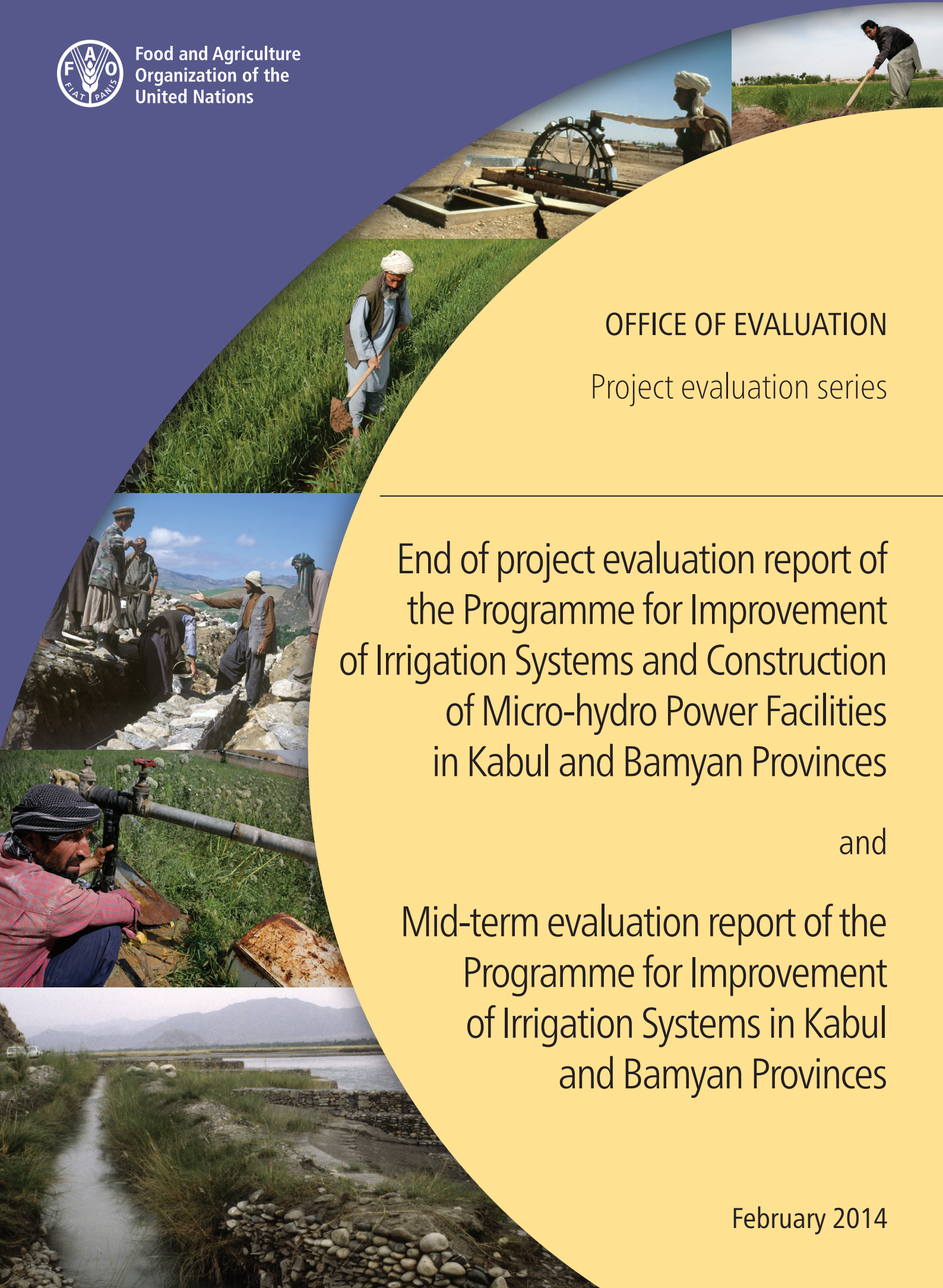




Food and Agriculture
Organization of the
United Nations



OFFICE OF EVALUATION

Project evaluation series

End of project evaluation report of
the Programme for Improvement
of Irrigation Systems and Construction
of Micro-hydro Power Facilities
in Kabul and Bamyan Provinces

and

Mid-term evaluation report of the
Programme for Improvement
of Irrigation Systems in Kabul
and Bamyan Provinces

February 2014

PROJECT EVALUATION SERIES

**End of project evaluation report of the
Programme for Improvement of Irrigation
Systems and Construction of Micro-hydro
Power Facilities in Kabul and Bamyan Provinces**

AND

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**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
OFFICE OF EVALUATION**

February 2014

Food and Agriculture Organization of the United Nations

Office of Evaluation (OED)

This report is available in electronic format at: <http://www.fao.org/evaluation>

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[GCP/AFG/066/JPN](#)

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Acknowledgements

The evaluator would like to thank the staff of FAO OED, in particular Mr Bernd Bultemeier and Ms Faith Nilsson for their assistance prior to the start of the evaluation mission. Thank you to the administration staff of the FAO for efficiently organising travel to and from Afghanistan. Ms Naoko Sakai, the International Operations Officer attached to the project for organising the evaluation schedule and meetings with donors and government. Thanks are also due to the Deputy Minister of the Ministry of Energy and Water (MEW), H.E. Mr Sujaudin, for taking the time to talk to the evaluator and Mr Akifumi Fukuoka, First Secretary, Embassy of Japan and Mr Takumi Kunitake, Assistant Resident Representative, Japan International Cooperation Agency (JICA) for their input into what the donors views of the project are.

The evaluator would also like to thank Mr Paul Schlunke CTA, Mr Puspa Khanal LTO and all the FAO project teams in the Kabul and Bamyan offices for the willingness to assist in the performance of the evaluation mission by organising field visits, meetings with beneficiaries and taking time to talk openly about their roles and functions within FAO. All requests for information were acted upon promptly and with complete openness.

The evaluation team

The FAO team was to consist of two independent consultants recruited by FAO OED for the purpose of evaluating two Japanese-funded irrigation projects, an end-of-project evaluation for GCP/AFG/066/JPN and a mid-term evaluation of GCP/AFG/071/JPN. However, due to difficulties in hiring a National Independent Consultant, the evaluation was undertaken by The Team Leader / International Irrigation Expert alone.

Team leader

Brett Marais, is an irrigation expert with a background in system design and construction management. Brett has experience in the implementation of projects in Afghanistan including M&E management and the setting of indicators within an M&E framework.

Acronyms and abbreviations

ADB	Asian Development Bank
ANDS	Afghan National Development Strategy
BOQ	Bill of Quantities
CDC	Community Development Council
CP	Counterpart
CTA	Chief Technical Advisor
DAC	Development Assistance Committee of the OECD
DFID	UK Department for International Development
EC	European Commission
EIRP	Emergency Irrigation Rehabilitation Project
FAO	Food and Agricultural Organization of the United Nations
FAO-RAF	FAO Regional Office for Asia and Far East
GCP	Government Cooperative Programme
GIRoA	Government of Islamic Republic of Afghanistan
GIS	Geographic Information System
GoA	Government of Afghanistan
GPS	Global Positioning System
Ha	Hectare(s)
ILO	International Labour Organisation
INGO	International Non-Government Organization
IRDp	Irrigation Restoration and Development Project
ISAF	International Security Assistance Force (Afghanistan)
IWRM	Integrated Water Resources Management
JICA	Japanese International Cooperation Agency
LoA	Letter of Agreement
LTO	Lead Technical Officer
LTU	Lead Technical Unit (major FAO backstopping unit)
MAIL	Ministry of Agriculture, Irrigation and Livestock
M&E	Monitoring and Evaluation
MEW	Ministry of Energy and Water
MRRD	Ministry of Rehabilitation and Rural Development
NGO	Non-Government Organization
NSP	National Solidarity Programme
OED	Office of Evaluation (FAO)
OECD	Organisation for Economic Cooperation and Development
O&M	Operation and Maintenance
PCU	Project Coordination Unit
PRT	Provincial Reconstruction Team
QA	Quality Assurance
QC	Quality Control
RO	Regional Office
TL	Evaluation Team Leader
ToR	Terms of Reference
UNAMA	United Nations Assistance Mission to Afghanistan

UNDP	United Nations Development Program
UNDAF	United Nations Development Assistance Framework
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WB	World Bank
WFP	World Food Programme
WAPCOS	Water and Power Consultants (New Delhi)
WAPECA	Water and Power Engineering Consultants of Afghanistan

Executive Summary

The Programme for Improvement of Irrigation Systems and Construction of Micro-hydro Power Facilities in Kabul and Bamyan Provinces

Project goal

The goal of the project is to enhance food security by raising agricultural production and productivity. At operational level the purpose of the project is to expand irrigation coverage with reliable and adequate water supply through improved irrigation facilities.

Key inputs

- USD\$16m funded by Government of Japan.
- October 2010 to October 2012.
- 12 month no cost extension granted September 2012.
- FAO to implement project, MEW as counterpart ministry.

Outcomes, outputs and achievements

Project component 1: Water conservation and water utilization at watershed level

Output

Increased water availability and resource utilization in selected watersheds/sub-basins.

Results

- 20% increase in water availability
- 9 Ponds constructed and 60 Karezes rehabilitated

Project component 2: irrigation rehabilitation

Output

Irrigation systems rehabilitated covering 24 000 ha of land in selected valleys.

Results

- 18 734 ha land area affected by irrigation rehabilitation
- 53 874 beneficiaries affected by the irrigation intervention

Project component 3: community based micro hydro schemes

Output

500 KW of electricity through community based micro-hydro in selected river valleys.

Results

Kabul

- 1 MHP facility completed
- 3 are more than 50% complete
- 1 is 10% complete
- 2 have not started construction

Bamyan

- 1 facility is 48% complete
- 3 sites are 20% complete or less
- 12 MHP facilities have not started construction

Project component 4: capacity development

Output

Capacity developed for the Department of Energy and Water to design and implement irrigation and water resources development programmes

Results

- 109 MEW staff trained in a variety of skills, locally on the job and at formal training sessions and at training sessions internationally.

Conclusions

Relevance

- The project is relevant as the objectives and goals are consistent with the priorities and policies of all stakeholders.
- The needs analysis was well thought out and conducted.

Efficiency

- Project management was mostly effective in the rehabilitation of irrigation structures. The decisions to spread risk by limiting contractors to a total of \$300 000 and grouping works together to minimise the movement of plant and labour were good.
- Project management of the MHP component was poor. In spite of the external issues which impacted delivery of this component, management did not formulate solutions or try to crash the schedule to try and complete the deliverable on time.
- Effective project management requires constant monitoring of the project and feedback of data. This enables effective decision making.

Effectiveness

- Irrigation structures will be completed within the extended implementation period.
- MHP facilities will not be completed.
- The number of people trained under the capacity building component of the project exceeded targets.
- Project design did not take into account factors such as the limited construction season in Bamyan and known variables like the time it takes to recruit a suitable project CTA. This limited the effectiveness of the project.

Potential impact

- To measure project impact will require a follow up wheat yield survey. It is questionable if this will take place.
- Trained counterpart ministry and national FAO staff can attract higher salaries from NGOs so may leave.
- Community and government involvement from the project inception will ensure ownership of infrastructure
- .

Sustainability

- Community and government involvement from project inception will ensure Afghan ownership of the rehabilitated infrastructure.
- Build quality is good.
- There is no definite handover strategy in the project document.

Recommendations

To improve project efficiency and to measure actual and potential outcomes and impact

- There is a clear need for the establishment of a Monitoring and Evaluation (M&E) Unit within MEW or MAIL and to have a dedicated M&E officer attached to the project. This unit should be separate from the project to allow the project management team to concentrate on efficient implementation of project activities.
- A framework and commitment is required to measure project outcomes and impact against the indicators stated.

Many of the delays in delivery of the MHP program were social issues relating to land rights and access. To smooth project delivery in this area was the responsibility of Afghan line ministries. MRRD are responsible for MHP development and MEW are responsible for off farm irrigation development

- As MEW was the counterpart ministry for this project it was a mistake to include the MHP component and this should be recognised when planning future interventions.

Procurement of equipment, particularly vehicle negatively impacted on the start of the project.

- A local source of vehicles, or consideration of requirements in the planning phase of vehicles should be found to expedite the start of projects. Fortunately the Japanese sponsored irrigation rehabilitation project overlap as phases of the same intervention which allows a sharing of assets. However this is not normal as FAO tend to implement discreet projects.

The Programme for Improvement of Irrigation Systems in Kabul and Bamyan Provinces

Project goal

To enhance food security by raising agricultural production and productivity.

Inputs

- USD\$17m funded by Government of Japan.
- February 2012 to February 2014.
- 12 month no cost extension granted in January 2014.
- FAO to implement project, MEW as counterpart ministry.
- All beneficiary training is sub contracted to NGOs.
- UNEP to implement upper catchment conservation activities and training.

Outcomes, activities and progress

Project component 1: Water conservation and water utilization at watershed level

Output: Increased water availability and resource utilization in selected watersheds/sub-basins.

Activities

- 1.1 Water resources development plans prepared for the valleys in accordance with existing water use practices and future priority (forms the basis for implementation of Activity 1.2 and Component 2).
- 1.2 Upper valley catchment rehabilitation utilizing water harvesting/conservation structures (terracing, check dams) and tree planting to control land degradation and increase water infiltration and reduce drought vulnerability.

Progress

- 1.1 Development plans and analysis needs for the selected river valleys were completed by September 2012.
- 1.2 In the project design it was recognised that the project would need to work with other UN agencies and NGOs to implement some parts of the project. An inter-agency agreement was signed between FAO and UNEP in August 2013 for UNEP to implement the upper catchment activities in the Bamyan river valleys. UNEP had access to tree nurseries to implement a part of this component. Beneficiaries are to be involved in the activities and develop capacity through on the job training.

Project component 2: irrigation rehabilitation

Output

Irrigation systems rehabilitated covering 18,500 ha of land in selected valleys.

Activities

- 2.1 Intervention plan for irrigation rehabilitation prepared (survey/design/construction methods etc.) in a participatory approach for selected valleys
- 2.2 Plans and designs prepared in 2.1 implemented with appropriate Letters of Agreement (LOA) and contract award.

Progress

- 2.1 Needs analysis, surveys, designs and tender preparation was completed over the winter of 2012/2013.
- 2.2 Contracts started being granted in March 2013 and construction got underway. Construction activities are on target to be completed by February 2015.

Project component 3: capacity-building to support livelihoods for beneficiaries, plus Mirebs and MEW staff

Output

Capacity development and agricultural support for the irrigation system beneficiaries to improve production and incomes, plus continued counterpart training for MEW staff, including Mireb training to improve water management and efficiency.

Activities

- 3.1 Seed Multiplication Programme: introduce new and improved seed varieties to increase production and utilize increase water supply.
- 3.2 Capacity enhancement of farming communities in various fields: plant protection, nutrition, dairy, storage of produce and marketing, value addition, etc.
- 3.3 Diversification through poultry and beekeeping especially for landless and vulnerable farmers, plus targeting income generation for women – marketing, cottage industries, nutrition training, dairy and animal feed pelleting will be investigated.
- 3.4 30 Mirebs will be trained on the improvement of water management and the efficient use of water resources, plus technical training for 25 MEW staff under the counterpart scheme for “on-the-job” training will continue from Phase 1.

Progress

- 3.1 There are no plans for inclusion in the seed multiplication programme as detailed in the project document. This deliverable involves distribution of improved and certified wheat seed and some agronomic extension work. These activities are not in the project skill set.
- 3.2 There are Letters of Agreement (LoAs) with two NGOs, one in Kabul and one in Bamyan to deliver training to beneficiaries to enhance the capacity of farming communities and encourage diversity. The LoAs were signed in August 2013 to be implemented as soon as possible.
- 3.3 As above.

- 3.4 Mirabs are working alongside the contractors during the build phase of the project to gain repair and maintenance skills. MEW have 30 staff involved in on the job training.

Conclusions

Efficiency

- Project management is mostly effective in the rehabilitation of irrigation structures. The same management tools are used in this project as in the previous one.
- Management of the beneficiary training is poor, probably as a result of the training falling outside of the projects core capabilities.
- No M&E unit results in a lack of project data to allow timely decision making.

Effectiveness

- After schedule creep due to the initial survey flaws, rehabilitation of the irrigation structures is likely to be completed within the extended implementation period.
- Project design should not have included the beneficiary training component. The idea of this component is to train beneficiaries in diversification of agriculture, best agronomic practice and to get access to improved and certified seed. This does not fit into an irrigation rehabilitation intervention. Further, the agricultural intervention should be undertaken after the water is available, not during the reconstruction.

Recommendations

- In future projects, teams which have been involved with certain projects such as irrigation rehabilitation should be retained to make most efficient use of the skills acquired during project implementation.
- In the future the agricultural intervention should be separate from an engineering project to ensure the best result from both activities.

1. Introduction

1.1 Background and purpose of the evaluation

1.1.1 Background

The evaluation mission conducted the following two evaluations:

Terminal evaluation of “The Programme for Improvement of Irrigation Systems and Construction of Micro-hydro Power Facilities in Kabul and Bamyan Provinces” – GCP/AFG/066/JPN which was signed at the end of October 2010 and closes at the end of October 2013. Budget US\$16.2m.

Mid-term evaluation of “The Programme for Improvement of Irrigation Systems in Kabul and Bamyan Provinces” – GCP/AFG/071/JPN which began 1 February 2012 and concludes 31 January 2014 (a 12 month no-cost extension will be requested.) Budget US\$17m.

Both GCP/AFG/066/JPN and GCP/AFG/071/JPN projects are funded by the Government of Japan. GCP/AFG/066/JPN is often treated as Phase I and GCP/AFG/071/JPN as Phase II. The projects are on-going in a complimentary manner with slightly differentiated activities and target areas, but with the same overall goal: to increase agricultural production and productivity by expanding irrigation coverage with reliable and adequate water supply through improved irrigation facilities.

1.1.2 Purpose of the evaluation

Terminal and mid-term reviews were foreseen in the Project Documents of both projects. A terminal evaluation is intended, as the project draws to a close, to provide accountability to and issue recommendations for the Government of Afghanistan, the Government of Japan and FAO on the further steps necessary to consolidate progress and ensure achievement project objectives. The mid-term evaluation is planned to draw lessons and assess if adequate conditions exist for the implementation of the remainder of the programme.

1.2 Methodology of the evaluation

1.2.1 Scope

Towards the end of April 2012, the project CTA and the Embassy of Japan in Afghanistan initiated a discussion concerning the mid-term evaluation of GCP/AFG/066/JPN. Following further discussions with OED and TCSR, it was suggested to organize a single mission in 2013 that would conduct the terminal evaluation of GCP/AFG/066/JPN and a mid-term evaluation of GCP/AFG/071/JPN. This approach was deemed more cost effective and useful to avoid duplication. The evaluation also had some overlap with the FAO Afghanistan Programme Country Evaluation conducted during the month of September 2013.

The evaluation assessed the projects from their conceptual phase to current and potential results. Particular attention was given to constraints experienced in the course of project implementation. Some of these constraints were institutional, such as procurement, recruitment and capacity and others were cross cutting issues such as land rights, social issues and weather.

Annex 1 of the evaluation report is the evaluation Terms of Reference (ToR) for the evaluation of GCP/AFG/066/JPN and GCP/AFG/071/JPN.

1.2.2 Evaluation methodology

The evaluation methodology follows accepted international standards including the United Nations Evaluation Group (UNEG) Standards and Norms for Evaluation in the UN System.

The process followed included:

1. Desk Review

A comprehensive document review was done as part of a desk review for the irrigation sector in Afghanistan. This document formed part of a suite of reviews which fed into the Country Evaluation programme.

Documents read as part of the review included all documents relevant to GCP/AFG/066/JPN and GCP/AFG/071/JPN, such as, inception reports, project documents, progress reports and Back to Office Reports (BToR).

2. Model

As the basic tool for the evaluation a logic model was developed as a result of the project document review. The model is a one page representation of the project and includes indicators and relationship to accepted evaluation criteria. The logic models for GCP/AFG/066/JPN and GCP/AFG/071/JPN are included in Annex V: Evaluation Tools.

3. Key Questions

Key questions were developed for each of the projects to provide a qualitative basis for evaluating the projects against each of the evaluation criteria. Separate question sheets were produced for the major stakeholder interviews as an aid to the evaluator.

4. Quantitative Progress

A table illustrating project progress against stated measurable outputs was developed. A combination of qualitative and quantitative data will result in the best possible evaluation under a particular set of circumstances.

5. Actual Project Progress

Data collected during the mission which provides evidence of actual project progress. This evidence included budget spent, contract and procurement tracking sheets and questions specific to individuals in addition to the key questions. This evidence is included in Annex VI.

6. Analysis

Analysis was done by collating the qualitative data and comparing the quantitative data to the indicators described in the project documents.

1.3 Evaluation criteria

The projects were critically assessed through internationally accepted evaluation criteria. The criteria considered are those laid out by the Development Assistance Committee (DAC) of the Organisation for Economic Cooperation and Development (OECD) and are defined below:

- **Relevance:** The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.
- **Efficiency:** A measure of the outputs, qualitative and quantitative, in relation to the inputs.
- **Effectiveness:** A measure of the extent to which an aid activity attains its objectives.
- **Impact:** The positive and negative changes produced by an intervention, directly or indirectly, intended or unintended. Impact is a long term measure.

- **Sustainability:** Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn. Projects need to be environmentally as well as financially sustainable.

1.4 Evaluation timing and issues

The evaluation mission to assess projects GCP/AFG/066/JPN and GCP/AFG/071/JPN took place in September 2013, a month before GCP/AFG/066/JPN concluded. Due to a one year no-cost extension to GCP/AFG/066/JPN being granted in 2012 the two projects had a significant overlap and this means that lessons learned from Phase 1 cannot readily be applied to Phase 2 of the project.

A National Irrigation Engineer was to be appointed as a team member to allow independent interaction with the beneficiaries. This did not eventuate and a project staff member attended meetings with Ministry of Energy and Water (MEW) staff in Kabul and Bamyan and a meeting with Maliks in the Farza Valley District Centre. This situation was not ideal, however the evaluator believes the information gathered at these meetings was accurate.

2. Programme context and relevance

2.1 Context

Context is recognition of the key factors in the country or region which may affect the programme under consideration. In order to think the issues through logically, a PESTLE analysis is undertaken. The key points to emerge are listed below in Table 1.

Table 1: PESTLE analysis considerations

Political	Presidential election 2014 Parliamentary elections 2015 Centralized Government Customary Governance ISAF withdrawal Cross Border downstream water rights
Economic	Slowing economy Investor/Donor confidence Cost of security Economic "gap" Irrigated agriculture – economic driver Value chain development Illicit economy
Social	Growing population Youth bulge Urbanization Displaced people, returning refugees
Technological	Water management techniques
Legal	Land rights issues
Environmental	Climate change Floods and droughts Watershed management – silting

2.1.1 Political

- Under the Constitution of Afghanistan the President has wide ranging powers. These functions include appointing Ministers, Provincial Governors, District Governors and city mayors. The President is only allowed to serve two terms and the incumbent, H E Mr Hamid Karzai, will be replaced following a presidential election in April 2014. The possible impact in the country and wider region is great with not only a cabinet reshuffle but associated insecurity in the provinces.
- Parliamentary elections take place in 2015. The Wolesi Jirga (House of the People) is elected through a Single Non-Transferrable Voting system implemented at Provincial level. This system leads to jockeying for power and weak constituent relations. Both a potential source of conflict.
- The Government of Afghanistan (GoA) is highly centralised which has the effect that service delivery to the provinces is poor. Further, provincial governance has no power to collect revenue. All revenue is channelled to line ministries through Kabul and some Ministries, particularly those associated with security get a lion's share of the budget.
- Government in Afghanistan is supposed to have four levels and include villages in the government structure. In reality there is no village-level governance. However District Governors have close working relationships with Maliks¹. Donor agencies have recognized the value of working with customary leaders to get support for planned programmes.
- ISAF will withdraw all combat troops by the end of 2014. Already there is an increase in armed conflict and the security "bubbles" are shrinking. This could make project implementation difficult.

¹ Mailk: traditional village elders. Maliks are among the most trusted individuals in rural Afghanistan and play the role of intermediaries between communities and government.

- Regional Politics will have a major impact on Afghanistan's stability, particularly with support for the insurgency, the porous nature of the borders and downstream riparian water rights issues. The issue which will effect large scale irrigation rehabilitation or development and the building of dams is down-stream riparian rights. Afghanistan's neighbours claim water rights and will not agree to anything which could affect the amount of water available to them.

2.1.2 Economic factors

- In 2011 the economy in Afghanistan was growing at a rate of 11% per annum. The World Bank estimates the growth rate will slow to about 4.5% per annum through to 2025. Agriculture and mining are expected to drive this growth depending on the effect of external impacts such as security, donor confidence to continue investing in Afghanistan and Government fiscal management.
- Increasing insecurity may have the impact of decreasing donor confidence in investing in Afghanistan. Although donor funds were secured at the transition conference in Tokyo until 2016, there has already been a marked decrease in funds since a peak in 2012.
- Security costs are expected to rise from the current level of 12% of GDP to 14% of GDP by 2017. This rise is as a consequence of the ANSF assuming security responsibilities for the entire country. On average, countries spend between 1-2% of GDP on security or 5-6% if needs are higher. This cost places a burden on the national economy and limits growth.
- Even though domestic revenues are set to increase, there is a financing gap which requires aid to fill. This gap is predicted to be 21% of GDP when considering the increased security costs over the next few years.
- Until now priority has been expenditure on security, this needs to be examined and more focus placed on two economic drivers which are necessary to ensure reduction in poverty and increased security – irrigated agriculture and mineral extraction.
- To get the most benefit from irrigated agriculture as an economic driver, significant investment and attention is required to invigorate the entire rural value chain from increased production through to export markets.
- Poppy cultivation is often the easiest way to increase household income in economically fragile communities. Attempts at eradication may increase possibility of armed conflict and decrease stability in the country.

2.1.3 Social

- Afghanistan has one of the world's fastest growing populations. The increase in young dependents will slow economic growth in the developing country.
- There is a "youth bulge" in the population pyramid with more than 50% of the population less than 18 years old. 400 000 young people enter the job market each year and as the economy begins to slow it will be harder for these people to find jobs.
- Urbanisation rate is nearly 200 000 people a year, one of the highest rates in Asia.
- Internally displaced people and international refugees find great difficulty finding work or gaining access to resources. This situation will worsen in a shrinking economy. Land issues are the single biggest source of armed conflict in the country.

2.1.4 Technology

- Urgent attention is required to improve water management techniques making use of up-to-date technologies. Improved seed and advanced agricultural techniques need to be demonstrated and incorporated into the sector.

2.1.5 Legal

- Land issues are the single biggest source of conflict in Afghanistan. Land rights in Afghanistan comprise a mixture of informal systems, civil law, sharia law and state laws. The government has attempted to address this gap in legislature but the system is not functioning as yet.

2.1.6 Environment

- Afghanistan as a land locked country with a continental weather pattern is particularly vulnerable to climate change. Agriculture and consequently food security is highly dependent on rainfall quantity and timing. The effects of climate change are already evident with more frequent droughts and a change in rainfall frequency and pattern.
- Irrigation is dependent on spring snow melt. Floods are almost an annual occurrence which devastates vulnerable communities and necessitates rebuilding of irrigation structures. Equally drought is becoming more frequent and Afghanistan has one of the lowest incidences of water storage facilities in the world. Water storage mitigates against the effects of drought and provides a buffer for domestic and industrial water consumption as well as agricultural use.
- Urgent attention is required to manage watersheds and upper catchment areas to prevent the erosion and subsequent silting up of water storage and irrigation structures.

2.2 Relevance

The Afghanistan National Development Strategy (ANDS) is a document which gives a framework to development in Afghanistan through the transition period to 2020, it serves as Afghanistan's Poverty Reduction Strategy Paper (PRSP) and recognizes the role that irrigated agriculture will play in increasing agricultural production and as one of the economic drivers in the stabilization of the country. Goal 3 states: Economic and Social Development: To reduce poverty, ensure sustainable development through a private sector led market economy, improve human development indicators and make significant progress towards the Millennium Development Goals (MDGs).

The Millennium Development Goals for Afghanistan have as Goal 1 – The eradication of extreme poverty and hunger. WFP reported that in 2012, 33% of the population were living on less than 2100 calories per day. Data from 2003 showed 20.5% of the population were consuming less than this basic amount. The trend has obviously got progressively worse over the last 10 years. Rural people suffered more from under nutrition than urban dwellers. Afghanistan had a bumper harvest in 2012 which contributed to a drop in wheat prices and better access to food for many Afghans. This illustrates the relevance of improving irrigation water supply to increase agricultural productivity.

Afghanistan is relatively rich in land and water resources, however three decades of conflict and a series of drought / flood cycles has reduced the 3.3 million hectares of irrigated land in the early 1980s to approximately 1.8 million hectares today. Of the 1.8 million hectares, only 10% is irrigated using properly engineered systems. The overall efficiency of the irrigation network is only 25-30%. Thus the rehabilitation of irrigation structures is relevant.

In 2002 an international conference held in Kabul laid the foundation for the development of the water sector in Afghanistan. Amongst the policies and procedures which were identified as key for the way forward in the water sector in Afghanistan was the adoption of the Integrated Water Resource Management (IWRM) principles first mooted in Dublin a decade earlier.

The Technical Committee of the Global Water Partnership defined IWRM as the process towards improved water resources management:

“IWRM is a process which promotes the coordinated development and management of water, land and related resources in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital eco-systems.”

Integrated Water Resources Management is based on the principle of a river basin approach which incorporates the entire water cycle from collection through to use and involves decentralization of water resource management and recognition that traditional water management systems have value. To design and implement projects under an IWRM approach.

Implementation of projects under the IWRM principles require that a complete water balance survey be conducted as a basis to decide a strategic approach to the rehabilitation of irrigation

and associated structures to ensure holistic development and management of both water and land resources.

All stakeholders should be involved at every stage of the project from inception through planning and implementation.

Previous FAO interventions in the irrigation sector were primarily emergency interventions beginning with limited interventions following the withdrawal of Soviet forces from Afghanistan in 1989. The Emergency Irrigation Rehabilitation Project (EIRP) started in 2004, supported by the World Bank, aimed at providing technical assistance to government employees in the rehabilitation of traditional irrigation structures. The programme was a national programme covering all the river basins of Afghanistan.

The Irrigation Rehabilitation and Development Project (IRDP) evolved from EIRP as a developmental project rather than an emergency intervention. The responsibilities of the stakeholders remained the same with FAO providing technical assistance to MEW who implemented the project. The same staff and established Project Coordination Unit (PCU) from FAO and MEW stayed with the programme and ensured a seamless transition from one project to the other. The establishment of an M&E framework during EIRP allowed a proper baseline survey to be done prior to the start of IRDP. These baseline figures were used to develop performance indicators for IRDP and later the Japanese Government funded projects.

Capacity building of GoA line ministries is vital for the sustainability of any projects in Afghanistan. Over the last 10 years foreign NGOs have implemented many projects with no regard to building the capacity of government counterparts. Capacity building is a lengthy and difficult process, the results of which are hard to quantify, however it is vital. The project model adopted by FAO for the delivery of the Japanese funded projects has real value. By implementing the project with international engineers and developing national capacity in FAO staff and partnered ministries through "on job" training gives the project relevance during the transition period in Afghanistan.

A stated priority of the project donor, The Japanese Government, is to support the increase in agricultural production in Afghanistan. They envisage investing in agricultural infrastructure and capacity building in order to contribute towards the GoA goals to reduce poverty in Afghanistan. The rehabilitation of irrigation structures and provision of micro-hydro power facilities is consistent with the donor's needs and may be considered relevant.

3. The projects

3.1 GCP/AFG/066/JPN: The Programme for Improvement of Irrigation Systems and Construction of Micro-hydro power Facilities in Kabul and Bamyan Provinces

3.1.1 Design

The project was designed to be a complete river valley intervention with consideration given to the water balances of the selected valleys. As a result of the hydrological surveys, a strategic plan was to be developed to increase amount and reliability of irrigation water supplies and the rehabilitation of existing irrigation structures or construction of new structures to maximise the use of this water for irrigation and micro-hydro power production. The design was consistent with the principles of IWRM and with the objectives of the Afghan National Development Strategy (ANDS) and satisfies two GoA policy reforms:

- i The movement away from discreet projects to a river basin approach when designing projects.
- ii Ensuring sustainability by a participatory approach to project implementation which involves water user groups in construction and O&M of the rehabilitated structures.

The project theory of change is consistent with the context and relevance of Afghanistan, ANDS and the UN Country Development Framework. The overall project objective is to contribute to the GoA's Poverty Reduction Strategy by increasing agricultural production as a result of improved and reliable supply of irrigation water. The rehabilitation of irrigation structures and development of micro-hydro power facilities contributes to MEW's on-going key priority areas.

The project was initially designed to be implemented in the same way as IRDP. FAO was to provide overall management, budgetary control and continuous technical support to MEW who would implement the project. This structure is reflected in the inputs line of the theory of change model. However, MEW did not have the capacity to undertake surveys, analyse results and develop plans in order to implement the project at a satisfactory level. Thus FAO became the implementing partner on the project and developed MEW capacity by working alongside the Ministry.

The immediate outputs of the project serve to increase agricultural production by expanding irrigation coverage in the selected river valleys with a more reliable and adequate water supply through building water harvesting structures and the rehabilitation of existing irrigation structures. A total of 500kW of electricity is to be developed to supply 2000 households.

The indicators selected to measure the effectiveness of the programme are relevant and have been used in the IRDP project. The overall indicator of an increase in wheat yield is an increase which has consistently been achieved in other irrigation rehabilitation projects. However there is no intention of returning to conduct specific yield surveys to measure exact impact of this particular intervention. There is an assumption that if the outputs are achieved then the desired outcome will occur. This assumption is valid as the results have been measured in a number of irrigation rehabilitation projects, including IRDP.

The theory of change of GCP/AFG/066/JPN may be represented by a model as shown in Figure 1.

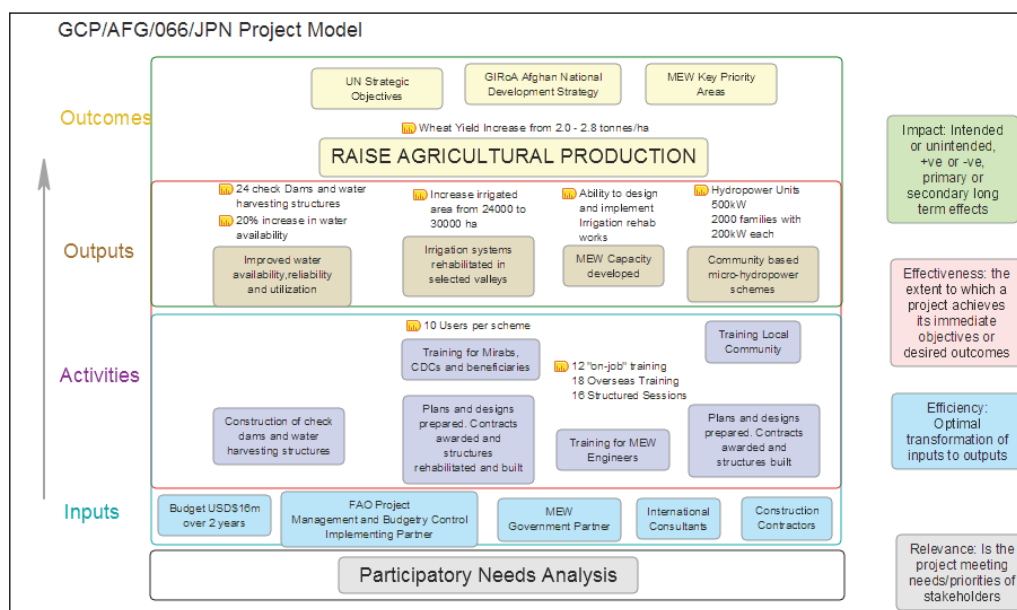


Figure 1: GCP/AFG/066/JPN Project theory of change model

Quantitative indicators such as the number of structures built and the number of hectares influenced through rehabilitation of irrigation structures have emerged as realistic figures from IRDP and World Bank project results. As these figures have been achieved in Afghanistan, the indicators are realistic and relevant to the project outcomes.

Using numbers of people trained is a useful indicator to measure capacity building potential. A follow-up evaluation is required to assess if mirabs, water user group members and MEW staff which were trained during the project are able to carry out the tasks described in the project document. As a result of the capacity building component of the project it is expected that some MEW staff will have the ability to design and implement irrigation rehabilitation works.

The assumptions upon which the change theory for the project is based are listed in Annex 2 of the project document, the logical framework for GCP/AFG/066/JPN.

Table 2: GCP/AFG/066/JPN Logical framework and key assumptions

Activity description		Means of verification	Assumption
Goal/impact	Indicators		
Enhance food security by raising agricultural production and productivity.	<ul style="list-style-type: none"> Wheat yield increased from 2.0 to 2.8 t/ha 	<ul style="list-style-type: none"> Government census NVA Reports Independent Surveys 	<ul style="list-style-type: none"> Government will be seen as provider of these outcomes. Peace and stability in areas of project implementation is sufficient to allow outcomes to be achieved. An increase in household incomes will contribute to peace and stability. An increase in wheat yield and agricultural productivity will result from a more reliable and assured water supply.

Activity description		Means of verification	Assumption
Project output			
Output 1: Increased water availability and resource utilization in selected watersheds/ sub-basins	<ul style="list-style-type: none"> • Water increase by 20% in rehabilitated schemes. • Incremental increase in irrigated area from 24 000 to 30 000ha • Cropping intensity increased from 130% to 160% 	<ul style="list-style-type: none"> • Progress reports • M&E Survey reports 	
Output 2: Irrigation systems rehabilitated covering 24 000 ha of land in selected valleys.	<ul style="list-style-type: none"> • 20 000 farmers have assured and reliable water supply, irrigation extended to 30 000 ha 	<ul style="list-style-type: none"> • Progress reports • M&E reports 	
Output 3: 500kW of electricity through community based micro-hydro power in selected river valleys.	<ul style="list-style-type: none"> • 2 000 farmers have access to electricity through development of 500 kW power plants in total. 	<ul style="list-style-type: none"> • Progress reports • Field verification • M&E Reports 	<ul style="list-style-type: none"> • Appropriate sites for micro-hydro power are available.
Output 4: Capacity developed within MEW to design and implement irrigation and water resources development programmes.	<ul style="list-style-type: none"> • 12 MEW engineers for on-job training • 18 engineers trained in design and supervision of medium and small dams • 16 structured training programs covering 120 staff • 2 MEW river basin offices supplied with office equipment 	<ul style="list-style-type: none"> • Progress reports • Training materials • Training reports 	<ul style="list-style-type: none"> • Suitable MEW staff are available for both structured and on the job training.

Validity of assumptions

- ***The Government is seen as provider of the project outcomes:*** The assumption must refer to the physical outcomes such as rehabilitated structures and improved and more reliable water supply. This assumption was probably made when MEW were to implement the project with FAO providing continuous technical support. The assumption is not valid with FAO implementing the project.
- ***An increase in wheat yield and agricultural productivity will result from a more reliable and assured water supply:*** The assumption is valid as the indicators have been achieved in Afghanistan with similar irrigation interventions.
- ***Peace and stability in areas of project implementation is sufficient to allow outcomes to be achieved:*** The assumption is valid, Kabul and Bamyan provinces were selected for this project as they are more stable and likely to allow the projects to be implemented without interference.
- ***An increase in household incomes will contribute to peace and stability:*** The assumption is valid. Evidence from a number of licit livelihoods programs supports the assumption.
- ***Appropriate sites for micro-hydro power are available:*** For timely delivery of the MHP component of the project this assumption must be realised.
- ***Suitable MEW staff are available for both structured and on the job training:*** Assumption is valid.

Key risks were assessed and presented in the project document.

Table 3: GCP/AFG/066/JPN Key risks, probabilities and mitigations

Risk	Impact	Probability	Mitigation
Security Bamyan Province is in the most secure part, however there could be problems in parts of Kabul Province	Outbreaks of violence can prevent access to areas and communities (particularly for international staff) and can slow down project operations and/or reduce effectiveness.	Bamyan: Low Kabul: Moderate	Increase project supervision by government staff. Increase community participation in construction works involving private contractors
Community cooperation Lack of cooperation from community leaders in areas affected by insurgency activities	Community leaders in areas affected by insurgency activities may be persuaded to not cooperate with development service providers such as FAO and NGOs and restrict access to contractors.	Localised	Two mitigation techniques will be utilized: Firstly, the government will be engaged to facilitate the projects activities and secondly, the communities will be directly engaged to implement the project activities.
International staff Locating international technical support personnel who are willing to work in Bamyan Province.	Failure to recruit suitable international support will reduce project effectiveness as local staff do not have technical or managerial skills to lead this project.	Low	FAO has a wide range of expertise in house and access to communities of best practice in various technical specializations. In addition FAO is also able to access a wide range of experts on a consultancy basis.
National staff Attracting suitably qualified local staff to implement and backstop field activities.	The number and quality of local staff available to FAO and agricultural service providers has been increased. However the technical and managerial skills of these staff still need to be increased markedly.	Low	FAO will attempt to retain staff from an existing pool out of EIRP and remuneration packages will be structured to attract the best local candidates that are available. One of the components of this project is also to build the technical skills of the government who will contribute to project implementation.

3.1.2 Institutional framework and management

The project was designed with FAO as budget holder and responsibility for logistics, procurement and technical support. Field construction work was to be outsourced to local contractors and supervision undertaken by MEW. However, due to limited additional capacity within MEW to implement the project, FAO took on the responsibility of implementing the project while partnering with MEW and developing the partnering Ministry's capacity by working alongside MEW staff.

During the development of the project concept and planning, representatives of Embassy of Japan are responsible for ensuring the project is consistent with the Government of Japan's development goals in Afghanistan. The Embassy of Japan representative has most involvement up until the signing of the project document. After this point JICA has responsibility for oversight of the implementation of the project. JICA represents the interests of the donor agency for GCP/AFG/066/JPN and should be the point of contact between the Embassy of Japan and the project. JICA require regular meetings with the project CTA to coordinate project implementation, review project progress and help formulate any necessary actions to improve project performance.

Findings

- Both the Embassy of Japan and JICA representatives were new to their posts, both having taken up their positions 5 weeks prior to the evaluation visit.
- Both representatives had a very brief handover from the previous incumbents.
- Both representatives were disappointed that a detailed briefing on GCP/AFG/066/JPN and GCP/AFG/071/JPN by the FAO CTA had not taken place by the time of the evaluation.
- The JICA representative said that his predecessor had felt sidelined in the flow of information from the project to the embassy as contact had been regular between the CTA and the Embassy representative. This situation arose because of the good personal relationship between the FAO CTA and the Embassy of Japan representative. He stressed that as the body with direct oversight of the project, JICA required regular meetings on project progress and especially timely information on any issues which the project had.
- The issues with delivery of the MHP portion of the project were of concern to JICA and the Embassy of Japan and they expected a full briefing from the CTA.
- There is an expectation from the donor that the funds would be evenly disbursed over a two year period. While it is accepted that the project start was delayed due to factors outside of the survey and construction portions of the project, it is the opinion of the evaluator that even without the delay, an even disbursement of funds in a project of this type is impractical. The reasons for this include the initial time taken to complete the river basin surveys, the specific structure surveys, tender preparation and contract letting is relatively long. During this time expenditure is minimal. A further complication is the limited construction season in Bamyan province which has project expenditure in the province peak during summer months. In this project there is a 10% retention which is paid to contractors 12 months after completion of work.
- The donor is satisfied with the implementation of the project in spite of the issues raised. A 12 month "no cost" extension was granted to allow completion of the work and the project is consistent with the Government of Japan's development goals for Afghanistan. GCP/AFG/071/JPN was signed as "Phase 2" of the project, a further indication of the donor's satisfaction with the implementation of the project.
- The quality and frequency of written progress reports submitted to the donor agency was satisfactory. The frequency of reports is not satisfactory and JICA would like regular monthly meetings to address this issue.

Recommendations

- For future projects involving FAO and Embassy of Japan, regular meetings between the CTA and JICA are required. This will allow JICA the opportunity to provide proper oversight to the project and keep abreast of any issues as they arise. For example, regarding the MHP implementation of this project, JICA were unclear what the exact progress of this component was.
- A dedicated M&E unit for the project would have made for more accurate progress reports and possibly alerted the parties to the serious delays in the implementation of some components of the project.
- Donor expectation that the money for the project would be dispersed in two years should have been addressed at project design. The Embassy of Japan are heavily involved in the formulation of the project document and some guidance was required from FAO about the timelines of delivering irrigation rehabilitation projects in Afghanistan.
- Project time frame should be planned as 3 years.

The MEW is the counterpart ministry to FAO for the implementation of GCP/AFG/066/JPN. The FAO CTA has a MEW counterpart whose main role is the liaison with different departments in MEW to ensure smooth implementation of the project and to keep the Minister up to date on project progress and issues. MEW provided suitable staff for structured and "on-job" training, as part of the capacity building component of the project.

Findings

- Due to difficulties sourcing a suitable national engineer to undertake the evaluation alongside the international irrigation specialist, the evaluator had the national project coordinator as an interpreter when he visited the Ministry. This was unsatisfactory and in this instance the evaluator believes he did not get to discuss any issues which the minister may have been concerned about regarding the project. The evaluator believes the information passed on from the MEW counterpart to the FAO CTA was accurate.
- The contract award process was simplified because the contractors were prequalified so the contract was awarded on a lowest cost basis. There was a problem with the first round of tender submissions in that the bids were placed in sealed envelopes and were opened and contracts awarded by the FAO CTA. This was essentially a closed tender process and resulted in allegations of bias from the contractors who were not successful in the tender process. These contractors complained to regional MEW representatives who passed on the complaints to the main office. The FAO CTA implemented an open tender process where contractors were invited to the opening of the bids and could witness award to the lowest price bidder.
- The MEW counterpart to the FAO CTA is satisfied with the project. He believes his staff are becoming competent in project survey, design and construction supervision and that the RBAs are seen as competent facilitators of the project by river valley water users. MEW, like all government departments in Afghanistan, struggle to attract staff due to poor wages.
- There are no formal systems in place to measure the MEW trainee satisfaction with the training given or the quality and appropriateness of the training. There is also no follow up to assess if the training given to the MEW staff was being used in the work place.
- Two MEW staff who attended a training course in the Netherlands applied for immigration.

Recommendations

- For future projects with a capacity building component part of the monitoring and evaluation effort should be directed at measuring the effectiveness and quality of training delivered through trainee feedback. The impact of the training delivered should be measured by assessing if the skills acquired through training are being applied in the workplace.

There is a project coordination office in Kabul. This office was initially located in the MEW offices on Darlumen Road to allow close liaison between the project and MEW to assure a smooth implementation of project activities. FAO/EIRP are also located in the MEW compound and a sharing of resources was possible at the beginning of the project. The project office moved to a suitable space in the under-utilized WAPECA building on the Airport Road in May 2013 because the seed laboratory in which the project office was located at MEW was to come back into use. The project coordination office is headed by a CTA who is under direct supervision of the FAOR and technical supervision of the LTO. In cooperation with the MEW counterpart and other project staff, the CTA is responsible for project planning, supervision of project implementation and providing technical advice to MEW in developing visions, plans and programmes in the water and irrigation sector in the country.

The project is managed by a multidisciplinary team consisting of international and national professionals. The MEW have provided suitable counterparts to help with the smooth implementation of the project in both Kabul and Bamyan. There is a National Project Coordinator who assists the CTA in overall management and coordination of the project. The National Project Coordinator supervises and guides national professionals and coordinates with MEW to implement the project activities. The following staff are based in the project office in Kabul.

Table 4: GCP/AFG/066/JPN Project staff – Kabul

Name	Title
Paul Schlunke	Chief Technical Officer
Dawit H Ghebremeskel	International Irrigation Engineer
Thakur Raj Davotka	International Micro-Hydro Power Consultant
Mohammad Naeem Malana	International Irrigation Engineer
Naoko Sakai	International Operations Consultant

Name	Title
Eid Mohammad Azimi	National Admin and Finance Officer
Mohammad Mobin Omid	National Team Leader/Engineer
Najeebullah Ahmadzay	National Senior Irrigation Design Engineer
Samiullah Patyal	National Senior Design Engineer
Khalid Fayaz	National Survey and Design Engineer
Whalid Ahmad Safi	National Survey and Design Engineer
Mir Hamidullah Sadat	National Draughtsman
Whadatullah Wardak	Community Irrigation Mobilizer
Abdul Fawad Noori	GIS Technician
Mohammad Anwar Nazeri	Community Mobilizer
Mohammad Tawfiq Baha	Quality Control Engineer
Mohammad Zahir Mehdi	Office Management Assistant
Sajad Poya	Procurement Officer
Hashmatullah Safi	Contracts Management Officer
Mohammad Nadar Rahimi	Karez Engineer

A regional office was established in the FAO seed project office in Bamyan in June 2011. The regional office is headed by a National Team Leader, who, as a qualified engineer, provides quality assurance and project supervision. The NTL supervises the activities of the following staff and is supported by an international irrigation engineer based in Bamyan.

Table 5: GCP/AFG/066/JPN Project staff Bamyan

Name	Title
Kulendra Nath Subedi	International Irrigation Engineer
Mohammad Nazeer Amiri	Natl. Team Leader
Mohammad Idris Tahiri	Natl. Draughtsman
Hussain Farhadi	Natl. Senior Design Engineer
Mahdi Tokhi	Natl. Survey and Design Engineer
Mohammad Aman Aman	Natl. Survey and Design Engineer
Merajuddin Noori	Community Irrigation Mobilizer

Findings

- The project was authorized and signed between the donor agency, FAOR Afghanistan and Minister MEW in October 2010. The project CTA took up his post at the end of February 2011, four months after project initiation.
- There were difficulties in sourcing an international micro-hydro power consultant which further delayed the start of this component of the project. He arrived in Kabul in May 2011.
- The National Team Leader in Bamyan took up the position in June 2011.
- There were difficulties in attracting suitable local national professional staff to go and work in Bamyan. Most of these people are resident in Kabul and reluctant to relocate.
- The risk of not being able to source suitable international and national staff was identified in the planning phase of the project, however, little consideration seems to have been given to mitigation should staff not be available.
- 3 FAO staff left the project, 1 to the World Bank, 1 to USAID and 1 unknown.

Recommendations

- FAOR should analyse the reasons for the schedule creep at the start of the projects and account for this in the work plans at the planning phase of the project. The risks of delays in sourcing suitable staff were identified and were known at the project planning phase. The major delay was the time taken to source a CTA. The OIG mission of 2013 identified that the standard time to hire a project CTA was six months, however, project workplans do not include this time frame.

3.1.3 Implementation Strategy/Methodology

The project was designed based on IWRM principles and targeted entire river valleys/sub-basins as its unit of intervention. In a river valley approach, a whole river system from origin to end point is analysed in terms of water utilization and availability so that water is used in the most efficient manner. This analysis should include different water uses including irrigation, domestic, hydro-power etc. and an indication of how they compete for available water resources. This analysis would allow identification of different options to optimally use the water available and which structures to target for maximum effect.

As the project was designed to be of two years duration it was decided the project would not aim at full scale watershed development activities which involved land and water, but concentrate on quick impact, short duration activities such as irrigation structure rehabilitation and micro-hydro power development in selected river valleys.

Participation and local institution building is a feature of the project and is consistent with IWRM principles. Mirabs, CDCs and any other entities involved in the management of water resources will be involved in all stages of project implementation from confirmation of needs through construction supervision to water management training. For the micro-hydro power facilities, operators and managers were trained in the same "on the job" fashion as the Mirabs and CDCs to operate and maintain the plant and manage the distribution of power and collecting levies. This community ownership is seen as vital for sustainability of the project.

3.1.4 Implementation

3.1.4.1 Timeline

Kabul

- 2010 October: The project is signed by the donor, FOAR Afghanistan and Minister MEW.
- 2010 November: project starting date
- 2011 January: Project CTA takes up his position
- 2011 April: Inception report completed by project staff
- 2011 July : Fully staffed
- 2011 September: Soft skinned vehicles available
- 2011 September: Needs assessments begin
- 2011 September: Surveys, design and tender preparation begin
- 2011 October: Needs Analysis completed
- 2011 November: Armoured vehicle available
- 2012 May: Construction begins
- 2012 September: 12 month extension granted

Bamyan

- 2011 June: National Team Leader appointed
- 2011 August: Applications received from the beneficiaries for which irrigation structures are to be rehabilitated

- 2011 September: Analyse applications and categorise according to area and numbers of beneficiaries affected
- 2011 October: Survey, design and tender preparation begins
- 2012 May: Construction begins

3.1.4.2 Budget and expenditure

The final budget expenditure for GCP/AFG/066/JPN is shown in Table 6. The project will be financially closed at the end of October 2014. The reason that financial close out is a year after actual project completion is to allow for the payment of retention money to contractors.

Funds have been allocated within budget line 5014 to complete the micro-hydro power contracts as detailed in Table 7.

The expectation from the donor was for an even budget disbursement over the project lifespan. This is not appropriate as in projects of this nature there is an initial period before construction begins where surveys are undertaken, tenders prepared and contracts let during which project expenditure is minimal. Following project close out there is a 10% contract value retention to be paid to contractors after 6 – 12 months as a way of guaranteeing quality of workmanship and a commitment to repair any defect in building which becomes apparent during this time.

Table 6: GCP/AFG/066/JPN Total budget and expenditure 31.01.2014

Budget line	Expenditure	Final project totals (USD\$)		
		Budget	Expenses	Balance
5011	Salaries professional (Parent)	398,628	393,714	4,914
5013	Consultants (Parent)	1,593,015	1,577,777	15,238
5014	Contracts (Parent)	10,058,240	9,870,279	187,961
5020	Locally contracted labour (Parent)	68,580	59,583	8,726
5021	Travel (Parent)	670,028	651,382	18,646
5023	Training (Parent)	276,000	283,442	(7,442)
5024	Expendable procurement (Parent)	75,542	82,653	(7,111)
5025	Non expendable procurement (Parent)	677,050	644,065	32,985
5027	Technical support services (Parent)	147,400	165,680	(18,280)
5028	General operating expenses (Parent)	396,455	411,509	(15,055)
5029	Support costs (Parent)	1,866,922	1,152,888	714,034
	Total expenditure	16,227,860	15,293,243	934,617
	Balance			(934,617)*

*\$934,617.00 remaining to pay retentions on contracts (10%)

Table 7: GCP/AFG/066/JPN Micro-hydro power completion allocation

Province	No. of contracts	Budget	Paid to 31.01.14	Balance
Kabul	7	633,367	233,903	399,464
Bamyan	17	1,494,556	95,418	1,399,138
Totals	24	2,127,923	329,321	1,798,602

3.1.4.3 Project Management

The project was managed by a multidisciplinary team of international and national professionals headed by the CTA. A slow start to the project was identified in the FAO audit of 2013. The reason for this is that the project was signed in October 2010 by the donor, FAOR Afghanistan and Minister MEW and the project staff completed the inception report by April 2011. The GCP/AFG/066/JPN CTA arrived on station in February 2011 and the project was fully staffed and Bamyan office established by July 2011. This early schedule creep required a one year project extension and the

irrigation rehabilitation component was well managed and will be delivered before the extension deadline. The MHP component however will not be delivered on time and management should accept some responsibility for this, although there were other contributing factors.

From observation during the evaluation mission, the team implementing the project is well led and harmonious. There are good relations between the CTA, international and national staff. The international staff have experience in different parts of the world and seem able to manage and mentor national staff comfortably.

Both the Kabul and Bamyan offices were efficiently run and well organised. Any requests for information by the evaluator were quickly responded to indicating efficient information management systems. Site visits for the evaluator in Kabul and Bamyan were well organised and hosted.

Contract Management

There is a dedicated contracts officer who tracks project progress from tender preparation through to completion and payment of retentions. Contractors are paid after a physical measurement is done and verified. Usually the FAO Quality Control engineer and contracts officer visit the site with a MEW representative and sign off a progress payment sheet with the contractor. This payment sheet is submitted to the FAO office in Kabul for approval and payment providing the sum is below USD\$100 000. For remittance amounts exceeding \$100 000 approval is required from FAO head office in Rome and this results in delays of payments to the contractor.

Irrigation construction contractors were pre-qualified by the project and IRDP as to their capacity to complete the construction work. Only preferential contractors were allowed to bid so the tendering process was simplified. The lowest priced tender was awarded the contract. The tenders were opened publicly to avoid accusations of favouritism. The CTA and micro-hydro power engineer visited a number of hydro power companies in Kabul to ascertain capacity to undertake the construction of the facilities detailed in the project document. The lowest price criteria applied in awarding MHP contracts.

A change of site or change of situation with any of the structures which resulted in a greater than 15% variance in the Bill of Quantities (BoQ) required a contract variation which had to be validated and signed off by the BH and CSAP. This could take up to 4 to 6 weeks in some instances as all procurements over USD\$100 000 require approval from FAO HQ. These measures are in place to mitigate against excessive contract variance and are considered to be fair.

Findings

- Both the FAO and MEW quality control engineers are suitably diligent to ensure good build quality and accurate and fair progress payments to the contractor.
- The payment of progress payments usually takes 7-10 days if processed in Kabul but can take up to 4 weeks if processed in Rome.
- There were delays in payments to some contractors due to new software installation in Kabul. This caused a number of contractors to go slow when their progress payments were delayed and two contractors stopped work until they were paid money due to them.
- A limit of \$300 000 was placed on contracts awarded to any one contractor in order to spread risk should a contractor fail to perform, plus speed up the construction process.
- Irrigation rehabilitation works were awarded in "clusters" in a specific valley or area to each contractor, minimizing movement of machinery and labour.
- Four MHP facilities had to be relocated due to social issues and required retendering due to exceeding the 15% variance in BoQ. This further delayed the implementation of this segment of the project.

Recommendations

As not many progress payments to contractors on the project exceeded \$100 000, there should be the capacity to authorise those payments in Kabul. The payment requires that the QA engineers from FAO and MEW sign off on the quality and quantity of work, the contracts officer prepares the payment documents and final sign off is by the CTA. This is enough to prevent any corruption.

Procurement

A dedicated procurement officer is employed on the project to track the progress of purchase orders and expedite the process. He is the link between the project and the procurement department of FAOR in Kabul.

Comment

As mentioned, purchase orders in excess of \$100 000.00, require approval from Rome which creates an initial delay. Delivery of the items can also take a while, particularly vehicles. Soft skin vehicles, for the survey staff, and an armoured vehicle for international staff were ordered in March 2011. The soft skin vehicles were available to the project in September 2011 and the armoured vehicle in November 2011. In the meantime the project had to borrow vehicles from IRDP, which was not always convenient.

Recommendation

Vehicles from past projects are made available for use at project start up to avoid unnecessary delays.

Monitoring and evaluation

Within the first two months of the project start, a monitoring and evaluation unit was to be established which would define the scope of activities and determine how results would be measured. The M & E unit would be responsible for designing and implementing an M & E system which consists of a set of planning, data gathering, analysis and reporting processes. The results of these processes would be used as a basis for results focussed project management by measuring project progress towards the stated outcomes and provide a means of measuring project impacts. Information produced by the M&E unit was to be fed into various review processes. Project progress was to be jointly monitored by representatives of the Afghan Government, the Donors and FAO annually. For FAO, the Quarterly Project Implementation Report (QPIR) will form one of the bases for project monitoring along with the 6 monthly technical backstopping visit by the LTO.

Findings

- No M&E unit was established for this project. There were difficulties sourcing an international M&E consultant to undertake the design and implementation of the M&E system. Due to the late start to the project, the pressure was on the CTA to undertake project activities.
- Project progress was measured by the amount spent on contracts in Budget Line 5014 of the schedule. Because expenditure is minimal at start up and increases as construction progresses, the picture presented is not accurate enough to gauge actual progress in the field

Recommendations

- FAOR in conjunction with IRDP could have established the M&E unit shortly after project signing, within the two month time frame stipulated in the project documents.
- Information produced by the M&E unit to be used to institute a results focussed management approach. This would allow issues such as the failure to implement the MHP component of the program to be highlighted. The evaluator believes the true state of the MHP implementation was hidden because total budget spend on contracts was considered so things looked like they were progressing satisfactorily.

3.1.4.4 Technical backstopping

Technical backstopping of the project is provided by the FAO Regional office in Bangkok. The LTO visits the project office regularly to assess project progress and report on various project activities. The LTO also provides technical backstopping for IRDP and was instrumental in the design of GCP/AFG/066/JPN. This project was designed as a river basin developmental initiative, however the LTO feels it has been delivered and monitored as an engineering project.

The LTO feels this way because the inception report which selected the river valleys for the intervention and was based on the IWRM principles only assessed the river valleys in Kabul as the river valleys in Bamyan were snowed in. Further to this, once staff were in place, the project was already behind schedule so irrigation structures including ponds and karezes were chosen based on area and number of beneficiaries affected in order for construction to begin. Project progress was then measured in structures built and dollars spent.

Comment:

- The evaluator agrees with the project document that as time was short for this intervention to be fully consistent with IWRM principles, the inception report would adequately identify the rehabilitation needs to satisfy the project outcomes and a quick intervention was required.

3.1.4.5 Government Participation

Government participation is as a partner agency. For GCP/AFG/066/JPN and GCP/AFG/071/JPN the government provides suitably qualified staff to participate in project "on the job" training activities to build capacity within the ministry. The ability to design, survey and supervise civil works will allow the ministry to expand irrigation rehabilitation activities to other river basin systems.

With such involvement in the project the Government of Afghanistan, through the MEW should feel some ownership over the project activities and outcomes. It is important for the beneficiaries to feel the government is capable of delivering projects which address their expressed needs.

MEW responsibilities included liaison with stakeholders in the event of any dispute and ensure smooth implementation of the project. However, each line ministry is responsible for different areas of expertise and MEW is not responsible for MHP or for "on farm" irrigation. Thus MEW was able to ensure minimal problems in the delivery of irrigation rehabilitation but MRRD is the ministry responsible for MHP and they have their own programme running.

Note: MEW energy section is responsible for MHP.

3.1.4.6 Outputs and outcomes

The purpose of the project is to expand irrigation coverage with reliable and assured water supply through improved irrigation facilities and enhanced local capacity. These goals and purposes of the project are realized through the following components and activities:

Project Component 1: Water conservation and water utilization at watershed level

Output: Increased water availability and resource utilization in selected watersheds/sub-basins.

Activities

- 1.1 Analysis of water resources and water balance within the selected valleys for better water allocation and utilization planning.

- 1.2 Water resources development plans prepared for the valleys in accordance to existing water use practices and future priority (forms the basis for implementation of Activity 1.3 and Components 2 and 3).
- 1.3 Construction of Check dams, water harvesting/conservation structures as identified in Activity 2.2.

Results

- The inception report included an analysis of water resources and water balances in selected river valleys in the Kabul region. River valleys in Bamyan were inaccessible because of snow.

Project Component 2: Irrigation Rehabilitation

Output: Irrigation systems rehabilitated covering 24 000 ha of land in selected valleys.

Activities

- 2.1 Intervention plan for irrigation rehabilitation prepared (survey/design/construction methods etc.) following a participatory approach for selected valleys in conjunction with activity
- 2.2 Plans and designs prepared in 2.1 implemented with appropriate Letter of Agreements (LOA) and contract award
- 2.3 Mirabs/beneficiaries/CDCs trained on improved water management and irrigation operation and management

Results

- 18 734 ha affected by rehabilitated irrigation structures
- 53 874 beneficiaries are affected by the project
- 20% increase in water availability
- 60 Karezes rehabilitated and 9 Ponds constructed

Reasons for the results

- Contractors constructing the irrigation works were prequalified by the project, IRDP/PCU as having the capacity to undertake these projects.
- A limit of \$300 000 was placed on the value of contracts awarded to any individual contract company in an effort to spread risk and speed up the construction works.
- Contracts were awarded to a company in clusters in a particular area thus limiting the movement of equipment and staff between sites at the completion of a construction.
- Rehabilitation work was undertaken on existing structures which is not only the most cost efficient implementation strategy but mitigates against any social issues as regards land and water rights.

Project Component 3: Community Based Micro Hydro Schemes

Output: 500 KW of electricity through community based micro-hydro in selected river valleys

Activities

- 3.1 Intervention plan for micro-hydro prepared (survey, design, construction methods, community mobilization processes)

- 3.2 Plans and designs prepared in 3.1 implemented with appropriate Letter of Agreements (LOA) and contracts
- 3.3 Local communities trained for operation, maintenance and resource mobilization for the functioning of the schemes

Results

Kabul

- 1 MHP facility completed
- 3 are more than 50% complete
- 1 is 10% complete
- 2 have not started construction

Bamyan

- 1 facility is 48% complete
- 3 sites are 20% complete or less
- 12 MHP facilities have not started construction

Reasons for results

- There have been significant social issues which have delayed the implementation of this component of the project. Intake canals and micro-hydropower (MHP) facilities have to be built on private land which raises land rights issues, compensation demands etc. This has necessitated the selection of new sites resulting in redesign, tendering and bidding causing delays in the start of construction.
- Contractors were involved in the construction of MHP facilities under the National Solidarity Programme (NSP) which is still ongoing. Some of the contractors selected did not have the capacity to take on any more work and as the power plant proposed under GCP/AFG/066/JPN was of a higher specification than under the NSP these contractors did not start work in some cases preferring to work on NSP projects.
- There appears to be little the project staff could do to penalize contractors for non-performance.
- All of the MHP contractors are based in Kabul, there appears little incentive to travel to Bamyan to construct MHP facilities.
- The time available for construction in Bamyan is limited. From Mid-October to the end of March it is too cold for concrete to cure properly.
- There was no international MHP consultant based in Bamyan, so direct management of the MHP component was lacking.
- Should the stated results be achieved then 5078 households will share 589kW of generated power. Only 116kW per household. Less than the project output target of 200kW per household.

Comment

Capital has been allocated for completion of the MHP component of the project during 2014. A national MHP engineer has been recruited under GCP/AFG/071/JPN to implement this component and organise training for O&M and management staff. In the evaluator's opinion achievement of this project output is highly unlikely as priorities are already focussed on stage 2 and 3 of the project and there will be significant competition for resources.

Project component 4: Capacity development

Output: Capacity developed for the Department of Energy and Water to design and implement irrigation and water resources development programmes

Activities

- 4.1 At least 12 MEW engineers participate in 'on the job' training programme and involved in project implementation activities
- 4.2 At least 18 MEW engineers trained on design and construction supervision of medium and small dams
- 4.3 Structured training programmes conducted (six annually, at 120 participants) in various fields related to design and implementation of water resources projects (irrigation, hydro power, IWRM)
- 4.4 Overseas training courses (3 to 6 months period) for 18 MEW staff in specific areas (design of small dams etc./ micro-hydro) to enhance local capacity and also to prepare MEW staff for higher studies in the field of water resources development
- 4.5 Field equipment and material support to two provincial MEW departments

Results

As may be seen in the table below numbers of counterpart staff trained exceeded the indicators set for this component.

Table 8: GCP/AFG/066/JPN Numbers of training attendees

Training type	Training location	No. of FAO Staff	No MEW staff	No. of beneficiaries
Watershed and river basin management	UNESCO, Netherlands	3	4	
Small hydro-power development	UNESCO, Netherlands	2	2	
Risk management in contracting for construction services	Rome, Italy	3		
International training course on community based integrated watershed management	Phillipines	2	5	
International training course GIS	UNESCO, Netherlands	4	3	
Concrete technology and water management and irrigation design	Delhi, India	5	31	
In country structured training – Dams and Dam design	Kabul	3	29	
In country structured training – Introductory training on aspects of MHP	Kabul	4	30	
In country structured training – O&M training on Irrigation and MHP facilities.	On-Site Kabul		5	70

Note: Some trainees may be represented at more than one training session.

3.1.5 Gender issues

49% of rural women are engaged in agriculture. It was assumed through project design and beneficiary selection that women would benefit from project implementation. Gender issues were not dealt with specifically or beneficiary data dis-aggregated. The reason for the poor quality of data is that there was no M&E unit established within the project office. The project staff involved in the project were focussed on managing construction works.

3.1.6 Impact

An increase in wheat yield was chosen as the indicator of impact for this project as there is a lot of data relating to baseline wheat yields and the increases in yield possible by improved supply of irrigation water. To use wheat yield as a measure of success for this particular intervention would require a follow up survey to assess if wheat yield has in fact taken place. There are no such plans or budget allowance to conduct this survey.

To measure the impact of a capacity building component is difficult. The indicators simply address the number of people who attend training. True capacity building would require a measure of knowledge retention, ability to adapt training to work place activities and staff retention by the government counterpart. FAO pay the salaries of trainees who are undertaking workplace training and there is a question regarding government ability to retain trained staff in competition with private sector and NGOs in particular.

A positive long term effect of the irrigation rehabilitation is in river basins which suffer flooding every year. The constructed intakes and washes will require debris to be cleaned from the structures and not an annual rebuild as in the past. This allows members of the community to spend time planting crops in spring rather than rebuilding irrigation infrastructure.

3.1.7 Sustainability

The project was planned on the communities' needs. At the beginning of the consultation process beneficiaries were made aware of the community responsibilities towards taking ownership of the completed works and operating and maintaining the structures.

The irrigation rehabilitation improved existing structures and combined with mirab training allow water to be distributed in the traditional way. This ensured a smooth transition to community water management at project completion.

Community MHP O&M and management personnel have been embedded with the contractors building the MHP facilities. This 'on job' training best equips the communities to operate the plant after project completion.

MEW staff in the districts have been trained in survey, design, contract supervision and quality control to enable repairs and new structure rehabilitation to occur.

3.1.8 Cross-cutting Issues

Security will always be a cross cutting issue in Afghanistan, particularly over the next few years. Presidential and parliamentary elections, ISAF withdrawal, land and water rights issues and the illicit drug trade all contribute to a shrinking security bubble.

Social issues such as rapidly increasing population, urbanisation, land and water rights issues and returning displaced persons could create problems at a local village level impacting on project delivery.

Climate change is already having an impact on temperatures and altering timing and quantity of rainfall. Flood and drought events will increase in severity and the impacts of these natural disasters are felt more in vulnerable populations.

3.1.9 Conclusions and recommendations

Conclusions

Table 9: GCP/AFG/066/JPN Conclusions

Criteria	OECD – DAC definition	Conclusions
Relevance	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor	The project is relevant as the objectives and goals are consistent with the priorities and policies of all stakeholders. The needs analysis was well thought out and conducted.
Efficiency	Efficiency measures the outputs – qualitative and quantitative – in relation to the inputs. It is an economic term which signifies that the aid uses the least costly resources possible in order to achieve the desired results. This generally requires comparing alternative approaches to achieving the same outputs, to see whether the most efficient process has been adopted.	Project management was mostly effective in the rehabilitation of irrigation structures. The decisions to spread risk by limiting contractors to \$300 000 and lumping works together to minimise movement of plant and labour were good. Management of the MHP component was poor. In spite of the external issues which impacted on the delivery of MHP facilities, management did not formulate solutions to problems they could influence.
Effectiveness	A measure of the extent to which an activity attains its objectives.	Irrigation structures will be completed within the extended implementation period. MHP facilities will not be completed on time. Capacity building within MEW was undertaken and will continue through the next phases of the project. Project design did not take into account factors such as the limited construction season in Bamyan province which limited the project effectiveness.
Impact	The positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended. This involves the main impacts and effects resulting from the activity on the social, economic, environmental and other development indicators.	Impact Water availability increased by 20% 18 734 ha of land affected by the irrigation intervention. 53 874 beneficiaries affected by the irrigation component The donor and government counterpart view the project as a success. Potential Impact: To measure project impact will require a follow up survey. It is questionable if this will take place. Trained counterpart ministry and national FAO staff can attract higher salaries from NGOs so may leave
Sustainability	Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn. Projects need to be environmentally as well as financially sustainable.	Community and government involvement from the project inception will ensure ownership of infrastructure. Build quality is good. There is no definite hand over strategy in the project document.

Recommendations

- There is a clear need for the establishment of a Monitoring and Evaluation (M&E) Unit within MEW or MAIL and to have a dedicated M&E officer attached to the project. This unit should be separate from the project to allow the project management team to concentrate on efficient implementation of project activities.
- A framework and commitment is required to measure project outcomes and impact against the indicators stated.
- FAOR should analyse the reasons for the late start to the project and account for this in planning for future projects.

- A local source of vehicles, possibly from past projects should be found to expedite the start of projects. Fortunately the Japanese sponsored irrigation rehabilitation project overlap as phases of the same intervention which allows a sharing of assets. However this is not normal as FAO tend to implement discreet projects.
- For future projects involving FAO and Embassy of Japan, regular meetings between the CTA and JICA are required.
- Project time frame should be planned as 3 years
- As not many progress payments to contractors on the project exceeded \$100 000, there should be the capacity to authorise those payments in Kabul.

3.2 GCP/AFG/071/JPN: The Programme for Improvement of Irrigation Systems in Kabul and Bamyan Provinces

3.2.1 Design

GCP/AFG/071/JPN is considered as phase 2 of GCP/AFG/066/JPN and is based on a request from MEW to complete the lower irrigation system in the Shakardara Valley, Kabul region, and rehabilitate the identified irrigation structures in the Shaidan, Kaghano, Shibarto and Shibar valleys in Bamyan.

MEW commissioned an Indian consultancy, Water and Power Consultants (WAPCOS), to undertake a prefeasibility study on the required irrigation rehabilitation in the lower Shakardara Valley to make the most efficient use of hydro-power out flow from the Sha-ar-Arus Dam. The water available for irrigation would be high volume and year round which would allow for double cropping and glass house production in the valley. The WAPECOS report suggested two new canals be constructed in the valley and these would affect a total area of 5 668 ha. The report was presented to all parties who would be involved in the irrigation intervention and it was agreed that this is how the project would be implemented.

However, when project staff met with local village leaders to prioritise construction of the irrigation structures, it became apparent that WAPCOS had not consulted any local authorities and the information contained in the report was seriously flawed. The proposed layout of the two new canals was wrong and passed through villages and houses. The location of the intake structures in the WAPECOS study was incorrect and would not allow water to enter some of the existing irrigation canals.

As a result, the irrigation and community activation staff attached to the project held a series of meetings with the local authorities to ascertain the true needs of the community, and what infrastructure would be required to affect an efficient, suitable and sustainable irrigation scheme in the lower Shakardara Valley. The project undertook a completely new detailed survey which is based on the existing four canals and a repositioning of the intake structures and weir to allow even distribution of water between the canals.

The four valleys of Shaidan, Karghanto, Shibarto and Shibar were surveyed in conjunction with MEW, Mirabs and local village leaders to identify irrigation requirements. Discussions took place with UNDSS and the Shebar Valley in Bamyan was considered too insecure to ensure smooth project implementation due to staff travel restrictions.

The theory of change of GCP/AFG/071/JPN may be represented by a model as shown below:

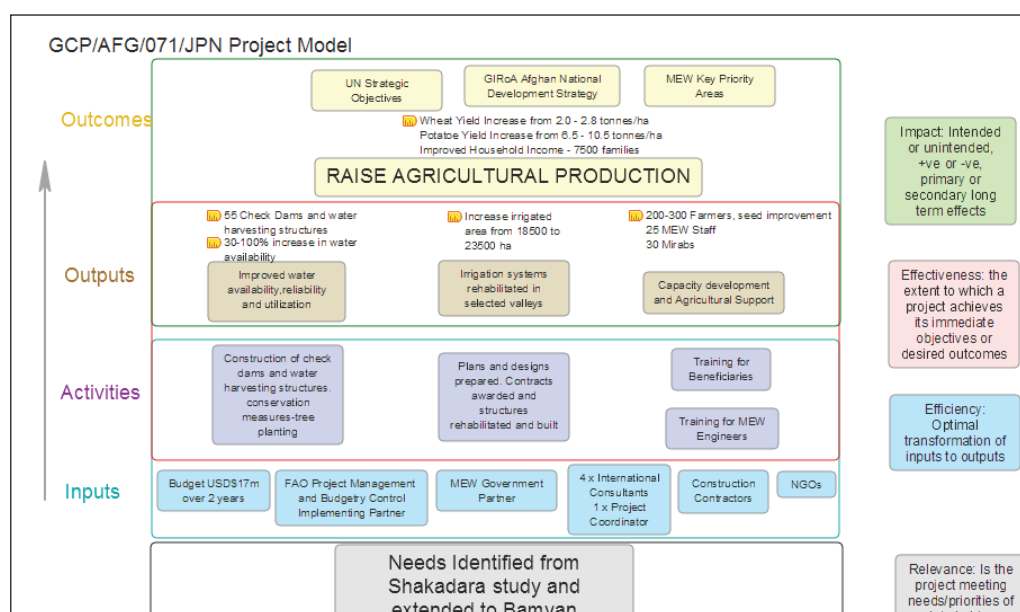


Figure 2: GCP/AFG/071/JPN Project Theory of Change Model

The project theory of change for GCP/AFG/071/JPN is consistent with the context and relevance of Afghanistan, ANDS and the UN Country Development Framework. The intended impact of the project is to contribute to the GoA's Poverty Reduction Strategy. This will be achieved by enhancing food security by raising agriculture production and productivity. The project outcome is to expand irrigation coverage with reliable and assured water supply through improved irrigation facilities and enhanced local capacity.

The assumptions upon which the change theory for the project is based are listed in the project document and logical framework for GCP/AFG/071/JPN.

Table 10: GCP/AFG/071/JPN Key assumptions

Activity description	Assumption
Goal/Impact	
Enhance food security by raising agricultural production and productivity.	<ul style="list-style-type: none"> • Government will be seen as provider of these outcomes. • Peace and stability in areas of project implementation is sufficient to allow outcomes to be achieved. • An increase in household incomes will contribute to peace and stability. • An increase in wheat yield and agricultural productivity will result from a more reliable and assured water supply.
Purpose/Impact	
Expand irrigation coverage with reliable and assured water supply through improved water harvesting and irrigation facilities plus enhanced local livelihoods capacity.	<ul style="list-style-type: none"> • Project inputs are in the transition areas which are the most stable and secure.

Validity of assumptions

- **The Government is seen as provider of the project outcomes:** The assumption must refer to the physical outcomes such as rehabilitated structures and improved and more reliable water supply. This assumption was probably made when MEW were to implement the project with FAO providing continuous technical support. The assumption is not valid with FAO implementing the project.
- **An increase in wheat yield and agricultural productivity will result from a more reliable and assured water supply:** The assumption is valid as the indicators have been achieved in Afghanistan with similar irrigation interventions.

- *Peace and stability in areas of project implementation is sufficient to allow outcomes to be achieved:* The assumption is valid, Kabul and Bamyan provinces were selected for this project as they are more stable and likely to allow the projects to be implemented without interference.
- *An increase in household incomes will contribute to peace and stability:* The assumption is valid. Evidence from a number of licit livelihoods programs supports the assumption.

Key risks were assessed and presented in the project document.

Table 11: GCP/AFG/071/JPN Key risks, probabilities and mitigations

Risk	Impact	Probability	Mitigation
Security Bamyan Province is in the most secure part, however there could be problems in parts of Kabul Province	Outbreaks of violence can prevent access to areas and communities (particularly for international staff) and can slow down project operations and/or reduce effectiveness.	Bamyan: Low Kabul: Moderate	Increase project supervision by government staff. Increase community participation in construction works involving private contractors
Community Cooperation Lack of cooperation from community leaders in areas affected by insurgency activities	Community leaders in areas affected by insurgency activities may be persuaded to not cooperate with development service providers such as FAO and NGOs and restrict access to contractors.	Localised	Two mitigation techniques will be utilized: Firstly, the government will be engaged to facilitate the projects activities and secondly, the communities will be directly engaged to implement the project activities.
International Staff Locating international technical support personnel who are willing to work in Bamyan Province.	Failure to recruit suitable international support will reduce project effectiveness as local staff do not have technical or managerial skills to lead this project.	Low	FAO has a wide range of expertise in house and access to communities of best practice in various technical specializations. In addition FAO is also able to access a wide range of experts on a consultancy basis.
National Staff Attracting suitably qualified local staff to implement and backstop field activities.	The number and quality of local staff available to FAO and agricultural service providers has been increased. However the technical and managerial skills of these staff still need to be increased markedly.	Low	FAO will attempt to maintain staff from an existing pool out of EIRP and remuneration packages will be structured to attract the best local candidates that are available. One of the components of this project is also to build the technical skills of the government who will also provide contribution in project implementation.

3.2.2 Institutional Framework and Management

The institutional framework and management structure was already in place from Phase 1 of the programme. This ensured consistency of implementation and retention of project knowledge.

The project was designed with FAO as budget holder and responsibility for logistics, procurement and technical support. Field construction work was to be outsourced to local contractors. The MEW is the counterpart ministry to FAO for the implementation of GCP/AFG/071/JPN with similar responsibilities to Phase 1.

Finding

The MEW counterpart to the FAO CTA is satisfied with the project.

JICA represents the interests of the donor agency for GCP/AFG/071/JPN and should be the point of contact between the Embassy of Japan and the project. JICA require regular meetings with the project CTA to coordinate project implementation, review project progress and help formulate any necessary actions to improve project performance.

Findings

- The JICA representative stressed that as the body with direct oversight of the project, JICA required regular meetings on project progress and especially timely information on any issues which the project had.
- There is an expectation from the donor that the funds would be evenly disbursed over a two year period. While it is accepted that the project start was delayed due to the faulty WAPECOS survey, it is the opinion of the evaluator that even without the delay, an even disbursement of funds in a project of this type is impractical.
- The donor is satisfied with the implementation of the project so far.
- A 12 month “no cost” extension was granted in January 2014, to allow completion of the work and the project is consistent with the Government of Japan’s development goals for Afghanistan. GCP/AFG/077/JPN was signed as “Phase 3” of the project, a further indication of the donor’s satisfaction with the implementation of the project.
- The quality and frequency of written progress reports submitted to the donor agency was satisfactory. The frequency of reports is not satisfactory and JICA would like regular monthly meetings to address this issue.

Recommendations

- For future projects involving FAO and Embassy of Japan, regular meetings between the CTA and JICA are required. This will allow JICA the opportunity to provide proper oversight to the project and keep abreast of any issues as they arise.
- Project time frame should be planned as 3 years.

There is a project coordination office in Kabul. The project coordination office is headed by a CTA who is under direct supervision of the FAOR and technical supervision of the LTO. In cooperation with the MEW counterpart and other project staff, the CTA is responsible for project planning, supervision of project implementation and providing technical advice to MEW in developing visions, plans and programmes in the water and irrigation sector in the country.

The project is managed by a multidisciplinary team consisting of international and national professionals. The MEW have provided suitable counterparts to help with the smooth implementation of the project in both Kabul and Bamyan. There is a National Project Coordinator who assists the CTA in overall management and coordination of the project. The National Project Coordinator supervises and guides national professionals and coordinates with MEW to implement the project activities. The following staff are based in the project office in Kabul.

Table 12: GCP/AFG/071/JPN Project staff Kabul

Name	Title
Paul Schlunke	Chief Technical Officer
Kulendra Nath Subedi	International Irrigation Engineer
Abdur Raquib	International Irrigation Engineer
Eid Mohammad Azimi	National Admin and Finance Officer
Mohammad Mobin Omid	National Team Leader/Engineer
Najeebullah Ahmadzay	National Senior Irrigation Design Engineer
Samiullah Patyal	National Senior Design Engineer
Khalid Fayaz	National Survey and Design Engineer
Whalid Ahmad Safi	National Survey and Design Engineer
Mir Hamidullah Sadat	National Draughtsman
Whadatullah Wardak	Community Irrigation Mobilizer
Abdul Fawad Noori	GIS Technician
Mohammad Anwar Nazeri	Community Mobilizer
Mohammad Tawfiq Baha	Quality Control Engineer
Mohammad Zahir Mehdi	Office Management Assistant
Sajad Poya	Procurement Officer
Hashmatullah Safi	Contracts Management Officer

The regional head office in Bamyan is headed by a National Team Leader, who, as a qualified engineer, provides quality assurance and project supervision. The NTL supervises the activities of the following staff and is supported by an international irrigation engineer based in Bamyan.

Table 13: GCP/AFG/071/JPN Project staff Bamyan

Name	Title
Mohammad Nazeer Amiri	Natl. Team Leader
Mohammad Idris Tahiri	Natl. Draughtsman
Hussain Farhadi	Natl. Senior Design Engineer
Mahdi Tokhi	Natl. Survey and Design Engineer
Mohammad Aman Aman	Natl. Survey and Design Engineer
Merajuddin Noori	Community Irrigation Mobilizer

Findings

- The project was authorized and signed between the donor agency, FAOR and Minister MEW at end November 2011, however as this is the start of winter the official start date of the project is 1st February 2012.

3.2.3 Implementation strategy/methodology

The project was designed based on the WAPCOS report in the Shakardara valley of Kabul and IWRM principles in Bamyan where it was to be implemented as a holistic intervention targeting river basins. In the Shakaldara Valley the WAPCOS report was found to be flawed and the valley was resurveyed to provide a basis for the project. A series of meetings were held with local leaders to formulate a comprehensive needs analysis on which the irrigation rehabilitation would be based.

In Bamyan the river valley surveys were completed and community leaders consulted to identify the scope of the irrigation works to be undertaken. The MEW were actively involved in facilitating this process in Kabul and Bamyan. MEW on the job training continues in this project. Beneficiary training is to be sub-contracted to NGOs and Upper catchment rehabilitation activities are sub-contracted to UNEP.

Comment

The project attempted to expand activities to include more of a holistic approach to river valley development than rehabilitating structures. There is a component of the project that addresses upper catchment rehabilitation with tree planting activities and there is the introduction of water storage development as well. Beneficiary training encompasses diversification and the use of quality seed to maximise the use of an improved water supply.

3.2.4 Implementation

3.2.4.1 Timelines

Kabul

- 2011 November: Project signed
- 2012 February: Official project start date
- 2012 February: Project staff in place
- 2012 February: MEW on the job training commences.
- 2012 February: Project office equipment and vehicles ordered
- 2012 May: Resurvey of the Shakardara Valley began

- 2013 March: Beneficiary needs analysis undertaken
- 2013 June: Construction begins
- 2013 August: LoAs signed for beneficiary training
- 2013 August LoA signed with UNEP for upper catchment activities
- 2014 January: 12 month no cost extension granted

Bamyan

- 2012 May: River valley surveys started
- 2013 March: Construction started

3.2.4.2 Budget and expenditure

The budget expenditure for GCP/AFG/071/JPN at 15th September 2013 is shown in the table below. Construction only began in spring of 2013 so disbursement is lower than expected for a mid-term evaluation.

Table 14: GCP/AFG/071/JPN Budget and expenditure

Budget line	Expenditure	Project totals (USD\$) (15/09/13)		
		Budget	Expenses	Balance
5011	Salaries Professional (Parent)	336,000	201,682	134,318
5013	Consultants (Parent)	1,142,280	621,183	521,097
5014	Contracts (Parent)	12,140,000	559,209	11,580,791
5020	Locally Contracted Labour (Parent)	140,000	1,529	138,471
5021	Travel (Parent)	518,400	81,090	437,310
5023	Training (Parent)	206,000	11,392	194,608
5024	Expendable Procurement (Parent)	30,000	27,023	2,977
5025	Non Expendable Procurement (Parent)	261,000	258,386	2,614
5027	Technical Support Services (Parent)	70,550	0	70,550
5028	General Operating Expenses (Parent)	200,018	191,535	8,483
5029	Support Costs (Parent)	1,955,752	187,934	1,767,818
	Total expenditure	17,000,000	2,140,963	14,859,037

3.2.4.3 Project management

The project was managed by a multidisciplinary team of international and national professionals headed by the CTA. The same staff managed GCP/AFG/071/JPN as were involved in GCP/AFG/066/JPN resulting in a consistent management approach.

Comment

Due to the project schedule slip as a result of the resurvey activities required for GCP/AFG/071/JPN, the 12 month extension of GCP/AFG/066/JPN and the signing of GCP/AFG/077/JPN, there was a period of time when the same project staff were employed on three projects. From February 2012 the project staff were engaged in two projects. This undoubtedly put some strain on resources. Ideally extra staff would be recruited in areas where there was a shortage such as survey staff, however, it should be recognised that trained staff are difficult to source. However while this may have contributed to a delay in the start of the construction of rehabilitation works in GCP/AFG/071/JPN, the construction is now on track and due for completion within the extended, allocated time frame.

Contracting and Procurement

The contracting and procurement systems refined throughout GCP/AFG/066/JPN were instituted in the implementation of GCP/AFG/071/JPN.

Comment

- Project equipment and vehicles were ordered for the project in February 2012. The armoured vehicle will be available for project use in September 2013. This delay was a combination of factors of which FAO procurement procedure was one. The resulting travel restrictions on international staff no doubt negatively impacted on project delivery.

Monitoring and evaluation

There was no dedicated M&E unit attached to this project and so M&E is considered to be weak. Contract progress and budget spend on BL 5014 are used to measure project performance.

3.2.4.4 Outputs and outcomes

Project component 1: Water conservation and water utilization at watershed level

Output: Increased water availability and resource utilization in selected watersheds/sub-basins.

Activities

- 1.1 Water resources development plans prepared for the valleys in accordance with existing water use practices and future priority (forms the basis for implementation of Activity 1.2 and Component 2).
- 1.2 Upper valley catchment rehabilitation utilizing water harvesting/conservation structures (terracing, check dams) and tree planting to control land degradation and increase water infiltration and reduce drought vulnerability.

Progress

- 1.1 Development plans for the selected river valleys are complete and construction began in March 2013.
- 1.2 An inter-agency agreement was signed between FAO and UNEP in August 2013 for UNEP to implement the upper catchment activities in the Bamyan river valleys. Beneficiaries are to be involved in the activities and develop capacity through on the job training.

Project component 2: Irrigation rehabilitation

Output: Irrigation systems rehabilitated covering 18,500 ha of land in selected valleys.

Activities

- 2.1 Intervention plan for irrigation rehabilitation prepared (survey/design/construction methods etc.) in a participatory approach for selected valleys
- 2.2 Plans and designs prepared in 2.1 implemented with appropriate Letters of Agreement (LOA) and contract award.

Progress

- 2.1 Needs analysis, surveys, designs and tender preparation was completed over the winter of 2012.
- 2.2 Contracts started being granted in March 2013 and construction got underway. Construction activities are on target to get completed by February 2015.

Project component 3: Capacity-building to support livelihoods for beneficiaries, plus Mirebs and MEW staff

Output: Capacity development and agricultural support for the irrigation system beneficiaries to improve production and incomes, plus continued counterpart training for MEW staff, including Mireb training to improve water management and efficiency.

Activities

- 3.1 Seed Multiplication Programme: introduce new and improved seed varieties to increase production and utilize increase water supply.
- 3.2 Capacity enhancement of farming communities in various fields: plant protection, nutrition, dairy, storage of produce and marketing, value addition, etc.
- 3.3 Diversification through poultry and beekeeping especially for landless and vulnerable farmers, plus targeting income generation for women - marketing, cottage industries, nutrition training, dairy and animal feed pelleting will be investigated.
- 3.4 30 Mirebs will be trained on the improvement of water management and the efficient use of water resources, plus technical training for 25 MEW staff under the counterpart scheme for "on-the-job" training will continue from Phase 1.

Progress

- 3.1 There do not appear to be any plans for inclusion of the seed multiplication programme as detailed in the project document.
- 3.2 There are Letters of Agreement (LoAs) with two NGOs, one in Kabul and one in Bamyán to deliver training to beneficiaries to enhance the capacity of farming communities and encourage diversity. The LoAs were signed in August 2013 to be implemented as soon as possible.
- 3.3 As above.
- 3.4 Mirabs will be trained alongside the contractors as in Phase 1 with additional training at handover of the structures to the community. MEW capacity development will continue as before.

Comment

In the evaluators opinion the project management team have misunderstood the requirements of this component. This is probably because it is an agricultural rather than an engineering activity and may be outside the skill set within the current management structure.

Activity 3.1 Seed Multiplication Programme: Was obviously to be based on a certified wheat seed distribution programme as shown on Page 20 of the project document. These programmes are run by a number of different organisations usually in conjunction with the provincial governor. The thinking behind this activity is unclear, would the beneficiaries from within the irrigation rehabilitation area sign up to a proposed seed distribution intervention, or was the project to sub-contract this activity?

Activities 3.2 and 3.3 are subcontracted to two NGOs. The letters of agreement were signed prior to production of curricula of what would be taught to beneficiaries. There is also no indication of how the chosen NGOs will determine the quality of training and if training has been assimilated and applied.

Recommendations

- Investigate the possibility of including beneficiaries who will receive water from the rehabilitated irrigation structures in a certified wheat seed distribution programme. Such programmes often have extension visit follow ups to advise on best agronomic principles.
- Ensure measures are in place from the NGOs subject to the training LoAs that the subject matter required will be adequately covered and measures put in place to determine quality and application of training.

3.2.5 Conclusions and recommendations

Table 15: GCP/AFG/071/JPN conclusions

Criteria	OECD – DAC definition	Conclusions
Relevance	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor	<ul style="list-style-type: none"> • The project is relevant as the objectives and goals are consistent with the priorities and policies of all stakeholders. • The new survey in the Shakaldara Valley in Kabul has been well received by local leaders and a comprehensive needs analysis completed. • The needs analysis in Bamyan followed the same procedure which were institutionalised in GCP/AFG/066/JPN, it was well thought out and conducted.
Efficiency	Efficiency measures the outputs – qualitative and quantitative – in relation to the inputs. It is an economic term which signifies that the aid uses the least costly resources possible in order to achieve the desired results. This generally requires comparing alternative approaches to achieving the same outputs, to see whether the most efficient process has been adopted.	<ul style="list-style-type: none"> • Project management is mostly effective in the rehabilitation of irrigation structures. The same management tools are used in this project as in the previous one. • Management of the beneficiary training is poor, probably as a result of the training falling outside of the projects core capabilities. • No M&E unit results in a lack of project data to allow timely decision making.
Effectiveness	A measure of the extent to which an activity attains its objectives.	<ul style="list-style-type: none"> • After schedule creep due to the initial survey flaws, rehabilitation of the irrigation structures is likely to be completed within the extended implementation period. • Project design should not have included the beneficiary training component. The idea of this component is to train beneficiaries in diversification of agriculture, best agronomic practice and to get access to improved and certified seed. This does not fit into an irrigation rehabilitation intervention. Further, the agricultural intervention should be undertaken after the water is available, not during the reconstruction.

Recommendations

In future projects, teams which have been involved with certain projects such as irrigation rehabilitation should be retained to make most efficient use of the skills acquired during project implementation.

In the future the agricultural intervention should be separate from an engineering project to ensure the best result from both activities.

