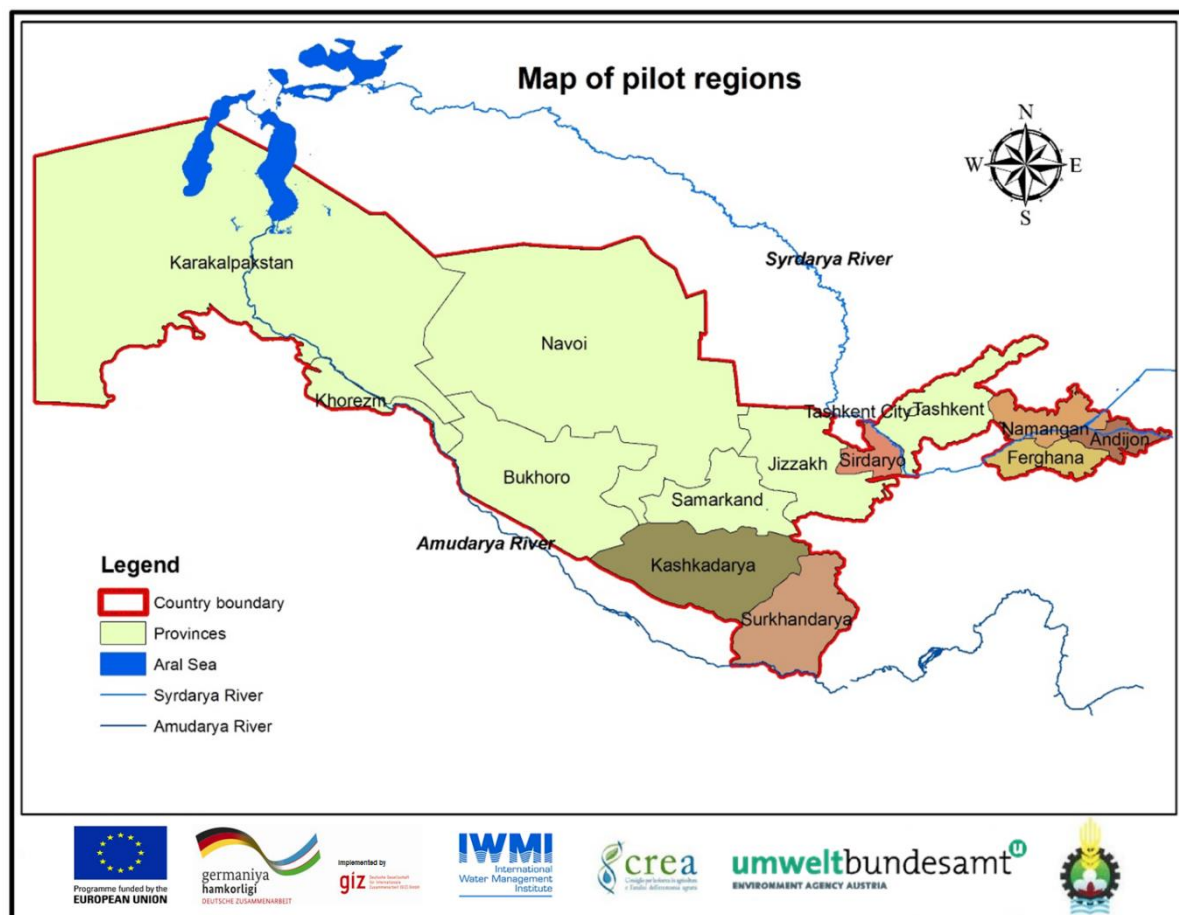


Project:
Sustainable management of water resources in rural areas in Uzbekistan

Component 1:
National policy framework for water governance and integrated water resources management and supply part

Overview of Water-related Programs in Uzbekistan



Project Report

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Summary

This report was prepared as part of the EU-GIZ project titled 'Sustainable Management of Water Resources in Rural Areas in Uzbekistan'.

The goal of this project is to contribute to sustainable and inclusive growth in the rural sector in Uzbekistan in the context of a changing climate. The project brings together three interconnected components: component 1 – improvement of national water governance policy and integrated water resource management (led by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) in partnership with IWMI, the Council for Agricultural Research and Economics (CREA) from Italy and the Environment Agency Umweltbundesamt GmbH (UBA) from Austria), component 2 – technical capacity building (led by the United Nations Development Program (UNDP)) and component 3 – awareness raising (led by the EU Delegation to Uzbekistan).

This study provides a detailed review of past and active water-related programs in Uzbekistan for the period 2010-2016. The objectives of this review are to: (i) identify existing platforms, complementarities, overlaps, gaps and best practices in donor-financed projects; and (ii) draw lessons from a review of project reports to enable the current project to bridge existing gaps and identify complementarities.

This report is based on the analysis of a range of data and reports, including project inception, project progress reports, and project completion reports collected from websites of (i) development agencies, (ii) projects, and (iii) project implementation organizations in Central Asian countries.

Introduction

Over the last 25 years the population of the Republic of Uzbekistan (hereafter, referred as Uzbekistan) has grown from about 20.9 to 31.1 million. This growth has increased the demand for water and for food. While the potential agricultural area is high, crop production is limited to the irrigated land of 4.3 million ha. The water and energy nexus, growing competition from other uses, and climate change threatens the availability of water resources for irrigation. Furthermore, the transboundary nature of water resources in Central Asia further complicates water management in the region. Hydropower generation potential is located in upstream countries, where reservoirs regulate river flows to the downstream countries where irrigated agriculture is a critical component of livelihoods and national economy. Irrigated agriculture withdraws about 80% of river flows in downstream countries (IWMI, 2015). The differences between the interests of upstream (water for energy) and downstream (water for agriculture) countries is complicating both water resource management and efforts to provide food security to meet the increasing demands of a rapidly growing population. Furthermore, due to massive extraction of irrigation water for agriculture, ecological conditions in the region have deteriorated.

Elevated water tables associated with decades of heavy irrigation combined with insufficient drainage have led to secondary salinization of croplands and watercourses. Soil salinization now affects over 47% of the irrigated lands of Central Asia and is a major threat that is leading to declining crop production and deteriorating ecosystems (Hamidov et al., 2016). Soil salinization and water logging has become a major issue for large-scale irrigation schemes. Presently, the salt-affected irrigated land exceeds 2.2 million ha. Poor on-farm water management and intensive leaching of salt-affected soils results in return flows with high concentrations of salts causing degradation of water quality and the environment downstream.

Out of 123 km³ of the water resources of the Aral Sea basin, only 9% originate within the territory of Uzbekistan. This is a clear indicator of the importance of transboundary water cooperation. Increasing indications of climate change lead to scenarios that suggest the country is highly exposed to water-related risks, such as floods, mudflows and droughts.

Aging water management infrastructure, installed mainly in the 1960-1970s, and the increase in the number of farmers, after farm restructuring in the 1990s, made water distribution a growing challenge. This became especially apparent in elevated irrigation zones where large pump stations lift water for irrigation of crops on highlands and foothills. These lands represent more than 50% of the irrigated area.

The Government of Uzbekistan, with its development partners, works to overcome these challenges. Efforts include the introduction of integrated water resource management (IWRM) principles in selected basins and the transformation of administrative water management organizations to hydrographic basin irrigation system authorities. Water Consumers Association (WCA) have been established in secondary canals to deliver water to farmers and communities, and several water and energy saving technologies introduced at on-farm level, WCA level, canal level in selected regions. Donor-financed projects have developed capacity building strategies for water professionals and farmers. The State Fund for improving

waterlogged and saline areas and new laws and regulations have been introduced to create incentives for water users for adoption of water saving technologies. Infrastructure upgrading including canal lining and modernization of pump stations have been supported. However, there remains considerable room for improvement.

There have been many water-related programs implemented by donors, development agencies and international research organizations since 1991. However, local experts believe that these have not been efficiently coordinated; and overlaps and duplication of efforts or investments have been documented in past and currently active water-related programs.

The objective of this report is to summarize water-related programs in Uzbekistan. The report identifies existing platforms, complementarities, overlaps, gaps and best practices in donor financed projects. Lessons that may be applicable for the recently initiated EU-GIZ project on “Sustainable Water Resources Management in Rural Areas of Uzbekistan” (the Project), have been identified so that gaps can be bridged through the Project.

Donor Activities in Uzbekistan during the Period 2010-2016

A wide range of multilateral and bilateral donor agencies have made significant contributions in the water sector of Uzbekistan over the review period (2010-2016). The current study identified and collected 63 projects (including 12 projects started prior to 2010 and one with unknown date). Table 1 in the Annex provides list of projects that have been implemented during the review period, which was compiled based on the review of publicly available information.

Over half of the water projects in Uzbekistan (68%) are financed through grants (Fig 1). Even so, projects financed as grants have small budgets, with an average budget of \$1.8 million. In contrast, projects financed through a combination of credits and loans are the least frequent, only 2 projects (3%) but their average budgets equal to \$160 million. Ten projects (16%) are financed through loans and their average budget exceeds \$102 million. Six projects (9%) are financed through credits and their average budget is close to \$95 million. And two projects (3%) are financed through a combination of grants and loans and their average budgets are a little over \$68 million.

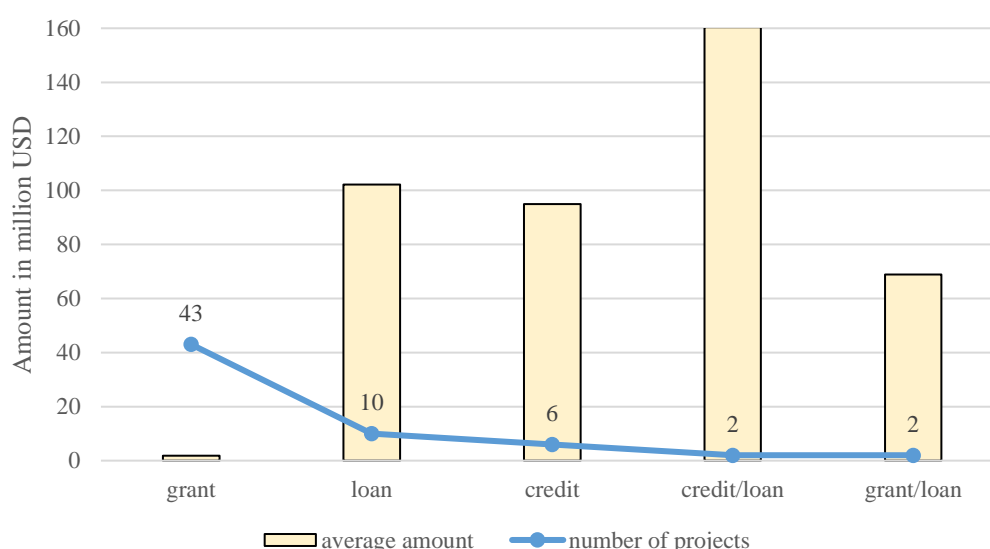


Fig 1. Water-related projects in Uzbekistan by financing type and amount

Most of the water-related projects reviewed in this study have been completed (Fig 2). Ongoing projects add up to 24 (38%). One World Bank project, the *Ferghana Valley Water Resources Management – Phase II* has a "pipeline" status and is expected to be operational in 2016.

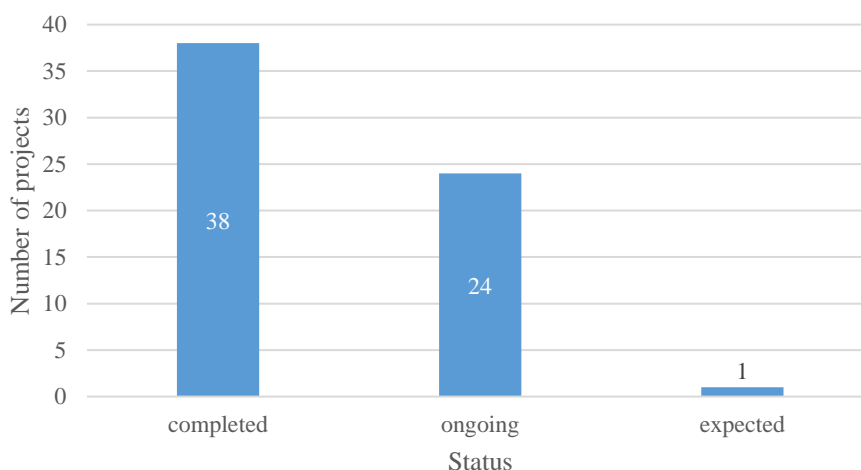


Fig 2. Water-related projects in Uzbekistan by implementation status

Most donor projects cover two or more provinces. Some two thirds of projects utilized in this review apply to more than one province that is 10 projects (16%) cover two provinces, 8 projects (13%) cover three, 3 projects (5%) cover four, and 4 projects (6%) cover five or more provinces. In addition, 14 projects (22%) are regional and 4 projects (3%) do not specify provinces, so they are could not be included into any province but rather treated as separate categories. Only twenty two projects (35%) limit their coverage to single provinces. Interestingly, among projects that are limited to single provinces, Karakalpakstan received projects with the smallest as well as the largest budgets, i.e. \$0.015 and \$260 million projects. Considering that some two thirds of projects apply to more than one province, stratifying provinces by project budgets was not feasible.

In terms of the number of projects per province, Ferghana province is covered the most frequently, while Surkhandarya the least (Fig 3). Fourteen out of 21 projects that cover Ferghana also cover other provinces. Only Karakalpakstan, and Khorezm provinces are covered alone more frequently (>50%) rather than in combination with other provinces.

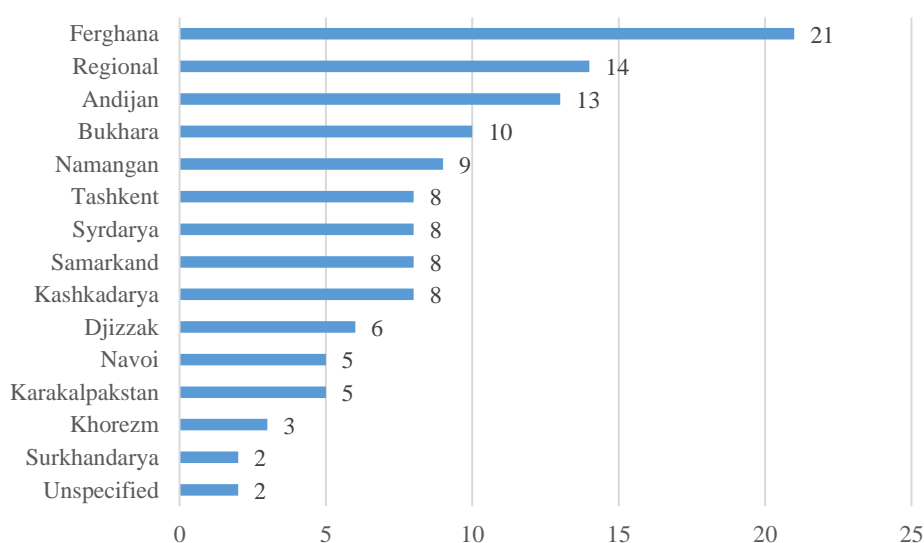


Fig 3. Distribution of water-related projects in Uzbekistan by provinces

Agricultural development is the main focus in most number of projects (Fig 4). Under projects with agricultural development focus, the scope of activities generally covers such as infrastructure rehabilitation, installation of water monitoring gauges, and broadened access to machinery. A water-related project with the largest budget implemented in Uzbekistan during the review period, i.e. *Amu Bukhara Irrigation System Rehabilitation project* with the loan amount of \$320 million and funded by ADB, is in the agricultural development category. Institutional and capacity development-focused projects add up to 18 (29%) and 12 of these projects have regional coverage with a budget range of \$0.2 to \$8.6 million. Thirteen projects (21%) are research focused. Projects in this category have small budgets, for example, *Soil salinity management on raised bed with different furrow irrigation methods in salt-affected lands in Aral Sea Basin*, funded by the Consortium of the International Agricultural Research Centers (research program on Dryland Systems) has a budget of only \$0.015 and is the project with the smallest budget that is implemented during the review period. In contrast, eleven projects (17%) that are focused on technical and infrastructure sides of domestic water supply and sewerage, have large budgets, with a range from \$1.8 to \$140 million.

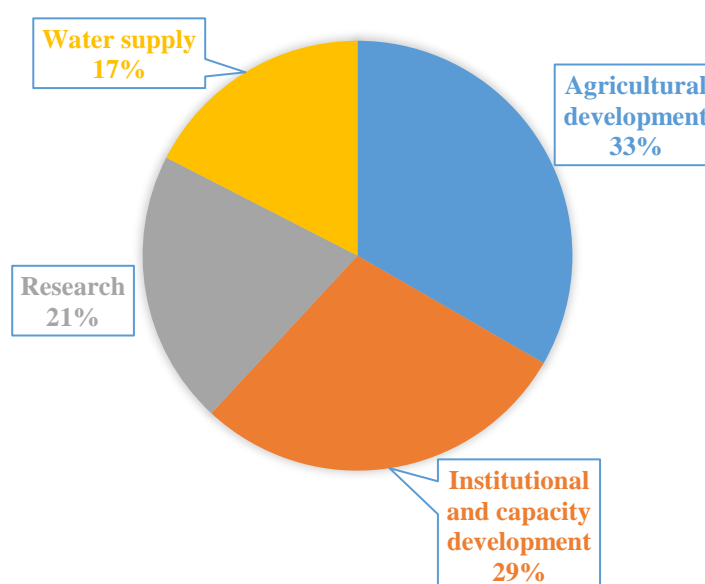


Fig 4. Water-related projects in Uzbekistan by focus areas

There is a clear relation between the project duration and average budget (Fig 5). Projects with duration from six to ten years have an average budget of \$98 million per project, but only 15 projects (24%) are designed to last that long. Thirteen projects (21%) are designed to last from 4 to 5 years and have an average budget of \$23 million per project. Twenty two projects (35%) are designed to last from 2 to 3 years with an average budget of \$7 million per project. Twelve projects (19%) only last a year or less and have the smallest average budget of \$0.2 million per project. One planned World Bank project - *Ferghana Valley Water Resources Management - Phase II* does not provide adequate information to determine its duration but has a budget of \$211 million.

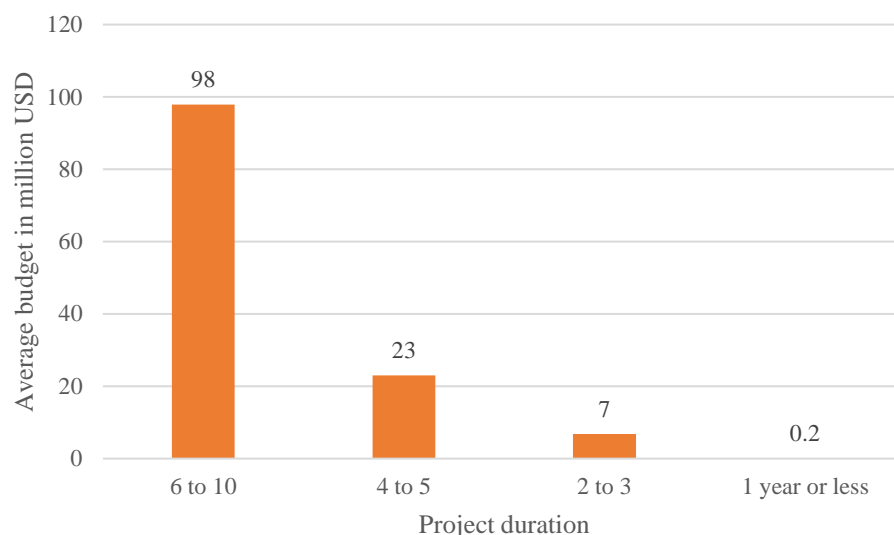


Fig 5. Water-related projects in Uzbekistan by average budget and duration¹

Projects that include infrastructure components, i.e. agriculture development and water supply focused projects, require longer to implement than projects focused on soft or social issues (Fig 6). Thirteen (62%) out of 21 projects focused on agricultural development took over four years to implement. Similarly, 10 (91%) out of 11 projects focused on water supply lasted for more than 4 years. In contrast, only 4 (22%) out of 18 projects focused on institutional and capacity building activities have lasted four or more years and that proportion is even lower for research projects, 1 (8%) out of 13 projects.

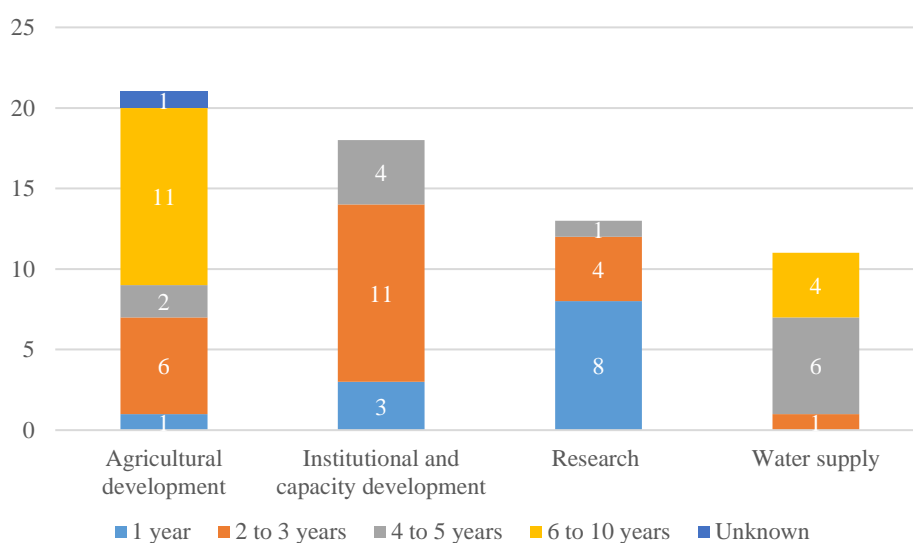


Fig 6. Water-related projects by focus and duration

¹ This excludes one planned World Bank project with an unknown duration – *Ferghana Valley Water Resources Management (Phase II)* with a budget of \$211 million.

Major Findings

The current review and the analysis of donor activities in the water sector in Uzbekistan during 2010-2016 helped us to understand the existing gaps and produced three major findings. **First major finding** is that most of water-related projects cover two or more provinces with Ferghana, Andijan and Bukhara being frequently included. **Second major finding** is that most of the projects are focused on activities targeted at agricultural development (i.e. with infrastructure components). **Third major finding** is that projects with shorter duration have smaller budgets and are focused on softer issues while projects with longer duration have larger budgets and are more inclusive of infrastructure components.

This study found that donor projects generally cover two or more provinces and the provinces receiving the most number of projects have been Ferghana, Andijan and Bukhara. Although all the underlying causes for favoring these three provinces are not clear, Andijan and Ferghana have the first and second highest population density in the country, and the three provinces have the top three highest yields for cotton and wheat per hectare of land in the country (SCS, 2015) and these factors may have played a role. In addition, the recurrence of donor involvement may be translated to these provinces having more local experience working with donors, hence higher local capacity to implement water projects.

The second major finding is that agricultural development is the most frequent focus of water-related projects. This finding is not surprising considering the crucial role of agriculture in Uzbekistan that employs almost half of the workforce (USAID, 2016), and accounts for some 90% of total water withdrawal in the country (FAO, 2016). Another strategic factor may be helping the country to adapt to climate change and meet the food security targets in order to meet demands of the growing population.

The third major finding shows that projects with infrastructure components have larger budgets and longer implementation times while projects focused on softer, organizational issues have smaller budgets and shorter duration. This shows that projects focusing on softer, organizational/institutional issues are less expensive and time consuming than projects with infrastructure components.

This study also helped to reveal two key issues with donor involvement in Uzbekistan. First, the distribution of projects across provinces is not equal, with many water scarce provinces being neglected. Although we could not determine investment amount per province because majority of projects utilized in this paper cover two or more provinces, the fact that only a handful of projects have covered certain provinces is surprising. A more balanced approach that allows donors to include under-represented provinces, such as Surkhandarya and Khorezm in their projects is needed. Second, many projects implemented by bilateral donors and research organizations with funds from both bilateral and multilateral organizations, provide very limited project information. This hinders efficiency and timeliness of exchanging experiences and cooperation between related projects.

Recommendations

Based on the findings of this study, we provide three recommendations.

The **first** recommendation is to improve coordination between different donors to allow exchange of experiences between different donors to avoid shortcomings that require project re-structuring, delays and unnecessary depletion of limited project funds. One solution to improve coordination would be to improve availability of timely project information in open platforms, i.e. project website. Another solution to improve coordination would be through direct contact, i.e. sending direct requests for meetings and communication. The Water Sector Group could also serve better as a platform to bring donors and Uzbek Government together.

The **second** recommendation is to balance project implementation areas by including provinces that have good donor involvement and hence good local capacity to implement projects with including under-represented provinces to help build local capacity to implement donor projects. By including under-represented provinces, the donor community could help to achieve more uniform level of development across provinces. Moreover, this approach could help donors to gain new understanding of common issues and develop better ways to organize efforts to deal with them.

The **third** recommendation is to build on the lessons learned and consider matching the duration of projects to the budget and focus of the respective project. When projects involve infrastructure components a realistic budget and longer time-frame for achieving those objectives should be set from the beginning. While donors have liberty to set an arbitrary time-frame for completing the project, project experiences reveal that development oriented projects last four years or longer. Applying future-thinking approach and acknowledging importance of matching project duration to the focus of that project could avoid unnecessary complications and allow flexibility to adapt to realities on the ground.

Four limitations have to be acknowledged before concluding. First, although this study analyzed a large sample of water projects implemented in Uzbekistan during 2010-2016, we only included projects that provided publicly available information and may not have captured projects that have limited disclosure. Second, for the purpose of this analysis, 12 projects that started prior to 2010 were also included. Third, lack of in-depth information on projects implemented by bilateral donors presented a challenge to conduct more thorough analysis involving additional set of parameters. And lastly, because the majority of reviewed projects covered two or more provinces, distribution of investment budgets by provinces was not feasible.

In conclusion, analysis of donor funded water projects in Uzbekistan has helped to reveal existing gaps, and identify potential solutions to increase project benefits. Areas for improvement include balancing geographic coverage of projects by including provinces that already receive a high level of donor involvement with provinces that are under-represented and improving availability of project information to increase cooperation between donors. And from the beginning, aligning project duration to match budget and project focus may play a critical role in avoiding obstacles with adapting to on the ground realities.

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Annex 1. Summary of Projects Examined.

Table 1 Summary of Development Projects 2010-2016

Project Title	Sector	Donor	Start Year	End Year	\$, millions	Fund Type	Province
Innovations for Agricultural Modernization	Agriculture, natural resources and rural development	Asian Development Bank	2014	2016	1	Grant	Bukhara, Navoi
Water Resources Management Sector Project	Agriculture, natural resources and rural development	Asian Development Bank	2008	2015	1.2	Grant	Ferghana, Navoi, Samarkand
Second Water Supply and Sanitation Project	Water and other urban infrastructure and services	Asian Development Bank	2012	2017	1.825	Grant	Djizzak, Kashkadarya, Namangan, Tashkent
Water Supply and Sanitation Services (Tranche I)	Water and other urban infrastructure and services	Asian Development Bank	2010	2017	60	Loan	Bukhara, Navoi, Surkhandarya

Water Supply and Sanitation Services (Tranche II)	Water and other urban infrastructure and services	Asian Development Bank	2010	2016	140	Loan	Andijan, Ferghana
Water Supply and Sanitation Services (Tranche III)	Water and other urban infrastructure and services	Asian Development Bank	2012	2016	58	Loan	Djizzak, Karakalpakstan, Khorezm
Water Supply and Sanitation Services (Tranche IV)	Water and other urban infrastructure and services	Asian Development Bank	2014	2018	42	Loan	Ferghana
Amu Bukhara Irrigation System Rehabilitation	Agriculture, natural resources and rural development	Asian Development Bank	2014	2020	320	Loan	Bukhara, Navoi
Grain Productivity Improvement	Agriculture, natural resources and rural development	Asian Development Bank	2004	2010	26	Loan	Djizzak, Kashkadarya, Samarkand, Syrdarya, Tashkent
Ak Altin Agricultural Development Project	Agriculture, natural resources and	Asian Development Bank	2002	2010	36	Loan	Syrdarya

	rural development						
Djizzak Sanitation System Development Project	Water and other urban infrastructure and services	Asian Development Bank	2016	2021	81	Loan	Djizzak
Land Improvement Project	Agriculture, natural resources and rural development	Asian Development Bank , Global Environmental Facility	2008	2015	64	Grant, Loan	Bukhara, Kashkadarya, Navoi
Amu Zang Irrigation Rehabilitation Project	Agriculture, natural resources and rural development	Asian Development Bank	2004	2014 (in the document)	73.7	Grant, Loan	Surkhandarya
Uzbekistan Water Resources Management Sector Project (Phase I)	Water and sanitation	Swiss Agency for Development and Cooperation	2010	2015	2.899 (3.120 CHF)	Grant	Unknown
Regional Water Supply and Sanitation Project in the Ferghana Valley (Phase III)	Water and sanitation	Swiss Agency for Development and Cooperation	2010	2013	5.434 (5.618 CHF)	Grant	Ferghana

Regional Water Supply and Sanitation Project in the Ferghana Valley (Phase IV)	Water and sanitation	Swiss Agency for Development and Cooperation	2013	2018	6.602 (6.037 CHF)	Grant	Andijan, Ferghana, Namangan, Syrdarya
Water Management Skills Development Project (Phase III)	Education, Water and Sanitation	Swiss Agency for Development and Cooperation	2011	2015	4.125 (3.860 CHF)	Grant	Andijan, Ferghana, Namangan, Tashkent
Water Management Skills Development Project (Phase IV)	Education, Water and Sanitation	Swiss Agency for Development and Cooperation	2015	2018	3.426 (3.273 CHF)	Grant	Samarkand, Syrdarya
National Water Resources Management Project in Uzbekistan	Water and Sanitation	Swiss Agency for Development and Cooperation	2013	2018	3.062 (2.85 CHF)	Grant	Ferghana
Uzbekistan: Upscaling of Integrated Water Resources Management (IWRM) with the World Bank "Rural Enterprise Support Project" (RESPII)	Integrated Water Resources Management	Swiss Agency for Development and Cooperation	2012	2015	5.918 (5.309 CHF)	Grant	Unknown

Automation of water supply in the Ferghana Valley	Water and Sanitation, Government and Civil Society	Swiss Agency for Development and Cooperation	2010	2013	1.4 (1.458 CHF)	Grant	Ferghana
Central Asia Regional Water Information Base (Phase III)	Water and Sanitation	Swiss Agency for Development and Cooperation	2010	2012	0.552189 (0.575 CHF)	Grant	CA Region
Central Asia Regional Water Information Base (Phase IV)	Water and Sanitation	Swiss Agency for Development and Cooperation	2012	2012	0.216257 (0.194 CHF)	Grant	CA Region
IWRM Regional Water Fergana (Phase VI)	Water and Sanitation, Government and Civil Society	Swiss Agency for Development and Cooperation	2012	2012	0.457038 (0.41 CHF)	Grant	CA Region
EC-IFAS: Organization of the use of water (Phase I)	Water and Sanitation, General Environmental Protection	Swiss Agency for Development and Cooperation	2010	2012	0.32507 (0.345 CHF)	Grant	CA Region
Water Productivity Improvement (Phase III)	Water and Sanitation, Agriculture	Swiss Agency for Development and Cooperation	2012	2013	0.384581 (0.345 CHF)	Grant	CA Region

Sustainable Agriculture and Climate Change Mitigation Project	Other Renewable Energy, Irrigation and Drainage, Agricultural Extension and Research, Crops.	World Bank (Global Environmental Facility)	2013	2018	12.69	Grant	Andijan, Bukhara, Djizzak, Ferghana, Kashkadarya, Samarkand, Syrdarya, Tashkent
Syrdarya Water Supply Project	General Water, Sanitation and Flood Protection	World Bank	2011	2017	88	Credit	Syrdarya
Alat and Karakul Water Supply Project	General Water and Sanitation	World Bank	2013	2017	82	Credit	Bukhara
Horticulture Development Project	Agriculture, Fishing and Forestry Sector; Industry and Trade; Agricultural Extension and Research; Agro-industry,	World Bank	2015	2021	150	Loan	Andijan, Djizzak, Ferghana, Kashkadarya, Karakalpakstan, Namangan, Samarkand, Tashkent

	marketing and trade						
Bukhara and Samarkand Sewerage Project	Sewerage	World Bank	2009	2019	55	Credit	Bukhara, Samarkand
Rural Enterprise Support Project (Phase II)	Irrigation and Drainage; Agro-industry, marketing, and trade; General Agriculture, fishing and forestry sector	World Bank	2008	2016	67.96	Credit	Andijan, Bukhara, Ferghana, Kashkadarya, Samarkand, Syrdarya, Tashkent
Ferghana Valley Water Resources Management (Phase I)	Irrigation and drainage; public administration – agriculture, fishing, and forestry	World Bank	2009	2016	65.54	Credit	Andijan, Ferghana, Namangan
South Karakalpakstan Water Resources Management Improvement Project	Irrigation and drainage; crops	World Bank	2014	2021	260.79	Credit, loan	Karakalpakstan

Ferghana Valley Water Resources Management (Phase II)	Irrigation and drainage; general water, sanitation and flood protection	World Bank	2016	Unknown	211	Credit	Andijan, Ferghana, Namangan
Drainage, Irrigation and Wetlands Improvement Project (Phase I)	Irrigation and drainage	World Bank	2004	2013	60	Credit, loan	Karakalpakstan
Mutually Acceptable Mechanism of Integrated Use of Water Resources in Central Asia through Scenario Approach	Natural resources management	Food and Agriculture Organization	2012	2012	0.45	Grant	CA Region
Central Asia Regional Programme for Fisheries and Aquaculture Development	Natural resources management	Food and Agriculture Organization	2009	2014	1.8	Grant	Ca Region
Capacity Development for Analysis and	Capacity development	Food and Agriculture Organization	2010	2012	0.22	Grant	CA Region

Strengthening of Agricultural Innovation Systems (AIS) in Central Asia and Turkey							
Conservation Agriculture for Irrigated Areas in Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan	Natural resources management	Food and Agriculture Organization	2010	2013	0.6	Grant	CA and Caucasus Region
Capacity Development on Watershed Management in CA and Caucasus	Capacity development	Food and Agriculture Organization	2012	2014	0.3	Grant	Regional
Promotion of Water Saving Technologies in the Uzbek Water Scarce Area of the Transboundary Podshaota River Basin	Natural resources management	Food and Agriculture Organization	2010	2012	0.2	Grant	Namangan
Soil Salinity Management on	Agriculture	Consortium of International	2015	2016	0.0155	Grant	Karakalpakstan

Raised Bed with Different Furrow Irrigation Methods in Salt-Affected Lands in Aral Sea Basin		Agricultural Research Centers (research program on Dryland Systems)					
Integrated Land and Water Productivity Improvement in Aral Sea Basin within CGIAR Research Program on Dryland Systems	Agriculture	Consortium of International Agricultural Research Centers (research program on Dryland Systems); Russian funding	2014	2016	0.064265	Grant	Khorezm
Improving Water Use Efficiency of Dryland Systems with High Potential for Intensification	Agriculture	Consortium of International Agricultural Research Centers (research program on Dryland Systems)	2014	2014	0.1	Grant	Ferghana
Impact of Institutional Development in Water Management on Productivity of DSS	Institutional and capacity development	Consortium of International Agricultural Research Centers (research	2014	2015	0.04	Grant	Andijan, Ferghana

with High Potential for Improvement		program on Dryland Systems)					
Evapotranspiration-based Irrigation Scheduling for Cotton Growing in Ferghana Valley to Improve Water-use Efficiency	Agriculture	Consortium of International Agricultural Research Centers (research program on Dryland Systems)	2015	2015	0.2	Grant	Andijan, Ferghana
Water Use Efficiency Studies for Double Cropping Winter Wheat/Mung Bean	Agriculture	Consortium of International Agricultural Research Centers (research program on Dryland Systems)	2013	2014	0.1	Grant	Ferghana
Managed Aquifer Recharge: The for Water Shortages in the Ferghana Valley	Water Supply	Consortium of International Agricultural Research Centers (research program on Water, Land and Ecosystems); Organization of Petroleum	2010	2013	0.1	Grant	Ferghana

		Exporting Countries; OFID					
Improving Water Management in the Lift Irrigation Areas of the Central Asia	Agriculture	Consortium of International Agricultural Research Centers (research program on Water, Land and Ecosystems)	2012	2016	0.04	Grant	Bukhara, Kashkadarya
Institutional Development in Small Transboundary Catchments: Deriving Lessons and Supporting Progress	Institutional and capacity development	Consortium of International Agricultural Research Centers (research program on Water, Land and Ecosystems)	2014	2015	0.291	Grant	Andijan, Ferghana, Namangan
Managing Irrigation-Drainage Systems to Sustainably Enhance Productivity in Ferghana Valley, Central Asia	Agriculture	Consortium of International Agricultural Research Centers (research program on Water, Land and Ecosystems)	2015	2015	0.05	Grant	Andijan, Ferghana, Namangan

Salinity Management in Central Asia	Agriculture	Consortium of International Agricultural Research Centers (research program on Water, Land and Ecosystems)	2013	2015	0.05	Grant	Syrdarya
Integrated Water Resources Management and Water Efficiency Plan for Zarafshan River Basin	Environment and Energy	United Nations Development Programme; Swiss Agency for Development and Cooperation	2010	2013	1.471884	Grant	Samarkand, Tashkent
Capacity Building of the National Irrigated Land Reclamation Fund	Environment and Energy	United Nations Development Programme; Global Environmental Facility	2009	2012	0.679052	Grant	Kashkadarya
Central Asian Countries Initiative for Land Management	Institutional and capacity development	United Nations Development Programme, Global Environmental Facility, Deutsche Gesellschaft für Internationale	2009	2013	2.865	Grant	CA Region

		Zusammenarbeit, GmbH, Global Mechanism					
Improved Potato Varieties and Water Management Technologies to Enhance Water Use Efficiency, Resilience, Cost-Effectiveness, and Productivity of Smallholder Farms in Stress-Prone Central Asian Environment	Agriculture	Deutsche Gesellschaft für Internationale Zusammenarbeit, GmbH, Consortium of International Agricultural Research Centers (research program on Water, Land and Ecosystems)	2012	2015	0.16	Grant	Andijan, Ferghana
A Source of Peace – Transboundary Water Management in Central Asia (Phase I-III)	Institutional and capacity development; technical support	Deutsche Gesellschaft für Internationale Zusammenarbeit, GmbH, financed by German Foreign Office	2009	2017	19 million Euro, including 2 EU financed grants	Grant	CA Region
Towards Sustainable Management of	Institutional and capacity development	European Union (Tempus)	2010	2013	0.943142 (0.77 Euro)	Grant	CA REgion

Water Resources in Central Asia							
Amu Bukhara Irrigation System Rehabilitation	Irrigation and drainage	Japan International Cooperation Agency	2016	2019	108.973	Loan	Bukhara
Smart Water Project	Water	Korea International Cooperation Agency	2015	2018	7.0	Grant	Tashkent
Determining optimum water and nutrient leaching requirements for the saline areas of Khorezm, Uzbekistan	Agriculture	Russian funding	2015	2016	0.03	Grant	Khorezm
Knowledge management in CACILM (Phase II)	Knowledge management	International Fund for Agricultural Research	2013	2016	1.4	Grant	CA Region

Notes: When original funding currency was given in Euros or CHF, they were converted to USD based on the historical exchange rate from the www.oanda.com on the starting date of the project (if month is provided) or mid-year of the project start date (if only year is provided).

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