

**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. 2**

**Prepared by Alexander Mueller (International Agricultural and Water Sector  
Economist and M&E Expert)**

**April 2017**

## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>2</b>
<b>2</b>	<b>CONDUCTED ACTIVITIES.....</b>	<b>2</b>
<b>3</b>	<b>TASKS AND DELIVERABLES .....</b>	<b>2</b>
<b>4</b>	<b>PLANNING OF MISSIONS .....</b>	<b>4</b>
<b>5</b>	<b>TASKS FOR NATIONAL ECONOMIST .....</b>	<b>5</b>

### **ANNEX A: Overview of Activities Conducted during First Mission**

### **ANNEX B: List of collected documents**

## **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. This report covers his second mission, which took place from 2-12 April 2017; it was rescheduled for personal reasons and to create an overlap both with Olaf Verheijen and David Milton.

## 2 CONDUCTED ACTIVITIES

During his second mission, Mr. Mueller reviewed the work of the National Economist since his start in January; the results of his work have been preliminary approved. Furthermore Mr. Mueller worked closely with the Component 3, 4 and 1 coordinators and the Component 3 and 1 Chief Advisors on tasks under their respective 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. A first draft is this deliverable is planned for Mission 3.

**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 first draft of this deliverable is planned for Mission 3.

**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. Proper 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 area's 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 and 2 Coordinators.

**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, DWRLR 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 DWRLR-Agronomist was requested to review the crop budgets and prices. A first draft of this deliverable was produced. A second draft of this deliverable is planned for Mission 3.

### 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 DWRLR 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. Further work is planned during the next missions, a first draft of 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 tentative schedule for the remaining missions is as follows (including a travel day at the start and one at the end):

Mission 3: 24 April – 5 May (12 days), overlap with Johan Heymans

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 Peterson 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 total time for the proposed missions is 90 days, leaving 20 days for home-based work in the Netherlands (total 110 days).

During his third mission it is envisaged that the International Economist will review the tasks the National Economist and work closely with the Component 1 and 2 coordinators on tasks under these components.

## **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 Advisor). He will remain regular contact with the International Economist through email and Skype.

During the time (if it's possible before the third 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 prices of agricultural commodities for 2015-16 relevant for the crop budgets
- Budget of 40 Rayons and 7 Oblasts for the water sector
- Collection of data on water use by power stations, drinking water, irrigation and industry at Oblast level.

**ANNEX A: Overview of Activities Conducted during the Second Mission**

<b>DATE</b>	<b>DAY</b>	<b>ACTIVITIES</b>
02-12-2016	Sun	International flight Amsterdam-Istanbul, Memo review
03-12-2016	Mon	International flight Istanbul-Bishkek, Meeting with Olaf Verheijen about maintenance machinery, discussion with Emil Iusupov, Georg Peterson, courtesy call Damira Alchibekova
04-12-2016	Tue	Courtesy call Mr. Beishekeev, meeting with Nurgazy Mamataliev on cost of additional staff, meeting with Ainura (Finance Department) on WSF
05-12-2016	Wed	Field trip to Sokolog Rayon, Jantai-Tush_WUA; inspection of survey work on off-farm canal and its structures
06-12-2016	Thu	Discussion with Olaf Verheijen on Task 6, discussion with Georg Peterson on Task 7; collection of cropping patterns and yields, working on farm economics
07-12-2016	Fri	Office closed. Worked on crop budgets
08-12-2016	Sat	Holiday: Worked on crop budgets
09-12-2016	Sun	Holiday: Worked on crop budgets and ISF.
10-12-2016	Mon	Meeting with Component 1, 2, and 3 Advisors, David Milton and Georg Peterson on Road Map, work on Deliverable 5.
11-12-2016	Tue	Delivering of crop budgets to Emil Tekbaev for revision. Discussion with Gulzat Kenenbaeva on M&E, discussion with Musa Imarov on Deliverables of individual specialist. Obtained access to project website. Discussion with Emil Iusupov on his task, discussion with David Milton on way forward.
12-12-2016	Wed	Flights Bishkek-Istanbul-Amsterdam, Mission Report

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

Kyrgyz Republic (2005): Water Code

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

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

**Task 3**

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 and at Raion level

**Task 4**

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

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

**Task 5**

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

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**

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**

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](http://www.nwrmp-1.kg)