence of problems and countermeasures	Ways and contents of the regular transactions	Officers in charge at JICA HQ and JCIA Uzbekistan Office, Staff of BISM/ISD, Project personnel, Project records	Interview, discussion with Project staff	The Consultation Study Team confirmed that both Japanese and Uzbek sides make efforts to make enough communication.
		Has the communication among the Project personnel been smooth?	Existence of problems and countermeasures	Ways and contents of the daily and regular transactions among the Project personnel	Project personnel, Project records	Interview, discussion with Project staff	Based on the Consultation Study held in 2010, the Japanese experts attempt to communicate with counterpart personnel, especially with the Project Manager, by effectively using phone calls and emails at least once per week. The efforts contributed to more efficient discussions between the experts and counterparts.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Implementation processes		Have there been any other problems encountered in the course of Project implementation so far?	Existence of problems and countermeasures	Information on the managerial problems so far and countermeasures taken by the Project	Project personnel, Project records	Interview, discussion with Project staff	<ul style="list-style-type: none"> Functions of some internal canal facilities are extremely deteriorated and need substantial financial support in order to improve water management. No official roles and functions of BISM and ISDs are clarified in terms of capacity building of WCAs. Although they are mainly responsible for main facilities, they are actually supporting WCAs. The Project utilizes their actual functions to improve the capacity of WCAs.
		What are special measures taken in terms of the managerial aspects of the Project?	Existence of problems and countermeasures	Information on the managerial measures taken by the Project	Project personnel, Project records	Interview, discussion with Project staff	A social mobilizer is hired at each region by the Project in order to closely monitor farmers' activities initiated by the Project.
	Are the BISM/ISD committed and well aware of the Project?	Do the BISM/ISD understand the objectives and approaches of the Project?	Levels of understanding	Information on the understanding of the Project purpose, discussion & meeting records	Project personnel, Project records	Interview, discussion with Project staff	In conducting the capacity building, pilot WCAs are divided into two batches (1st and 2nd). For the 1st batch, Japanese experts conducted training courses for C/Ps, while for the 2nd batch, trained C/Ps directly instruct WCAs. There was, however, a difference of understanding about the input scale of intensive repair works and provision of equipment due to insufficient communication.
		Have appropriate counterpart personnel been assigned?	Suitability of their expertise	Information on the qualification / background / experiences of the assigned personnel	Project personnel, Project records	Interview, discussion with Project staff	Counterpart personnel have not been assigned at MAWR as planned.
		Have the counterpart personnel been committed and involved actively in the Project?	Degree of participation	Examples of the activities that were mainly conducted by the counterpart personnel	Project personnel, Project records	Interview, discussion with Project staff	Although C/Ps are not full time, they are actively participated in trainings.
	Are the WCAs well aware of the Project?	Have the WCA staff well recognize the Project activities?	Levels of understanding	Information on their understanding of the Project, records of explanatory efforts made by the Project	Project personnel, Project records, WCA staff	Interview, discussion	WCA staff gradually understand the importance of water and WCAs by trainings, although their initial concern seemed to be hardware rehabilitations and excavators.
		Have the WCA staff participated actively in the Project activities?	Degree of participation	Information on their participation in the Project activities	Project personnel, Project records, WCA staff	Interview, discussion	According to BISM and ISDs, it is difficult for farmers to sufficiently understand the functions of WCAs, although they participated in trainings. Therefore, it cannot be said that they actively participated in the Project activities.
	Were there any special measures taken to ensure the smooth implementation of the Project?	Have there been any special measures taken in terms of implementation mechanism?		Information on the measures taken by the Project	Project personnel, Project records	Interview, discussion with Project staff	Pilot WCAs are divided into two batches (1st and 2nd). For the 1st batch, Japanese experts train C/Ps, while for the 2nd batch, trained C/Ps directly instruct WCAs.
		Have there been any special consideration given in terms of dealing with the WCAs?		Information on the measures taken by the Project	Project personnel, Project records	Interview, discussion with Project staff	Since farmers do not fully understand the benefits by utilizing WCAs, it is pointed out that basic trainings concerning WCA's functions be repeatedly conducted for farmers.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Advance	Does the Project address the needs of the target area and the WCAs?	Is the Project still in line with the needs of the target area and society?	Confirmation on the current needs				Functions of WCAs are getting weak and irrigation facilities are getting old. It remains a pressing matter to improve WCAs' water management capacity in terms of efficient use as well as securing of water.
		Is the Project still in the line with the needs of the WCAs?	Positive response from the WCAs	Baseline information, opinion of Project personnel and target beneficiaries	Project reports and personnel, WCA staff	Document review, interviews	Facilities of internal canals, which are owned by WCAs, are not properly maintained due to improper water management. WCAs are well aware of the necessity to improve water management/distribution, which directly related to the production of raw cotton and wheat.
	Has the Project still been in line with the priorities in the development plans and program of Uzbekistan and the sector ?	Is the Project still consistent with the development plans of Uzbek Government?	Existence of the consistent stipulation in the document	Development plans and programmes of Uzbek government	Policy documents	Document review	WIS established by the Uzbek government in 2007 points out the growing gap between urban and rural areas and poverty alleviation in rural areas is recognized as one of the most important issues to overcome. In rural areas where farmers grow raw cotton and wheat by irrigation, water distribution and facility management are not properly conducted by WCAs which are responsible for managing internal canals. In this regard, it has been an urgent task to enhance WCAs' capacities by strengthening support system by BISM and ISDs.
		Is the Project still consistent with the plans and programs in irrigation and water management sectors?	Existence of the consistent stipulation in the document	Policies & programs related to the irrigation and agriculture	Policy documents	Document review	In order to improve drainage conditions, Uzbekistan is currently conducting "National Drainage Improvement Program (NDIP)" with its own budget and its commitment to this issue is quite high. BISM and ISDs, which are counterpart organizations, are responsible for facility management (e.g. main and inter-farm canals) with relevant personnel and budget.
	Is the Project priority in the Japan's foreign assistance policy and JICA's country programs?	Is the Project relevant to the Japan's Aid Policies?	Existence of the consistent stipulation in the document	Priority directions in Japan's Aid Program	Japan's Foreign Assistance Policy	Document review	Japan's "Country Assistance Program for the Republic of Uzbekistan" points out the following development issues related to the agricultural sector. <ul style="list-style-type: none"> ● WUAs (current WCAs) are not functioning well due to financial difficulties and the lack of technology and machinery. ● Planned utilization of water resources and water saving cultivation techniques development should be created. ● Irrigation facilities have not been properly managed or rehabilitated by WCAs.
		Is the Project relevant to the JICA's Program / Rolling Plan?	Existence of the consistent stipulation in the document	JICA's Program / Rolling plan	JICA's Country Assistance Program / Rolling Plan	Document review, discussion with JICA staff	The Project is related to "agricultural reform/regional development" in "reform of social sector" specified as one of the JICA's prioritized issues.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Relevance	Has the Project been adequate means to address the development issues in the country and the sector?	Does the Project appropriately address the issues of irrigation and water management sectors?	Existence of the consistent stipulation in the document	National policies & programs related to the local government and water sector	Policy documents	Document review	The approach of the Project consists of i) training with regard to water management, ii) provision of necessary equipment/materials and iii) rehabilitation of facilities and aims to effectively and efficiently show the method to solve the current problems facing WCAs.
		Does the Project properly address the needs and context of BISM/ISD/WCA?	Existence of the consistent stipulation in the document	Plans and program of BISM/ISD	Policy documents, staff of BISM/ISD	Document review, interviews	BSIMs/ISDs are not fully supporting WCAs due to the lack of clarification of their functions in terms of capacity building. The Project aims to strengthen their capacity in this regard, and therefore, it is in line with their necessity in terms of technical cooperation.
		Have there been any synergy effects through cooperation with other donors?	Positive response from the WCAs	Baseline information, opinion of stakeholders	Project reports and personnel, BISM/ISD officials	Document review, interviews	<ul style="list-style-type: none"> ● Swiss Development Corporation (SDC) is implementing a water management improvement project in Syrdarya Region. There are many similar components to those of the Project, such as trainings and rehabilitation works, and information exchange has been conducted. ● The Project plans to conduct a study tour to Fergana where SDC have been carrying out its project.
	Is the selection of WCAs appropriate?	Has the size of the WCAs been appropriate?		No. and area of coverage, No. of beneficiaries	Project personnel, statistics, other secondary documents	Document review, interviews	One of the criteria in selecting WCAs was related to the size of WCAs. Relatively large WCAs were selected considering that they have more influence in disseminating the effects to neighboring WCAs. The size of pilot WCAs, therefore, is appropriate.
		Has the Project equitably brought about the benefit?	Distribution of the Project benefits	Project benefits enjoyed by different strata of WCAs	Project records and personnel, BISM/ISD officials	Document review, interviews	The strengthened functions and trained staff will equitably bring about the benefits.
		Has the cost been equally shared by the WCA members?	Cost sharing ratio	Expenditure and source of funds	Project records and personnel	Document review, interviews	The Project intends to improve the water fee collection rate. Currently, there are farmers who do not pay the fee and thus the cost has been equally shared by the WCA members.
	Has the Project applied appropriate approach?	Is there any advantage of Japanese technologies / experiences?		Technologies transferred through the Project	Project personnel, Project records	Document review, interviews	Considering local economic, social and natural conditions, the Project applied LID system and technological concept with selection and adjustment.
	Have there been any changes in the environment of the Project?	Have there been any changes in the social, political and other conditions assumed prior to the commencement of the Project?		Information on the environment of the Project	Project personnel, Project records	Document review, interviews	The Government of Uzbekistan has defined WUAs as public organizations registered to the Ministry of Justice on December 2010, not by provision of a new law but by amendment of the present Water Law. For this legal change, the WUA has been renamed as WCA.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Effectiveness	Is the prospect of achieving the Project purpose considered to be high?	Is Project Purpose likely to be achieved, considering the current level of progress of inputs, outputs and activities?	Comparison of the actual achievement with the original plan	refer to the achievement grid	Project personnel, Project records	Interview, discussion with Project staff	As mentioned before, it is not realistic to evaluate the Project by using the current Objectively Verifiable Indicators. The logic/sequence of the Project, however, is coherent and the Project Purpose is expected to be achieved after the Outputs are produced and also the Important Assumptions at the Output level are satisfied.
		Are there any potential obstacles that may hinder the achievement of the Project purpose?		information on the potential risks and obstacles and possible countermeasures	Project personnel, Project records	Interview, discussion with Project staff	Shortage of water in this year will influence on measuring the degree of achievement for the second batch.
	Have the outputs been appropriate to achieve the Project purpose?	Have there been any factors contributing to the achievement of the Project Purpose other than the outputs?		Information on the related events, programs/projects by other organizations in the target area	Project personnel, Project records, relevant documents	Interview, field visit, discussion with Project staff	Outputs are well designed to produce the Project Purpose and at the time of the Mid-term Review, no other factors are observed.
		Is the logical sequences between outputs and Project purpose still secured?	Confirmation on the logical sequence	Information on the results of activities that indicate the cause-effect relationship	Project personnel, Project records	Interview, discussion with Project staff	Three Outputs specified in PDM are the basic concepts/components of the Project's approach. They are considered to be necessary and sufficient conditions in order to produce the Project Purpose.
	Has there been any influence by important assumptions?	Are the important assumptions adequate and realistic?		Information on the staff allocation/transfer at BISM, ISD and WCAs	Project personnel, Project records	Document review, interviews	<ul style="list-style-type: none"> ● The following two important assumptions are set at the output level to be fulfilled to achieve Project Purpose. <ul style="list-style-type: none"> i) Trained staff of BISM and ISDs continue to work. ii) Trained staff of pilot WCAs continue to work. These Important Assumptions are still realistic and adequate. So far, no counterpart personnel have transferred or resigned and above assumptions are satisfied. ● Besides above assumptions, "Severe water shortage do not happen" should be added.
	Have there been any other hindering or contributing factors?			Information on any relevant events in the course of Project implementation	Project personnel, Project records	Interview, discussion with Project staff	Because of the amendment of the Water Law, the WUA has been renamed as WCA, and modifications of policy and institutions of WCAs are deduced to have been modified. As a consequence, they are now entitled to have advantages in terms of taxation. This event contributes to the institutional strengthening of WCAs.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Efficiency	Is the prospect of achieving Outputs considered to be high?	Are Outputs likely to be achieved, considering the current level of progress of inputs and activities?	Comparison of the actual achievement with the original plan	refer to the achievement grid	Project personnel, Project records	Interview, discussion with Project staff	<ul style="list-style-type: none"> ● To certain extent, the initial delay of the project activities was fading away by the efforts of both Japanese and Uzbek sides. ● Most indicators at the Outputs level have shown some progression towards their fulfillment by the general achievement of Activities, except part of indicators 2-3, 3-2 and 3-3. Trained C/Ps, however, are supposed to take part in the training activities for the 2nd batch pilot WCAs, however, they need further training and experiences to do so during autumn and winter. ● Trained C/Ps are supposed to take part in the training activities for the 2nd batch pilot WCAs, however, they need further training and experiences to do so during autumn and winter.
	Have the Project activities been appropriate to produce the outputs?	Are the activities contributing to achieve the outputs?	Co-relation between the outcomes of the activities and outputs	Logical sequence between activities and outputs, progress of activities and levels of achievements	Project personnel, Project records	Document review, interviews	There are no particular problems at the time of the Mid-term evaluation.
		Has there been any obstacle for the achievement of the outputs?	Information on any relevant events in the course of Project implementation	Project personnel, Project records	Interview, discussion with Project staff	<ul style="list-style-type: none"> ● There are unexpectedly deteriorated irrigation facilities that hinder the generation of Outputs ● Time and scope of the project activities (e.g. trainings) had to be much enhanced compared to the original plan. 	
	Have the inputs	Have the timing, number, duration, and fields of dispatched Japanese experts been appropriate?	Comparison with the planned figures	Records on Japanese experts	Project records	Document review, interviews	There are no particular problems at the time of the Mid-term evaluation.
		Have the timing, duration, contents of counterpart training been appropriate?	Comparison with the planned figures	Records on counterpart training	Project records	Document review, interviews	According to the questionnaire and interview, trainings are highly appreciated.
		Have the timing, volume, and specification of provision of equipment been appropriate?	Comparison with the planned figures	Records on equipment provision	Project records	Document review, interviews	Equipment was provided in accordance with R/D.
		Have the timing, number, fields and competency of the counterpart personnel been appropriate?	Comparison with the planned figures	List of counterpart personnel	Project records	Document review, interviews	A total of seven counterpart personnel have been assigned (one from MAWR, three from BISM, three from ISD). According to R/D, four C/Ps were planned to be assigned besides PM at MAWR, only PM is assigned.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
	Have the inputs been appropriate to procure the outputs?	Were the physical facilities sufficient to implement the Project activities?	Comparison with the planned figures	information on the facilities	Project records, opinions of experts	Interviews, site visit	There is no problem regarding the facility (project office) in Tashkent. Although there is no facilities strictly provided for the Project in the sites, there is a meeting room at each site and no inconvenience reported by Japanese experts and counterpart personnel.
		Has the scale of Project output been appropriate for the planned inputs?	Comparison with the input costs	Budget and expenditure, local cost by Uzbek side	Project record and personnel, JICA staff	Interview, discussion with Project personnel and JICA staff	<ul style="list-style-type: none"> ● Time and scope of the project activities (e.g. trainings) had to be much enhanced compared to the original plan. Despite this, the activities are carried out by 3 experts. It is considered that the efficiency is high in this regard. ● Teaching manuals are prepared referring to and revising the existing materials, which contributed to reduction of preparation time.
		Is it expectable to obtain enough project achievements to compensate the input costs?	Comparison with the input costs	Budget and expenditure, local cost by Uzbek side	Project record and personnel, JICA staff	Interview, discussion with Project personnel and JICA staff	<ul style="list-style-type: none"> ● The Project has tried to optimize the efficiency by utilizing local materials and consultant.
		Are there any outputs that were realized by cooperation with other JICA schemes or other donors?		Information from the Project	Project record and personnel, JICA staff	Interview, discussion with Project personnel and JICA staff	None.
	Have there been any factors hindering or contributing to the efficiency of the Project?	Has there been any influence by important assumptions?		Information on the participation in activities and trainings by BISM, ISD and WCA staff	Project personnel, Project records	Interview, discussion with Project staff	<p>The following two important assumptions are set at the output level to be fulfilled to achieve Outputs.</p> <p>i) Staff of BISM and ISDs continuously participate in the activities and trainings.</p> <p>ii) Staff of pilot WCAs continuously participate in the activities and trainings.</p> <p>These Important Assumptions are still realistic and adequate. So far, above assumptions are satisfied.</p>
		Have there been any other factors affecting the efficiency?		Information on any relevant events in the course of Project implementation	Project personnel, Project records	Interview, discussion with Project staff	<ul style="list-style-type: none"> ● Trainings were sometimes conducted in agricultural season. ● Intensive repair works, however, are delayed in Djizak and affected the progress of Outputs. ● C/Ps are not full-time and cannot necessarily spend enough time for the project activities. ● Shortage of water in this year may cause concern regarding the amount of water intakes among farmers.
		Is the model of appropriate water management established by the Project likely to be disseminated to areas other than the pilot areas?	Comparison with the baseline	Information on water users fee collection as well as on the self-consciousness and evaluation in the whole basins	Opinions of Project personnel, Project documents, statistics	Document review, interview, discussion with stakeholders	<ul style="list-style-type: none"> ● Technologies transferred and used in the process of the Project are essential for WCAs and do not require high skills. They will be accepted and applied in other area by considering different regional conditions. ● Contribution of excavators is large and there is a need to make funds to establish the lease system between the district offices and WCAs.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Impacts	Is the prospect of achieving the overall goal assumed to be high?	Are the other WCAs in the target basins likely to apply the model of appropriate irrigation management that is to be established by the Project?	Comparison with the baseline	Information on water users fee collection as well as on the self-consciousness and evaluation in the whole basins	Opinions of Project personnel, Project documents, statistics	Document review, interview, discussion with stakeholders	same as above.
		Will the achievement of the overall goal contribute to bringing positive impacts to the policies of Uzbek government?	organizational commitment, existence of relevant programs	Current program, future plan of the government, opinion of the Project staff	Staff of the BISM/ISD, Project personnel	Document review, interviews, discussion	Because of the Project, some ideas for the dissemination are expressed, although they have not been officially discussed.
		Are there any possible factors that hinder or contribute to the achievement of the overall goal?		Information on any relevant events in the course of Project implementation	Project personnel, Project records	Document review, interviews	As for the important assumption "Staff of ISDs in the target regions participate in TOT", the dissemination mechanism should be established.
		Are methods or mechanism suggested to achieve the overall goal?		Future plan of the government, opinion of the Project staff	Staff of the BISM/ISD, Project personnel	Document review, interviews, discussion	BISM may recommend to transfer trained C/Ps of ISDs to other area.
	Is the project purpose still appropriated to achieve the overall goal?	Is the logical sequence between the Project purpose and the overall goal still	Confirmation on the logical sequence	Information on the results of activities that indicate the cause-effect relationship	Project personnel, Project records	Interview, discussion with Project staff	The logical sequence between the Project purpose and the overall goal is still logical and secured.
		Are the important assumptions adequate and realistic?	Influence of surrounding factors on the Project implementation	Information on the relevant factors surrounding the Project	Project personnel, Project records	Interview, discussion	<ul style="list-style-type: none"> ● The following important assumption is set at the output level to be fulfilled to achieve Overall Goal. - Staff of BISM and ISDs in the target regions participate in TOT. The important Assumption is still realistic and adequate. It is expected that the above assumption is satisfied. <ul style="list-style-type: none"> ● Besides above assumptions, "Severe water shortage do not happen" should be added.
		Has there been any effect beyond the intended WCAs?		Information on the sample cases in target area and other areas	Project personnel, Project records	Document review, interviews	<ul style="list-style-type: none"> ● Non-target WCAs in some districts participated in trainings which contributed to the improvement of water fee collection rate. ● Non-pilot WCAs visited the pilot WCAs and showed their intention to apply the project products into their WCAs.
		Has there been any unexpected effect on the policies and programs of BISM/ISD?		Information on the relevant policies	Relevant documents, Project personnel, Project records	Document review, interviews	Not reported.
		Has there been any change or formulation in terms of relevant organization, laws, rules and regulations?		Information on the changes and new setup	Project personnel, Relevant documents	Document review, interviews	Not reported.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
	Have there been any other ripple effects?	Has there been any unexpected change in technical and/or methodological aspects of the training?		Information on the changes that took place	Project personnel, Project records	Document review, interviews	Not reported.
		Has there been any unexpected effect in terms of gender, human rights, ethnics, and poverty level?		Information on the cases of relevant events	Project personnel, Project records	Document review, interviews	Not reported.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
		Has there been any unexpected effect on environmental concerns in the target areas?		Information on the cases of relevant events	Project personnel, Project records	Document review, interviews	Not reported.
	Are the impacts brought by the Project?	What are the factors that brought about the above mentioned positive and negative effects?	Project's attributes to the effects	Information on the other interventions and events in the target areas	Project personnel, sample beneficiaries	Interview, discussion with relevant staff, document review	Not reported.
Will the policy of improving and expanding water management continue ?		Is the possibility of continuation of the policies of irrigation and water management sectors high?	Policy commitment	Current program, future plan of the government, opinion of the Project staff	Policy documents, Project personnel	Interview, discussion with relevant staff, document review	<ul style="list-style-type: none"> ● Policy support might be expected since the Project is in harmony with the Uzbekistani policies and relevant to the needs of the government. ● Due to the amendment of the Water Law, WUA (Water Users Association) became WCA, which are registered at the Ministry of Justice as a corporate body. As a consequence, they are now entitled to have advantages in terms of taxation. This event contributes to the institutional strengthening of WCAs.
		Is there any mechanism to further disseminate the training and approach to other areas in the basins?	Existence of relevant programs	Information on the organizational setup and programs for further dissemination	Project personnel, staff of relevant institutions, oranograms	Interview, discussion with Project staff, document review	<ul style="list-style-type: none"> ● Some ideas for the dissemination are expressed, although they have not been officially discussed. ● BISM may recommend to transfer trained C/Ps of ISDs to other area.
		Are the BISM/ISD committed to continue the activities initiated by the Project?	organizational commitment of the BISM/ISD	Opinions and relevant documents of BISM/ISD	Project personnel, staff of BISM/ISD	Interview, discussion with Project staff	<ul style="list-style-type: none"> ● As mentioned in "Relevance", policy support might be expected since the Project is in harmony with the Uzbekistan policies and relevant to the needs of the government of Uzbekistan. ● The government recognizes the importance of capacity enhancement of WCAs as well as improvement of water management. BISM and ISDs support WCAs in a non-systematical way. Their official roles and functions are not clarified in terms of capacity building of WCAs.
		Are the counterpart personnel capable of carrying out the activities?	Comparison with the baseline	Levels of competence, confidence, experiences and performance	Project personnel, sample beneficiaries	Interview, discussion with Project staff	Activities for the second batch have already started. Although trained C/Ps are supposed to take part in the training activities for the pilot WCAs, they feel that they still need further training to do so. It is expected to conduct training activities by trained C/Ps next year.

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Sustainability	Are the BISM/ISD capable to continue or further expand relevant activities of the Project?	Are the necessary budget allotted for the continuous provision to training, monitoring and evaluation activities?	Budget allocation, planned volume	Budget plan of BISM/ISD	Relevant staff of BISM/ISD, budget documents	Interview, confirmation of documents	<ul style="list-style-type: none"> ● Personnel expenses during trainings conducted by the Project and transport expenses are covered by BISM and ISDs. ● First batch WCAs obtain fees by providing services by an excavator. ● Cost of simple repair can be covered by WCAs' budget, however, that of intensive repair works and maintenance equipment cannot fully be borne by WCAs. Financial assistance from government and donors may be sought. ● There is a special fund for seeds, fertilizers, etc. in the Ministry of Finance for cultivations of raw cotton and wheat. The fund recently started to be available for farmers so that they pay the water fee.
		Are the participating WCAs capable of continuing and expanding their activities initiated during the Project?	Comparison with the baseline	activity records and future plan of the irrigation groups	Sample beneficiaries, Project personnel	Interview, discussion	<ul style="list-style-type: none"> ● For the 1st batch, it is observed that the farmers' attitude towards water and WCAs has positively been changed. It is reported that more farmers now understand the importance/value of water and pay water consumers fee/service fee. ● It is too early to assess this matter for the 2nd batch. However, it is expected to generate similar effects to those of the 1st batch.
Will the technologies and methodologies introduced by the Project continuously be utilized?	Is the model of appropriate water management system properly comprehended and well accepted among the stakeholders?	Levels of understanding and acceptance	Understanding on the model among stakeholders	Project and WCAs personnel, officials of BISM/ISD	Interview, discussion	Technologies transferred and used in the process of the Project are essential for WCAs and do not require high skills. They will be accepted and applied in other area by considering different regional conditions.	
	Is there any mechanism within the BISM/ISD to continue / further disseminate / modify the guidelines/manuals in the future?	Existence of relevant programs	Information on the organizational setup and programs for further continuation and dissemination	Project personnel, staff of BISM/ISD, oranograms	Interview, discussion with Project staff, document review	Texts/manuals were modified reflecting C/Ps' opinions. C/Ps, however, are not able to modify these texts/manuals by themselves.	
	Is the necessary equipment properly maintained?	Degree of maintenance and designation of the responsible entities	Budget allocation, history of maintenance of equipment	Project records, Project personnel	Document review, interviews	<ul style="list-style-type: none"> ● Equipment and materials provided by the Project are properly operated and maintained. ● Part of facilities and large-sized machineries, which used to be possessed by large-scale farms, can now be transferred to WCAs. ● An institute to lease large-sized machineries required for geological melioration and facility maintenances was established in 2008. WCAs are able to use the lease system. 	
	Is there any negative influence on the social and cultural aspects that may become obstacles in carrying out the		Information on the cases of relevant events	Project personnel, Project records, sample beneficiaries	Interview, discussion	Not reported.	

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
		Is there any negative influence on the environment that may inhibit the continuation of the activities?		Information on the cases of relevant events	Project personnel, Project records, sample beneficiaries	Interview, discussion	Not reported.
	Are there any factors that may affect the sustainability of the Project?	What have been the factors affected the provisions of the planned inputs?		Information related to the inputs	Project personnel, Project records & documents	Interview, discussion	Materials for intensive repair works and drip irrigation are provided besides those specified in R/D.
		What have been the factors affected the progress of the activities?		Information related to the process of implementation of the activities	Project personnel, Project records & documents	Interview, discussion	Shortage of water affected the training of water distribution.
	How the presumed conditions at the time of the commencement of the Project been changed and addressed?	What have been the factors affected the degree of achievement of outputs?		Information related to the progress of attainment of the outputs	Project personnel, Project records & documents	Interview, discussion	The Project carried out a part of intensive repair works and installing a demonstration farm for water saving irrigation. since it considered that that those components are required for the transfer of technology to counterparts and for generation of expected Outputs.
		What have been the factors affected the implementation mechanism of the Project?		Information related to the implementation mechanism	Project personnel, Project records	Interview, discussion	There is no C/Ps at the central level (MAWR).
What have been the factors affected the pre-conditions and important assumptions?			Information related to the assumptions	Project personnel, Project records	Interview, discussion	At the time of the Mid-term Review, all the pre-conditions and important assumptions are satisfied.	
Is there any necessary change in terms of activities and inputs of the Project?				Project personnel, staff of the BISM/ISD	Discussion with stakeholders and among the evaluation team	Refer to the above concerning intensive repair works and installing a demonstration farm.	
	Is there any necessary change in terms of outputs and their target indicators of the Project?			Project personnel, staff of the BISM/ISD	Discussion with stakeholders and among the evaluation team	Three Outputs specified in PDM are the basic concepts/components of the Project's approach and they do not have to be modified.	

is to be taken

Evaluation Criteria	Evaluation question		Basis of judgement	Data needed	Data source	Data collection method	Results
	Main question	Sub question					
Identification of the Necessary measure	What are the possible measures to further facilitate the Project implementation?	Is there any necessary change in terms of the Project purpose and its target indicators?			Project personnel, staff of the BISM/ISD	Discussion with stakeholders and among the evaluation team	<p>Indicators at the Project Purpose level are recommended to be modified as follows;</p> <p>1. Collection rate of water and other fees is increased to ●% (1st batch ●% and 2nd batch ●%) by the project termination.</p> <p>2. Evaluation result on capability of WCA and consciousness of member's participatory activity in pilot WCA is improved.</p> <p>2-1. More than 50% of randomly selected WCA members regard the WCA's capability (organization management, efficiency, finance, technique) as improved by the project termination.</p> <p>2-2. More than 50% of randomly selected WCA members think positively participating WCA's activity by the project termination.</p> <p>3. Sqm in model area where water is supplied based on distribution plan by pilot WCA is increased by ●% in 1st batch model area and ■% in 2nd batch model area by project termination.</p> <p>4. Sqm in model area which cannot be irrigated is decreased by ●% in 1st batch model area and ■% in 2nd batch model area by project termination.</p>
		Is there any necessary change in terms of the implementation mechanism of the Project?			Project personnel, staff of the BISM/ISD	Discussion with stakeholders and among the evaluation team	<p>● Japanese experts suggested to cooperate with district departments of MAWR in conducting the Project activities since the departments are closely related to WCA activities, i.e. provision of finance as well as procurement of fertilizer and fuel.</p> <p>● ISD of Djizak suggested to involve Hakimiyat (municipality) into the Project activities since it has more influence on farmers.</p>
		What are the other possible measures to further facilitate the Project implementation?			Project personnel, Project records	Interview, discussion	Refer to the above.

Annex-4 Dispatch of Experts

No	Names	Field of Expertise	Duration of Assignmen	2009/10				2010/11												2011/12			Remark												
				11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5		6	7	8	9	10	11	12	1	2	3		
1	Toru Takahashi	Chief Advisor	Nov 2009 to until now	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
2	Kimura Yoshihisa	Technical Expert	Nov 2010 to until now																																
3	Sumi Yukiyasu	Project Coordinator	Nov 2011 to until now																																
4	Nakajima Shinji	Technical Expert	Nov 2010 & Jun 2011																																
5	Mr Hirata	Technical Expert	Feb to Mar 2010																																
6	Mr Matoba	Technical Expert	Feb to Mar 2011																																

Annex-5 Local Cost by the Japanese side

Until end of June

Unit: USD

Budget Item	2009/10	2010/11	2011/12	2012/13	Total Amount
Project expenditure	39 139,00	161 412,00	40 450,00		
Construction cost (Syrdaria)			72 000,00		
Construction cost (Tashkent)			70 000,00		
Construction cost (Zizax)			15 000,00		
Total	39 139,00	161 412,00	197 450,00		398 001,00

Annex-6 Provision of Equipment and Machinery

Series No.	Description of Equipment	Price (USD)	Price (Japanese Yen)	No. of Equipment	Place of Custody	Conditions of equipment(*)	Frequency of Use(**)	Maintenance Mechanism
1	Excavator	490 000		3	3 WCA	a	A	
2	Damas	98 000		12	3 BISM, 3 ISD, 6 WCA	a	A	
3	3-wheel motor bicycle	11 400		3	3 WCA	a	A	
4	Bicycle OLIMPIYA	5 400		18	6 WCA	a	A	
5	Hydro-metric water measurement device	24 000		9	3 ISD, 6 WCA	a	B	
6	PC/ 3 in 1 (printer, scanner, copy)/ UPS/ Software	12 000		12	3 BISM, 3 ISD, 6 WCA	a	B	
7	Office furniture(shelves, tables, chairs)	8 500		6	6 WCA	a	A	
8	Communication tools*	0						
9	Drip irrigation equipment	21 210		1	1 WCA	a	A	
10	Digital water flow meter (made in Japan)	7 850		1	2 BISM	a	B	

* Not requested from MAWR of Uzb.

* Condition of equipment

rank	statement
a	Good condition
b	In moderate condition
c	For Repair
d	Unable to use

** Classification of the frequency of use of the equipment
(by the manual for JICA coordinators)

rank	statement	frequency	others
A	used frequently	almost daily	
B	used well	1-3 times per week	
C	used in specific season(s) only		needs reasons
D	not so much used	3-11 times per year	needs reasons
E	not used by specific reason		needs reasons

Annex-7 Assignment of Counterpart Personnel

No	Name of Counterpart Staff	Position / Organization	Field of Expertise	Duration of Assignment		2009/10												2010/11												2011/12											
				From	To	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3							
1	Mr. Ahmadjonov Abduval	Vice head of Dept, MA	Water balance	November 2009	till the end of PJ																																				
2	Mr. Dautbekov Jiyanbek	Head of Dept., BISM		March 2010	till the end of PJ																																				
3	Mr. Salimov Anarbay	Head of ISD		March 2010	till the end of PJ																																				
4	Mr. Mustanov Avaz	Head of Dept., BISM		March 2010	till the end of PJ																																				
5	Mr. Qosimov Valijon	Head of ISD		March 2010	till the end of PJ																																				
6	Mr. Gapirov Nishon	Head of Dept., BISM		March 2010	till the end of PJ																																				
7	Mr. Jurayev Abdumuhann	Head of ISD		March 2010	till the end of PJ																																				

Annex-8 Local Cost by the Uzbek side

by Provincial/district Government

Until end of June

Unit: UZS

Budget Item	2009/10	2010/11	2011/12	2012/13	Total Amount
Pastki Buloq office		40 000 000,00			
Karasha office		12 000 000,00			
Dustlik office		13 000 000,00			
Guliston office			18 000 000,00		
Jambul ota			20 000 000,00		
Samarkand			20 000 000,00		
Total	0,00	65 000 000,00	58 000 000,00		123 000 000,00

*All the offices are newly provided for the project by district governments.

by Central Government and Local Branch

Unit: UZS

Budget Item	2009/10	2010/11	2011/12	2012/13	Total Amount
Flume (104 pcs)			31 200 000,00		
Labor Cost	750 000,00	2 250 000,00	562 500,00		
Total	750 000,00	2 250 000,00	31 762 500,00		34 762 500,00

Annex-9: Training Materials

- 1) Training Text-1: Essence and concept of WCA development (Module-1)
- 2) Training Text-2: Managerial and Administrative Skills (Module-2)
- 3) Training Text-3: WCA Financial Management (Module-3)
- 4) Training Text-4: Water Recourses Management (Principles)(Module-4)
- 5) Training Text-5: Water Recourses Management (Practices)(Module-4)
- 6) Technical manual: Minor Repair for Flume Joint Water Leaking

Annex-11

Project Design Matrix (PDM) (Draft)

Project Title: Project for Water Management Improvement
 Target Area:
 - Tashkent Region (under Chirchik-Ohangaran BISM)
 - Syrdarya Region (under Lower Syrdarya BISM)
 - Djizak Region (under Lower Syrdarya BISM)

Project Period: 3.5 years (from November 2009 to May 2013)
 Target Groups: 6 pilot WCAs (2 from each region)

		Version 2 Date: September, 2011	
Narrative Summary Overall Goal	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Water management conducted by WCAs in Chirchik-Ohangaran BISM and Lower Syrdarya BISM is improved.	1. Collection rate of irrigation service and other fees is increased by 20% from year 2010 to year 2016 in the target regions. 2. More than 50% of sample WCA members show appreciation to the improvement of capacity of WCA and increase their participation to WCAs activity in the target regions.	Record of collection of irrigation and service fees Questionnaire survey	The current policy on water management is maintained.
Water management conducted by pilot WCAs is improved.	1. The collection rate of irrigation service and other fees of is increased to 60% in the 1st batch WCAs and to 30% in the 2nd batch WCAs. 3. More than 50% of WCA members regard that the WCAs capacity (organization management, efficiency, finances, technique) is improved. 4. More than 50% of WCA members increase their participation to WCAs activity. 5. 70% of irrigated land in model area is irrigated based on WCAs distribution plan. 6. Farm land in model area that cannot be irrigated is decreased by 10%.	Record of fee collection of irrigation and service fees Questionnaire survey Water distribution plan and records Record of Sqm of irrigated land at selected water canal.	Staff of ISDs in the target regions participate in TOT. Severe water shortage does not occur
1. Training system for WCAs is strengthened.	1-1. More than 10 kinds of training materials for pilot WCA staff prepared. 1-2. More than 6 staff of BISMs and ISDs participated in TOT and able to conduct training for WCA staff. 1-3. More than 96 times of trainings for pilot WCA staff conducted. 2-1. More than 12 staff of pilot WCAs participated in the trainings on water distribution. 2-2. Water distribution plans for model area are formulated by pilot WCAs every year based on the trainings. 2-3. Water distribution records in model area are kept by pilot WCAs based on the trainings.	Report from Project	Trained staff of BISMs and ISDs continue to work. Trained staff of pilot WCAs continue to work. Severe water shortage does not occur during the project.
2. Capacity of pilot WCA staff for water distribution is improved.	3-1. More than 12 staff of pilot WCAs participated in the trainings on maintenance of irrigation and drainage systems. 3-2. Maintenance plans are formulated, implemented and these records are kept for one selected water canal ever year based on the trainings by pilot WCAs	Water distribution record of WCAs Report from Project	
3. Capacity of pilot WCA staff for maintenance of irrigation and drainage systems is improved.	3-1. More than 12 staff of pilot WCAs participated in the trainings on maintenance of irrigation and drainage systems. 3-2. Maintenance plans are formulated, implemented and these records are kept for one selected water canal ever year based on the trainings by pilot WCAs	Maintenance record of WCAs Report from Project	
Input			
Japanese side :			
1. Dispatch of Experts (1) Long-term experts - Chief Adviser - Strengthening WCA - Operation and Maintenance of Irrigation Systems - Project Coordinator Chief advisor and/or Project Coordinator may serve concurrently as one of the sector experts. (2) Short-term Experts 2. Provision of Equipment 3. Training for Counterparts 4. Allocation of Operational Costs for the Project			
Uzbek side :			
1. Assignment of counterpart personnel (1) Project Director (2) Project Manager (3) Counterparts at central level (4) Counterparts at local level 2. Provision of Land, Building and Facilities (Both central and local level) 3. Allocation of operational costs for the Project (staff's salary, utilities at offices, etc.)			
Output			
Staff of BISMs and ISDs continuously participate in the activities and trainings. Staff of pilot WCAs continuously participate in the activities and trainings.			
Pre-conditions			
Important facilities/systems of irrigation and drainage are functional in the target regions.			

