

Kyrgyz Republic



Ministry of Agriculture and Land Improvement

Department of Water Resources and Land Improvement

**National Water Resources Management Project – Phase 1
(Grant Number TF016315)**

Component 3

**PROPOSED STRUCTURE OF IMPROVED WATER USERS'
ASSOCIATION DATABASE**

Prepared by Olaf Verheijen (Chief Advisor Component 3 - WUA Expert)

September 2016

ANALYSIS OF USE AND BENEFIT OF MAINTENANCE MACHINERY PROVIDED TO (UNIONS OF) WATER USERS' ASSOCIATIONS

TABLE OF CONTENTS

1	INTRODUCTION.....	1
2	PROPOSED STRUCTURE OF WUA DATA.....	1
2.1	Section A - General WUA Data.....	1
2.2	Section B – WUA Members.....	1
2.3	Section C – WUA Service Area	2
2.4	Section D – WUA Organs	2
2.5	Section E – WUA Directorate	3
2.6	Section F – WUA Office.....	3
2.7	Section G – Machinery, Equipment and Vehicles.....	4
2.8	Section H – Irrigation, Drainage and Ancillary Infrastructure	5
2.9	Section I – Administrative Management	6
2.10	Section J – Financial Management	6
2.11	Section K – ISF Assessment and Collection	7
2.12	Section L – Bulk Water Supply	7
2.13	Section M – Maintenance of On-Farm I&D System.....	7
2.14	Section N – Operation of On-Farm I&D System	8
2.15	Section O – Cropping Pattern	8
2.16	Section P – Repayment.....	8
2.17	Section Q – Training	9

ABBREVIATIONS

CSU	Central WUA Support Unit
Ha	Hectare
I&D	Irrigation and Drainage
KGS	Kyrgyz Som
RVK	RaiVodKhoz
UWUA	Union of WUAs
WUA	Water Users' Association

1 INTRODUCTION

Under Activity 3.2.3 of Sub-Component 3.2, the proposed structure for the re-establishment of an improved WUA database has been prepared by the Chief Advisor Component 3 – WUA Expert in collaboration with the Component 3 staff. Following a review by the CSU, the proposed structure of the improved WUA database was submitted to Component 1 for review as it is envisaged that the WUA database will be integrated in the Water Information System database.

2 PROPOSED STRUCTURE OF WUA DATA

The proposed structure of the improved WUA database comprises the following sections:

- Section A – General WUA Data
- Section B – WUA Members
- Section C – WUA Service Area
- Section D – WUA Organs
- Section E – WUA Directorate
- Section F – WUA Office
- Section G – Machinery, Equipment and Vehicles
- Section H – Irrigation, Drainage and Ancillary Infrastructure
- Section I – Administrative Management
- Section J – Financial Management
- Section K – ISF Assessment and Collection
- Section L – Bulk Water Supply
- Section M – Maintenance of On-Farm I&D System
- Section N – Operation of On-Farm I&D System
- Section O – Cropping Pattern
- Section P – Repayment
- Section Q - Training

The specific data and information to be entered in each section of the WUA database are presented below.

2.1 Section A - General WUA Data

1	Name of WUA	
2	Name of Ayil Okmotu	
3	Name of Raion	
4	Name of Oblast	
5	Date of establishment	
6	Date of registration	
7	Date of re-registration	
8	Registration number	

2.2 Section B – WUA Members

1	Number of individual members (i.e. individual farmers)	
	- Number of female members	
2	Number of private legal entities as member	
	- Number of agricultural production cooperatives	

3	Number of state legal entities as member	
	- number of seed farms	
	- number of livestock farms	
	- number of demonstration farms	
4	Number of other type of members	
5	Supply of canal water to non-members (Yes/No)	
	- Number	

2.3 Section C – WUA Service Area

1	Total size of WUA service area (ha)	
2	Size of irrigable area (ha)	
3	Size of non-irrigable area (ha)	
4	Number of zones	
5	Size of planned irrigated area (ha)	
	- % of irrigable area	
6	Size of actually irrigated area (ha)	
	- % of planned irrigated area	
	- % of irrigable area	

2.4 Section D – WUA Organs

1	Representative Assembly (Yes/No)	
	- Total number of elected representatives	
	- Number of female representatives	
	- Terms of office (years)	
	- Date of last election	
	- Number of meetings during last financial year	
2	WUA Council	
	- Total number of WUA Council members	
	- Number of female WUA Council members	
	- Number of WUA Council members from tail reach	
	- Terms of office (years)	
	- Date of last election	
	- Number of meetings during last financial year	
	- Adopted criteria for composition of WUA Council (Yes/No)	
3	Name of WUA Council Chairman	
4	Name of WUA Council Deputy Chairman	
5	Name of WUA Council Secretary	
6	Name of WUA Council Treasurer	
7	Audit Commission (Yes/No)	
	- Total number of elected members	
	- Number of female members	
	- Terms of office (years)	
	- Date of last election	
	- Number of meetings during last financial year	
8	Dispute Resolution Commission (Yes/No)	
	- Total number of elected members	
	- Number of female members	
	- Terms of office (years)	

	- Date of last election	
	- Number of meetings during last financial year	
9	Other Commission(s) formed (Yes/No)	
	- Name of commission	
	- Total number of elected members	
	- Number of female members	
	- Terms of office (years)	
	- Date of last election	
	- Number of meetings during last financial year	

2.5 Section E – WUA Directorate

1	Director employed (Yes/No)	
	- Name	
	- Full-time employed (Yes/No)	
2	Accountant employed (Yes/No)	
	- Name	
	- Full-time employed (Yes/No)	
3	Hydro-Engineer employed (Yes/No)	
	- Name	
	- Full-time employed (Yes/No)	
4	<i>Murab</i> employed (Yes/No)	
	- Number	
	- Full-time employed (Yes/No)	
5	Casher employed (Yes/No)	
	- Number	
	- Full-time employed (Yes/No)	
6	Collector employed (Yes/No)	
	- Number	
	- Full-time employed (Yes/No)	
7	Machinery operator employed (Yes/No)	
	- Number	
	- Full-time employed (Yes/No)	

2.6 Section F – WUA Office

1	WUA office (Yes/No)	
	- Owned, rented, free use	
2	Office furniture (Yes/No)	
	- Number of chairs	
	- Number of tables/desks	
	- Number of filing cabinets	
3	Safe (Yes/No)	
4	Computer (Yes/No)	
	- Number	
	- Year of procurement	
5	Printer (Yes/No)	
	- Number	
	- Year of procurement	
6	Photocopier (Yes/No)	

	- Number	
	- Year of procurement	
7	Mobile phone (Yes)	
	- Number	
	- Year of procurement	
8	Other office equipment	
	- Type(s)	
	- Number	
	- Year of procurement	
9	Internet connection (Yes/No)	

2.7 Section G – Machinery, Equipment and Vehicles

1	Tractor (Yes/No)	
	- Number	
	- Year of procurement	
2	Truck (yes/No)	
	- Number	
	- Year of procurement	
3	Excavator (Yes/No)	
	- Number	
	- Year of procurement	
4	Bulldozer/Loader (Yes/No)	
	- Number	
	- Year of procurement	
5	Truck (Yes/No)	
	- Number	
	- Year of procurement	
6	Concrete mixer (Yes/No)	
	- Number	
	- Year of procurement	
7	Welding machine (Yes/No)	
	- Number	
	- Year of procurement	
8	Car (Yes/No)	
	- Number	
	- Year of procurement	
9	Motorcycle (Yes/No)	
	- Number	
	- Year of procurement	
10	Bicycle (Yes/No)	
	- Number	
	- Year of procurement	
11	Other machinery and/or equipment (Yes/No)	
	- Type(s)	
	- Number	
	- Year of procurement	

2.8 Section H – Irrigation, Drainage and Ancillary Infrastructure

1	On-farm I&D system transferred to WUA balance (Yes/No)	
	- Year of transfer	
	- Registration in State register (Yes/No)	
2	Intake structure (Yes/No)	
	- Number	
3	Pumping station (Yes/No)	
	- Number	
4	Off-farm canal (Yes/No)	
	- Number	
	- Total length (km)	
	- Length of lined section(s) (km)	
5	On-farm canal (> 20 m ³ /s)	
	- Number	
	- Total length (km)	
	- Length of lined section(s) (km)	
6	On-farm canal (5 to 20 m ³ /s)	
	- Number	
	- Total length (km)	
	- Length of lined section(s) (km)	
7	On-farm canal (1 to 5 m ³ /s)	
	- Number	
	- Total length (km)	
	- Length of lined section(s) (km)	
8	On-farm canal (< 1 m ³ /s)	
	- Number	
	- Total length (km)	
	- Length of lined section(s) (km)	
9	Water reservoir (Yes/No)	
	- Number	
	- Storage capacity (m ³)	
10	Drainage system (Yes/No)	
	- Length of open system (km)	
	- Length of closed/buried system (km)	
11	Hydropost at head of on-farm canal(s) (Yes/No)	
	- Number of electronic hydroposts	
	- Number of visual hydroposts (staff gauge)	
12	Hydropost along on-farm canal(s) (Yes/No)	
	- Number of electronic hydroposts	
	- Number of visual hydroposts (staff gauge)	
13	Hydro-technical structures (Yes/No)	
	- Number of cross-regulators	
	- Number of drop structures	
	- Number of water outlet structures	
	- Number of aqueducts	
	- Number of siphons	
	- Number of escape structures	
	- Number of cross-drainage structures	
	- Number of other hydro-technical structures	

14	Ancillary structures (Yes/No)	
	- Number of culverts	
	- Number of bridges	
	- Number of animal drinking structures	
	- Number of washing structures	
	- Number of other ancillary structures	
15	On-farm roads (Yes/No)	
	- Length of paved/asphalt road (km)	
	- Length of unpaved/earthen road (km)	

2.9 Section I – Administrative Management

1	Register of WUA members (Yes/No)	
2	Register on non-members of WUA supplied with canal water (Yes/No)	
3	Register of elected members of WUA organs	
4	Map of WUA service area with layout of (on-farm) canals (Yes/No)	
5	Register of bulk water supply (yes/No)	
6	Register of water supply requests and deliveries (Yes/No)	
7	Maintenance register (Yes/No)	
8	Registered of planted crops (Yes/No)	
9	Register of correspondence (Yes/No)	
10	Register of minutes of meetings (Yes/No)	
11	Register of contracts and transactions (Yes/No)	
12	Asset register (Yes/No)	
13	Visitors book (Yes/No)	
14	Other non-financial records (Yes/No)	
	- type(s)	

2.10 Section J – Financial Management

1	Ledger/journal (Yes/No)	
2	Cash book (Yes/No)	
3	Bank book (Yes/No)	
4	Receipt book (Yes/No)	
5	ISF assessment and collection book (Yes/No)	
6	Register of imposed and collected fines (Yes/No)	
7	Annual budget (Yes/No)	
	- Approved by General/Representative Assembly (Yes/No)	
	- Submitted to CSU (yes/No)	
8	Annual report and financial statements (Yes/No)	
	- Approved by General/Representative Assembly (Yes/No)	
	- Submitted to CSU (yes/No)	
9	External audit of annual report and financial statements (Yes/No)	
	- Approved (Yes/No)	
10	WUA incomes:	
	- Planned (KGS)	
	- Actual (KGS)	
	- % of planned	
11	WUA expenditures:	
	- Planned (KGS)	

	- Actual (KGS)	
	- % of planned	
12	WUA bank account (Yes/No)	
	- Name of bank	
	- Bank account number	
	- Bank balance at end of financial year (KGS)	
13	WUA Reserve Fund (Yes/No)	
	- Separate bank account (Yes/No)	
	- Deposited amount at end of financial year (KGS)	

2.11 Section K – ISF Assessment and Collection

1	ISF rate:	
	- KGS per hectare	
	- KGS per irrigation	
	- KGS per 1,000 m ³	
2	ISF collection:	
	- Planned (KGS)	
	- Actual (KGS)	
	- % of planned	
3	Payment in kind (Yes/No)	
	- % of farmers	
	- % of collected amount	
4	Adopted sanctions for late ISF payment (Yes/No)	
5	Adopted sanctions for non-payment of ISF (Yes/No)	

2.12 Section L – Bulk Water Supply

1	Name(s) of off-farm canal(s) supplying water to on-farm I&D system	
2	Annual water supply contract signed with RVK/UWUA (Yes/No)	
	- Planned bulk water supply (1,000 m ³)	
	- Actual bulk water supply (1,000 m ³)	
	- % of planned bulk water supply	
3	Payment of service charge for bulk water supply to RVK/UWUA (Yes/No)	
	- Service charge rate (KGS per 1,000 m ³)	
	- Planned amount to be paid (KGS)	
	- Actual amount paid at end of financial year (KGS)	
	- % of planned amount paid	
4	Outstanding debt to RVK/UWUA (Yes/No)	
	- Amount at end of financial year (KGS)	

2.13 Section M – Maintenance of On-Farm I&D System

1	Asset management plan prepared (Yes/No)	
	- Year of preparation	
	- Approved by General/Representative Assembly (Yes/No)	
2	Maintenance plan and budget prepared (Yes/No)	
	- Approved by General/Representative Assembly (Yes/No)	
3	Maintenance expenditures	
	- Planned (KGS)	

	- Actual (KGS)	
	- % of planned	
4	Use of Ashar system for cleaning of canals (Yes/No)	
	- Length of canals (km)	
5	Contracting out of maintenance works (Yes/No)	
	- Amount of contracted out works (KGS)	
6	% of planned maintenance works completed	

2.14 Section N – Operation of On-Farm I&D System

1	Water use license (Yes/No)	
2	Annual water distribution plan and schedule prepared (Yes/No)	
	- Approved by General/Representative Assembly (Yes/No)	
3	Annual water supply agreements signed with farmers (Yes/No)	
4	Flow measurement at head of on-farm canal(s) (Yes/No)	
	- Published (Yes/No)	
5	Flow measurement along on-farm canal(s) (Yes/No)	
	- Published (Yes/No)	
6	Adopted sanctions for violation of O&M rules, such as water stealing (Yes/No)	
7	Use of pumped groundwater for irrigation within WUA service area (Yes/No)	
	- Area (ha)	
	- Number of pumps	
	- Number of farmers	
8	Supply of canal water for non-irrigation purposes (Yes/No)	
	- Fish farming (Yes/No)	
	- Domestic water supply (Yes/No)	
	- Industry/factories (Yes/No)	

2.15 Section O – Cropping Pattern

1	(Winter) wheat (ha)	
2	Fodder crops/grasses (ha)	
3	Maize (ha)	
4	Barley (ha)	
5	Sugar beet (ha)	
6	Cotton (ha)	
7	Potato (ha)	
8	Tobacco (ha)	
9	Beans/pulses (ha)	
10	Sunflower and other oilseeds (ha)	
11	Melon (ha)	
12	Vegetables (ha)	
13	Orchards (ha)	
14	Household garden/plot (ha)	
15	Other crop(s) (ha)	

2.16 Section P – Repayment

1	Repayment of 25% rehabilitation cost (Yes/No)	
	- Total amount (KGS)	

	- Repaid amount (KGS)	
	- % of total amount	
2	Repayment of technical credit (Yes/No)	
	- Total amount (KGS)	
	- Repaid amount (KGS)	
	- % of total amount	

2.17 Section Q – Training

1	Training in legal aspects of WUA (Yes/No)	
	- Year	
2	Training in governance and general management of WUA (Yes/No)	
	- Year	
3	Training in administrative management of WUA (Yes/No)	
	- Year	
4	Training in financial management of WUA (Yes/No)	
	- Year	
5	Training in ISF assessment and collection (Yes/No)	
	- Year	
6	Training in internal audit (Yes/No)	
	- Year	
7	Training in operation of on-farm I&D system (Yes/No)	
	- Year	
8	Training in use of CROPWAT software (Yes/No)	
	- Year	
9	Training in flow measurement and recording (Yes/No)	
	- Year	
10	Training in maintenance of on-farm I&D system (Yes/No)	
	- Year	
11	Training in crop selection and irrigation agronomy (Yes/No)	
	- Year	
12	Training in gender issues (Yes/No)	
	- Year	