

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)**

MISSION REPORT No. 3

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Economist and M&E Expert)**

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ANNEX A: Overview of Activities Conducted during Third Mission

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ABBREVIATIONS

APNIP	Agricultural Production and Nutrition Improvement Project
CSU	Central WUA Support and Regulatory Unit
DWRLI	Department of Water Resources and Land Improvement
Ha	Hectare
I&D	Irrigation and Drainage
M&E	Monitoring and Evaluation
MoALI	Ministry of Agriculture and Land Improvement
MOM	Management, Operation and Maintenance
NUWUA	National Union of WUAs
NWRMP-1	National Water Resources Management Project - Phase
OIP-1	On-Farm Irrigation Project - Phase 1
OIP-2 (AF)	On-Farm Irrigation Project - Phase 2 (Additional Funding)
OSU	Oblast WUA Support Unit
OVK	Provincial Irrigation Department (<i>Oblvodkhoz</i>)
PIU	Project Implementation Unit
RSU	Raion WUA Support Unit
RVK	District Irrigation Department (<i>Rayvodkhoz</i>)
ToR	Terms of Reference
ToT	Training of Trainers
UWUA	Union of WUAs
WMC	Water Management Council
WMIP	Water Management Improvement Project
WUA	Water Users' Association

1 INTRODUCTION

Following the signing of the contract with the Project Implementation Unit (PIU) of the National Water Resources Management Project - Phase 1 (NWRMP-1) the International Agricultural and Water Sector Economist and M&E Expert, Mr. Alexander Mueller, conducted his first mission, which took place from 11 until 28 January 2017, the second mission took place from 2-12 April 2017. This report covers his third mission, which took place from 24 April – 5 May 2017; it was scheduled to create an overlap with Johan Heymans.

2 CONDUCTED ACTIVITIES

During his third mission, Mr. Mueller reviewed the work of the National Economist; the results of his work have been preliminary approved. Furthermore Mr. Mueller worked closely with the Component 1 and 2 Coordinators and with the Component 2 Chief Advisor on tasks under his component. The progress per task is mentioned per deliverable.

A detailed overview of all activities conducted during his first mission is attached as Annex A.

3 TASKS AND DELIVERABLES

The Terms of Reference for the International Agricultural and Water Sector Economist and M&E Expert mentions the following Tasks and Deliverables:

Task 1 Preparation

- Review the existing reports, studies, and planning documents relevant to economic justification of rehabilitation within irrigation and drainage projects in Kyrgyzstan. These include, but are not limited to:
 - NWRMP Terms of References (specifically subcomponents 1.3, 2.1, 2.2 and 2.3);
 - Reports prepared under the WMIP, IRP, OIP-1, and OIP-2 (especially the Post Rehabilitation Study of IRP and OIP, 2014), OIP-2 AF and other materials, within its competence in NWRMP-1.
 - The Management for Irrigation and Drainage infrastructure 5 year plans for the 6 pilot schemes (first drafts will be ready end of 2016; the second version of the 6 plans will be ready end of 2017).
 - Draft Strategy of water sector development of the Kyrgyz Republic
- Review project documents and conduct interviews with key project staff from an M&E perspective to obtain a full overview of project activities and progress
- Preparation of detailed work plans (separately) for economist as well as M&E activities

The output of this task has been *Deliverable 1: Detailed Work plan with a detailed description of the study steps for both economy as well as M&E activities.*

Progress: This deliverable was submitted and approved in January 2017.

Component 1 Strengthening National Water Resources Management Capacity

Task 2 Performing a sector expenditure review

Based on reviewed documentation and information collected from relevant stakeholders the consultant will carry out a detailed review of the sector expenditures, clearly indicating how, when, by whom and for what purpose expenditures are being made.

The output of this task will be: *Deliverable 2: Water sector expenditure review report.*

Progress: Documents on Water Sector Expenditure were provided by the National Economist and the DWRLI Finance Department. A preliminary draft of this deliverable was produced during the third mission and was sent to Georg Peterson and David Milton on 3 May 2017; this draft was discussed with

Nurgazy Mamataliev on 4 May 2017. The National Economist will contact relevant organizations involved in water management for additional information. During the fourth mission a draft of this deliverable will be submitted.

Task 3 Providing recommendations for financing of critical water management activities

Based on the previous tasks as well as in coordination with other experts and stakeholders, the consultant will identify and prioritize critical water management activities and develop recommendations for financing of these activities, keeping in mind sustainability aspects.

Assistance to International consultant on water resources management while drafting Strategy on water sector development of the Kyrgyz Republic.

Identify necessary financial needs for establishment and its maintenance of basin management units, basin councils in connection with the Roadmap.

The output of this task will be: *Deliverable 3: Approximate estimates for financing of critical water management activities: SWA, BMU and BC organizations.*

Progress: Discussions were held with the Component 1 Coordinator and the Component 1 Advisor on how to carry out this task. The National economist provided the relevant data and will work with ministries and agencies on collection of the missing related data. A preliminary draft of this deliverable was prepared during the third mission and was discussed with Nurgazy Mamataliev on 4 May 2017. A first draft will be delivered during the fourth mission.

Task 4 Contribute to the development of a procedure for implementing a wastewater permitting / fee system and the design of a fee system for water resources use

For the development of a procedure for implementing a wastewater permitting / fee system and the design of a fee system for water resource use contribute to ensure economic sustainability through understanding of the current economic situation, its failure potential, limits of financial capabilities as well as needs and management.

The output of this task will be: *Deliverable 4: Procedures and fee system developed*

Progress: Discussions were held with the Component 1 Coordinator and the Component 1 Advisor on how to carry out this task. The National economist provided the relevant data and will work with ministries and agencies on collection of the missing related data.

Component 2 Improving Irrigation Service Delivery to Water Users Associations

Task 5 Economic justification of improved MOM financing

Based on the economic analysis of some WUA's under WMIP (Post Rehabilitation Study of IRP and OIP) and the 5 year MOM plans (first draft) for the 6 pilot schemes, which were prepared by national economist, an economic justification to quantify the benefits of proper maintenance in terms of increased irrigated lands and yields has to be carried out. Properly maintained irrigation and drainage schemes can deliver water at the right place, in the right quantity and at the right time, without undue water losses and system failures that lead to water supply interruptions and potential crop losses. Data on actual irrigated areas and yields have to be collected from the 6 pilot schemes. An assessment of the potential area to be irrigated has to be made as well, PIU specialists can assist on this point.

- Select a representative sample of WUA's in the 6 pilot schemes to conduct this survey.
- Use the materials, collected by the national agricultural economist, including on the collection of data on actual irrigated areas of the representative WUA's, including representative cropping patterns and the farm models typical for the representative WUA's.
- Determine the potential area to be irrigated, including corresponding cropping patterns. More cropping patterns should be used to determine the financial benefits, by taking into account the expected developments of markets, policy changes, etc.
- Assess the potential increase in water supply and yield for the properly maintained schemes, for each of the farm models.

- Determine the required maintenance levels based on the Management of Irrigation and Drainage plans (both the 2016 and 2017 versions).
- Determine the needed ISF funding as a percentage of the net farm returns for farms of each pilot model.

The output of this task will be: *Deliverable 5: Final report on the economic justification of improved MOM and IFS financing. The concept report will be discussed with representatives of the PIU.*

On his tasks the International Agriculture and Water Sector Economist will work closely together with the National Agricultural Economist, Component 1, 2 and 3 Coordinators and Chief Advisors.

Progress: The National Economist collected relevant (additional) information such as ISFs and the 5-year expenditure plans for the six Pilot Schemes, yields, cropping patterns and prices from Ministry of Agriculture, DWRLI and other sources. Draft crop budgets have been prepared for all relevant crops grown in the six Pilot Schemes, yields and cropped areas were extracted from DWTLR-data files and average ISF have calculated for the pilot schemes. The DWRLI-Agronomist was requested to review the crop budgets and prices; this was not done; sample crop budgets were supplied. The contents of this deliverable was discussed with Johan Heymans (Component 2 Chief Advisor): instead of a survey of WUAs within the six Pilot Schemes, data on all WUAs in the Schemes will be used as already collected by DWRLI. The potential additional area that can be irrigated per Scheme is understood to be the difference between the command area and the actually (2016) irrigated area. The staff costs, required maintenance and overhaul levels have been determined by DWRLI for the period 2017-2021 (but seem not to be final); the overhaul costs only cover the most urgent repairs and are not sufficient for full modernization. DWRLI will start estimating the full modernization costs; in the absence of those, use will be made of average off-farm and on-farm costs as resulted from previous projects. The Irrigation requirements per crop and oblast have been collected. A first draft of this deliverable was sent to Georg Petersen, Johan Heymans and Olaf Verheijen on 2 May 2017 for comments. The draft was discussed with Damira Alchibekova on 4 May 2017. A second draft of this deliverable is planned for Mission 4. The current land tax, land rent and social fund contributions will be checked by the National Economist. The Component 2 Advisor would try to get the crop budgets verified.

Component 3 Improving irrigation management by Water Users Associations

Task 6: Re-establishment of WUA and Union of WUA database

- Assist in detailed review of existing WUA and Union of WUA database;
- Assist in evaluation of existing procedures for collection of annual reports from WUAs and Union of WUAs;
- Assist in preparation and implementation of WUA and Union of WUA database management plan, which indicating improved procedures for collection of annual reports from WUAs and Union of WUAs and maintenance of WUA and Union of WUA database based on results of review and assessment;
- M&E of WUA and Union of WUA database management including preparation of quarterly progress reports; and
- Based on M&E results assist in improving WUA and Union of WUA database management plan, if necessary.

The output of this task will be *Deliverable 6: WUA and Union of WUA database management plan.*

Progress:

In the period January-March 2017 international and local consultants have come to an agreement with DWRLI on the final form of the WUA database; the International Agricultural and Water Sector Economist and M&E Expert contributed to this discussion in January 2017. It was agreed on 6 April 2017 with the Component 3 Coordinator that no further inputs from the International Agricultural and Water Sector Economist and M&E Expert were required for this task at this stage.

Component 4 Project management

Task 7: Development of improved M&E system for the DWRLI and PIU

- Assessment of the existing capacity of WUA and Union of WUA within DWRLI and PIU;
- Based on assessment results, development of improved M&E procedures and processes required for monitoring and evaluation of implementation of all activities within all subcomponents of Component 3;
- Planning and training for improved M&E procedures and processes for all interested DWRLI and PIU staff;
- Assist to DWRLI and PIU with installation and implementation of improved M&E system; and
- Monitoring and evaluation of use of improved M&E system within DWRLI and PIU.

The output of this task will be *Deliverable 7: Improved M&E system within DWRLI and PIU*

Progress: Preliminary discussion with Component 4 coordinator, obtained list of deliverables and project planning. Preliminary discussion were held with M&E Specialist. A discussion was held with the M&E Specialist during Mission 3 to verify that the information requested by the upcoming World Bank mission in June 2017 will be available. Further work is planned during the next missions, a first draft is this deliverable is planned for Mission 4.

4 PLANNING OF MISSIONS

The first mission of the International Economist was carried out in the period 11 – 28 January 2017 (18 days); the second mission was rescheduled to 2 – 12 April (11 days); the third mission took place from 24 April – 5 May 2017 (12 days). One days was spent in April for Home Office work.

The tentative schedule for the remaining missions is as follows (including a travel day at the start and one at the end):

Mission 4: 11 – 24 June (14 days), overlap with Johan Heymans

Mission 5: 17 September – 7 October (21 days), overlap with Olaf Verheijen and David Milton

Mission 6: 26 November – 9 December (14 days), overlap with Olaf Verheijen, Johan Heymans and David Milton

These mission dates have been discussed with Georg Petersen and Olaf Verheijen on 2 April and with David Milton on 11 April. Although a project extension till mid 2018 is expected, there seems at this point no reason to plan missions for 2018.

The original budget allows for a seventh mission, but this has not been planned as missions otherwise would become rather short. In case the need for this seventh mission arises, it could be included at a later stage. For the proposed project extension till mid-2018 a budget for two additional missions has been proposed, but no extra time was allotted. The time spent and planned is summarized in the table below:

2017	Days at start	Days spent	Days remaining
Carried out			
Mission 1 January	110	18	92
Mission 2 April	92	11	81
Home office April	81	1	80
Mission 3 April-May	80	12	68
Planning			
Mission 4 June	68	14	54
Mission 5 September-October	54	21	33
Mission 6 November-December	33	14	19

The 19 unplanned days are available for home office work or an additional mission if needed.

During his fourth mission it is envisaged that the International Economist will review the tasks the National Economist and work closely with the Component 2 coordinator on tasks under this component. Furthermore, the International Economist will work on Deliverables 2 and 3.

5 TASKS FOR NATIONAL ECONOMIST

The National Economist will report to Damira Alchibekova (Component 2 Adviser) and will maintain contact with Nurgazy Mamataliev (Component 1 Adviser) and with Kutchubay Zhaanbaev (Component 3 Adviser). He will remain regular contact with the International Economist through email and Skype.

Before the fourth mission of the International Economist and according to the progress of the work with the relevant ministries and agencies (the National Statistical Committee, State Committee for Industry, Energy and Mining of the Kyrgyz Republic, Ministry of Construction, "National Energo Holding" (Hydro Power Plant and Thermal power plants, Mayor of Bishkek), the National Economist will collect expenditures for the water sector and the number of employees involved in this work. He will also collect current land rent, land tax and social funds contributions in the oblasts of the six pilot schemes.

ANNEX A: Overview of Activities Conducted during the Second Mission

Date	Day	Activity	Location	Time
13-04-2017	Thu	Replying emails of David Milton regarding WRM financing, collection of literature	Home	1
24-04-2017	Mon	International flight Amsterdam-Istanbul, Study of OECD Documents	Travel	1
25-04-2017	Tue	International flight Istanbul-Bishkek, Discussions with Emil Iusupov, Damira Alchibekova, Johan Heymans on modernization costs	Bishkek	1
26-04-2017	Wed	Discussions with Bakbergen Dzholdoshev on cost of modernization of pilot schemes, with Tagai Ozubekov on irrigation norms, with Ainura (Finance Department) on costs of irrigation water supply	Bishkek	1
27-04-2017	Thu	Discussions with Gulzat Kenenbaeva on M&E, meeting with Omurzhan Segizbaev on ISF inconsistency, discussion with Ainura on water sector costs and proceeds, investigating hydropower costs and benefits; discussing ISF with Olaf Verheijen (by email)	Bishkek	1
28-04-2017	Fri	Obtained water use data from Olivier Priestley-Leach, obtained irrigation norms from Tagai Ozubekov	Bishkek	1
29-04-2017	Sat	Weekend. Working on Deliverable 5.	Bishkek	1
30-04-2017	Sun	Weekend. Working on Deliverable 5 and Deliverable 2	Bishkek	1
01-05-2017	Mon	Holiday. Working on Deliverable 2	Bishkek	1
02-05-2017	Tue	Meeting with Rafael Litvak on Naryn river flow for hydropower, finalizing first draft of Deliverable #5 and sending to Georg Petersen, Olaf Verheijen and Johan Heymans. Verifying hydropower data, working on preliminary draft of Deliverable #2.	Bishkek	1
03-05-2017	Wed	Preliminary draft Deliverable #2 sent to Georg Petersen and David Milton.	Bishkek	1
04-05-2017	Thu	Discussion with Damira Alchibekova and Emil Iusupov about Deliverable #5. Discussion with Kutchubay Zhaanbaev and Emil Iusupov on Deliverable #2 and #3. Debriefing with Mr. Beishekeev.	Bishkek	1
05-05-2017	Fri	Flights Bishkek-Istanbul-Amsterdam, Mission Report	Travel	1

ANNEX B: Documents obtained up to this mission**Task 2 Expenditure Review**

Kyrgyz Republic (2005): Water Code

Kyrgyz Republic (2002): Law on unions (associations) of water users

NWRMP-1 (2013): Review of Key Issues under WMIP Component 2: Water Resources Management

Task 3 Fees

WMIP (2013): Water Resources Management

NWRMP-1 (2016): Proposals for Overall Institutional Structure of SWA and WRAP in Particular Roadmap to Water Code Implementation

Cost of Water Sector institutions at National level (State budget and Special fund)

Cost of Water Sector institutions at Oblast level (State budget and Special fund)

Cost of Water Sector institutions at Raion level

Bureau of Statistics: Water use per sector

FAO Aquastat: Data for Kyrgyzstan

EIA: Hydropower data

OECD (2016): Reforming Economic Instruments for Water Resources Management in Kyrgyzstan

OECD: Improving the use of Economic Instruments for Water Resource Management in Kyrgyzstan: the Case of Lake Issyk-Kul Basin

Economic Commission for Europe (2000): (First) Environmental performance review Kyrgyzstan

OECD (2010): Pricing Water Resources and Water and Sanitation Services

OECD (2012): A Framework for Financing Water Resources Management

Task 4 Wastewater

Economic Commission for Europe (2009): (Second) Environmental performance review Kyrgyzstan

Task 5 MOM & ISF

NWRMP-1 (2016): Establishment and exploitation of demonstration plots and provision of trainings

NWRMP-1 (2016): Baseline data 6 pilot schemes (WUA's)

IRP/OIP-1 (2014): Post-Rehabilitation Study Irrigation Main Report

IRP/OIP-1 (2014): Post-Rehabilitation Study Irrigation Annex A Off-farm systems

IRP/OIP-1 (2014): Post-Rehabilitation Study Irrigation Annex B On-farm systems

IRP/OIP-1 (2014): Post-Rehabilitation Study Irrigation Annex C Financial & Economic Assessment

WMIP (2013): Management, Operation and Maintenance

NWRMP-1 (2016): Comparison of Average and Median ISFs for WUAs

WMIP (2005): Interim Report on Social Assessment

Areas planted and yields of six pilot schemes

Irrigation Service Fees of WUAs

Irrigation norms

Expenditure Plans of six pilot schemes

Prices of inputs and outputs

FAO: Water charging in irrigated agriculture

<http://www.fao.org/docrep/008/y5690e/y5690e07.htm>

Task 6 WUA Database (not needed)

NWRMP-1 (2016): Proposed structure of WUA database

NWRMP-1 (2016): Report on Databases

NWRMP-1 (2016): Report on Data Inventory on Water Resources of The Kyrgyz Republic

DWRLI: WUA data form (Russian)

Inventory of WUAs

Memo on WUA maintenance equipment

NWRMP-1 (2016): Performance assessment of water management councils

NWRMP-1 (2016): Performance assessment of unions of water users' associations

NWRMP-1 (2016): Performance assessment of water users' association support units at oblast and raion level

NWRMP-1 (2016): Performance assessment of 72 water users' associations

NWRMP-1 (2016): Preliminary analysis of use and benefits of WUA- and UWUA-operated maintenance machinery provided under OIP-2, OIP-2 AF and WMIP

Task 7 M&E

Work Plan V9 with list of Project Deliverables.

ToR M&E Specialist

NWRMP-1 (2016): Project Progress Report No. 4 covering Q1-16 (Russian)

NWRMP-1 (2016): Project Progress Report No. 5 covering Q2-16

NWRMP-1 (2016): Project Progress Report No. 6 covering Q3-16

NWRMP-1 (2016): Project Progress Report No. 7 covering Q4-16 incl. Projects Results Framework

General

World Bank (2015): PAD for Agricultural productivity and nutrition improvement project

World Bank (2014): PAD for National water resources management project – phase 1

World Bank (2007): PAD for Second On-Farm Irrigation Project

Aide Memoire Technical Mission July 25 to August 19, 2016

Aide Memoire Mid Term Review Mission January 16 to February 15, 2017 (draft)

Access obtained to Project website www.nwrmp-1.kg