



Livelihoods and Food Security Trust Fund



REQUEST FOR EXPRESSIONS OF INTEREST

Project Implementation Partner (Components 2,3 and 4) of Pyawt Ywar Pump Irrigation Project, Myinmu Township, Sagaing Region REPUBLIC OF THE UNION OF MYANMAR

Ref no: EOI/LIFT/2016/2/PIP
Release date: 8th March 2016
Deadline: 7th April 2016, 12:00hrs (noon)
Title: Pyawt Ywar Pump Irrigation Project

General Background LIFT

UNOPS is the Fund Manager for the multi-donor Livelihood and Food Security Trust Fund (LIFT), which was established in 2009 to address food insecurity and income poverty in Myanmar. LIFT's donors are Australia, Denmark, the European Union, France, Ireland, Italy, Luxembourg, the Netherlands, New Zealand, Sweden, Switzerland, the United Kingdom and the United States of America. From the private sector, the Mitsubishi Corporation is a donor.

The overall goal of LIFT is to sustainably reduce the number of people living in poverty and hunger in Myanmar. LIFT's purpose is to improve the incomes and nutrition status of poor rural people by promoting resilient livelihoods and food security. Its designated outcomes are improvements in income, resilience, nutrition, and pro-poor policy developments. LIFT works with implementing partners (IPs), such as international NGOs, national NGOs, United Nations agencies, international organisations, academic and research institutions and the Government of Myanmar. LIFT is currently funding projects at the Union level and in the Ayeyarwady Delta, the Dry Zone, Myanmar's Uplands and Rakhine State.

So far, LIFT has reached over three million people, or roughly six per cent of Myanmar's population, and is active in just under half of the country's townships. The Fund is expected to continue operations until the end of 2018.

For more details, please go to www.lift-fund.org

General Background Pump Irrigation Project

LIFT and the Irrigation and Water Utilisation Management Department of the Ministry of Agriculture and Irrigation (MOAI) from the Republic of the Union of Myanmar have agreed to rehabilitate the Pyawt Ywar Pump Irrigation Project (PIP) in Myinmu township of Saging Region with financial support from LIFT. The objective of the project is to improve the incomes of 1,000 farmers by rehabilitating the scheme's physical infrastructure and introduce effective and sustainable water use and scheme management arrangements. The scheme is expected to expand as follows:

Benefits of Pyawt Ywa scheme

Measure	Present	Potential increase	Total planned (by end of 2019)
Area irrigated	1,340 acres	3,660 acres	5,000 acres
Number of irrigators	450	550	1,000

The project has a command area of 5,000 acres.

Purpose of the project

The Pump Irrigation project funded by LIFT is intended as a pilot project to develop and demonstrate procedures and tools that can be used to increase the viability of PIPs in general and the relevance of government investment in the rehabilitation of other PIPs and, potentially, gravity irrigation schemes.

The Project scope is divided into four main components:

- Component 1: Infrastructure component to enable the rehabilitation and upgrading of the pumping, irrigation and drainage systems;
- Component 2: Improvement of management, operation and maintenance (MOM) and establishment of water users' groups (WUGs)
- Component 3: Adoption of crop diversification, optimized productivity and best management practices in irrigated farming systems to benefit local rural society
- Component 4: Monitoring and evaluation (M&E) of the effectiveness of the Pump Irrigation network, the performance of the water user groups and the agricultural productivity including application of pilot project learnings.

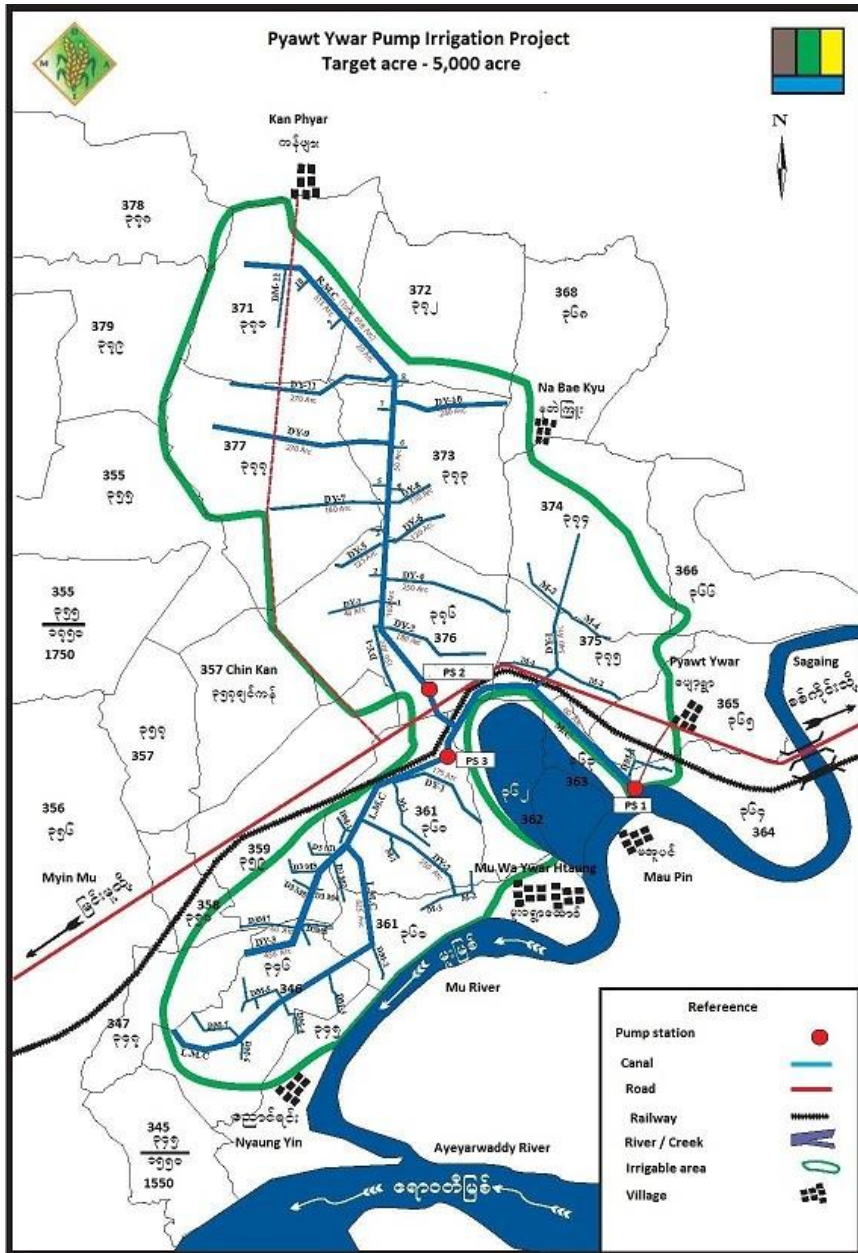
LIFT would like to contract a partner under a grant agreement to implement the **components 2 to 4**, over 42 months of the life of the project. For this purpose, a two-step process is carried out:

1. Expression of Interest
2. Closed Call for Proposal for shortlisted organisations.

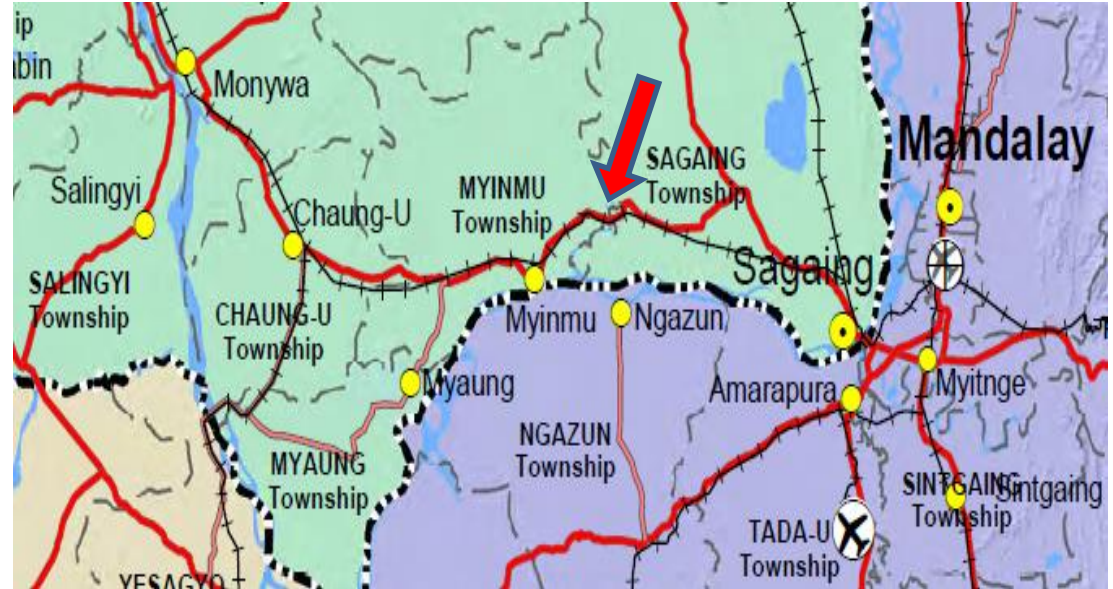
Component 1 will be implemented by UNOPS.

Please refer to Annex I, Project Design Document: Summary

Layout of Pyawt Ywar PIP Scheme



Location of Pyawt Ywa PIP, Sagaing Region, Myinmu Township



Components, outcomes, outputs and indicated activities

The following schedule of outcomes, outputs and activities is intended as a guide. It is expected that the interested implementing partners, while preparing submissions and in subsequent shaping of their respective detailed work plans, will bring their own expertise to the project. Likewise, proposals for monitoring and evaluation are presented for further development by the IPs in consultation with LIFT.

As indicated the activities listed here are intended to inform the nature of work proposed and to guide prospective IPs of LIFT expectations. The list is incomplete and gives examples only.

<i>Component</i>	<i>Intended outcomes</i>	<i>Required outputs</i>	<i>Example activities</i>	<i>Comments</i>
Component 1 (UNOPS): Infrastructure component to enable the rehabilitation and upgrading of the pumping, irrigation and drainage systems	Physical infrastructure that: <ul style="list-style-type: none"> • Delivers the quantity of water required by its users when and where it is needed • Minimises loss of water in the delivery system • Is affordable to manage, operate, maintain and renew • Monitors the quantity of water supplied to each farm 	<ul style="list-style-type: none"> • Engineering feasibility assessments conducted and designs developed including whole-of-life planning • Engineering works procurement processes developed with GoM, aligned with international good practices, and applied • Upgraded supply and distribution systems from river to farm built to the expected quality level, and operating, including flow measurement devices 	<ul style="list-style-type: none"> • Establish engineering working group at Union level involving staff from Irrigation and Water Utilisation Management Department and UNOPS, and agree on processes for developing and reviewing engineering activities • Consult with users and agree on performance requirements for rehabilitated scheme, including expansion of the scheme and anticipation of changing farming practices and water needs, and any timing constraints on construction activities • Conduct feasibility study including performance reappraisal of existing scheme • Assemble international standards for irrigation and engineering design and for contract management and train Irrigation and Water Utilisation Management Department staff • Complete engineering design • Prepare contract documents and advertise and let contract/s • Supervise construction including commissioning of scheme 	<ul style="list-style-type: none"> • For further descriptions of the engineering working group • Regarding consultation with users, the establishment of appropriate user groups is the main requirement of Component 2. This activity will have to be done at the project outset, and before any design has been undertaken • It is expected that 1) UNOPS will lead on standards and processes, and will provide high level oversight of all engineering work, 2) Irrigation and Water Utilisation Management Department will participate in the design work and construction supervision, and 3) private contractors will do most of the construction work • Procurement will be managed by UNOPS, but Irrigation and Water Utilisation Management Department should be included in appraisal and all along the process.

<i>Component</i>	<i>Intended outcomes</i>	<i>Required outputs</i>	<i>Example activities</i>	<i>Comments</i>
			<ul style="list-style-type: none"> • Hand rehabilitated works over to operator to manage, operate, maintain and renew 	
Component 2 (partner): Improvement of management, operation and maintenance (MOM) and establishment of water users' groups(WUGs)	<p>Water user groups that:</p> <ul style="list-style-type: none"> • Represent the interests of all irrigators and operate democratically and professionally • Take increasing responsibility and autonomy for the MOM in the command area and irrigation system of the scheme, • Move towards becoming the effective directors of the scheme and have the potential to become its owners • Operate in the best interests of the long term viability of the scheme, financially and environmentally 	<ul style="list-style-type: none"> • Effective Water User Groups (WUGs) are established with the skills to represent farmers in negotiations with Irrigation and Water Utilisation Management Department on scheme design, construction, and management, including fee setting and collection, operation and maintenance, water allocation and scheduling • Agreement established between user groups and Irrigation and Water Utilisation Management Department regarding scheme MOM • Irrigation water available reliably, shared fairly, and scheduled appropriately to allow farmers in the scheme to successfully irrigate their crops • Procedures developed, trialed and negotiated with Irrigation and Water Utilisation Management Department for irrigator fees to be charged on the basis of volume of water used 	<ul style="list-style-type: none"> • Hold workshops to establish existing capabilities of WUGs and similar local organisations • Assemble database of land ownership • Facilitate establishment of steering groups and township level technical support group for implementation phase • Hold workshops and coaching sessions with each village on establishing civil society organisations (CSOs) including preparing constitutions that define rights, opportunities, responsibilities, commitments and duties • Provide further coaching and training to build the capacity of WUGs required to reach the project outcomes including working collaboratively with other organisations; preparing budgets, monitoring cash flow and other aspects of managing finances; operating with transparency and accountability; keeping records; running meetings; resolving conflicts • Coach WUG and Irrigation and Water Utilisation Management Department in the concept, procedures and skills of life-cycle asset management 	<ul style="list-style-type: none"> • For further descriptions of the steering groups and technical support group, • It is likely that establishing WUGs will be a two-stage process, with a need to establish an initial WUG immediately on project commencement so farmers can participate with Irrigation and Water Utilisation Management Department in setting the standards of service from the rehabilitated scheme • A more formal WUG, termed here a WUG, will be likely to be established by about 1 year into the project period, but it also might be only an interim form, to be developed further and matured by the end of the project period • While it is unlikely that farmers will become scheme owners in the short term, i.e. not until well after the four-year implementation phase of the project, it is desirable to have that in mind throughout the implementation as a goal for the future • Charging for water by volume rather than crop-area is seen as potentially a significant tool for making the scheme financially sustainable: then physical infrastructure addressed in Component 1 will have to be designed to allow simple

Component	Intended outcomes	Required outputs	Example activities	Comments
		<ul style="list-style-type: none"> • Effective coordination and conflict resolution mechanisms in place between the local stakeholders for the long term management of the scheme 	<ul style="list-style-type: none"> • Prepare Irrigation and Water Utilisation Management Department operation and maintenance manuals for the various parts of the scheme infrastructure, including protocols for allocating water to each property • Facilitate workshops with WUGs and Irrigation and Water Utilisation Management Department to (a) learn how to do MOM activities, and (b) negotiate protocols and contracts over the roles of each party, including with regard to Irrigation and Water Utilisation Management Department’s continuing involvement in and support for the scheme • Facilitate agreement between WUG and Irrigation and Water Utilisation Management Department on appropriate structures and quanta for water fees • Establish a local coordination mechanism between stakeholders for future MOM and renewal 	<p>measurement that is adequately accurate and reliable</p>
<p>Component 3 (partner):</p> <p>Adoption of crop diversification and best management practices in irrigated farming systems; and productivity, and agricultural optimisation of the upgraded</p>	<p>Farming and irrigation practices that:</p> <ul style="list-style-type: none"> • Improve profitability for farmers and enable them to move towards full user-pays 	<ul style="list-style-type: none"> • Extension services organised by or through the WUG that establish how to maximise profitability and sustainability of irrigated agriculture • Farmers trained and adopting efficient on-farm water management practices through 	<ul style="list-style-type: none"> • Run experimental and demonstration plots, farmer field schools, field trips and a limited amount of one-on-one support and/or any other relevant extension methods to advise on choice of crops and their management; including water use efficiency, water budgeting, fertiliser use, harvest and post-harvest 	<ul style="list-style-type: none"> • The implementing partner will work with DoA and DAR to provide some support within their own capacity, and to a large extent the LIFT input to extension work will pick up on their existing work, but the LIFT budget will need to allow for more intensive extension services • Measurement of water deliveries, to a reasonable accuracy, will be a

<i>Component</i>	<i>Intended outcomes</i>	<i>Required outputs</i>	<i>Example activities</i>	<i>Comments</i>
infrastructures to benefit local rural society	<ul style="list-style-type: none"> • Reflect best modern practice in choice and management of crops • Make efficient use of water • Are environmentally sustainable 	appropriate water distribution and application techniques	<p>management, and economic performance</p> <ul style="list-style-type: none"> • Work with Department of Agriculture (DoA) and Department of Agricultural Research (DAR) to disseminate information on different crops and best sources of seeds that would enhance the economic and environmental performance of farmers • Hold farmer field days regarding measurement of water use • Ensure thorough data collection and analysis of gross margin of irrigated and non-irrigated crops 	prerequisite for volume-based water fees
Component 4 (partner): Monitoring and evaluation (M&E) of the effectiveness of the Pump Irrigation network, the performance of the water user groups and the agricultural productivity including application of pilot project learnings	<p>Irrigation rehabilitation works and procedures that:</p> <ul style="list-style-type: none"> • Achieve profitability and sustainability, both financially and environmentally • Maximise returns to and satisfaction of irrigators • Are monitored and evaluated professionally and in accordance with LIFT policies and agreements with MoAI and • Lead on to agreed Myanmar best 	<ul style="list-style-type: none"> • Irrigation and Water Utilisation Management Department has contributed to the testing of new practices for scheme design, appraisal, construction and operation and has skilled staff for applying similar approaches elsewhere • Evidence collected through project monitoring and evaluations that contributes to improved policy and practice for irrigation schemes • Learnings from project assembled, reviewed and applied in collaboration with other schemes being developed concurrently 	<ul style="list-style-type: none"> • Complete and conduct baseline studies of water availability, total water pumped per year, water use efficiency, area irrigated by crop, profitability of present farming, value chain from initial planning through to markets, household incomes from irrigated agriculture, water user fees, costs of pumping, credit facilities, gender roles, etc • Complete and refine, at an early stage, the logframe analysis especially indicators and milestones • Monitor project progress, prepare monthly reviews of and forecasts according to agreed templates, and review remaining steps in project implementation • Develop an efficient process monitoring system which informs project management throughout 	<ul style="list-style-type: none"> • Of the different concurrent irrigation rehabilitation projects LIFT's goes furthest towards a theoretical ideal of self-management and user-pays, and will be a test- • case of the effectiveness and efficiency that nominally applies to such modalities and such a policy • LIFT and Agence Française de Développement AFD worked together in developing their respective projects in Sagaing and Magway regions, and have agreed to collaborate closely during implementation, potentially sharing technical assistance. There has been interaction with the IFAD and WB teams but no agreement to collaborate. These projects are still at an early design stage and might follow LIFT's PIP implementation.

Component	Intended outcomes	Required outputs	Example activities	Comments
	<p>policy and practice for irrigation rehabilitation</p> <ul style="list-style-type: none"> • Provide evidence on the effectiveness of Pump Irrigation network 	under different modalities	<p>the implementation, and reviews project stakeholders' relationships</p> <ul style="list-style-type: none"> • Conduct endline study of outcomes and impacts, compared with the baseline studies, at both scheme and farm level, and including environmental sustainability factors such as water quality; salinity; and fertiliser use, run-off and infiltration • Hold periodic meetings with people from the concurrent AFD-funded PIP rehabilitation projects in Magway, or other similar projects to compare learnings • Hold conference to compare and record outcomes of different modalities of scheme implementation being run concurrently by Irrigation and Water Utilisation Management Department, AFD, IFAD and potentially WB, leading to agreed policies and practices at Union level for future schemes • Contribute to upgrading Irrigation and Water Utilisation Management Department training facility at Kyauk Se¹ 	

¹Irrigation and Water Utilisation Management Department has an existing training facility at Shwe Hlan Bo River pumping station, Kyauk Se District, Mandalay Region

Role of the Project Implementing Partner

- manage the project implementation of component 2,3 and 4 in coordination with the Irrigation and Water Utilisation Management Department as well as other departments in the Ministry of Agriculture and Irrigation (MOAI);
- mobilize the required expertise in terms of technical assistance and field staff;
- implement the establishment of, and support arrangements for, water user groups;
- design and implement capacity building for government staff;
- procure and manage assets until their official transfer to MOAI or other project stakeholders as agreed by LIFT;
- ensure M&E activities will provide the relevant evidence and learnings for future PIP operations
- facilitate and guide the MOM activities of Irrigation and Water Utilisation Management Department and water user groups
- **Management, operation and maintenance (MOM)** and Monitoring and Evaluation (M&E) of the project.
- ensure that LIFT Operational Guidelines are followed;
- work closely with UNOPS in project steering committees at all levels (Union, Regional, District and township levels)

Coordination with Government between IP and UNOPS:

- **Component 1:** UNOPS will lead, with active participation of the Irrigation and Water Utilisation Management Department on technical design and the provision of construction supervision services.
- **Component 2:** The IP will lead with the active support of the Irrigation and Water Utilisation Management Department as a facilitator in the establishment, support and registration of effective water user groups to self-management with a sustainable 'user-pays' approach to water charges collection by the WUG. The IP support will include relevant training to ensure Irrigation and Water Utilisation Management Department has the necessary skills and capacity to lead and scale up improved PIP design and operations as the government's operating agency for pumped irrigation schemes.
- **Component 3:** The IP will lead a programme of improved farming and irrigation practices in close coordination with other relevant departments of the Ministry of Agriculture and Irrigation (eg Departments of Agriculture and of Department of Agriculture Research) who will make significant contributions according to their mandate.
- **Component 4:** The IP will lead monitoring and evaluation with active government input (e.g. staff time and support for government approvals) such that learning is applied for ongoing improvement of implementation and influence of relevant policy change. The project will collaborate with other concurrent PIP refurbishments in Myanmar's central Dry Zone to ensure mutual learning.

Tasks by the Project Implementing Partner

- On behalf of LIFT, the IP will provide management and technical support for the development of relevant policies and procedures for the effective management of the PIP by the Irrigation and Water Utilisation Management Department at Union, Region and District levels.
- The implementation of the project will require close collaboration with other departments of the Ministry of Agriculture and Irrigation (MOAI): Department of Agriculture (DOA), Department of Agricultural Planning(DAP), Department of Agricultural Research (DAR),

Department of Agricultural Land Management and Statistics (DALMS), Department of Agricultural Mechanization (DAM), etc.

- Liaise with other relevant projects and programmes on key implementation issues (e.g. WUG formation, irrigation duties, MOM procedures) to make sure the irrigated agriculture sector develops in a coordinated and orderly manner. In addition it is expected the IP will organize seminars on project learning and relevant technical applications;
- Support the organization of the district working groups, the regional management committee and project steering committee.
- Provide management and technical expertise for the implementation of components 2, 3 and 4 noting that some activities will be focused more at the union level (eg. policy support) and others at the regional and township levels (eg capacity building and water user groups).

Location for implementation

The project IP will have a field office in Sagaing town for management, implementation, and coordination. Office space will be provided by Irrigation and Water Utilisation Management Department with any necessary building renovation completed by and at the expense of the project.

Project Timeframe

The duration of the project will not be more than 42 months. Plan start date of the project is 1st July 2016. A 3.5 year workplan to start on 1st July 2016, and corresponding budget will guide the implementation of all components. A draft of the workplan will have to be submitted by shortlisted organisations during the Call for Proposal.

Submission of Expression of Interest

Eligible implementing partners include international and national nongovernmental organizations, United Nations agencies, other international organizations, academic or research institutions and private sector companies.

Interested organisations are invited to submit an Expression of Interest for implementing components 2-4. There is no possibility to only implement one or two of the 3 components. However, there is a possibility to submit an EOI as a consortium of partners.

Available budget for components 2 – 4 is up to 1.1 million USD.

Expressions of Interest submissions should include a full profile detailing:

- A brief presentation of the submitting organisation including number of staff, turnover, years in business.
- Relevant experience the interested organization has in the provision of related services (eg description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, brochures).
- At least three examples of relevant projects completed in the last five years that demonstrate the organisation's ability to provide the specified project outcomes. The minimum details of each example should include:
 - the name of the project,
 - its location,
 - a brief description of the nature and content of the project,

- the project's start and finish dates,
- initial approved cost and final cost, reasons for any cost overruns,
- learning from the project,
- The name and contact details for a referee for each project
- contact information (full name and address, country, telephone and fax numbers, e-mail address, website and contact person)

Shortlisted applicants will be invited to participate in a closed Call for Proposals within four weeks following the EoI deadline. The successful partner will sign a grant agreement with UNOPS. For more details refer to the Operational Guidelines, available on the LIFT Website.

Expression of interest **must** be submitted in English and **sent by hard copy and email**.

Emails need to be sent to the following address lift.proposals.mmoh@unops.org **on or before 12:00 noon Yangon time (GMT+6:30) on 7th April 2016**. The size of individual e-mails, including e-mail text and attachments, must not exceed 5 MB.

Hard copies of the Expressions of interest must be submitted on or before the same date and time (**12:00 noon Yangon time (GMT+6:30) on 7th April 2016**) at:

LIFT Fund Management Office,
12(O) Pyi Thu Lane, 7 Mile,
Mayangone Township,
Yangon, Myanmar

All submissions received after the deadline will be rejected.

Please note that the cost of preparing an Expression of Interest or a proposal including any related travel is not reimbursable.

Any requests for clarification should be referred to lift@unops.org. Clarifications will be provided on the following websites: <http://lift-fund.org> and <https://www.unops.org/english/Opportunities/suppliers/Pages/Grant-advertisement.aspx>

Abbreviations:

AFD: Agence Française de Développement (AFD)
CFP: Call for Proposal
CSO: Civil Society Organisation
DALMS: Department of Agricultural Land Management and Statistics
DAM: Department of Agricultural Mechanization
DAP: Department of Agricultural Planning
DAR: Department of Agricultural Research
DoA: Department of Agriculture
EoI: Expressions of Interest

IFAD: International Fund for Agriculture Development
IP: Implementing Partner
LIFT: Livelihoods and Food Security Trust Fund
MoAI: Ministry of Agriculture and Irrigation
MOM: Management, Operation and Maintenance
M&E: Monitoring and Evaluation
NGO: Non-governmental Organisation
PIP: Pump Irrigation Project
WB: World Bank
WUG: Water User Group

Annex I: Project Design Document: Summary



Livelihoods and Food Security Trust Fund



Government of the Netherlands



Pumped Irrigation Rehabilitation Project Pyawt Ywa Scheme Sagaing Region, Myanmar Project Design Document: Summary

Report prepared for UNOPS LIFT FMO, Yangon, Myanmar

Report prepared by Lewthwaite Consulting, Christchurch, New Zealand, **April 2014**

This document has been produced with financial assistance from Australia, Denmark, the European Commission, France, Ireland, the Netherlands, New Zealand, Sweden, Switzerland, the United Kingdom and the United States of America. The views expressed herein can in no way be taken to reflect the official opinion of the European Commission or the governments of Australia, Denmark, France, Ireland, the Netherlands, New Zealand, Sweden, Switzerland, the United Kingdom and the United States of America.

NOTE:

1. At the time of the preparation of this report, Water Resources and Utilisation Department (WRUD) of MoAI was focal department for Pyawt Ywa Pump Irrigation Project and recently WRUD was merged with Irrigation Department of MOAI as a new department with name of Irrigation and Water Utilisation Management Department (IWUMD).
2. Work programme and key target milestones are prepared based on the time of report preparation.

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Abbreviations and acronyms

DoA	Department of Agriculture of MoAI
DPSC	District level Project Steering Committee
FMO	LIFT's fund management office
GoM	Government of the Union of Myanmar
IP	Implementing partner
LIFT	Livelihood and Food Security Trust Fund
M&E	Monitoring and evaluation
MoAI	Ministry of Agriculture and Irrigation
MOM	Management, operation and maintenance
PDD	Project design document
PIP	Pumped irrigation project
UPSC	Union level Project Steering Committee
WRUD	Water Resources and Utilisation Department of MoAI
WUG	Water User Group: a term that implies a formal constitution

Units of measurement

Myanmar uses British imperial units of measurement. The following conversions may be applied.

Unit	Approximate equivalent
1 acre	0.4 hectares
1 hectare	2.5 acres
1 acre-foot of water	1,230 m ³

All financial figures are expressed in US dollars

1. Purpose of document

This report is a summary of the project design document (PDD) for the proposed Pumped Irrigation Project (PIP) of the Livelihoods and Food Security Trust Fund (LIFT) for the central dry zone of Myanmar. The PDD describes the project, the design approach proposed and how it should be implemented.

2. Background and context

The overall objective of LIFT is to contribute resources to a livelihoods and food security programme with the aim of making progress towards the achievement of Millennium Development Goal 1 (the eradication of extreme poverty and hunger) in Myanmar. Working through a trust fund modality, LIFT's purpose is to sustainably increase food availability and incomes of two million target beneficiaries.

Since 2011 the LIFT Fund Board has been investigating how LIFT can support farmers and the government of Myanmar through rehabilitation and improved management of the PIPs the government is running in the central dry zone. Based on a series of missions and reports, including advice from the Water Resources and Utilisation Department (WRUD) that it is likely to be able to refurbish Sat Pa Gone from within its existing budgets the Fund Board approved, in March 2014, the refurbishment of the Pyawt Ywa scheme, with a project budget of \$5 million.

The Pyawt Ywa scheme has a command area of 5,000 acres, and this area contains about 7,500 people living in 1,660 households and seven villages. See Table 1 and Table 2. It is located in Myinmu township, Sagaing region.

The main purpose of the project is to improve the incomes of about 1,000 farmers by rehabilitating the scheme's physical infrastructure and management. It is also intended to be a pilot project, to develop and demonstrate procedures and tools that can be used to increase the viability of PIPs in general and the relevance of investment in other PIPs and, potentially, gravity irrigation schemes. The scheme is expected to expand as in Table 1. In newly irrigated areas, the intensification process will lead to an estimated average annual net profit increase by a minimum of \$300 per acre. The economic internal rate of return has been estimated at 10%.

Table 1: Benefits of Pyawt Ywa scheme

Measure	Present	Potential increase	Total planned
Area irrigated	1,340 acres	3,660 acres	5,000 acres
Number of irrigators	450	550	1,000

Rehabilitation of two smaller schemes in the Magway Region are being funded by the French Development Agency using a different modality. It is also likely that WRUD will refurbish the Sat Pa Gone scheme in Sagaing region, and other similar projects are being developed through UN's International Fund for Agricultural Development and World Bank, with similar aims. Forums will be put in place to combine the learnings from all these projects.

Consultations have taken place over a period of three years, led by the LIFT team and its consultants. They have met the relevant branches of government, including the Minister of Agriculture and Irrigation and the Chief Minister of Sagaing region, and village based water users, and these consultations have significantly shaped the project.

3. Rationale for project

The project has been supported by the Fund Board on the basis that:

- It is perceived as a good entry point for working with the government and MoAI;
- It is a tangible means for developing models for irrigator-government collaboration;
- WRUD is keen to acquire up-to-date technical knowledge on all aspects of engineering for design, construction and installation, and for management, operation and maintenance;
- The project will demonstrate the importance and value of putting water resources control in the hands of users; and
- By the end of its development period the project is likely to be making progress towards a self-management and user-pays philosophy that should ensure it has a sound commercial footing for the future and is likely to win continuing endorsement from the government.

4. Major considerations in project design

This section lists the matters that have had the most influence in framing the project's design.

- LIFT's interests will be managed by an implementing partner (IP): LIFT does not have the capacity to implement the PIP upgrades, nor is that its role;
- There will be no transfer of funds from LIFT to government: there has been a ruling from LIFT's donor consortium that no funds will be transferred directly to the government, although capacity building and technical support will be strong aspects of the project;
- User organisations will be strengthened to maximise local responsibility: all the villages appear keen to take more responsibility for managing their schemes including, if they are guaranteed a more reliable water supply, being willing to pay a higher fee;
- Water will be used more effectively on-farm: this will be through refurbishment of the canals, but more notably through more efficient and effective use of water on the farms;
- Budgets for refurbishment will be managed well: strong monitoring and evaluation procedures will be followed, as outlined later in this report.

5. Description of project

The layout of the scheme is shown in Figure 1.

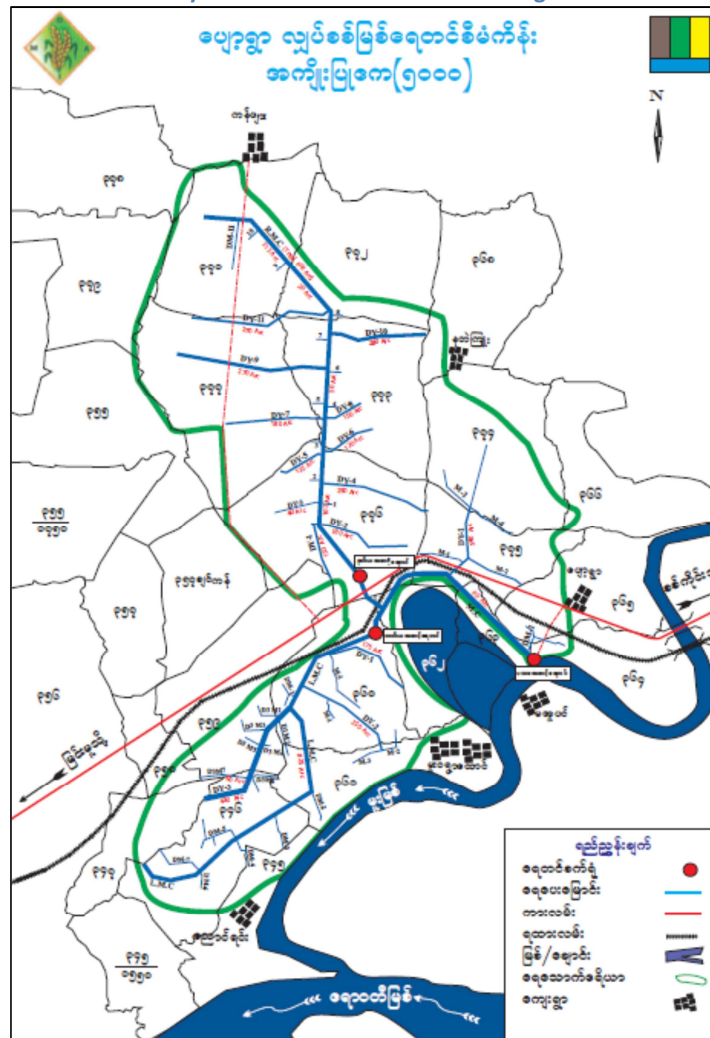


Figure 1: Layout of Pyawt Ywa scheme

Table 2: Scheme statistics

Command area (acres)	Irrigated area (acres)				Region	Township	Water source
	Monsoon	Summer	Total	% irrigated			
5,000	700	640	1,340	27%	Sagaing	Myinmu	Mu River

6. Project scope and exclusions

The project as approved by the LIFT Fund Board in March 2014 covers the Pyawt Ywa scheme only and farmers cultivating in the command area as the main target beneficiaries, as described in Section 5.

The project excludes the following:

- Refurbishing Sat Pa Gone scheme;
- Improving the reliability of electricity supply;
- Supporting rain-fed farmers, landless households and casual labourers in Pyawt Ywa area;

- Arranging new microfinance facilities; and
- Developing a seed factory.

7. Project components, outcomes and outputs

LIFT has adopted four project components:

- Component 1: Rehabilitation and upgrading of the pumping, irrigation and drainage systems;
- Component 2: Improvement of management, operation and maintenance (MOM) and establishment of a Water Users’ Group (WUG);
- Component 3: Adoption of crop diversification and best management practices in irrigated farming systems;
- Component 4: Monitoring and evaluation (M&E), including application of pilot project learnings.

The intended outcomes and outputs corresponding to each component are shown in Table 3. A list of likely activities has been prepared for the full project design document. But that is not provided here as it is assumed that, in preparing their proposals for consideration by LIFT, prospective IPs will develop their own more detailed activities and work plans, using their own expertise.

Table 3: Project outcomes and outputs

Component	Intended outcomes	Required outputs
Component 1: Rehabilitation and upgrading of the pumping, irrigation and drainage systems	Physical infrastructure that: <ul style="list-style-type: none"> • Delivers the quantity of water required by its users when and where it is needed • Minimises loss of water in the delivery system • Is affordable to manage, operate, maintain and renew • Monitors the quantity of water supplied to each farm 	<ul style="list-style-type: none"> • Engineering feasibility assessments conducted and designs developed including whole-of-life planning • Engineering works procurement processes developed with GoM, aligned with international good practices, and applied • Upgraded supply and distribution systems from river to farm built to the expected quality level, and operating, including flow measurement devices
Component 2. Improvement of MOM and establishment of a WUG	Water user groups that: <ul style="list-style-type: none"> • Represent the interests of all irrigators and operate democratically and professionally • Take increasing responsibility and autonomy for the MOM of the scheme, including execution of some parts and contracting support for other parts • Move towards becoming the effective directors of the scheme and have the potential to become its owners • Operate in the best interests of the long term viability of the scheme, financially and environmentally 	<ul style="list-style-type: none"> • An effective WUG is established with the skills to represent farmers in negotiations with WRUD on scheme design, construction, and management, including fee setting and collection, operation and maintenance, water allocation and scheduling • Agreement established between user groups and WRUD regarding scheme MOM • Irrigation water available reliably, shared fairly, and scheduled appropriately to allow farmers in the scheme to successfully irrigate their crops • Procedures developed, trialled and negotiated with WRUD for irrigator fees to be charged on the basis of volume of water used • Effective coordination and conflict resolution mechanisms in place between the local stakeholders for the long term management of the scheme
Component 3.	Farming and irrigation	<ul style="list-style-type: none"> • Extension services organised by or through the WUG that establish how to

Component	Intended outcomes	Required outputs
Adoption of crop diversification and best management practices in irrigated farming systems	<p>practices that:</p> <ul style="list-style-type: none"> • Improve profitability for farmers and enable them to move towards full user-pays • Reflect best modern practice in choice and management of crops • Make efficient use of water • Are environmentally sustainable 	<p>maximise profitability and sustainability of irrigated agriculture</p> <ul style="list-style-type: none"> • Farmers trained and adopting efficient on-farm water management practices through appropriate water distribution and application techniques
Component 4. M&E, including application of pilot project learnings	<p>Irrigation rehabilitation works and procedures that:</p> <ul style="list-style-type: none"> • Achieve profitability and sustainability, both financially and environmentally • Maximise returns to and satisfaction of irrigators • Are monitored and evaluated professionally and in accordance with LIFT policies and agreements with MoAI • Lead on to agreed Myanmar best policy and practice for irrigation rehabilitation 	<ul style="list-style-type: none"> • WRUD has contributed to the testing of new practices for scheme design, appraisal, construction and operation and has skilled staff for applying similar approaches elsewhere • Evidence collected through project M&E that contributes to improved policy and practice for irrigation schemes • Learnings from project assembled, reviewed and applied in collaboration with other schemes being developed concurrently under different modalities

8. Implementation approach and methodology

Key structural elements will be two Steering Committees: one at Union level and one at district level. Existing steering committees in the Ministry of Agriculture and Irrigation (MoAI) at union and regional level have different functions from what is needed for this project.

It is considered there is less need for a standing committee or other inter-organisational group at regional level as most outputs are required from Union and district level organisations. The main role of the regional level government will be to ensure that the district staff receive the appropriate resources for the management of the scheme and to validate decisions submitted by the district level committee.

8.1. Organisational structures: Union level

See the recommended organisational structure in Figure 2. Regarding the Union level Project Steering Committee (UPSC):

- Its role will be to oversee, in a governance mode, high level and policy issues for the project;
- It will consist of four people, representing the main players at Union level, i.e. Permanent Secretary of MoAI as chair, the Director General (DG) of WRUD as the department of MoAI that will be playing an active role at Union level, LIFT's Fund Manager representative, and the Director of LIFT's IP. Other concerned MoAI departments might be involved on an ad-hoc basis;
- Towards the end of the project it will have a crucial task of evaluating and advancing policy learnings.

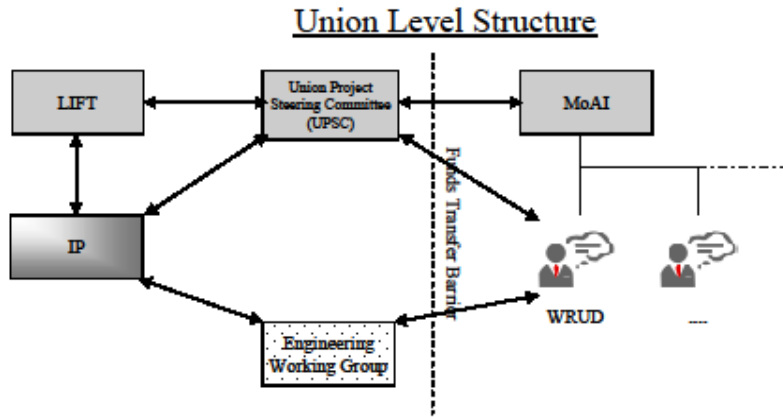


Figure 2: Union level organisational structure

Regarding the Engineering Working Group:

- Its role will be to provide short term technical collaboration between the IP and WRUD, overseeing and coordinating the design of rehabilitation works, including establishing design processes, arranging feasibility studies, determining engineering standards and arranging supervision of construction;
- It will consist of varying personnel on an as-required basis, including outside or expat engineers, with the IP's chief engineering advisor as chair; and
- It will have a capacity building role by transfer of technology and training in modern engineering practice¹;
- The IP's chief engineering advisor will have responsibility to resolve issues in the event of a consensus not being reached.

¹ The technology transfer will be two-way as WRUD holds a high level of expertise and has many years of local experience.

8.2. Organisational structures: Regional and district levels

See the recommended organisational structure in

Figure 3.

Regarding the Regional level Project Steering Committee (RPSC):

- Its role will be to oversee, in a governance mode, the rehabilitation activities on the ground at district and township level;
- Its membership will consist of the Regional Minister of Agriculture and Livestock as chair, WRUD's regional head and the director of LIFT's IP; and other regional department heads if MoAI considers that necessary; Myinmu township authority's representative; the district head of WRUD; possibly a 'patron' who could be a regional parliament member; a representative from the WUG;
- It will be a major forum for developing regional, district and township level governance skills, and will receive training from the IP in governance issues and participative running of committees and committee meetings.

Regional and District Level Structures

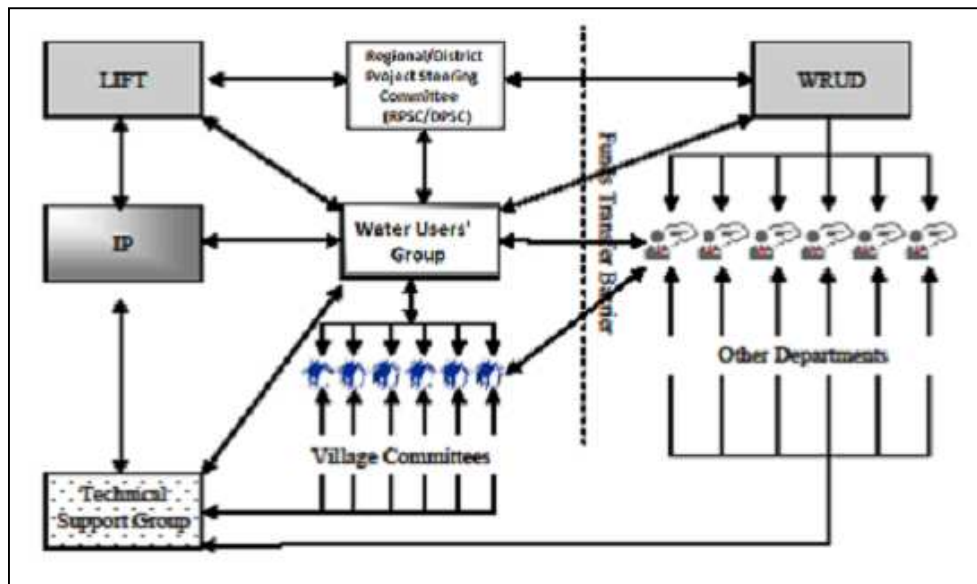


Figure 3: Regional / District level organisational structure

Regarding the Water Users' Group (WUG):

- Its role will be to become the main organisation that directs the operation of the scheme, representing the water users and ensuring they are preparing to adopt greater responsibility and planning for the scheme;
- Its membership will consist of representatives of each of the villages, and it will have one representative who sit on the RPSC;
- Its structure and activities will be negotiated at the start with the help of the IP, and developed further as the project proceeds;
- A major task will be in fostering and coordinating communication within and between villages, within the RPSC and between LIFT/IP and MoAI; and
- It is envisaged the IP will provide significant capacity building support at the WUG level.

Village committees will sit under and contribute to the WUG. It is considered there is no need for formally constituted water user groups below the village level.

Regarding the Technical Support Group:

- Its role will be to provide a forum for villagers, consultants and MoAI personnel to work together on details of how to achieve the best scheme outcomes;
- It should be an informal group consisting of key personnel from the IP and Ministry, with the IP's project manager as chair, plus people providing input from time to time on technical subtopics; and
- It will be mainly an advisory group that facilitates outcomes rather than makes decisions.

8.3. Implementing Partner

The IP will be a consortium of consultants engaged by LIFT FMO to implement all components of the project on its behalf. It is expected that WRUD will provide direct supervision of construction, under the guidance of the IP.

An organisational structure for the IP is not described in detail in this document. It is expected there will be a project director, who will be an international consultant, with a support team of technical experts and team leaders. These roles will include a mix of national and international staff.

In selecting an IP, LIFT will negotiate with one or more preferred tenderers on the bases of:

- Track record and experience of the consultant organisation and its sub consultants;
- Combined skills and experience of team members especially key personnel;
- Methodology by which the consultant will achieve the outcomes and outputs required; and
- Tendered cost of proposal.

9. Risks and risk management

The main contextual factors affecting the project's risk profile are:

- A changing political environment, with the government becoming supportive of consultative management and devolution of responsibility towards grass roots level, but that being a work in progress with uncertainty over its pace and details;
- Uncertainty over resources that may be available consistently from government, including personnel, expertise and budget;
- A changing social environment for water users with an intention of taking greater responsibility for their own affairs, but including uncertainty over a viable rate and extent of change towards self-management and full user-pays, and ability to work collaboratively with government and external technical experts;
- Limitations on the budget that is available from LIFT, and LIFT's requirement that no funds are transferred to government agencies;
- Untested nature of capacity building programmes towards the new political and social environments; and
- Technical uncertainties in the fields of engineering, water resources and water management, and agronomy.

Further analysis has been done of the project risks, including an assessment of their likelihood, consequences and treatment. For all of the risks it is considered the project has in-built procedures and way-points that allow the risks to be managed without jeopardising the success of the project.

The main matters arising from the risk assessment are:

- The key requirement is to have robust communication procedures that are carried out effectively;
- It is important that LIFT, including the Fund Board, develops strategies for managing budget risks; and
- It is likely that, at the end of the project, water will be able to be supplied to the farmers under acceptable terms, but this cannot be confirmed finally until the project is well advanced.

10. Quality management

Within six months of contract inception the IP will be asked to develop a detailed M&E plan for review and approval by LIFT. The M&E plan will be consistent with the PDD or provide justification where it varies, and include the following:

- An updated logframe, including updated baseline values, milestones and targets;
- Clear objectives of the M&E system;
- Needs and requirements of the users of M&E information;
- Sources of information, means of collection and calculation methods;
- A schedule for execution of the plan;
- Responsibilities for collection, reporting and analysis;

- Starting agricultural extension services by mid-2015 on already irrigated areas;
- Starting engineering construction by early 2016;
- Negotiating MOM agreements, completing a MOM manual, and handing the scheme over to its operators by mid-2018.

12. Budget management

In March 2014 the Fund Board approved the PIP and the rehabilitation of Pyawt Ywa up to a budget limit of \$5 million.

The next stage is to request proposals from suitable consultants, who will provide an update by way of tendered costs. It will be reviewed, refined and managed as the project proceeds, and a three-part strategy is proposed.

- 1) Grant approval progressively. It is recommended that the Fund Board should continue to review its funding approvals with successive way-points.
- 2) Provide close M&E on progress. A monthly review of project progress is recommended, reporting on projected costs to completion of each line item.
- 3) Develop contingency plans for the situation where costs might vary excessively from the original approved cost, or, in the event of costs coming in consistently under budget.