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Component 3

**PERFORMANCE ASSESSMENT OF UNIONS OF WATER
USERS' ASSOCIATIONS**

Version 1a

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ABBREVIATIONS

ADB	Asian Development Bank
Ha	Hectare
I&D	Irrigation and Drainage
M&R	Maintenance and Repair
O&M	Operation and Maintenance
RSU	Raion WUA Support Unit
RVK	District Irrigation Department (<i>Rayvodkhoz</i>)
USAID	United States Agency for International Development
UWUA	Union of WUAs
WB	World Bank
WUA	Water Users' Association
WUA SU	WUA Support Unit

MAIN FINDINGS AND RECOMMENDATIONS

Institutional Aspects

Main Finding	Recommendation
<u>Salient Features</u>	
All 10 assessed UWUAs are registered and registration certificate has been issued.	None
10 assessed UWUAs are formed by 2 to 7 WUAs.	None
4 assessed UWUAs also supply canal water to other water users.	None
An average number of 5 off-farm canal are operated and maintained by the 10 assessed UWUAs ranging from 2 to 10 off-farm canals.	None
Average size of the service area of the 10 assessed UWUAs is 5,722 ha varying from 3,558 ha to 8,751 ha.	None
On average, 8 villages are located in the service area of the 10 assessed UWUAs ranging from only 3 villages in the service area of Suubashy UWUA to as many as 15 villages in the service area of Uvam UWUA.	None
<u>UWUA Charter and Internal Rules</u>	
All 10 assessed UWUAs have adopted the Charter and internal rules related to the management of the UWUA itself and the O&M of the off-farm I&D system.	None
Eight of 10 assessed UWUAs have adopted one or more sanctions for violation of UWUA Charter and/or any internal rules.	All UWUA should formulate and adopt effective penalties and sanctions to be imposed on WUAs and/or other water users for the violation of the UWUA Charter and/or internal rules.
<u>UWUA Organs</u>	
On average, the Representative Assembly of the 10 assessed UWUAs has 39 members, ranging from only 9 to as many as 96 members.	Representative Assembly of the UWUA should ideally have a minimum 20 and a maximum of 50 members, whereby each WUA has a number of representatives in accordance with the size of its service area.
On average, only 12% of all members of the Representative Assembly is female and 2 assessed UWUAs do not have female representatives at all.	At least 15% of the members of the Representative Assembly of the UWUA should be female.
Representative Assembly in all 10 assessed UWUAs had 1 to 4 meetings in 2015 and minutes of all meetings are prepared.	None
In 6 of 10 assessed UWUAs, the WUA Councils are informed about any decisions made by the UWUA Representative Assembly.	All WUAs within the service area of the UWUA must be formally and in writing informed about any decision made by the UWUA.
On average, the UWUA Council has 9 members, ranging from 5 to 15 members.	None

Main Finding	Recommendation
Three of the 10 assessed UWUAs have one female Council member.	Council of all UWUAs should have at least one female member.
On average, one-third of the UWUA Council members have land in the tail reach of the IWUA service area, varying from 14% to 47%.	At least 33% of all members of the UWUA Council should be from the tail reach of the service area.
All 10 assessed UWUAs have an elected Chairman but only 4 assessed UWUAs also have an elected Secretary.	All UWUA Councils should have an elected Secretary to support the UWUA Council Chairman with the management of the UWUA, including the preparation of minutes of meetings.
On average, the Council of the 10 assessed UWUAs had 3 meetings in 2015 and minutes were prepared for all conducted meetings. However, 8 of the 10 assessed UWUAs only had 1 to 3 Council meetings in 2015.	UWUA Council should have at least one meeting once every quarter to ensure the effective management of the UWUA itself and the O&M of the off-farm I&D system.
In all 10 assessed UWUAs, the WUA Councils are informed about the decisions made by the UWUA Council.	None
All 10 assessed UWUAs have an Audit Commission with 3 elected members.	None
The Audit Commission in 7 out of 10 assessed UWUAs had 1 to 4 meetings in 2015.	Audit Commission of the UWUA should have at least one meeting per year to review the Annual Report and financial statements.
A report of each meeting is prepared of each Audit Commission meeting in 6 of the 7 assessed UWUAs where the Audit Commission had at least one meeting in 2015.	A report should be prepared of all conducted meetings of the Audit Commission.
Eight of 10 assessed UWUAs have formed a Dispute Resolution Commission comprising 3 to 6 members.	All UWUAs should have a Dispute Resolution Commission to facilitate conflict resolution in an accountable, transparent and fair manner.
All 10 assessed UWUAs have a Director and an Accountant, whereas 7 assessed UWUAs also have a Hydro-Engineer.	All UWUAs should employ a Hydro-Engineer to ensure the effective O&M of the off-farm I&D system.
All 9 assessed UWUAs managing the off-farm I&D system employ 1 to 10 <i>Murab</i> for 6 to 10 months each year.	None
Office and Assets	
All 10 assessed UWUAs have an office with furniture.	None
Only 2 assessed UWUAs have a computer with printer.	All UWUA should have at least one computer with printer to facilitate its administrative and financial management, including the assessment, billing and collection of the service charges to be paid by the WUAs and any other water users, as well as the O&M of the off-farm I&D system, including the preparation of maintenance plan and budget.
Two of the 10 assessed UWUAs do not have any machinery and equipment at all, whereas 6 assessed UWUAs own a tractor, 8 assessed	None

Main Finding	Recommendation
UWUAs possess an excavator/backhoer and 2 assessed UWUAs also have a loader.	
Six of the 10 assessed UWUAs rented machinery in 2015 and they spent KGS 3,000 to KGS 214,000.	None
Four of the 10 assessed UWUAs own one car.	None
<u>Gender Issues</u>	
Female representatives are not actively involved in the management of 3 of the 10 assessed UWUAs and the main reported reasons are that men make decisions, women lack time and women are not interested.	All UWUAs should receive training in gender issues in order to enhance the representation of women in the Representative Assembly and Council as well as to improve their participation in the management of the UWUA and the O&M of the off-farm I&D system.
Only 2 of the 10 assessed UWUAs received training in gender issues during the last 5 years either from WUA Support Unit staff or project staff.	

Administrative Management

Main Finding	Recommendation
All 10 assessed UWUAs have a map of their respective service area, register of correspondence, register of minutes of meetings and order book, whereas 8 out of 10 assessed UWUAs also maintain register of elected members of UWUA Council, Audit Commission and Dispute Resolution Commission, register of water supply requests, register of actual water supply and register of transactions and contracts. Seven assessed UWUAs have an asset register, 5 assessed UWUAs have a register of non-members and 2 assessed UWUAs have a visitors' book.	Each UWUA should maintain at least the following non-financial documents: i) register of UWUAs and other water users; ii) register of elected members of Council, Audit Commission, Dispute Resolution Commission and any other sub-commission; iii) map of UWUA service area; iv) register of minutes of meetings; v) register of correspondence; vi) register of water supply requests; vii) register of actual water supply; viii) register of submitted complaints; ix) order book; x) maintenance register; xi) register of transactions and contracts; xii) asset register; and xiii) visitors' book.
In 5 of the 10 assessed UWUAs, the Audit Commission conducted an internal audit of the non-financial documents.	Audit Commission in all UWUAs should conduct an internal review of all non-financial documents at least once a year.
WUA Support Unit carried out an external audit of the non-financial documents for 6 assessed UWUAs.	WUA Support Units should undertake an external audit of all non-financial documents maintained by all UWUAs once a year.

Financial Management

Main Finding	Recommendation
<u>Financial Documents</u>	
All 10 assessed UWUAs maintain a cash book, receipt book and cost estimates record, whereas 9 assessed UWUAs also have a bank book, ledger, service charge record and work acceptance record. Only 2 assessed UWUAs maintain a records with the imposed and paid fines.	All UWUA should maintain at least the following financial documents: i) ledger; ii) cash book; iii) bank book; iv) Service charge assessment, billing and collection register; v) receipt book; vi) cost estimates book; vii) work acceptance book; and viii) imposed and collected fines book.
Annual Report and financial statements are prepared by all 9 functional UWUAs between December and February.	None
In all 9 assessed UWUAs having prepared an Annual Report and financial statements, the UWUA Council approves these documents, whereas they are approved by the Representative Assembly of 5 assessed UWUAs.	Annual Report and financial statements should be approved by the Council and Representative Assembly in all UWUAs.
Seven of the 9 assessed UWUAs submit their approved Annual Report and financial statements to the CSU.	All UWUAs should submit the approved Annual Report and financial statements to the CSU for review and approval.
Annual Report and financial statements are internally audited by the Audit Commission in 6 of the 9 assessed UWUAs.	Audit Commission in all UWUAs should conduct an internal audit of the Annual Report and financial statements prior to the meeting of the Representative Assembly.
Annual Report and financial statements of only 3 of the 9 assessed UWUAs having prepared these documents were externally audited by the WUA Support Units.	WUA Support Units should carry out an external audit of the Annual Report and financial statements prepared by all UWUAs.
All 9 assessed functional UWUAs prepared the Annual Budget for 2015 between January and March 2015.	None
In all 9 assessed functional UWUAs, the Annual Budget for 2015 was reviewed and approved by the UWUA Council, but it was approved by the Representative Assembly in 6 assessed UWUAs.	Annual Budget should be reviewed and approved by the Council and Representative Assembly of all UWUAs.
<u>Bank Account and Reserve Fund</u>	
Eight of the 10 assessed UWUAs have opened a bank account but only five assessed UWUAs have money in their respective bank account.	All UWUAs should open a bank account in its name.
Five of the 10 assessed UWUAs have established a Reserve Fund.	All UWUAs should establish a Reserve Fund in order to finance any emergency repairs and future rehabilitation of the off-farm I&D structures.
<u>Irrigation Service Fee</u>	
In 6 assessed functional UWUAs, the service charge to be paid is assessed on volumetric basis, whereas it is area-based in the remaining 3 assessed functional UWUAs.	None

Main Finding	Recommendation
The existing service charge rates have been fixed for a period of 2 to 10 years in the 9 assessed UWUAs.	Service charge rate should be determined annually based on the approved Annual Budget.
In 8 of the 9 assessed functional UWUAs, invoices are issued monthly to all WUAs and any other water users.	All UWUAs should issue invoices to all WUAs and any other water users indicating the amount of service charge to be paid and when.
In 8 of the 9 assessed functional UWUAs, WUAs and any other water users have to pay 25% or 30% of the total service charge in advance.	In all UWUAs, the WUAs and any other water users should pay at least 25% of the total service charge in advance.
In all 9 assessed functional UWUAs, the WUAs and any other water users have to pay their service charge at UWUA office to the Accountant, who issues a receipt to the WUAs and any other water users when they have paid their service charge to the UWUA.	None
In all 9 assessed functional UWUAs, 33% to 100% of the WUAs have not paid all their service charges to the UWUA in 2015.	None
The average service charge collection rate for 2015 is 78%, ranging from 62% to 99%.	None
Only 3 of the 9 assessed functional UWUAs have adopted one or more sanctions for late and non-payment of service charge, including the suspension of water supply.	All UWUAs should formulate and adopt effective penalties and sanctions for late and non-payment of service charges, including fines, interest and cessation of water supply.
Two of the 3 assessed UWUAs with sanctions reported to have imposed sanctions on the defaulters.	All UWUAs should strictly impose penalties and sanctions on all defaulters in order to avoid the problem of "free riders".
All 9 assessed UWUAs with service charge collection stated that they try to recover any outstanding service charges.	All UWUAs should formulate and adopt effective methods to recover any outstanding service charges, including confiscation of assets, cessation of water supply, report to local authorities and/or Police, submission of case to local courts.
Technical Credit	
By the end of 2015, 8 assessed UWUAs having obtained a technical credit had repaid KGS 853,125 or 4% of the total amount of KGS 20.94 million that these assessed UWUAs have to repay. All 8 assessed UWUA have an approved repayment plan but they are behind schedule with the payment of the agreed instalments.	RSUs should closely monitor the repayment of the technical credits by all UWUAs in accordance with the agreed repayment schedule and report any default to the CSU for further action.
Training and Technical Support	
9 of the 10 assessed UWUA reported to have received training in administrative and financial management between 2011 and 2015, which was mainly provided by WUA Support Unit staff and Project staff.	All UWUAs should receive (refresher) training in all aspects related to administrative and financial management at least once every 3 to 4 years based on assessed training needs.
In all 9 assessed UWUAs having received training in administrative and financial management, the	In all UWUAs, at least the UWUA Council Chairman and Secretary, Director and Accountant

Main Finding	Recommendation
Director received training, whereas the UWUA Council Chairman and the Accountant received training in 6 assessed UWUAs.	should receive training in administrative and financial management.
In 9 assessed UWUAs, the concerned RSU staff reportedly conduct weekly or monthly visits, whereas the Karakol-Sook UWUA is visited once every quarter. Data collection, attending Assembly meetings, dispute resolution, inspections and provision of training are the main reasons for the RSU staff to conduct the assessed UWUAs regularly.	None

Operation of Off-Farm I&D System

Main Finding	Recommendation
<u>Water Use License</u>	
Only the Suubashy UWUA in Issyk-Kul Oblast has obtained a water use license in 2014 and the duration of the issued license is 5 years.	If feasible, all UWUAs should obtain a water use license for a period of at least 10 years.
<u>Annual Water Distribution Plan and Schedule</u>	
All 9 assessed functional UWUAs collect the planned cropping pattern data between January and April.	None
All 9 assessed functional UWUAs prepare an annual water distribution plan and schedule between January and April.	None
None of the assessed UWUAs use CROPWAT-software during the preparation of their respective annual water distribution plan and schedule.	If feasible, UWUAs should receive the CROPWAT software and training in using this software during the preparation of their annual water distribution plan and schedule.
The annual water distribution plan and schedule is approved by the UWUA Council and Representative Assembly in respectively 5 and 4 of the 9 assessed UWUAs.	Annual water distribution plan and schedule should be approved by the Council of all UWUAs.
Four assessed UWUAs also submit the prepared annual water distribution plan and schedule to the RVK for review and approval.	All UWUAs should submit their approved annual water distribution plan and schedule to the RVK for review and approval.
<u>Annual Water Supply Contract</u>	
Eight of the 9 assessed functional UWUAs signed annual water supply contracts with the WUAs in their respective service areas between February and April.	All UWUAs should sign annual water supply contracts with all WUAs and any other water users.
<u>Flow Measurement and Recording</u>	
Water flow at the head of the off-farm I&D system is measured and recorded by 8 of the 9 assessed functional UWUAs.	All UWUAs should measure the water flow at the head of the off-farm I&D system.

Main Finding	Recommendation
Water flow at head of the off-farm I&D system is measured and recorded daily in 7 assessed UWUAs, whereas it is done monthly in the Kumushtak UWUA.	Water flow should be measured and recorded at the head of the off-farm I&D system at least once every day by all UWUAs.
Water flow at the head of the off-farm I&D system is measured visually in 8 assessed UWUAs and electronically in 5 assessed UWUAs.	None
Reportedly, the recorded flow measurements at the head of the off-farm I&D system are published in all 8 assessed UWUAs.	None
Water flow within the service area of the off-farm I&D system is measured and recorded by 7 of the 9 assessed functional UWUAs.	All UWUAs should measure and record the water flow at the head of all on-farm I&D systems located within their respective service areas.
Water flow is measured visually in all 7 assessed UWUAs and electronically in 4 assessed UWUAs.	None
Water flow within the service area of the off-farm I&D system is measured and recorded daily in 6 assessed UWUAs, whereas it is done monthly in the Kumushtak UWUA.	All UWUAs should measure and record the water flows within the service area of the off-farm I&D system at least once a day.
Except for the Kumushtak UWUA, the recorded flow measurements within the service area of the off-farm I&D system are published in the other 6 assessed UWUAs.	All UWUAs should regularly publish the flow measurement data recorded within the service area of the off-farm I&D system.
Water Distribution	
In years with sufficient canal water, 3 assessed UWUA only use the on-demand method to distribute water among the WUAs and any other water users, whereas 4 assessed UWUAs only distribute available canal water proportionally. The Ak-Suu UWUA uses the on-demand, proportional and rotational method, while the Ala-Buka Sugat SUU UWUA distributes water on-demand and proportionally.	None
In years with water shortage, the on-demand method is only used by the Kumushtak UWUA in combination with rotational distribution, whereas the remaining 8 assessed UWUAs distribute the available canal water proportionally and/or rotationally.	None
In all 9 assessed functional UWUAs, the Director is responsible for organising and supervising the distribution of available canal water during the irrigation season, whereas the Hydro-Engineer is also responsible in 7 assessed UWUAs and the <i>Murab</i> in 6 assessed UWUAs.	None
Irrigated Area and Crops	
For 7 of the 10 assessed UWUAs, 100% of the planned irrigated area was actually irrigated in 2015. In the other 3 assessed UWUAs,	None

Main Finding	Recommendation
respectively 78%, 89% and 97% of the planned irrigated area was actually irrigated.	
Fodder and wheat are grown within the service area of respectively 9 and 6 assessed UWUAs followed pulses and beans in 5 assessed UWUAs, fruit in 4 assessed UWUAs, maize and barley in 3 assessed UWUAs, and vegetables, potato and cotton in 2 assessed UWUAs.	None
Three to five main irrigated crops are cultivated within the respective service areas of the 10 assessed UWUAs.	None
<u>Water-Related Disputes</u>	
Seven of the 9 assessed functional UWUAs had 2 to 12 reported disputes between WUAs and/or other water users, mainly due to water stealing and not respecting the water distribution schedule, while causing damage to the I&D infrastructure was the reason for disputes in 2 assessed UWUAs.	None
Four of the 9 assessed functional UWUAs had 2 to 10 reported disputes between UWUA and one or more WUAs/other water users, mainly due to water stealing, while causing damage to the I&D infrastructure was the reason for disputes in 2 assessed UWUAs and inadequate water supply in 1 assessed UWUA.	None
Ak-Suu UWUA reported a dispute with the RVK caused by inadequate water supply.	None
<u>Communication with RVK</u>	
Five of the 9 assessed functional UWUAs communicated by phone with the concerned RVK on a daily, weekly or monthly basis.	All UWUAs should communicate with the RVK at regular (weekly) intervals.
During the communication between the 5 assessed UWUAs and the concerned RVKs, water availability and emergency situation are the main topics followed by planned water supply, actual water supply and actual weather condition.	None

Maintenance of Off-Farm I&D System

Main Finding	Recommendation
<u>Annual Maintenance Plan and Budget</u>	
All 9 assessed functional UWUAs conduct a maintenance inspection between October and March.	None
All 9 assessed functional UWUAs prepare their annual maintenance plan and budget between November and March.	None

Main Finding	Recommendation
All 9 assessed UWUAs having prepared annual maintenance plan stated that a priority ranking of the identified M&R works is carried out.	None
Three assessed UWUAs reported that they received support from the concerned RVK during the preparation of their respective annual maintenance plan and budget.	None
In all 9 assessed UWUAs, the UWUA Council approves the annual maintenance plan and budget, whereas it is approved by the Representative Assembly in 5 assessed UWUAs.	None
<u>Execution of M&R Works</u>	
Execution of the M&R works is usually carried out between November and April.	None
Three assessed UWUAs reported that they received support from the concerned RVK during the execution of the M&R works.	None
All assessed UWUAs stated that the <i>asher</i> system is used, whereby water users provide labour during the execution of the M&R works on the off-farm I&D system.	None
Eight of the 9 assessed functional UWUAs contract out some of the M&R works out, mainly to private contractors.	None
Lack of machinery is the main reason for contracting out some of the M&R works followed by lack of manpower.	None
All 9 assessed functional UWUAs reported to have a maintenance register.	None
Two of the 9 assessed functional UWUAs stated that not all planned M&R works were carried out in 2015 due to insufficient manpower, budget and machinery.	None
<u>Training and Technical Support</u>	
Seven of the 10 assessed UWUA received training in O&M of the off-farm I&D system from WUA Support Unit and Project staff between 2011 and 2015.	All UWUAs should receive (refresher) training in all aspects related to the O&M of the off-farm I&D system at least once every 3 to 4 years based on assessed training needs.
In all 7 assessed UWUAs having received O&M training, the Director was trained compared with the Hydro-Engineer and <i>Murab</i> in 2 assessed UWUAs.	In all UWUAs, at least the Director, Hydro-Engineer and <i>Murab</i> should receive training in the O&M of the off-farm I&D system.
<u>Asset Management Plan</u>	
None of the 10 assessed UWUAs have prepared an (5-year) asset management plan for their respective off-farm I&D system based on an inventory of all existing I&D infrastructure.	All UWUAs should prepare an (5-year) asset management plan for the off-farm I&D system with support of the RSUs.
<u>Physical Condition of I&D Infrastructure</u>	

Main Finding	Recommendation
Five of the 10 assessed UWUAs have their respective off-farm I&D system partially (20 to 70%) rehabilitated by ADB, USAID, World Bank or another project (CAREC).	None
Physical condition of the majority of intake structures, canals, regulation and distribution structures, flow measurement devices and ancillary structures is mediocre or poor.	None
Only 2 of the 10 assessed UWUAs have a drainage system within their respective service area and their physical condition is mediocre and poor.	None
Environmental and Health Issues	
Disposal of solid waste in the service area of 6 assessed UWUAs is a problem which is mainly caused by people living inside and outside the service area.	WUA Support Units, RVK/OVK and local authorities should support the concerned UWUAs with resolving the problem caused by the disposal of solid waste within their respective service areas
Disposal of sewage water in the off-farm canals is a problem in 3 assessed UWUAs mainly caused by towns and villages located in the service areas.	WUA Support Units, RVK/OVK and local authorities should support the concerned UWUAs with resolving the problem caused by the disposal of sewage water in the off-farm canals.
None of the 10 assessed UWUAs have problems with chemical pollution of canal water and soil salinity within their respective service areas.	None
Waterlogging is a minor problem in the service area of the Ala-Buka Sugat Suu UWUA.	WUA Support Units and RVK/OVK should support the concerned UWUA with resolving the problem caused by waterlogging.
Suubashy UWUA reported that dysentery is a major health problem in its service area due to lack of safe drinking water, poor drainage and use of canal water as potable water.	WUA Support Units and local authorities should support the concerned UWUAs with resolving the problem with dysentery caused by poor drainage.

1 INTRODUCTION

Between the end of March and early May 2016, the performance of 10 Unions of Water Users' Associations (UWUAs), which have taken over the responsibility for the operation and maintenance (O&M) of the off-farm irrigation and drainage (I&D) system, was assessed by the following three questionnaires: i) questionnaire on institutional aspects of UWUA; ii) questionnaire on administrative and financial management of IWUA; and iii) questionnaire on O&M of off-farm irrigation system.

1.1 Names and Location of Assessed UWUAs

The names and location of the 10 assessed UWUAs are shown in Table 1-1:

Table 1-1: Name and Location of Assessed UWUAs

Name of UWUA	Location	
	Oblast	Raion
Urmural-Birimdigi	Talas	Bakai-Ata
Ak-Suu	Osh	Kara-Suu
Uvam	Osh	Kara-Suu
Ala-Buka Sugat Suu	Jalalabad	Ala-Buka
Kichi-Kemin Suubas	Chui	Kemin
Bakai-Alysh	Talas	Bakai-Ata
Saza-Baisuu	Talas	Manas
Kumushtak	Talas	Bakai-Ata
Suubashy	Issyk-Kul	Issyk-Kul
Karakol-Sook	Naryn	Kochkor

At present, the Kichi-Kemin Suubas UWUA is non-functional due to a conflict between the two WUAs about the repayment of the technical credit that the UWUA has obtained. The largest WUA is currently operating and maintaining the off-farm I&D system.

2 INSTITUTIONAL ASPECTS OF UNIONS OF WATER USERS' ASSOCIATIONS

2.1 Establishment and Registration

The year of establishment and registration for the 10 assessed UWUAs is presented in Table 2-1:

Table 2-1: Establishment and Registration of UWUA

Name of UWUA	Year of Establishment	Year of Registration	Registration Certificate
Urmural-Birimdigi	2008	2008/2011	Yes
Ak-Suu	2005	2005	Yes
Uvam	2007	2007	Yes
Ala-Buka Sugat Suu	2009	2009	Yes
Kichi-Kemin Suubas	2008	2008	Yes
Bakai-Alysh	2011	2011	Yes
Saza-Baisuu	2006	2006	Yes
Kumushtak	2012	2012	Yes
Suubashy	2007	2007	Yes
Karakol-Sook	2006	2006	Yes

The 10 assessed UWUAs were established and formally registered between 2005 and 2012 and all of them have a registration certificate.

2.2 WUAs and Other Water Users

The number of WUAs forming the UWUA and the supply of canal water to any other water users are summarised in Table 2-2:

Table 2-2: Number of WUAs and Other Water Users

Name of UWUA	Number of WUAs	Other Water Users		
		Private Legal Entities	State Legal Entities	Individuals
Urmural-Birimdigi	7	8	1	92
Ak-Suu	4	-	1	-
Uvam	6	-	-	-
Ala-Buka Sugat Suu	4	-	-	-
Kichi-Kemin Suubas	2	-	-	-
Bakai-Alysh	3	-	1	2
Saza-Baisuu	4	-	-	-
Kumushtak	5	1	-	-
Suubashy	3	-	-	-
Karakol-Sook	2	-	-	-

The 10 assessed UWUAs are formed by 2 to 7 WUAs. Two assessed UWUAs supply canal water to respectively 8 and 1 private legal entities, whereas three assessed UWUAs provide water to a state legal entity as well. The Urmural-Birimdigi UWUA also supplies canal water to 92 individual water users, who are not members of one of the 7 WUAs, whereas 2 individual water users receive water from the Bakai-Alysh UWUA.

2.3 UWUA Service Area

The number of off-farm canals managed by the UWUA, the size of the UWUA service area and the number of villages located in the UWUA service area are presented in Table 2-3:

Table 2-3: Number of Off-Farm Canals and Size of UWUA Service Area

Name of UWUA	Number of Off-Farm Canal	UWUA Service Area	
		Size (ha)	Number of Villages
Urmural-Birimdigi	3	8,268	10
Ak-Suu	4	5,901	14
Uvam	5	5,990	15
Ala-Buka Sugat Suu	8	6,810	9
Kichi-Kemin Suubas	3	3,558	5
Bakai-Alysh	2	3,885	4
Saza-Baisuu	2	3,602	4
Kumushtak	5	5,200	5
Suubashy	10	5,255	3
Karakol-Sook	3	8,751	7
Average	5	5,722	8

An average number of 5 off-farm canal are operated and maintained by the 10 assessed UWUAs ranging from 2 to 10 off-farm canals. The average size of the service area of the 10 assessed UWUAs is 5,722 ha varying from 3,558 ha to 8,751 ha. On average, 8 villages are located in the service area of the 10 assessed UWUAs ranging from only 3 villages in the service area of Suubashy UWUA to as many as 15 villages in the service area of Uvam UWUA.



Service area in Jalalabad Oblast (left) and Osh Oblast (right)

2.4 UWUA Charter and Internal Rules

The presence of the UWUA Charter as well as the adoption of internal rules and sanctions are shown in Table 2-4:

Table 2-4: UWUA Charter, Internal Rules and Sanctions

Name of UWUA	UWUA Charter	Adopted Internal Rules		Adopted Sanctions
		UWUA Management	O&M of Off-Farm System	
Urmural-Birimdigi	Yes	Yes	Yes	Yes
Ak-Suu	Yes	Yes	Yes	Yes
Uvam	Yes	Yes	Yes	Yes
Ala-Buka Sugat Suu	Yes	Yes	Yes	No
Kichi-Kemin Suubas	Yes	Yes	Yes	Yes
Bakai-Alysh	Yes	Yes	Yes	Yes
Saza-Baisuu	Yes	Yes	Yes	No
Kumushtak	Yes	Yes	Yes	Yes
Suubashy	Yes	Yes	Yes	Yes
Karakol-Sook	Yes	Yes	Yes	Yes

All 10 assessed UWUAs have a Charter and adopted internal rules related to the management of the UWUA itself and the O&M of the off-farm I&D system. In addition, 8 of the 10 UWUAs also adopted one or more sanctions to be imposed on any water user for the violation of the UWUA Charter and/or any internal rule adopted by the IWUA.

2.5 Representative Assembly

2.5.1 Number of Representatives

The number of elected representatives and their terms of office are shown in Table 2-5:

Table 2-5: Number of Representatives and Terms of Office

Name of UWUA	Number of Representatives			Terms of Office (Years)
	Total	Female	% of Total	
Urmural-Birimdigi	41	5	12%	3
Ak-Suu	57	8	14%	5
Uvam	57	3	5%	3
Ala-Buka Sugat Suu	96	9	9%	5
Kichi-Kemin Suubas	22	0	0%	5
Bakai-Alysh	23	5	22%	3
Saza-Baisuu	20	0	0%	3
Kumushtak	26	7	27%	3
Suubashy	9	1	11%	3
Karakol-Sook	43	5	12%	3
Average	39	5	12%	-

The 10 assessed UWUAs have an average number of 39 elected representatives ranging from only 9 representatives for the Suubashy UWUA to as many as 96 representatives for the Ala-Buka Sugat SUU UWUA. The 10 assessed UWUAs have an average number of 5 female representatives or 12% of the total number of elected representatives, varying from no female representatives in the Saza-Baisuu UWUA and Kichi-Kemin Suubas WUA to 27% in Kumushtak UWUA. In 7 of the 10 assessed UWUAs, the representatives are elected for a period of 3 years against 5 years in the other 3 assessed UWUAs.

2.5.2 Meetings

The number of meetings of the Representative Assembly as well as the modalities to inform the elected representatives about the date, time and location of the next Representative Assembly meeting are presented in Table 2-6:

Table 2-6: Representative Assembly Meetings

Name of UWUA	Number of Meetings	Method to Inform Representatives		
		Verbally (Phone)	Written Invitation	Public Announcement
Urmural-Birimdigi	3	Yes	Yes	Yes
Ak-Suu	1	Yes	No	No
Uvam	1	Yes	No	No
Ala-Buka Sugat Suu	1	Yes	No	No
Kichi-Kemin Suubas	1	Yes	No	No
Bakai-Alysh	4	Yes	Yes	No
Saza-Baisuu	2	Yes	No	No
Kumushtak	3	Yes	Yes	No
Suubashy	1	Yes	No	Yes
Karakol-Sook	2	Yes	No	Yes

In 2015, 5 out of 10 assessed UWUAs had one Representative Assembly meeting, whereas the other 5 assessed UWUAs had 2 to 4 meetings of their Representative Assembly. Reportedly, the Representative Assembly meetings of all 10 assessed UWUAs had the required quorum. In all 10 assessed UWUAs, the elected representatives are informed verbally about the date, time and location of the next Representative Assembly meetings, whereas written invitation and/or public announcement are also used in 5 assessed UWUAs.

In all 10 assessed UWUAs, the Director is responsible for informing the elected representatives about the date, time and location of the next Representative Assembly meeting. Except in Ak-Suu UWUA, the UWUA Council Chairman is also responsible for informing the elected representatives, whereas other UWUA Council members in Uvam UWUA and Bakai-Alysh UWUA are expected to inform the elected representatives as well.

2.5.3 Minutes of Meeting

The preparation of minutes of the Representative Assembly meetings and the modalities are summarised in Table 2-7:

Table 2-7: Minutes of Representative Assembly Meetings

Name of UWUA	Minutes Prepared	Responsible Person(s)				
		UWUA Council Chairman	Other UWUA Council Members	Director	Accountant	Others
Urmural-Birimdigi	Yes	Yes	Yes	No	No	No
Ak-Suu	Yes	Yes	Yes	Yes	No	No
Uvam	Yes	No	No	No	Yes	No
Ala-Buka Sugat Suu	Yes	Yes	No	Yes	No	No
Kichi-Kemin Suubas	Yes	Yes	No	Yes	No	No
Bakai-Alysh	Yes	Yes	No	Yes	No	Yes
Saza-Baisuu	Yes	Yes	No	Yes	No	No
Kumushtak	Yes	Yes	No	No	No	Yes
Suubashy	Yes	Yes	No	Yes	No	No
Karakol-Sook	Yes	Yes	No	No	Yes	No

Reportedly, minutes of all Representative Assembly meetings are prepared and the UWUA Council Chairman is responsible for the preparing these minutes in 9 of the 10 assessed UWUAs. In 6 of the 10 assessed UWUAs, the Director is also responsible for the preparation of the minutes of the conducted Representative Assembly meetings. Other UWUA Council members, Accountant or other person(s) are involved in preparing these minutes as well.

2.5.4 Information of WUAs

The modalities for informing the WUAs about the decisions made by the Representative Assembly of the UWUA are presented in Table 2-8:

Table 2-8: Information of WUAs about Representative Assembly's Decisions

Name of UWUA	Modalities to Inform WUAs				
	Report to WUA Council	Report to WUA Assembly	Notice Board	Written Notice	Other
Urmural-Birimdigi	Yes	No	Yes	No	No
Ak-Suu	Yes	No	No	No	Yes
Uvam	No	Yes	No	No	No
Ala-Buka Sugat Suu	No	Yes	No	Yes	No
Kichi-Kemin Suubas	Yes	Yes	No	No	No
Bakai-Alysh	Yes	Yes	No	No	No
Saza-Baisuu	Yes	Yes	No	No	No
Kumushtak	Yes	Yes	No	No	No
Suubashy	No	Yes	No	No	No
Karakol-Sook	No	Yes	Yes	No	Yes

In 8 of the 10 assessed UWUAs, the WUA Assembly members are informed about any decisions made by the UWUA, whereas the UWUA reports to the WUA Council in 6 of the 10 assessed UWUAs. The notice board is only used in 2 assessed UWUAs to inform WUAs and their members, while a written notice is issued by the Ala-Buka Sugat SUU.

2.6 UWUA Council

2.6.1 Composition

The composition of the UWUA Council for the 10 assessed UWUAs is shown in Table 2-9:

Table 2-9: Composition of UWUA Council

Name of UWUA	Members		Terms of Office (Years)	Members with Land in Tail Reach	
	Total	Female		Number	% of Total
Urmural-Birimdigi	15	1	3	7	47%
Ak-Suu	7	0	3	1	14%
Uvam	7	0	3	3	43%
Ala-Buka Sugat Suu	9	1	5	3	33%
Kichi-Kemin Suubas	7	0	5	3	43%
Bakai-Alysh	7	0	3	2	29%
Saza-Baisuu	5	0	3	1	20%
Kumushtak	13	0	3	3	23%
Suubashy	11	1	3	2	18%
Karakol-Sook	11	0	3	4	36%
Average	9	0.3	-	3	33%

The 10 assessed UWUAs have an average number of 9 Council members, ranging from 5 to 15 members. Only 3 of the 10 assessed UWUAs have one female Council member. Eight of the 10 assessed UWUAs have adopted one or two criteria specifying that each WUA and/or each village must be represented in the UWUA Council by at least one elected member, whereas the Suubashy UWUA also adopted the criterion that each ethnic group must be represented. The terms of office for the elected UWUA Council members is 3 years for 8 of the 10 assessed UWUAs and 5 years in the remaining 2 assessed UWUAs. On average, one-third of the UWUA Council members have land in the tail reach of the IWUA service area, varying from 14% to 47%.

2.6.2 Office Bearers

The elected office bearers and the year of the last election are presented in Table 2-10:

Table 2-10: Office Bearers and Last Election

Name of UWUA	Elected Office Bearers				Year of Last Election
	Chairman	Deputy Chairman	Secretary	Treasurer	
Urmural-Birimdigi	Yes	Yes	Yes	No	2014
Ak-Suu	Yes	No	No	No	2016
Uvam	Yes	Yes	No	No	2016
Ala-Buka Sugat Suu	Yes	No	No	No	2011
Kichi-Kemin Suubas	Yes	No	Yes	No	2012
Bakai-Alysh	Yes	No	No	No	2014
Saza-Baisuu	Yes	No	Yes	No	2015
Kumushtak	Yes	No	Yes	No	2014
Suubashy	Yes	No	No	No	2015
Karakol-Sook	Yes	No	No	No	2015

All 10 assessed UWUAs have an elected Chairman, while 2 assessed UWUAs also have an elected Deputy Chairman and 4 assessed UWUAs have an elected Secretary. None of the 10 assessed UWUAs has an elected Treasurer. The last elections were conducted between 2011 and 2016 in line with the aforementioned terms of office for the elected office bearers.

2.6.3 Meetings

The number of UWUA Council meetings in 2015 and the method of informing the elected members about the date, time and location of the next meeting are summarised in Table 2-11:

Table 2-11: UWUA Council Meetings

Name of UWUA	Number of Meetings	Method to Inform Elected Members		
		Verbally (Phone)	Written Invitation	Public Announcement
Urmural-Birimdigi	3	Yes	Yes	No
Ak-Suu	7	Yes	Yes	No
Uvam	1	Yes	No	No
Ala-Buka Sugat Suu	4	Yes	No	No
Kichi-Kemin Suubas	3	Yes	No	No
Bakai-Alysh	2	Yes	Yes	No
Saza-Baisuu	3	Yes	No	No
Kumushtak	3	Yes	Yes	No
Suubashy	1	Yes	No	No
Karakol-Sook	3	Yes	No	No

In 2015, the 10 assessed UWUAs had 1 to 7 Council meetings and the elected members were informed verbally about the date, time and location of the next meeting. In all 10 assessed UWUAs, the Council Chairman and the Director were responsible for informing the elected members about the next meeting of the UWUA Council.

2.6.4 Minutes of Meetings

The preparation of minutes of the UWUA Council meetings and the modalities are summarised in Table 2-12:

Table 2-12: Minutes of UWUA Council Meetings

Name of UWUA	Minutes Prepared	Responsible Person(s)				
		UWUA Council Chairman	UWUA Secretary	Other UWUA Council Members	Director	Accountant
Urmural-Birimdigi	Yes	Yes	Yes	No	No	No
Ak-Suu	Yes	Yes	Yes	No	No	No
Uvam	Yes	No	No	Yes	No	No
Ala-Buka Sugat Suu	Yes	Yes	No	Yes	Yes	No
Kichi-Kemin Suubas	Yes	Yes	Yes	No	Yes	No
Bakai-Alysh	Yes	Yes	Yes	No	Yes	No
Saza-Baisuu	Yes	Yes	Yes	No	Yes	No
Kumushtak	Yes	Yes	Yes	No	No	No
Suubashy	Yes	Yes	Yes	No	Yes	No
Karakol-Sook	Yes	Yes	No	No	No	Yes

Reportedly, the minutes of all UWUA Council meetings are prepared usually by the UWUA Council Chairman in 9 assessed UWUAs and/or the Secretary in 7 assessed UWUAs. In 5 assessed UWUAs, the Director is (also) responsible for preparing the minutes of the UWUA Council meetings, whereas the minutes are prepared by the Accountant in the Karakol-Sook UWUA as well.

2.6.5 Information towards WUAs

The modalities for informing the WUAs about the decisions made by the UWUA Council are presented in Table 2-13:

Table 2-13: Information of WUAs about UWUA Council's Decisions

Name of UWUA	Modalities to Inform WUAs			
	Report to WUA Council	Report to WUA Assembly	Notice Board	Written Notice
Urmural-Birimdigi	Yes	No	No	No
Ak-Suu	Yes	No	Yes	No
Uvam	Yes	No	No	No
Ala-Buka Sugat Suu	Yes	No	No	No
Kichi-Kemin Suubas	Yes	No	No	No
Bakai-Alysh	Yes	No	No	No
Saza-Baisuu	Yes	No	No	No
Kumushtak	Yes	No	No	Yes
Suubashy	Yes	No	No	No
Karakol-Sook	Yes	Yes	No	No

In all 10 assessed UWUAs, the WUA Councils are informed about the decisions made by the UWUA Council. Only in the Karakol-Sook UWUA, the Representative Assemblies of the WUAs are also informed, whereas a notice board is used in the Ak-Suu UWUA and written notices in the Kumushtak UWUA.

2.7 Audit Commission

The number of elected members of the Audit Commission and their terms of office as well as the number of meetings in 2015 are shown in Table 2-14:

Table 2-14: Audit Commission

Name of UWUA	Elected Members		Meetings	
	Number	Terms of Office (Years)	Number in 2015	Report Prepared
Urmural-Birimdigi	3	3	1	Yes
Ak-Suu	3	3	0	-
Uvam	3	3	0	-
Ala-Buka Sugat Suu	3	5	4	Yes
Kichi-Kemin Suubas	3	5	0	-
Bakai-Alysh	3	3	2	Yes
Saza-Baisuu	3	3	2	Yes
Kumushtak	3	3	2	Yes
Suubashy	3	3	1	Yes
Karakol-Sook	3	3	3	No

All 10 assessed UWUAs have an Audit Commission with 3 elected members and their terms of office is 3 years in 8 assessed UWUAs and 5 years in 2 assessed UWUAs. The Audit Commission in 7 of the 10 assessed UWUAs had 1 to 4 meetings in 2015, Except in Karakol-Sook UWUA, a report of each meeting is prepared of each Audit Commission meeting in the remaining 6 assessed UWUAs.

2.8 Dispute Resolution Commission

The existence of a Dispute Resolution Commission, the number of elected members of the Dispute Resolution Commission and their terms of office as well as the number of meetings in 2015 are shown in Table 2-15:

Table 2-15: Dispute Resolution Commission

Name of UWUA	Dispute Resolution Commission Formed	Elected Members		Meetings	
		Number	Terms of Office (Years)	Number in 2015	Report Prepared
Urmural-Birimdigi	Yes	5	3	10	Yes
Ak-Suu	Yes	3	3	0	-
Uvam	Yes	3	3	2	Yes
Ala-Buka Sugat Suu	Yes	6	5	3	Yes
Kichi-Kemin Suubas	No	-	-	-	-
Bakai-Alysh	Yes	3	3	1	Yes
Saza-Baisuu	No	-	-	-	-
Kumushtak	Yes	3	3	4	Yes
Suubashy	Yes	3	3	2	Yes
Karakol-Sook	Yes	3	3	0	-

Eight of the 10 assessed UWUAs have formed a Dispute Resolution Commission comprising 3 to 6 members, who have been elected for a period of 3 or 5 years. In 2015, 6 of the 8 Dispute Resolution Commissions had 1 to 10 meetings and a reports is prepared of each meeting.

2.9 Directorate

The composition of the UWUA Directorate is presented in Table 2-16:

Table 2-16: Composition of UWUA Directorate

Name of UWUA	Members of UWUA Directorate						
	Director	Deputy Director	Accountant	Casher	Hydro-Engineer	Collector	Other
Urmural-Birimdigi	Yes	No	Yes	No	Yes	No	No
Ak-Suu	Yes	Yes	Yes	Yes	Yes	No	Yes
Uvam	Yes	Yes	Yes	Yes	Yes	No	Yes
Ala-Buka Sugat Suu	Yes	No	Yes	Yes	Yes	No	No
Kichi-Kemin Suubas	Yes	No	Yes	No	No	No	No
Bakai-Alysh	Yes	No	Yes	No	Yes	No	Yes
Saza-Baisuu	Yes	No	Yes	No	No	No	Yes
Kumushtak	Yes	No	Yes	No	Yes	No	No
Suubashy	Yes	No	Yes	No	No	No	Yes
Karakol-Sook	Yes	Yes	Yes	No	Yes	No	Yes

All 10 assessed UWUAs have a Director and an Accountant, whereas 7 assessed UWUAs also have a Hydro-Engineer, 3 assessed UWUAs have a Deputy Directors, 3 assessed UWUAs have a Cashier, and 6 assessed UWUAs employ other staff, including driver, machinery operator and guards. None of the 10 assessed UWUAs employs a Collector. All employed UWUA staff have land in the UWUA service area.



Director of Suubashy UWUA in office

2.10 Murab

The number of employed *Murab* (Water Master) together with number of months employed per year and their main responsibilities are summarised in Table 2-17:

Table 2-17: Murab

Name of UWUA	Employed <i>Murab</i>		Responsibilities		
	Number	Months	Operation	Maintenance	Service Charge Collection
Urmural-Birimdigi	10	6 & 10	Yes	Yes	No
Ak-Suu	6	7	Yes	Yes	No
Uvam	4	8	Yes	Yes	No
Ala-Buka Sugat Suu	3	6	Yes	Yes	No
Kichi-Kemin Suubas	0	-	-	-	-
Bakai-Alysh	2	6	Yes	Yes	Yes
Saza-Baisuu	1	6	Yes	Yes	No
Kumushtak	3	6	Yes	Yes	No
Suubashy	3	6	Yes	Yes	No
Karakol-Sook	10	7 & 9	Yes	Yes	No

Except for the Kichi-Kemin Suubas UWUA, the other 9 assessed UWUAs employ 1 to 10 *Murab* for 6 to 10 months each year. The main responsibilities of the employed *Murab* include the O&M of the off-farm I&D system, whereas the *Murab* employed by the Bakai-Alysh UWUA is also responsible for the collection of the service charges among WUAs and any other water users.

2.11 UWUA Office

The existence of an UWUA office and how the UWUA obtained the building is shown in Table 2-18:

Table 2-18: UWUA Office

Name of UWUA	Existence of UWUA Office	Modality for Obtaining Building				
		Purchased	Inherited	Rented	Free Use	Other
Urmural-Birimdigi	Yes	No	No	Yes	No	No
Ak-Suu	Yes	No	No	No	No	Yes
Uvam	Yes	No	No	No	No	Yes
Ala-Buka Sugat Suu	Yes	No	Yes	No	No	No
Kichi-Kemin Suubas	Yes	No	No	Yes	No	No
Bakai-Alysh	Yes	No	No	Yes	No	No
Saza-Baisuu	Yes	No	No	Yes	No	No
Kumushtak	Yes	No	No	Yes	No	No
Suubashy	Yes	No	No	Yes	No	No
Karakol-Sook	Yes	No	No	No	Yes	No

All 10 assessed UWUAs have an office and six assessed UWUAs rent the building, whereas the Ala-Buka Sugat Suu WUA inherited the building from the dissolved collective farm and the Karakol-Sook UWUA is using a premises for free. The Ak-Suu UWUA has its office in a self-constructed building and the Uvam UWUA uses a building transferred from the balance of the RVK.



Office of Urmural-Birimdigi UWUA in Talas Oblast

2.12 Office Furniture and Equipment

The ownership of office furniture and equipment is summarised in Table 2-19:

Table 2-19: Office Furniture and Equipment

Name of UWUA	Type of Office Furniture and Equipment				
	Chairs and Tables	Filing Cabinet	Safe	Computer & Printer	Photocopier
Urmural-Birimdigi	Yes	Yes	Yes	No	No
Ak-Suu	Yes	Yes	Yes	Yes	No
Uvam	Yes	Yes	No	No	No
Ala-Buka Sugat Suu	Yes	Yes	Yes	No	No
Kichi-Kemin Suubas	Yes	Yes	Yes	Yes	Yes
Bakai-Alysh	Yes	No	No	No	No
Saza-Baisuu	Yes	No	Yes	No	No
Kumushtak	Yes	Yes	Yes	No	No
Suubashy	Yes	Yes	Yes	No	No
Karakol-Sook	Yes	Yes	Yes	No	No

All 10 assessed UWUAs have basic office furniture, such as chairs and tables, whereas 8 assessed UWUAs also have at least one filing cabinet and 8 assessed UWUAs own a safe. Only 2 assessed UWUAs have a computer with printer and the Kichi-Kemin Subaas IWUA is the only assessed UWUA with a photocopier. Five of the 10 assessed UWUAs stated that they purchased their office furniture and equipment, whereas 3 assessed UWUAs inherited them from the dissolved collective farm and 3 other assessed UWUAs obtained them from the balance of the RVK.

2.13 Machinery and Equipment

The number of machinery and equipment owned by the 10 assessed UWUAs is presented in Table 2-20:

Table 2-20: Machinery and Equipment

Name of UWUA	Type and Number of Machinery and Equipment				
	Tractor	Excavator	Bulldozer (Loader)	Truck	Other(s)
Urmural-Birimdigi	1	1	0	0	0
Ak-Suu	1	1	1	0	3
Uvam	0	0	0	0	0
Ala-Buka Sugat Suu	1	1	0	0	0
Kichi-Kemin Suubas	1	1	0	0	8
Bakai-Alysh	0	0	0	0	0
Saza-Baisuu	0	1	0	0	0
Kumushtak	0	1	0	0	0
Suubashy	1	1	0	0	5
Karakol-Sook	1	1	1	0	3

Two of the 10 assessed UWUAs do not have any machinery and equipment at all. Six assessed UWUAs own a tractor and 8 assessed UWUAs possess an excavator/backhoer, whereas 2 assessed UWUAs also have a loader. Four assessed UWUAs own other equipment, including generator, concrete mixer, welding machine and front loader. All 8 assessed IWUAs obtained their machinery and equipment through a technical credit, whereas the Urmural-Birimdigi UWUA also inherited some of its machinery and equipment from the dissolved collective farm. Seven of the 8 assessed UWUAs reported that the physical condition of their machinery and equipment is mediocre, whereas the condition of the machinery and equipment owned by the Ala-Buka Sugat Suu UWUA reportedly is good.



Backhoer owned by Urmural-Birimdigi UWUA

2.13.1 Rental of Machinery

The rental of machinery by the 10 assessed UWUAs and the amount of money spent on renting machinery in 2015 is summarised in Table 2-21:

Table 2-21: Rental of Machinery in 2015

Name of UWUA	Rental of Machinery in 2015	Expenditure on Machinery Rental (KGS)			
		Excavator	Bulldozer	Truck	Other
Urmural-Birimdigi	Yes		214,000	104,000	
Ak-Suu	No				
Uvam	No				
Ala-Buka Sugat Suu	Yes	35,000			
Kichi-Kemin Suubas	No				
Bakai-Alysh	Yes	20,000	20,000	6,000	
Saza-Baisuu	Yes				3,000
Kumushtak	No				
Suubashy	Yes	8,000		7,000	
Karakol-Sook	Yes	150,000		20,000	

Six of the 10 assessed UWUAs reported that they rented machinery in 2015. Four assessed UWUAs rented an excavator and spending KGS 8,000 to KGS 150,000, whereas 2 assessed UWUAs rented a bulldozer spending KGS 214,000 and KGS 20,000 respectively. A truck was rented by four assessed UWUAs spending between KGS 6,000 and KGS 104,000. The Saza-Baisuu UWUA spent KGS 3,000 on renting a front loader.

2.14 Vehicles

The ownership of vehicles among the 10 assessed UWUAs is shown in Table 2-22:

Table 2-22: Vehicles

Name of UWUA	Type and Number of Vehicle		
	Car	Motorcycle	Bicycle
Urmural-Birimdigi	0	0	0
Ak-Suu	1	0	0
Uvam	0	0	0
Ala-Buka Sugat Suu	0	0	0
Kichi-Kemin Suubas	1	0	0
Bakai-Alysh	0	0	0
Saza-Baisuu	0	0	0
Kumushtak	0	0	0
Suubashy	1	0	0
Karakol-Sook	1	0	0

Four of the 10 assessed UWUAs own one car, which was obtained with the help of a technical credit. Two assessed UWUAs stated that the condition of the car is good, while it is mediocre for the other two assessed UWUAs.

2.15 Gender Issues

2.15.1 Active Participation in UWUA Management

The participation of female representatives in the management of the 10 assessed UWUAs and the main reasons for no or limited participation of female representatives are summarised in Table 2-23:

Table 2-23: Participation of Female Representatives in UWUA Management

Name of UWUA	Active Participation	Reason for Lack of Participation				
		Not Involved in Irrigation	Lack of Knowledge	Not Interested	No Time	Decisions by Men
Urmural-Birimdigi	Yes	-	-	-	-	-
Ak-Suu	Yes	-	-	-	-	-
Uvam	Yes	-	-	-	-	-
Ala-Buka Sugat Suu	Yes	-	-	-	-	-
Kichi-Kemin Suubas	No	Yes	No	Yes	No	Yes
Bakai-Alysh	No	No	Yes	Yes	Yes	Yes
Saza-Baisuu	No	No	No	No	Yes	Yes
Kumushtak	Yes	-	-	-	-	-
Suubashy	Yes	-	-	-	-	-
Karakol-Sook	Yes	-	-	-	-	-

Reportedly, female representatives are not actively involved in the management of 3 out of 10 assessed UWUAs and the main reported reasons are that men make decisions, women lack time and women are not interested.

2.15.2 Active Participation of UWUA Representative Assembly

The participation of female representatives in the Representative Assembly of the 10 assessed UWUAs and the main reasons for no or limited participation of female representatives are summarised in Table 2-24:

Table 2-24: Participation of Female Representatives in UWUA Representative Assembly

Name of UWUA	Active Participation	Reason for Lack of Participation				
		Socio-Cultural Barriers	No Interest	No Awareness	Not Accepted	No Confidence
Urmural-Birimdigi	Yes	-	-	-	-	-
Ak-Suu	Yes	-	-	-	-	-
Uvam	Yes	-	-	-	-	-
Ala-Buka Sugat Suu	Yes	-	-	-	-	-
Kichi-Kemin Suubas	No	No	Yes	No	No	No
Bakai-Alysh	No	No	Yes	Yes	Yes	Yes
Saza-Baisuu	No	No	Yes	No	Yes	No
Kumushtak	Yes	-	-	-	-	-
Suubashy	Yes	-	-	-	-	-
Karakol-Sook	Yes	-	-	-	-	-

Female representatives do not actively participate in the Representative Assembly of the same 3 assessed UWUAs due to lack of interest and not accepted by male representatives. Reportedly, female representatives could be elected as member of the UWUA Council.

Female participation in the affairs of the UWUA could be enhanced by raising awareness and providing gender training. Representation of women in the Representative Assembly and Council should be improved in all 10 assessed UWUAs, so that their specified interests and needs would be better represented and women would become more aware and gain more experience and knowledge.

2.15.3 Gender Training

The number of assessed UWUAs having received gender training during the last 5 years is shown in Table 2-25:

Table 2-25: Gender Training

Name of UWUA	Provision of Gender Training	Year	Training Provider			
			WUA SU	Other Government Staff	Project Staff	NGO
Urmural-Birimdigi	No	-	-	-	-	-
Ak-Suu	No	-	-	-	-	-
Uvam	No	-	-	-	-	-
Ala-Buka Sugat Suu	No	-	-	-	-	-
Kichi-Kemin Suubas	No	-	-	-	-	-
Bakai-Alysh	Yes	2014-15	Yes	No	No	No
Saza-Baisuu	No	-	-	-	-	-
Kumushtak	No	-	-	-	-	-
Suubashy	Yes	2013	No	No	Yes	No
Karakol-Sook	No	-	-	-	-	-

Only 2 of the 10 assessed UWUAs received training in gender issues during the last 5 years either from WUA Support Unit staff or project staff.

3 ADMINISTRATIVE MANAGEMENT OF UNION OF WATER USERS' ASSOCIATIONS

3.1 Non-Financial Documents

The non-financial documents maintained by the 10 assessed UWUAs are summarised in Table 3-1:

Table 3-1: Non-Financial Documents

Name of UWUA	Non-Financial Documents						
	Register of Non-Members	Register of Elected Organ Members	Map	Register of Water Supply Requests	Register of Actual Water Supply	Register of Correspondence	Register of Minutes of Meetings
Urmural-Birimdigi	Yes	No	Yes	Yes	Yes	Yes	Yes
Ak-Suu	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Uvam	No	Yes	Yes	Yes	Yes	Yes	Yes
Ala-Buka Sugat Suu	No	Yes	Yes	Yes	Yes	Yes	Yes
Kichi-Kemin Suubas	No	No	Yes	No	No	Yes	Yes
Bakai-Alysh	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Saza-Baisuu	No	Yes	Yes	Yes	Yes	Yes	Yes
Kumushtak	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Suubashy	No	Yes	Yes	No	Yes	Yes	Yes
Karakol-Sook	No	Yes	Yes	Yes	No	Yes	Yes

Name of UWUA	Non-Financial Documents				
	Register of Transactions and Contracts	Order Book	Asset Register	Visitors Book	Others
Urmural-Birimdigi	Yes	Yes	Yes	No	Yes
Ak-Suu	Yes	Yes	No	No	No
Uvam	Yes	Yes	No	No	No
Ala-Buka Sugat Suu	Yes	Yes	Yes	No	No
Kichi-Kemin Suubas	Yes	Yes	Yes	No	No
Bakai-Alysh	Yes	Yes	Yes	Yes	Yes
Saza-Baisuu	No	Yes	No	No	No
Kumushtak	No	Yes	Yes	Yes	No
Suubashy	Yes	Yes	Yes	No	No
Karakol-Sook	Yes	Yes	Yes	No	No

All 10 assessed UWUAs have a map of their respective service area, register of correspondence, register of minutes of meetings and order book, whereas 8 of the 10 assessed UWUAs also maintain register of elected members of UWUA Council, Audit Commission and Dispute Resolution Commission, register of water supply requests, register of actual water supply and register of transactions and contracts. Seven assessed UWUAs have an asset register, 5 assessed UWUAs have a register of non-members and 2 assessed UWUAs have a visitors' book.

The persons within the 10 assessed UWUAs responsible for maintaining the non-financial documents are presented in Table 3-2:

Table 3-2: Responsibility for Maintenance of Non-Financial Documents

Name of UWUA	Responsible Persons for Maintenance of Non-Financial Documents				
	UWUA Council Chairman	Other UWUA Council Members	Director	Accountant	Other Employed Staff
Urmural-Birimdigi	No	No	Yes	No	Yes
Ak-Suu	No	No	Yes	Yes	No
Uvam	No	No	Yes	Yes	Yes
Ala-Buka Sugat Suu	No	No	Yes	Yes	No
Kichi-Kemin Suubas	No	No	Yes	No	No
Bakai-Alysh	Yes	No	Yes	Yes	No
Saza-Baisuu	Yes	No	Yes	Yes	No
Kumushtak	Yes	No	Yes	No	No
Suubashy	Yes	No	Yes	Yes	No
Karakol-Sook	No	No	Yes	Yes	No

In all 10 assessed UWUAs, the Director is responsible for maintaining the non-financial documents, whereas the Accountant is co-responsible in 7 assessed UWUAs and the UWUA Council Chairman in 4 assessed UWUAs.

3.2 Internal and External Audit

The execution of an internal and external audit of the non-financial documents maintained by the 10 assessed UWUAs is shown in Table 3-3:

Table 3-3: Internal and External Audit of Non-Financial Documents

Name of UWUA	Internal Audit		External Audit	
	Executed by Audit Commission	All Non-Financial Documents Approved	Executed by WUA SU	All Non-Financial Documents Approved
Urmural-Birimdigi	Yes	Yes	Yes	Yes
Ak-Suu	No	-	No	-
Uvam	No	-	No	-
Ala-Buka Sugat Suu	Yes	Yes	Yes	No
Kichi-Kemin Suubas	No	-	No	-
Bakai-Alysh	Yes	Yes	No	-
Saza-Baisuu	No	-	Yes	Yes
Kumushtak	Yes	Yes	Yes	Yes
Suubashy	Yes	No	Yes	No
Karakol-Sook	No	-	Yes	Yes

In 5 of the 10 assessed UWUAs, the Audit Commission conducted an internal audit of the non-financial documents and they were approved in 4 assessed UWUAs. The WUA Support Unit carried out an external audit of the non-financial documents for 6 assessed UWUAs and they were approved in 4 assessed UWUAs.

4 FINANCIAL MANAGEMENT OF UNION OF WATER USERS' ASSOCIATIONS

4.1 Sources of Income

The main sources of income for the 10 assessed UWUAs are presented in Table 4-1:

Table 4-1: Main Sources of Income

Name of UWUA	Main Sources of Income					
	Service Charges Paid by WUAs	Service charges Paid by Other Water Users	Fines	Bank Interest	Donation/ Gift	Other
Urmural-Birimdigi	Yes	Yes	No	No	No	Yes
Ak-Suu	Yes	Yes	No	No	No	No
Uvam	Yes	No	No	No	No	No
Ala-Buka Sugat Suu	Yes	No	No	No	No	No
Kichi-Kemin Suubas	-	-	-	-	-	-
Bakai-Alysh	Yes	Yes	No	No	No	No
Saza-Baisuu	Yes	No	No	No	No	No
Kumushtak	Yes	Yes	Yes	No	No	No
Suubashy	Yes	No	No	No	No	No
Karakol-Sook	Yes	No	No	No	No	No

In all 9 assessed functional UWUAs, the service charges paid by the WUAs is an important source of income, whereas service charges paid by other water users is a source of income for 4 assessed UWUAs. Payment of fines is a source of income for the Kumushtak UWUA, whereas the Urmural-Birimmdigi UWUA and the Kichi-Kemin Suubas UWUA earn income with renting out their machinery.

4.2 Financial Documents

The financial documents maintained by the 10 assessed UWUAs are presented in Table 4-2:

Table 4-2: Financial Documents

Name of UWUA	Financial Documents							
	Cash Book	Bank Book	Ledger	Receipt Book	Service Charge Record	Fines Record	Work Acceptance Record	Cost Estimates Record
Urmural-Birimdigi	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Ak-Suu	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Uvam	Yes	No	Yes	Yes	Yes	No	Yes	Yes
Ala-Buka Sugat Suu	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Kichi-Kemin Suubas	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Bakai-Alysh	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Saza-Baisuu	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Kumushtak	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Suubashy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Karakol-Sook	Yes	Yes	No	Yes	Yes	No	No	Yes

All 10 assessed UWUAs maintain a cash book, receipt book and cost estimates record, whereas 9 assessed UWUAs also have a bank book, ledger, service charge record and work acceptance record. Only 2 assessed UWUAs maintain a record with the imposed and paid fines.

The persons within the 10 assessed UWUAs responsible for maintaining the financial documents are presented in Table 4-3:

Table 4-3: Responsibility for Maintenance of Financial Documents

Name of UWUA	Responsible Persons for Maintenance of Financial Documents				
	UWUA Council Chairman	Other UWUA Council Members	Director	Accountant	Other Employed Staff
Urmural-Birimdigi	No	No	Yes	Yes	Yes
Ak-Suu	No	No	Yes	Yes	No
Uvam	No	No	Yes	Yes	No
Ala-Buka Sugat Suu	Yes	No	Yes	Yes	No
Kichi-Kemin Suubas	No	No	Yes	Yes	No
Bakai-Alysh	No	No	Yes	Yes	No
Saza-Baisuu	No	No	Yes	Yes	No
Kumushtak	Yes	No	Yes	Yes	No
Suubashy	No	No	Yes	Yes	No
Karakol-Sook	No	No	Yes	Yes	No

In all 10 assessed UWUAs, the Director and Accountant are responsible for maintaining all financial records, books and accounts, whereas the UWUA Council Chairman in 2 assessed UWUAs is also involved.

4.3 Annual Report and Financial Statements

The preparation of the Annual Report and financial statements at the end of each financial year is shown in Table 4-4:

Table 4-4: Annual Report and Financial Statements

Name of UWUA	Documents Prepared	Month(s)	Responsible Persons			
			UWUA Council Chairman	Director	Accountant	Other Employed Staff
Urmural-Birimdigi	Yes	Jan	No	Yes	Yes	No
Ak-Suu	Yes	Feb	Yes	Yes	Yes	No
Uvam	Yes	Feb	Yes	Yes	Yes	No
Ala-Buka Sugat Suu	Yes	Dec	No	Yes	Yes	No
Kichi-Kemin Suubas	-	-	-	-	-	No
Bakai-Alysh	Yes	Feb	Yes	Yes	Yes	No
Saza-Baisuu	Yes	Feb	No	Yes	Yes	No
Kumushtak	Yes	Dec	Yes	Yes	Yes	No
Suubashy	Yes	Jan	No	Yes	Yes	No
Karakol-Sook	Yes	Jan-Feb	Yes	Yes	Yes	No

An Annual Report and financial statements are prepared by the Director and Accountant in all 9 assessed functional UWUAs between December and February. In 5 assessed UWUAs, the UWUA Council Chairman is also involved.

The approval of the prepared Annual Report and financial statements is presented in Table 4-5:

Table 4-5: Approval of Annual Report and Financial Statements

Name of UWUA	Approval by UWUA Council	Approval by Representative Assembly	Submitted to RVK	Submitted to CSU
Urmural-Birimdigi	Yes	No	No	No
Ak-Suu	Yes	Yes	No	Yes
Uvam	Yes	Yes	No	Yes
Ala-Buka Sugat Suu	Yes	Yes	No	Yes
Kichi-Kemin Suubas	-	-	-	-
Bakai-Alysh	Yes	Yes	No	No
Saza-Baisuu	Yes	No	No	Yes
Kumushtak	Yes	Yes	No	Yes
Suubashy	Yes	No	No	Yes
Karakol-Sook	Yes	No	No	Yes

In all 9 assessed functional UWUAs, the UWUA Council approves these documents, whereas they are approved by the Representative Assembly of 5 assessed UWUAs. Seven of the 9 assessed UWUAs submit their approved Annual Report and financial statements to the CSU, but none of them submit these documents to the RVK for review and approval.

The execution of an internal and external audit of the Annual Report and financial statements prepared by the 10 assessed UWUAs is shown in Table 4-6:

Table 4-6: Internal and External Audit of Annual Report and Financial Statement

Name of UWUA	Internal Audit		External Audit	
	Executed by Audit Commission	Annual Report Approved	Executed by WUA SU	Annual Report Approved
Urmural-Birimdigi	Yes	Yes	No	-
Ak-Suu	No	-	No	-
Uvam	No	-	No	-
Ala-Buka Sugat Suu	Yes	Yes	No	-
Kichi-Kemin Suubas	-	-	-	-
Bakai-Alysh	Yes	Yes	Yes	No
Saza-Baisuu	Yes	Yes	Yes	No
Kumushtak	No	-	Yes	Yes
Suubashy	Yes	Yes	No	-
Karakol-Sook	Yes	No	No	-

The Annual Report and financial statements are internally audited by the Audit Commission in 6 of the 9 assessed UWUAs having prepared these documents. Except for Karakol-Sook UWUA, the Audit Commission approved the prepared Annual Report and financial statements. The Annual Report and financial statements of only 3 of the 9 assessed UWUAs were externally audited by the WUA Support Units and only approved for one assessed UWUA.

4.4 Annual Budget

The preparation of the Annual Budget for 2015 is shown in Table 4-7:

Table 4-7: Annual Budget

Name of UWUA	Annual Budget Prepared	Month(s)	Responsible Persons			
			UWUA Council Chairman	Director	Accountant	Other Employed Staff
Urmural-Birimdigi	Yes	Jan	No	Yes	Yes	No
Ak-Suu	Yes	Feb	Yes	Yes	Yes	No
Uvam	Yes	Feb	Yes	Yes	Yes	No
Ala-Buka Sugat Suu	Yes	Feb	Yes	Yes	Yes	No
Kichi-Kemin Suubas	-	-	-	-	-	-
Bakai-Alysh	Yes	Feb	Yes	Yes	Yes	No
Saza-Baisuu	Yes	Feb	Yes	Yes	Yes	No
Kumushtak	Yes	Feb	Yes	Yes	Yes	No
Suubashy	Yes	Mar	Yes	Yes	Yes	No
Karakol-Sook	Yes	Feb	Yes	Yes	Yes	No

All 9 assessed functional UWUAs prepared the Annual Budget for 2015 between January and March 2015. The Director and Accountant were responsible for the preparation of the Annual Budget in all 9 assessed UWUAs having prepared the Annual Budget for 2015, whereas the UWUA Council Chairman is involved in 8 assessed UWUAs.

In all 9 assessed UWUAs, the Annual Budget for 2015 was reviewed and approved by the UWUA Council, whereas it was approved by the Representative Assembly in 6 assessed UWUAs.

The budget and actual expenditures for the 10 assessed UWUAs in 2015 are summarised in Table 4-8:

Table 4-8: Budget and Actual Expenditures in 2015 (KGS)

Name of UWUA	Total			% of Total Expenditures			UWUA Management	Tax & Social Fund
	Budget	Expenditure	%	Salaries	Maintenance	Repayment		
Urmural-Birimdigi	1,418,800	1,563,800	110%	33%	58%	2%	7%	3%
Ak-Suu	2,023,600	2,010,500	99%	48%	33%	25%	12%	13%
Uvam	2,283,841	1,489,006	65%	44%	48%	-	16%	10%
Ala-Buka Sugat Suu	1,176,000	725,000	62%	44%	20%	9%	14%	17%
Kichi-Kemin Suubas	-	-	-	-	-	-	-	-
Bakai-Alysh	248,000	198,000	80%	48%	23%	-	13%	13%
Saza-Baisuu	207,000	203,000	98%	22%	17%	43%	6%	7%
Kumushtak	344,000	272,800	79%	53%	18%	15%	5%	14%
Suubashy	693,100	491,145	71%	49%	30%	27%	9%	9%
Karakol-Sook	1,191,400	944,200	79%	39%	39%	-	1%	1%

The annual budget in 2015 for 9 of the 10 assessed UWUAs ranged from KGS 207,000 to KGS 2,283,841, whereas the actual expenditures varied from KGS 203,000 to KGS 2,010,500. Except for the Urmural-Birimdigi UWUA, the actual expenditures for the remaining 8 assessed UWUAs was lower than the budgeted amount, ranging from 62% to 99%.

Between 22% and 48% of the total expenditures in 2015 were salary costs, whereas 17% to 58% was used for maintenance, 1% to 16% for costs related to UWUA management, and 1% to 17% on the payment of tax and contributions to the Social Fund. Six assessed UWUAs used 2% to 43% of total expenditures on the repayment of outstanding technical credit.

4.5 Bank Account and Reserve Fund

The number of assessed UWUAs having a bank account and a Reserve Fund is presented in Table 4-9:

Table 4-9: Bank Account and Reserve Fund

Name of UWUA	Bank Account		Reserve Fund		
	Opened	Amount (KGS)	Formed	Separate Bank Account	Amount (KGS)
Urmural-Birimdigi	Yes	0	Yes	No	214,000
Ak-Suu	Yes	36,000	No	-	-
Uvam	Yes	0	Yes	No	40,000
Ala-Buka Sugat Suu	Yes	30,000	Yes	No	10,000
Kichi-Kemin Suubas	Yes	500	No	-	-
Bakai-Alysh	No	-	Yes	No	15,000
Saza-Baisuu	Yes	100	No	-	-
Kumushtak	Yes	0	Yes	No	27,000
Suubashy	No	-	No	-	-
Karakol-Sook	Yes	36,000	No	-	-

Eight of the 10 assessed UWUAs have opened a bank account but only five assessed UWUAs have money in their respective bank account ranging from only KGS 100 to KGS 36,000. Five of the 10 assessed UWUAs have established a Reserve Fund varying from KGS 10,000 to KGS 214,000, mainly to finance emergency repair works.

4.6 Service Charge

4.6.1 Service Charge Assessment Methods and Rate

The method used to calculate the service charge to be paid by the WUAs and other water users as well as the current service charge rate are shown in Table 4-10:

Table 4-10: Service Charge Assessment Method and Rate

Name of UWUA	Assessment Method		Existing Service Charge Rate		Number of Years Fixed
	Area	Volume	Area (KGS/ha)	Volume Tyi/m ³	
Urmural-Birimdigi	No	Yes	-	2	3
Ak-Suu	No	Yes	-	n/a	10
Uvam	No	Yes	-	3	10
Ala-Buka Sugat Suu	No	Yes	-	10	5
Kichi-Kemin Suubas	-	-	-	-	-
Bakai-Alysh	No	Yes	-	2	5
Saza-Baisuu	Yes	No	70	-	2
Kumushtak	No	Yes	-	2	3
Suubashy	Yes	No	132	-	2
Karakol-Sook	Yes	No	150	-	5

In 6 of the 9 assessed functional UWUAs, the service charge to be paid is assessed on volumetric basis, whereas it is area-based in the remaining 3 assessed UWUAs. In the assessed UWUAs with a volumetric-based service charge assessment method, the existing service charge rate ranges from Tyin 2 to 10 per

m³. In the three assessed UWUAs with an area-based assessment method, the existing service charge rates varies from KGS 70 to 152 per ha. The existing service charge rates have been fixed for a period of 2 to 10 years in the 9 assessed UWUAs.

4.6.2 Setting and Approval of Service Charge Rate

The responsibility for setting and approval of the service charge rate is shown in Table 4-11:

Table 4-11: Setting and Approval of Service Charge Rate

Name of UWUA	Responsible Persons for Setting Service Charge Rate				Approval of Service Charge Rate	
	UWUA Council Chairman	Other UWUA Council Members	Director	Accountant	Representative Assembly	UWUA Council
Urmural-Birimdigi	Yes	Yes	Yes	No	No	Yes
Ak-Suu	Yes	Yes	Yes	No	Yes	Yes
Uvam	Yes	Yes	Yes	No	Yes	Yes
Ala-Buka Sugat Suu	Yes	Yes	Yes	Yes	Yes	No
Kichi-Kemin Suubas	-	-	-	-	-	-
Bakai-Alysh	Yes	No	Yes	Yes	No	Yes
Saza-Baisuu	Yes	Yes	Yes	Yes	No	Yes
Kumushtak	Yes	Yes	Yes	No	Yes	No
Suubashy	Yes	Yes	Yes	Yes	No	Yes
Karakol-Sook	Yes	Yes	Yes	Yes	Yes	No

In all 9 assessed functional UWUAs, the UWUA Council Chairman and Director are responsible for setting the service charge rate, whereas other UWUA Council members are also involved in 8 assessed UWUAs and the Accountant in 5 assessed UWUAs. In 5 of the 9 assessed UWUAs, the fixed service charge rate is approved by the Representative Assembly, whereas it is approved by the UWUA Council in 6 assessed UWUAs.

4.6.3 Service Charge Assessment

The responsibility for assessing the service charge amount to be paid by each WUA and other water users is shown in Table 4-12:

Table 4-12: Service Charge Assessment

Name of UWUA	Responsible Persons for Service Charge Assessment				Invoice		Advance Payment
	UWUA Council Chairman	Other UWUA Council Members	Director	Accountant	Issued	Month	
Urmural-Birimdigi	Yes	Yes	Yes	No	Yes	May-Sep	30%
Ak-Suu	Yes	Yes	Yes	Yes	Yes	May-Sep	25%
Uvam	Yes	Yes	Yes	Yes	Yes	May-Sep	25%
Ala-Buka Sugat Suu	Yes	Yes	Yes	No	Yes	May-Sep	25%
Kichi-Kemin Suubas	-	-	-	-	-	-	-
Bakai-Alysh	Yes	Yes	Yes	Yes	Yes	May-Sep	25%
Saza-Baisuu	Yes	Yes	Yes	No	Yes	May-Sep	30%
Kumushtak	Yes	Yes	Yes	No	Yes	May-Sep	25%
Suubashy	Yes	Yes	Yes	Yes	Yes	May-Sep	30%
Karakol-Sook	Yes	No	Yes	Yes	No	May-Sep	No

In all 9 assessed functional UWUAs, the UWUA Council Chairman and Director are responsible for the assessment of the service charge amount to be paid by each WUA and any other water users, whereas other UWUA Council members are also involved in 8 assessed UWUAs and the Accountant in 5 assessed UWUAs.

Except for the Karakol-Sook UWUA, invoices are issued monthly to all WUAs and any other water users between May and September and they have to pay 25% or 30% of the total due amount in advance.

4.6.4 Payment of Service Charge

In all 9 assessed functional UWUAs, the WUAs and any other water users have to pay their service charge at UWUA office to the Accountant, who issues a receipt to the WUAs and any other water users when they have paid their service charge to the UWUA. In the Urmural-Birimdigi UWUA and KKarakol-Sook UWUA, the WUAs and any other water users can also pay their service charges to the *Murab*.

4.6.5 Collection of Service Charges

The actual collection of the service charges is presented in Table 4-13:

Table 4-13: Collection of Service Charges

Name of UWUA	Payment of All Service Charges		Service Charge Collection		
	Number of WUAs	% of Total Number of WUAs	Assessed Amount (KGS)	Collected Amount (KGS)	% of Assessed Amount
Urmural-Birimdigi	4	57%	1,018,800	867,800	85%
Ak-Suu	0	0%	2,013,600	2,010,500	99%
Uvam	2	33%	2,283,841	1,489,006	65%
Ala-Buka Sugat Suu	1	50%	1,176,000	725,000	62%
Kichi-Kemin Suubas	-	-	-	-	-
Bakai-Alysh	1	33%	248,000	198,000	80%
Saza-Baisuu	2	50%	207,000	203,000	98%
Kumushtak	3	60%	344,000	272,800	79%
Suubashy	1	33%	693,100	491,145	71%
Karakol-Sook	0	0%	1,191,400	944,200	79%
Average	-	-	1,020,638	800,161	78%

In all 9 assessed functional UWUAs, 33% to 100% of the WUAs have not paid all their service charges to the UWUA in 2015. The average service charge collection rate for 2015 is 78%, ranging from 62% to 99%.

4.6.6 Sanctions

The sanctions for late and non-payment of service charges adopted by the assessed UWUAs are presented in Table 4-14:

Table 4-14: Sanctions for Late and Non-Payment of Service Charge

Name of UWUA	Sanctions Adopted	Adopted Sanctions				Sanctions Imposed
		Fine	Interest	No Water	Aksakal Court	
Urmural-Birimdigi	Yes	No	No	Yes	No	Yes
Ak-Suu	No	-	-	-	-	-
Uvam	No	-	-	-	-	-
Ala-Buka Sugat Suu	No	-	-	-	-	-
Kichi-Kemin Suubas	-	-	-	-	-	-
Bakai-Alysh	No	-	-	-	-	-
Saza-Baisuu	No	-	-	-	-	-
Kumushtak	Yes	Yes	Yes	Yes	Yes	Yes
Suubashy	Yes	No	No	Yes	No	No
Karakol-Sook	No	-	-	-	-	-

Only 3 of the 9 assessed functional UWUAs have adopted the sanction to suspend the supply of canal water for late and non-payment of service charge, whereas the Kumushtak UWUA also adopted a fine, interest and submission of case to Court of Aksakal as other sanctions. Both the Urmural-Birimdigi UWUA and Kumushtak UWUA reported that sanctions have been imposed on all defaulters.

All 9 assessed UWUAs with service charge collection stated that they try to recover any outstanding service charges by either submitting a report to the Village Council, submitting a case of the Court of Aksakal or a note submitted by the Auditor to the defaulter.

4.7 Payment of Service Charge

None of the 10 assessed UWUAs reported the payment of a service charge to the RVK and the assessed UWUAs also stated that they owe money to the RVK for bulk supply of canal water.

4.8 Repayment of Debts

None of the 10 assessed UWUAs reported that they have to repay 25% of the rehabilitation costs. The repayment of technical credit by the 10 assessed UWUAs is summarised in Table 4-15:

Table 4-15: Repayment of Technical Credit

Name of UWUA	Repayment of Technical Credit				
	Total Amount (KGS)	Repaid Amount (KGS)	% of Total Amount	Approved Repayment Plan	Arrears
Urmural-Birimdigi	726,525	25,000	3%	Yes	Yes
Ak-Suu	5,566,531	500,500	9%	Yes	Yes
Uvam	-	-	-	-	-
Ala-Buka Sugat Suu	3,549,233	65,000	2%	Yes	Yes
Kichi-Kemin Suubas	3,350,768	0	0%	Yes	Yes
Bakai-Alysh	-	-	-	-	-
Saza-Baisuu	726,525	87,000	12%	Yes	Yes
Kumushtak	726,525	42,000	6%	Yes	Yes
Suubashy	3,584,978	133,625	4%	Yes	Yes
Karakol-Sook	2,710,320	0	0%	Yes	Yes
Total	20,941,405	853,125	4%	-	-

By the end of 2015, the 8 assessed UWUAs having obtained a technical credit had repaid KGS 853,125 or 4% of the total amount of KGS 20.94 million that these assessed UWUAs have to repay. All 8 assessed UWUA have an approved repayment plan but they are behind schedule with the payment of the agreed instalments.

4.9 Training and Technical Support

4.9.1 Provision of Training in Administrative and Financial Management

The provision of training in administrative and financial management to the 10 assessed UWUAs and the training providers are shown in Table 4-16:

Table 4-16: Training in Administrative and Financial Management

Name of UWUA	Training Provided	Training Provider				Years
		WUA SU	Other Government Staff	Project Staff	NGO	
Urmural-Birimdigi	Yes	Yes	No	Yes	Yes	2011-15
Ak-Suu	Yes	Yes	No	Yes	Yes	2011-15
Uvam	Yes	Yes	No	Yes	No	2011-14
Ala-Buka Sugat Suu	Yes	Yes	No	Yes	No	2011-15
Kichi-Kemin Suubas	Yes	Yes	No	Yes	No	2011-12
Bakai-Alysh	Yes	Yes	No	No	No	2014-15
Saza-Baisuu	No	-	-	-	-	-
Kumushtak	Yes	Yes	No	Yes	No	2011-15
Suubashy	Yes	Yes	No	Yes	No	2011-15
Karakol-Sook	Yes	Yes	No	Yes	No	2011-15

Except the Saza-Baisuu UWUA, all other 9 assessed UWUA reported to have received training in administrative and financial management between 2011 and 2015, which was mainly provided by WUA Support Unit staff and Project staff. The Urmural-Birimdigi UWUA and Ak-Suu UWUA also received training from an NGO.

The training target groups for the provided training in administrative and financial management are shown in Table 4-17:

Table 4-17: Target Groups for Training in Administrative and Financial Management

Name of UWUA	Target Group for Training in Administrative and Financial Management					
	WUA Representatives	UWUA Council Chairman	Other UWUA Council Members	Director	Accountant	<i>Murab</i>
Urmural-Birimdigi	No	Yes	No	Yes	No	Yes
Ak-Suu	No	No	No	Yes	No	No
Uvam	No	No	No	Yes	Yes	No
Ala-Buka Sugat Suu	Yes	Yes	Yes	Yes	Yes	Yes
Kichi-Kemin Suubas	No	Yes	No	Yes	Yes	No
Bakai-Alysh	No	Yes	No	Yes	Yes	No
Saza-Baisuu	-	-	-	-	-	-
Kumushtak	No	Yes	Yes	Yes	Yes	No
Suubashy	No	Yes	Yes	Yes	Yes	Yes

Karakol-Sook	No	No	No	Yes	No	No
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In all 9 assessed UWUAs having received training in administrative and financial management, the Director received training as well as the UWUA Council Chairman and the Accountant in 6 assessed UWUAs, the *Murab* and other UWUA Council members in 3 assessed UWUAs and the WUA representatives in 1 assessed UWUA. All 9 assessed UWUAs reported that they were satisfied with the provided training.

Eight of the 10 assessed UWUAs participated in an exchange visit between 2011 and 2015 and they consider these visits to be useful.

4.9.2 Visits by RSU Staff

The frequency of visits by RSU staff and the purpose of their visits are summarised in Table 4-18:

Table 4-18: Visits by RSU Staff

Name of UWUA	Frequency of Visits	Purpose of RSU Visits					
		Training	Data Collection	Inspection	Dispute Resolution	Assembly Meeting	Election
Urmural-Birimdigi	Weekly	No	Yes	Yes	Yes	Yes	Yes
Ak-Suu	Monthly	Yes	Yes	Yes	No	Yes	No
Uvam	Monthly	Yes	Yes	No	Yes	Yes	No
Ala-Buka Sugat Suu	Weekly	Yes	Yes	Yes	Yes	Yes	Yes
Kichi-Kemin Suubas	Monthly	No	Yes	Yes	Yes	Yes	No
Bakai-Alysh	Monthly	Yes	Yes	Yes	Yes	Yes	No
Saza-Baisuu	Weekly	Yes	Yes	Yes	Yes	Yes	Yes
Kumushtak	Weekly	Yes	Yes	Yes	Yes	Yes	Yes
Suubashy	Monthly	Yes	Yes	Yes	Yes	Yes	No
Karakol-Sook	Quarterly	Yes	Yes	Yes	Yes	Yes	No

In 9 assessed UWUAs, the concerned RSU staff reportedly conduct weekly or monthly visits, whereas the Karakol-Sook UWUA is visited once every quarter. Data collection, attending Assembly meetings, dispute resolution, inspections and provision of training are the main reasons for the RSU staff to conduct the assessed UWUAs regularly. All 10 assessed UWUAs stated that they were satisfied with the regular visits by the concerned RSU staff.

5 OPERATION OF OFF-FARM IRRIGATION AND DRAINAGE SYSTEM

5.1 Water Use License

Only the Suubashy UWUA in Issyk-Kul Oblast has obtained a water use license in 2014 and the duration of the issued license is 5 years.

5.2 Collection of Data for Planned Cropping Pattern

The collection of data related to the planned cropping patterns among the WUAs and any other water users by the 10 assessed UWUAs is shown in Table 5-1:

Table 5-1: Collection of Planned Cropping Pattern Data

Name of UWUA	Data Collected	Month	Responsible Person	
			Director	Hydro-Engineer
Urmural-Birimdigi	Yes	Jan-Feb	Yes	Yes
Ak-Suu	Yes	Feb-Mar	Yes	Yes
Uvam	Yes	Feb-Mar	Yes	Yes
Ala-Buka Sugat Suu	Yes	Feb	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-
Bakai-Alysh	Yes	Apr	Yes	Yes
Saza-Baisuu	Yes	Feb-Mar	Yes	No
Kumushtak	Yes	Mar	Yes	Yes
Suubashy	Yes	Mar	Yes	No
Karakol-Sook	Yes	Apr	Yes	Yes

All 9 assessed functional UWUAs collect the planned cropping pattern data between January and April. In all 9 assessed UWUAs collecting these data, the Director is the responsible person and the Hydro-Engineer is also involved in 7 assessed UWUAs.

5.3 Annual Water Distribution Plan and Schedule

The modalities and the preparation and approval of the annual water distribution plan and schedule by the 10 assessed UWUAs are presented in Table 5-2:

Table 5-2: Annual Water Distribution Plan and Schedule

Name of UWUA	Prepared	Month	Responsible Person			Approval		
			Director	Hydro-Engineer	Murab	UWUA Council	Assembly	RVK
Urmural-Birimdigi	Yes	Jan-Mar	Yes	Yes	No	Yes	No	Yes
Ak-Suu	Yes	Mar	Yes	Yes	No	No	No	Yes
Uvam	Yes	Feb-Mar	Yes	Yes	No	No	No	Yes
Ala-Buka Sugat Suu	Yes	Feb	Yes	Yes	No	Yes	Yes	No
Kichi-Kemin Suubas	-	-	-	-	-	-	-	-
Bakai-Alysh	Yes	Apr	Yes	Yes	No	Yes	Yes	No
Saza-Baisuu	Yes	Feb-Mar	Yes	No	No	Yes	No	Yes
Kumushtak	Yes	Mar	Yes	Yes	Yes	No	Yes	No
Suubashy	Yes	Mar	Yes	No	No	Yes	No	No
Karakol-Sook	Yes	Feb-Mar	Yes	Yes	No	No	Yes	No

All 9 assessed functional UWUAs prepare an annual water distribution plan and schedule between January and April with the Director and Hydro-Engineer as the responsible persons. None of the assessed UWUAs use CROPWAT-software during the preparation of their respective annual water distribution plan and schedule. The annual water distribution plan and schedule is approved by the UWUA Council and Representative Assembly in respectively 5 and 4 of the 9 assessed functional UWUAs. Four assessed UWUAs also submit the prepared annual water distribution plan and schedule to the RVK for review and approval.



Off-farm canals managed by Urmural-Birimdigi UWUA

5.4 Annual Water Supply Contracts

The preparation and signing of annual water supply contracts is summarised in Table 5-3:

Table 5-3: Annual Water Supply Contracts

Name of UWUA	Annual Water Supply Contract between UWUA and WUAs		Annual Water Supply Contract between UWUA and RVK		
	Signed	Month	Signed	Month	Supply of Agreed Amount of Water
Urmural-Birimdigi	Yes	Feb-Mar	Yes	Mar	Yes
Ak-Suu	Yes	Feb	Yes	Feb	Yes
Uvam	Yes	Feb	Yes	Feb	Yes
Ala-Buka Sugat Suu	Yes	Feb	No	-	-
Kichi-Kemin Suubas	-	-	-	-	-
Bakai-Alysh	Yes	Apr	No	-	-
Saza-Baisuu	Yes	Mar	Yes	Mar	Yes
Kumushtak	Yes	Mar	No	-	-
Suubashy	Yes	Mar-Apr	No	-	-
Karakol-Sook	No	-	No	-	-

Eight of the 9 assessed functional UWUAs signed annual water supply contracts with the WUAs in their respective service areas between February and April. Four assessed UWUAs also signed an annual water supply contract with the RVK and they reported that the RVK supplies the amount of canal water as specified in the signed contract.

5.5 Flow Measurement and Recording

5.5.1 Head of Off-Farm System

The modalities for measuring and recording the water flow at the head of the off-farm system are presented Table 5-4:

Table 5-4: Flow Measurement and Recording at Head of Off-Farm System

Name of UWUA	Measured	Method		Responsible		Frequency		
		Visual	Electronic	RVK	UWUA	Daily	Weekly	Monthly
Urmural-Birimdigi	Yes	Yes	No	Yes	Yes	Yes	No	No
Ak-Suu	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Uvam	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Ala-Buka Sugat Suu	Yes	Yes	Yes	No	Yes	Yes	No	No
Kichi-Kemin Suubas	-	-	-	-		-	-	-
Bakai-Alysh	Yes	Yes	No	No	Yes	Yes	No	No
Saza-Baisuu	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Kumushtak	Yes	Yes	No	No	Yes	No	No	Yes
Suubashy	Yes	Yes	Yes	No	Yes	Yes	No	No
Karakol-Sook	No	-	-	-		-	-	-

The water flow at the head of the off-farm I&D system is measured and recorded in 8 of the 9 assessed functional UWUAs. The water flow is measured visually in all 8 assessed UWUAs and electronically in 5 assessed UWUAs. In addition to the UWUA, the RVK is also responsible for measuring and recording the water flow at the head of the off-farm I&D system in 4 of the 8 assessed UWUAs. The water flow is measured and recorded daily in 7 assessed UWUAs, whereas it is done monthly in the Kumushtak UWUA. Reportedly, the recorded flow measurements are published in all 8 assessed UWUAs.



Flow measurement structure at head of off-farm canal

5.5.2 Inside Service Area of Off-Farm System

The modalities for measuring and recording the water flow inside the off-farm system are presented Table 5-5:

Table 5-5: Flow Measurement and Recording Inside Off-Farm System

Name of UWUA	Measured	Method		Responsible		Frequency		
		Visual	Electronic	RVK	UWUA	Daily	Weekly	Monthly
Urmural-Birimdigi	Yes	Yes	No	No	Yes	Yes	No	No
Ak-Suu	Yes	Yes	Yes	No	Yes	Yes	No	No
Uvam	Yes	Yes	No	No	Yes	Yes	No	No
Ala-Buka Sugat Suu	Yes	Yes	Yes	No	Yes	Yes	No	No
Kichi-Kemin Suubas	-	-	-	-	-	-	-	-
Bakai-Alysh	Yes	Yes	No	No	Yes	Yes	No	No
Saza-Baisuu	No	-	-	-	-	-	-	-
Kumushtak	Yes	Yes	Yes	No	Yes	No	No	Yes
Suubashy	Yes	Yes	Yes	No	Yes	Yes	No	No
Karakol-Sook	No	-	-	-	-	-	-	-

The water flow within the service area of the off-farm I&D system is measured and recorded in 7 of the 9 assessed functional UWUAs. The water flow is measured visually in all 7 assessed UWUAs and electronically in 4 assessed UWUAs. Only the 7 assessed UWUAs themselves are responsible for measuring and recording the water flow within the off-farm I&D system. The water flow is measured and recorded daily in 6 assessed UWUAs, whereas it is done monthly in the Kumushtak UWUA. Except for the Kumushtak UWUA, the recorded flow measurements are published in the other 6 assessed UWUAs measuring and recording water flow inside the off-farm I&D system.



Flow measurement device along off-farm canal

5.6 Water Distribution

5.6.1 Water Distribution Methods

The used methods for distributing canal water in years with sufficient water and water shortage within the off-farm I&D system managed by the 10 assessed UWUAs are summarised in Table 5-6:

Table 5-6: Water Distribution

Name of UWUA	Years with Sufficient Water			Years with Water Shortage		
	On Demand	Proportional	Rotational	On Demand	Proportional	Rotational
Urmural-Birimdigi	Yes	No	No	No	Yes	Yes
Ak-Suu	Yes	Yes	Yes	No	Yes	Yes
Uvam	Yes	No	No	No	Yes	Yes
Ala-Buka Sugat Suu	Yes	Yes	No	No	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-	-	-
Bakai-Alysh	No	Yes	No	No	No	Yes
Saza-Baisuu	Yes	No	No	No	Yes	No
Kumushtak	No	Yes	No	Yes	No	Yes
Suubashy	No	Yes	No	No	Yes	No
Karakol-Sook	No	Yes	No	No	No	Yes

In years with sufficient canal water, 3 assessed UWUA only use the on-demand method to distribute water among the WUAs and any other water users, whereas 4 assessed UWUAs only distribute available canal water proportionally. The Ak-Suu UWUA uses the on-demand, proportional and rotational method, while the Ala-Buka Sugat SUU UWUA distributes water on-demand and proportionally.

In years with water shortage, the on-demand method is only used by the Kumushtak UWUA in combination with rotational distribution, whereas the remaining 8 assessed UWUAs distribute the available canal water proportionally and/or rotationally.

5.6.2 Organisation and Supervision of Water Distribution

The responsible persons for organising and supervising the water distribution within the off-farm canal system are shown in Table 5-7:

Table 5-7: Organisation and Supervision of Water Distribution

Name of UWUA	Responsible Person				
	UWUA Council Chairman	Other UWUA Council Members	Director	Hydro-Engineer	<i>Murab</i>
Urmural-Birimdigi	Yes	Yes	Yes	Yes	Yes
Ak-Suu	No	No	Yes	Yes	No
Uvam	No	No	Yes	Yes	Yes
Ala-Buka Sugat Suu	Yes	No	Yes	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-	-
Bakai-Alysh	Yes	No	Yes	Yes	Yes
Saza-Baisuu	No	No	Yes	No	Yes
Kumushtak	Yes	No	Yes	Yes	No
Suubashy	No	No	Yes	No	Yes
Karakol-Sook	No	No	Yes	Yes	No

In all 9 assessed functional UWUAs, the Director is responsible for organising and supervising the distribution of available canal water during the irrigation season, whereas the Hydro-Engineer is also responsible in 7 assessed UWUAs and the *Murab* in 6 assessed UWUAs. The UWUA Council Chairman is involved in the distribution of canal water in 4 assessed UWUAs as well. All 9 assessed UWUAs stated that the available canal water is distributed timely and equitably among all WUAs and any other water users.

5.6.3 Use of Groundwater

No groundwater is used for irrigation purposes within the service area of the assessed UWUAs.

5.7 Planned and Actually Irrigated Area

The planned and actually irrigated area within the respective service areas of the 10 assessed UWUAs in 2015 is presented in Table 5-8:

Table 5-8: Planned and Actually Irrigated Area

Name of UWUA	Irrigated Area (ha)		
	Planned	Actual	% of Planned
Urmural-Birimdigi	7,127	7,127	100%
Ak-Suu	5,901	5,901	100%
Uvam	5,990	5,990	100%
Ala-Buka Sugat Suu	6,810	6,610	97%
Kichi-Kemin Suubas	3,558	3,558	100%
Bakai-Alysh	3,885	3,885	100%
Saza-Baisuu	3,602	3,602	100%
Kumushtak	5,200	5,200	100%
Suubashy	5,255	4,655	89%
Karakol-Sook	8,751	6,816	78%

For 7 of the 10 assessed UWUAs, 100% of the planned irrigated area was actually irrigated in 2015. In the other 3 assessed UWUAs, respectively 78%, 89% and 97% of the planned irrigated area was actually irrigated.

5.8 Irrigated Crops

The main irrigated crops grown within the service areas of the 10 assessed UWUAs are presented in Table 5-9:

Table 5-9: Main Irrigated Crops

Name of UWUA	Main Irrigated Crops								
	Fodder	Wheat	Maize	Barley	Cotton	Potato	Pulses/Beans	Vegetables	Fruit
Urmural-Birimdigi	Yes	Yes	No	No	No	No	Yes	No	Yes
Ak-Suu	No	Yes	Yes	No	Yes	No	No	Yes	Yes
Uvam	Yes	Yes	Yes	No	Yes	No	No	No	No
Ala-Buka Sugat Suu	Yes	Yes	Yes	No	No	Yes	No	No	No
Kichi-Kemin Suubas	Yes	No	No	Yes	No	No	Yes	No	No
Bakai-Alysh	Yes	No	No	No	No	No	Yes	No	Yes
Saza-Baisuu	Yes	Yes	No	No	No	No	Yes	Yes	No
Kumushtak	Yes	No	No	No	No	No	Yes	No	Yes
Suubashy	Yes	Yes	No	Yes	No	Yes	No	No	Yes
Karakol-Sook	Yes	No	No	Yes	No	No	No	No	No

Fodder and wheat are grown within the service area of respectively 9 and 6 assessed UWUAs followed by pulses and beans in 5 assessed UWUAs, fruit in 4 assessed UWUAs, maize and barley in 3 assessed UWUAs,

and vegetables, potato and cotton in 2 assessed UWUAs. Three to five main irrigated crops are cultivated within the respective service areas of the 10 assessed UWUAs.



Field with onion in Jalalabad Oblast (left) and Irish potato in Naryn Oblast (right)

5.9 Water-Related Disputes

5.9.1 Water-Related Disputes between WUAs and/or Other Water Users

The existence of water-related disputes between WUAs and/or other water users within the respective service areas of the 10 assessed UWUAs and their main causes are shown in Table 5-10:

Table 5-10: Water-Related Disputes between WUAs and/or Other Water Users

Name of UWUA	Number of Reported Disputes	Main Cause		
		Water Stealing	Damage to I&D Structure	Not Respecting Water Schedule
Urmural-Birimdigi	12	Yes	No	Yes
Ak-Suu	3	Yes	Yes	Yes
Uvam	2	Yes	No	Yes
Ala-Buka Sugat Suu	10	Yes	No	Yes
Kichi-Kemin Suubas	-	-	-	-
Bakai-Alysh	5	Yes	No	Yes
Saza-Baisuu	0	-	-	-
Kumushtak	3	Yes	Yes	Yes
Suubashy	6	Yes	No	Yes
Karakol-Sook	0	-	-	-

Seven of the 9 assessed functional UWUAs had 2 to 12 reported water-related disputes between WUAs and/or other water users, mainly due to water stealing and not respecting the water distribution schedule, while causing damage to the I&D infrastructure was the reason for disputes in 2 assessed UWUAs.

The persons and institutions responsible for resolving water-related disputes between WUAs and/or other water users within the respective service areas of the 10 assessed UWUAs are summarised in Table 5-11:

Table 5-11: Responsible Persons and Institutions for Dispute Resolution

Name of UWUA	Responsible Institution and Person					
	Dispute Resolution Commission	Representatives	UWUA Council Chairman	Other UWUA Council Members	Director	<i>Murab</i> / Other Employed Staff
Urmural-Birimdigi	Yes	No	Yes	Yes	Yes	Yes
Ak-Suu	No	No	Yes	Yes	Yes	Yes
Uvam	No	No	Yes	No	Yes	Yes
Ala-Buka Sugat Suu	Yes	Yes	Yes	Yes	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-	-	-
Bakai-Alysh	Yes	No	Yes	No	Yes	Yes
Saza-Baisuu	-	-	-	-	-	-
Kumushtak	Yes	No	Yes	Yes	Yes	Yes
Suubashy	No	No	Yes	No	Yes	Yes
Karakol-Sook	-	-	-	-	-	-

In all 7 assessed UWUA with reported water-related disputes between WUAs and/or other water users, the UWUA Council Chairman, Director and *Murab* are responsible for resolving the reported conflict. In 4 assessed UWUAs, the reported water-related disputes are also submitted to the Dispute Resolution Commission, whereas other UWUA Council members may also be involved in 4 assessed UWUAs. Reportedly, all water-related disputes were successfully resolved in 2015.

5.9.2 Water-Related Disputes between UWUA and WUAs/Other Water Users

The existence of water-related disputes between the UWUA and one or WUAs/other water users and their main causes are shown in Table 5-12:

Table 5-12: Water-Related Disputes between UWUA and WUAs/Other Water Users

Name of UWUA	Number of Reported Disputes	Main Cause		
		Water Stealing	Damage to I&D Structure	Inadequate Water Supply
Urmural-Birimdigi	2	Yes	No	No
Ak-Suu	3	Yes	Yes	No
Uvam	0	-	-	-
Ala-Buka Sugat Suu	10	Yes	Yes	No
Kichi-Kemin Suubas	-	-	-	-
Bakai-Alysh	0	-	-	-
Saza-Baisuu	0	-	-	-
Kumushtak	5	Yes	No	Yes
Suubashy	0	-	-	-
Karakol-Sook	0	-	-	-

Four of the 9 assessed functional UWUAs had 2 to 10 reported disputes between UWUA and one or more WUAs/other water users, mainly due to water stealing, while causing damage to the I&D infrastructure was the reason for disputes in 2 assessed UWUAs and inadequate water supply in 1 assessed UWUA.

The persons and institutions responsible for resolving water-related disputes between the UWUA and one or more WUAs/other water users are presented in Table 5-13:

Table 5-13: Responsible Persons and Institutions for Dispute Resolution

Name of UWUA	Responsible Institution and Person					
	Dispute Resolution Commission	Representatives	UWUA Council Chairman	Other UWUA Council Members	Director	<i>Murab</i>
Urmural-Birimdigi	Yes	No	Yes	Yes	Yes	Yes
Ak-Suu	No	No	Yes	Yes	Yes	Yes
Uvam	-	-	-	-	-	-
Ala-Buka Sugat Suu	Yes	Yes	Yes	Yes	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-	-	-
Bakai-Alysh	-	-	-	-	-	-
Saza-Baisuu	-	-	-	-	-	-
Kumushtak	Yes	No	Yes	Yes	Yes	Yes
Suubashy	-	-	-	-	-	-
Karakol-Sook	-	-	-	-	-	-

In all 4 assessed UWUAs with reported water-related disputes between the UWUA and one or more WUAs/other water users, the UWUA Council Chairman, other UWUA Council members, Director and *Murab* are responsible for resolving the reported conflict. In 3 assessed UWUAs, the reported water-related disputes are also submitted to the Dispute Resolution Commission. Reportedly, all water-related disputes were successfully resolved in 2015.

5.9.3 Water-Related Dispute between UWUA and RVK

The Ak-Suu UWUA reported a dispute with the RVK caused by inadequate water supply, which was resolved by the UWUA and RVK jointly.

5.10 Communication between UWUA and RVK

The level of communication between the 10 assessed UWUAs and the concerned RVKs as well as the method of communication are shown in Table 5-14:

Table 5-14: Frequency and Method of Communication between UWUA and RVK

Name of UWUA	Communication	Method			Frequency		
		Meeting	Phone	Other	Daily	Weekly	Monthly
Urmural-Birimdigi	Yes	No	Yes	Yes	Yes	No	No
Ak-Suu	Yes	Yes	Yes	No	No	Yes	No
Uvam	Yes	No	Yes	No	No	Yes	No
Ala-Buka Sugat Suu	No	-	-	-	-	-	-
Kichi-Kemin Suubas	-	-	-	-	-	-	-
Bakai-Alysh	No	-	-	-	-	-	-
Saza-Baisuu	Yes	No	Yes	Yes	No	Yes	No
Kumushtak	No	-	-	-	-	-	-
Suubashy	Yes	No	Yes	No	No	No	Yes
Karakol-Sook	No	-	-	-	-	-	-

Five of the 9 assessed functional UWUAs had communication by phone with the concerned RVK on a daily, weekly or monthly basis.

The main topics discussed during the communication between the assessed UWUAs and the concerned RVKs are summarised in Table 5-15:

Table 5-15: Main Topics during Communication between UWUA and RVK

Name of UWUA	Main Topics				
	Water Availability	Planned Water Supply	Actual Water Supply	Weather	Emergency
Urmural-Birimdigi	Yes	Yes	No	Yes	Yes
Ak-Suu	Yes	Yes	Yes	No	Yes
Uvam	Yes	Yes	Yes	No	Yes
Ala-Buka Sugat Suu	-	-	-	-	-
Kichi-Kemin Suubas	-	-	-	-	-
Bakai-Alysh	-	-	-	-	-
Saza-Baisuu	Yes	No	Yes	Yes	Yes
Kumushtak	-	-	-	-	-
Suubashy	Yes	No	No	Yes	Yes
Karakol-Sook	-	-	-	-	-

During the communication between the 5 assessed UWUAs and the concerned RVKs, water availability and emergency situation are the main topics followed by planned water supply, actual water supply and actual weather condition.

Four of the 5 assessed UWUAs consider their relationship with the RVK to be good, whereas the Urmural-Birimdigi UWUA considers it to be satisfactory.

6 MAINTENANCE OF OFF-FARM IRRIGATION AND DRAINAGE SYSTEM

6.1 Annual Maintenance Inspection

The modalities related to the annual maintenance inspection of the off-farm I&D system by the 9 assessed functional UWUAs are presented in Table 6-1:

Table 6-1: Annual Maintenance Inspection

Name of UWUA	Executed	Month	Responsible Person			
			UWUA Council Chairman	Director	Hydro-Engineer	<i>Murab</i>
Urmural-Birimdigi	Yes	Oct-Nov	No	Yes	Yes	Yes
Ak-Suu	Yes	Oct-Nov	No	Yes	Yes	Yes
Uvam	Yes	Nov-Feb	No	Yes	Yes	Yes
Ala-Buka Sugat Suu	Yes	Nov-Feb	No	Yes	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-	-	-
Bakai-Alysh	Yes	Mar	No	Yes	Yes	Yes
Saza-Baisuu	Yes	Nov-Feb	Yes	Yes	No	Yes
Kumushtak	Yes	Oct-Nov	No	Yes	Yes	Yes
Suubashy	Yes	Nov-Mar	No	Yes	No	Yes
Karakol-Sook	Yes	Feb	No	Yes	Yes	Yes

All 9 assessed functional UWUAs conduct a maintenance inspection between October and March and the Director, *Murab* and Hydro-Engineer are the responsible persons.

6.2 Annual Maintenance Plan and Budget

The modalities related to the preparation of the annual maintenance plan and budget for the off-farm I&D system are shown in Table 6-2:

Table 6-2: Annual Maintenance Plan and Budget

Name of UWUA	Prepared	Month	Responsible Person				
			UWUA Council Chairman	Director	Hydro-Engineer	<i>Murab</i>	Accountant
Urmural-Birimdigi	Yes	Nov	No	Yes	Yes	Yes	Yes
Ak-Suu	Yes	Nov-Dec	No	Yes	Yes	Yes	Yes
Uvam	Yes	Feb	No	Yes	Yes	No	Yes
Ala-Buka Sugat Suu	Yes	Feb	Yes	Yes	Yes	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-	-	-	-
Bakai-Alysh	Yes	Mar	Yes	Yes	Yes	No	No
Saza-Baisuu	Yes	Feb	No	Yes	No	No	No
Kumushtak	Yes	Jan-Feb	No	Yes	Yes	No	Yes
Suubashy	Yes	Mar	No	Yes	No	No	No
Karakol-Sook	Yes	Feb	No	Yes	Yes	No	Yes

All 9 assessed functional UWUAs prepare their annual maintenance plan and budget between November and March and the Director and Hydro-Engineer are the responsible persons, whereas the Accountant is also involved in 6 assessed UWUAs, the *Murab* in 3 assessed UWUAs and the UWUA Council Chairman in 2 assessed UWUAs.

The priority ranking of maintenance and repair (M&R) works, support from RVK and approval of the annual maintenance plan and budget are presented in Table 6-3:

Table 6-3: Priority Ranking of M&R works and Approval of Maintenance Plan and Budget

Name of UWUA	Priority Ranking of M&R Works	Support from RVK	Approval	
			UWUA Council	Assembly
Urmural-Birimdigi	Yes	No	Yes	No
Ak-Suu	Yes	No	Yes	No
Uvam	Yes	No	Yes	Yes
Ala-Buka Sugat Suu	Yes	Yes	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-
Bakai-Alysh	Yes	Yes	Yes	Yes
Saza-Baisuu	Yes	Yes	Yes	No
Kumushtak	Yes	No	Yes	Yes
Suubashy	Yes	No	Yes	Yes
Karakol-Sook	Yes	No	Yes	No

All 9 assessed UWUAs having prepared annual maintenance plan stated that a priority ranking of the identified M&R works is carried out. Three assessed UWUAs reported that they received support from the concerned RVK during the preparation of their respective annual maintenance plan and budget. In all 9 assessed UWUAs, the UWUA Council approves the annual maintenance plan and budget, whereas it is approved by the Representative Assembly in 5 assessed UWUAs.

6.3 Execution of M&R Works

The modalities for the execution of the M&R works within the service area of the 9 assessed functional UWUAs are summarised in Table 6-4:

Table 6-4: Execution of M&R Works

Name of UWUA	Month	Responsible Person					Support from RVK
		UWUA Council Chairman	Other UWUA Council Members	Director	Hydro-Engineer	<i>Murab</i>	
Urmural-Birimdigi	Nov-Apr	Yes	Yes	Yes	Yes	Yes	Yes
Ak-Suu	Nov-Apr	No	No	Yes	Yes	No	No
Uvam	Nov-Mar	No	No	Yes	Yes	Yes	No
Ala-Buka Sugat Suu	Mar-Apr	No	No	Yes	Yes	No	Yes
Kichi-Kemin Suubas	-	-	-	-	-	-	-
Bakai-Alysh	Mar-Apr	No	No	Yes	Yes	Yes	Yes
Saza-Baisuu	Mar	Yes	No	Yes	No	Yes	No
Kumushtak	Mar-Apr	Yes	No	Yes	Yes	Yes	No
Suubashy	Mar-Apr, Sep-Nov	No	No	Yes	No	Yes	No
Karakol-Sook	Mar-Apr, Oct	No	No	Yes	Yes	Yes	No

The execution of the M&R works is usually carried out between November and April, although the Suubashy UWUA also undertake M&R works between September and November and the Karakol-Sook UWUA carries out some M&R works in October. The Director, Hydro-Engineer and *Murab* are the responsible persons for organising the execution of all M&R works, although the UWUA Council Chairman

is also involved in 3 assessed UWUAs. Three assessed UWUAs reported that they received support from the concerned RVK during the execution of the M&R works.



Execution of M&R works on off-farm canal in Talas Oblast

6.3.1 Use of Asher System

All assessed UWUAs stated that the *asher* system is used, whereby water users provide labour during the execution of the M&R works on the off-farm I&D system.

6.3.2 Contracting Out of M&R Works

The contracting out of the execution of M&R works by the assessed UWUAs together with the main reasons are presented in Table 6-5:

Table 6-5: Contracting Out of Execution of M&R Works

Name of UWUA	Contracted Out	Contracted Party			Reason		
		RVK	Private Contractor	Other	Lack of Machinery	Lack of Manpower	Technically Complicated
Urmural-Birimdigi	Yes	No	Yes	Yes	Yes	Yes	No
Ak-Suu	Yes	No	No	Yes	No	Yes	No
Uvam	Yes	No	Yes	No	Yes	Yes	No
Ala-Buka Sugat Suu	Yes	Yes	Yes	No	Yes	Yes	No
Kichi-Kemin Suubas	-	-	-	-	-	-	-
Bakai-Alysh	Yes	No	Yes	No	Yes	No	No
Saza-Baisuu	Yes	No	Yes	No	Yes	No	Yes
Kumushtak	No	-	-	-	-	-	-
Suubashy	Yes	No	Yes	No	Yes	No	Yes
Karakol-Sook	Yes	No	Yes	No	Yes	No	No

Eight of the 9 assessed functional UWUAs contract out some of the M&R works out, mainly to private contractors, although the Ala-Buka Sugat Suu UWUA also contracted the RVK, whereas the Urmural-Birimdigi UWUA contracted the Employment Centre and the Ak-Suu UWUA had some M&R works carried out by WUAs to settle their debts. Lack of machinery is the main reason for contracting out some of the M&R works followed by lack of manpower.

6.3.3 Maintenance Register

All 9 assessed UWUAs reported to have a maintenance register, which is maintained by the Director and Hydro-Engineer.

6.3.4 Completion of M&R Works in 2015

The completion of the planned M&R works by the assessed UWUAs in 2015 is shown in Table 6-6:

Table 6-6: Completion of M&R Works in 2015

Name of UWUA	Completed	Reason for Non-Completion		
		Insufficient Manpower	Insufficient Budget	Insufficient Machinery
Urmural-Birimdigi	No	No	Yes	Yes
Ak-Suu	Yes	-	-	-
Uvam	Yes	-	-	-
Ala-Buka Sugat Suu	No	Yes	Yes	Yes
Kichi-Kemin Suubas	-	-	-	-
Bakai-Alysh	Yes	-	-	-
Saza-Baisuu	Yes	-	-	-
Kumushtak	Yes	-	-	-
Suubashy	Yes	-	-	-
Karakol-Sook	Yes	-	-	-

Two of the 9 assessed functional UWUAs stated that not all planned M&R works were carried out in 2015. The Urmural-Birimmdigi UWUA reported that it was unable to complete all M&R works in 2015 due to insufficient budget and insufficient machinery. The Ala-Buka Sugat Suu UWUA could not complete all M&R works due to insufficient manpower, budget and machinery.

6.4 Training in O&M of Off-Farm I&D System

The provision of training in O&M of the off-farm I&D system to the 10 assessed UWUAs is shown in Table 6-7:

Table 6-7: Provision of O&M Training

Name of UWUA	Provided	Training Provider			Year
		WUA SU	Other Government Staff	Project Staff	
Urmural-Birimdigi	No	-	-	-	-
Ak-Suu	Yes	Yes	No	Yes	2011-12
Uvam	Yes	Yes	No	Yes	2011-14
Ala-Buka Sugat Suu	Yes	Yes	No	Yes	2011-15
Kichi-Kemin Suubas	Yes	No	No	Yes	2011-12
Bakai-Alysh	No	-	-	-	-
Saza-Baisuu	No	-	-	-	-
Kumushtak	Yes	Yes	No	Yes	2011-15
Suubashy	Yes	Yes	No	Yes	2011-15
Karakol-Sook	Yes	Yes	No	Yes	2011-15

Seven of the 10 assessed UWUAs received training in O&M of the off-farm I&D system from WUA Support Unit and Project staff between 2011 and 2015.

The target groups of the provided O&M training are presented in Table 6-8:

Table 6-8: Target Groups for O&M Training

Name of UWUA	Target Group for O&M Training					
	WUA Representatives	UWUA Council Chairman	Other UWUA Council Members	Director	Hydro-Engineer	<i>Murab</i>
Urmural-Birimdigi	-	-	-	-	-	-
Ak-Suu	No	No	No	Yes	Yes	No
Uvam	No	Yes	Yes	Yes	No	No
Ala-Buka Sugat Suu	No	Yes	No	Yes	Yes	Yes
Kichi-Kemin Suubas	No	No	No	Yes	No	No
Bakai-Alysh	-	-	-	-	-	-
Saza-Baisuu	-	-	-	-	-	-
Kumushtak	No	No	No	Yes	No	No
Suubashy	No	No	No	Yes	No	Yes
Karakol-Sook	No	No	No	Yes	No	No

In all 7 assessed UWUAs having received O&M training, the Director was trained as well as the Hydro-Engineer, *Murab* and the UWUA Council Chairman in 2 assessed UWUAs.

Reportedly, all 7 assessed UWUAs having received O&M training are satisfied with the training provided.

6.5 Inventories and Asset Management Plan

None of the 10 assessed UWUAs have prepared an (5-year) asset management plan for their respective off-farm I&D system based on an inventory of all existing I&D infrastructure.

6.6 Rehabilitation of Off-Farm I&D System

The rehabilitation of any off-farm I&D infrastructure within the service area of the 10 assessed UWUAs are summarised in Table 6-9:

Table 6-9: Rehabilitation of Off-Farm I&D System

Name of UWUA	Rehabilitated	Project				Year	Scope
		ADB	USAID	WB	Other		
Urmural-Birimdigi	No	-	-	-	-	-	-
Ak-Suu	No	-	-	-	-	-	-
Uvam	Yes	No	Yes	No	No	2012	20%
Ala-Buka Sugat Suu	Yes	No	No	Yes	No	2011	40%
Kichi-Kemin Suubas	Yes	Yes	No	No	No	2010	70%
Bakai-Alysh	Yes	No	No	Yes	No	2000	50%
Saza-Baisuu	No	-	-	-	-	-	-
Kumushtak	No	-	-	-	-	-	-
Suubashy	Yes	No	No	No	CAREC	2014	20%
Karakol-Sook	No	-	-	-	-	-	-

Five of the 10 assessed UWUAs have their respective off-farm I&D system partially (20 to 70%) rehabilitated by ADB, USAID, World Bank or another project (CAREC). Four off-farm I&D systems were partially rehabilitated during the last 6 years, whereas the off-farm I&D system managed by the Bakai-Alysh UWUA was partially rehabilitated in 2000.

6.7 Physical Condition of Off-Farm I&D Infrastructure

The overall physical condition of the off-farm I&D structures is summarised in Table 6-10:

Table 6-10: Physical Condition of Off-Farm I&D Structures

Name of UWUA	Intake Structure			Canals			Regulation and Distribution Structures		
	Good	Moderate	Poor	Good	Moderate	Poor	Good	Moderate	Poor
Urmural-Birimdigi	-	Yes	-	-	-	3	-	3	-
Ak-Suu	Yes		-	2	1	1	12	-	-
Uvam	-	Yes	-	-	4	1	4	16	5
Ala-Buka Sugat Suu	-	Yes	-	4	2	2	8	21	14
Kichi-Kemin Suubas	Yes	-	-	3	-	-	3	-	-
Bakai-Alysh	Yes	-	-	1	1	-	-	5	-
Saza-Baisuu	-	Yes	-	-	1	1	-	2	1
Kumushtak	-	Yes	-	-	4	1	-	10	3
Suubashy	-	Yes	-	-	3	7	4	6	3
Karakol-Sook	-	Yes	Yes	3	-	-	2	4	10
Total	3	7	1	10	16	19	33	67	36

Name of UWUA	Flow Measurement Devices			Ancillary Structures			Drainage System		
	Good	Moderate	Poor	Good	Moderate	Poor	Good	Moderate	Poor
Urmural-Birimdigi	2	8	4	-	1	1	No drainage system		
Ak-Suu	16	-	-	-	5	-	No drainage system		
Uvam	-	10	5	-	-	-	-	Yes	-
Ala-Buka Sugat Suu	8	10	4	4	6	-	No drainage system		
Kichi-Kemin Suubas	-	-	-	12	-	-	No drainage system		
Bakai-Alysh	-	6	-	4	-	-	No drainage system		
Saza-Baisuu	-	-	2	-	-	-	No drainage system		
Kumushtak	-	2	3	1	1	3	-	-	Yes
Suubashy	6	5	10	-	1	-	No drainage system		
Karakol-Sook	-	-	-	2	4	6	No drainage system		
Total	32	41	28	23	18	10	-	1	1

The physical condition of the majority of intake structures, canals, regulation and distribution structures, flow measurement devices and ancillary structures is mediocre or poor. Only 2 of the 10 assessed UWUAs have a drainage system within their respective service area and their physical condition is mediocre and poor.



Off-farm canal is very good condition (left) and very poor condition (right)

6.8 Environmental and Health Issues

The reported environmental and health issues within the service area of the 10 assessed UWUAs and any mitigation measures are presented in Table 6-11:

Table 6-11: Reported Environmental and Health Issues

Name of UWUA	Disposal of Solid Waste	Caused by			UWUA Measure	Government Measure
		Outside People	Inside People	Industry		
Urmural-Birimdigi	No	-	-	-	-	-
Ak-Suu	Yes	Yes	Yes	Yes	Letters	No
Uvam	Yes	Yes	Yes	No	Letters	No
Ala-Buka Sugat Suu	Yes	Yes	Yes	No	Letters	No
Kichi-Kemin Suubas	No	-	-	-	-	-
Bakai-Alysh	No	-	-	-	-	-
Saza-Baisuu	Yes	Yes	Yes	No	Letters	No
Kumushtak	No	-	-	-	-	-
Suubashy	Yes	Yes	Yes	No	Letters	No
Karakol-Sook	Yes	No	Yes	No	Letters	No

Name of UWUA	Disposal of Sewage Water	Caused by			UWUA Measure	Government Measure
		Outside Towns/ Villages	Inside Towns/ Villages	Others		
Urmural-Birimdigi	No	-	-	-	-	-
Ak-Suu	Yes	No	Yes	No	Letters	No
Uvam	Yes	No	Yes	No	Letters	No
Ala-Buka Sugat Suu	Yes	No	No	Yes	Letters	No
Kichi-Kemin Suubas	No	-	-	-	-	-
Bakai-Alysh	No	-	-	-	-	-
Saza-Baisuu	No	-	-	-	-	-
Kumushtak	No	-	-	-	-	-
Suubashy	No	-	-	-	-	-
Karakol-Sook	No	-	-	-	-	-

Disposal of solid waste is a problem in the service area of 6 assessed UWUAs, which is mainly caused by people living inside and outside the service area. All 6 assessed UWUAs have sent letters to the concerned (local) government authorities with the request to resolve this problem but no action by the Government.

Disposal of sewage water in the off-farm canals is a problem in 3 assessed UWUAs mainly caused by towns and villages located in the service areas. Despite letters sent by the concerned UWUAs, no Government action yet to resolve this problem.

None of the 10 assessed UWUAs have problems with chemical pollution of canal water and soil salinity within their respective service areas. Waterlogging is a minor problem in the service area of the Ala-Buka Sugat Suu UWUA. The Suubashy UWUA reported that dysentery is a major health problem in its service area due to lack of safe drinking water, poor drainage and use of canal water as potable water.