

FIG

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FIG WORKING WEEK 2017

Surveying the world of tomorrow –
From digitalisation to augmented reality

May 29 - June 2 Helsinki Finland



Experience so far from introduction of Land Consolidation in Myanmar

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Ministry of Agriculture, livestock and Irrigation

The Republic of the Union of Myanmar

June 1, 2017

Our Vision

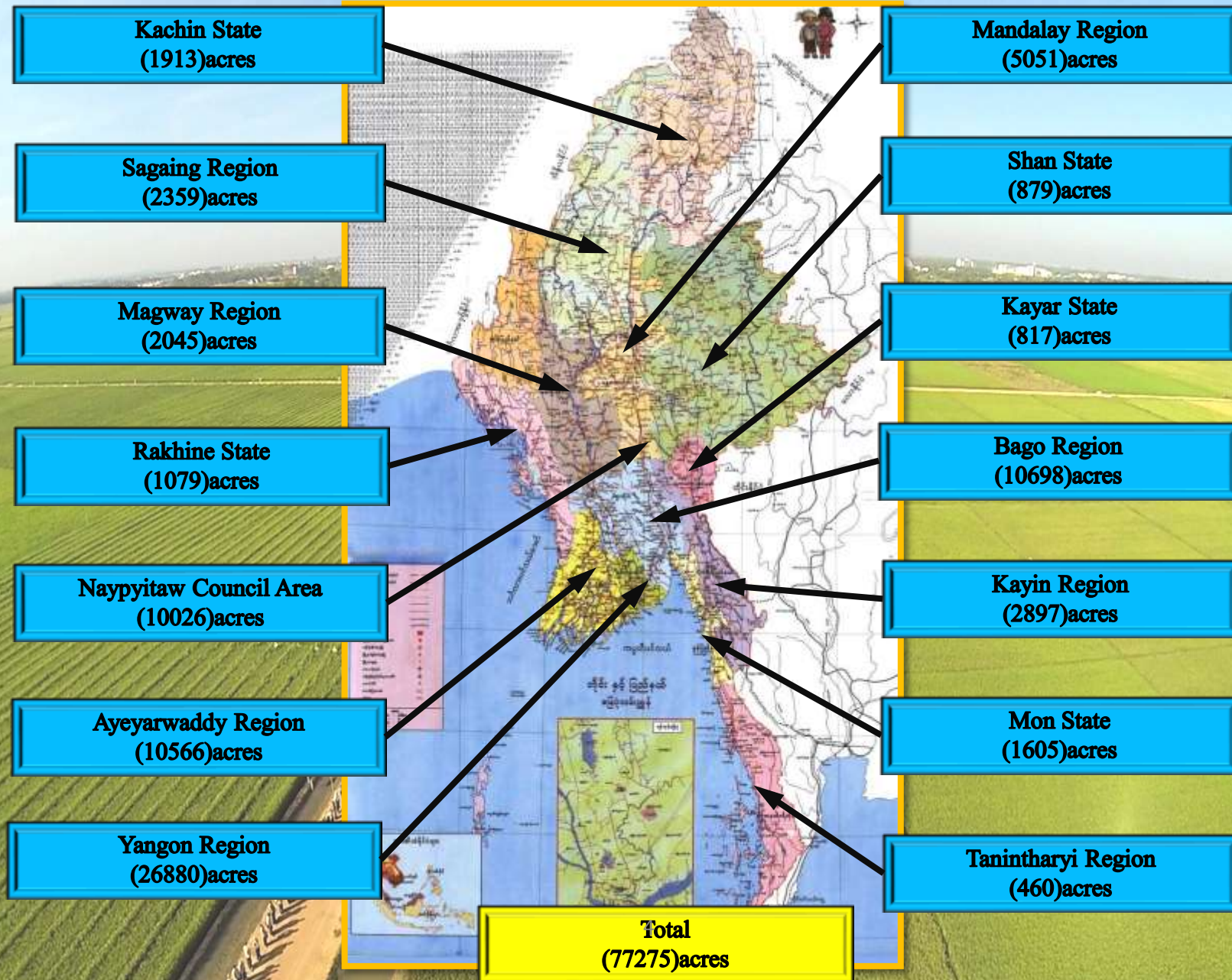
“Land Consolidation is like a vehicle which can carry all stakeholders of an irrigation project to the goal of sustainable development in Myanmar and could contribute to the Voluntary Guidelines on Governance of Tenure and the United Nation Sustainable Development Goal globally ”

Our Mission

- * To implement the Land Consolidation in irrigation projects of Myanmar with Participatory Land Use Planning (PLUP) Process for sustainable development and Governance of Tenure.**

Progress on farmland Consolidation in States and Regions of Myanmar up to end of July for 1996-1997 to 2016-2017 Fiscal year

update (25.8.2016)



Experiences so far from introduction of land consolidation in Myanmar

- Experiences
- Irrigation Development in Myanmar
- Challenges in Irrigation Development
- “Land Consolidation” Solution of Challenges in Irrigation Development
- Institutional Change through Land Consolidation
- Way Forward

Experiences so far from introduction of land consolidation in Myanmar

- Systematic community mobilization and development could assist smooth implementation of Participatory Land Use Planning (PLUP) process jointly implemented by PLUP Team of Ministry and Project Implementation Committee (PIC) of Farmers.
- Proper and in time completion of PLUP process ensure efficient Land Consolidation work.
- Realization of institutional change “joint management” works well for sustainable irrigation development (O and M) via land Consolidation with PLUP process.

Farmers (PIC) participation in PLUP Process 'cadastral resurvey' to update



Farmers (PIC) participation in 'reallocation' of consolidated land



Joint Management for Irrigation Development (Operation and Maintenance)



Myanmar Irrigation Development

- At the end of April 2016, 581 additional irrigation projects have been completed in Myanmar
- Increased beneficial area to more than 1.14 million hectares

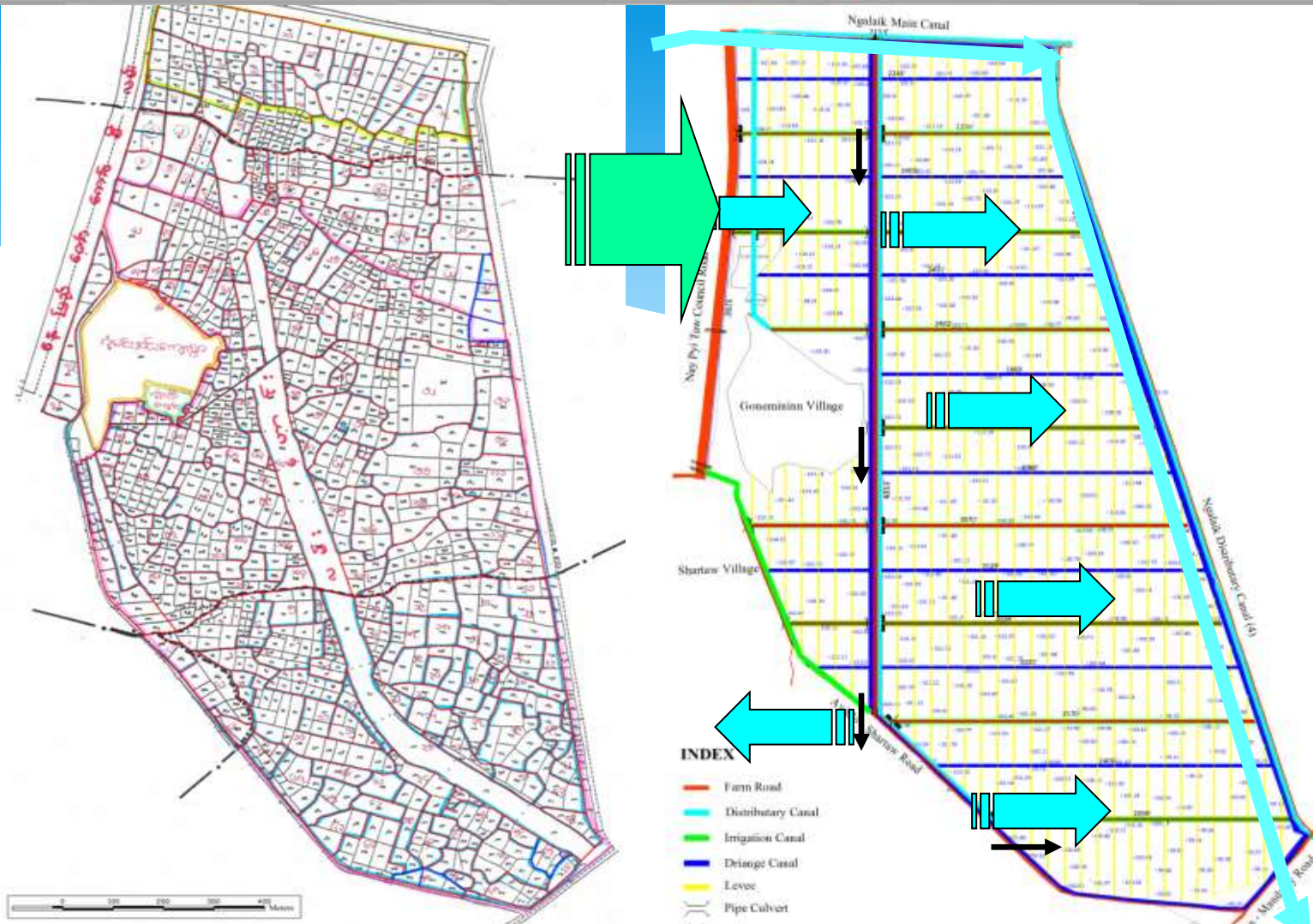
Challenges in Irrigation Development

- Irrigation and Drainage management with plot to plot irrigation and drainage lack behind to increase irrigated area coverage, productivity and better distribution of benefits (Upstream and Downstream)
- Manual Land Preparation could not synchronize with progress of irrigation leads to low irrigation efficiency.
- Double to triple cropping with irrigation need farm mechanization to finish farm activities in time.

‘Land Consolidation’ solution for irrigation development challenges

- Better Irrigation and Drainage Management avoiding plot to plot system (individual access to irrigation and drainage)
- Efficient use of Farm Machinery (Land Preparation)
- Better access to farm plots for farming activities (Low Cost and Lost)
- Efficient harvesting (Low Cost and Lost)
- Joint Irrigation Management (or) Participatory Irrigation Management (PIM) through PLUP Activities
- Clear demarcation of irrigable area for each out let of tertiary canal (Water Users’ Group forming and Irrigation Information management)

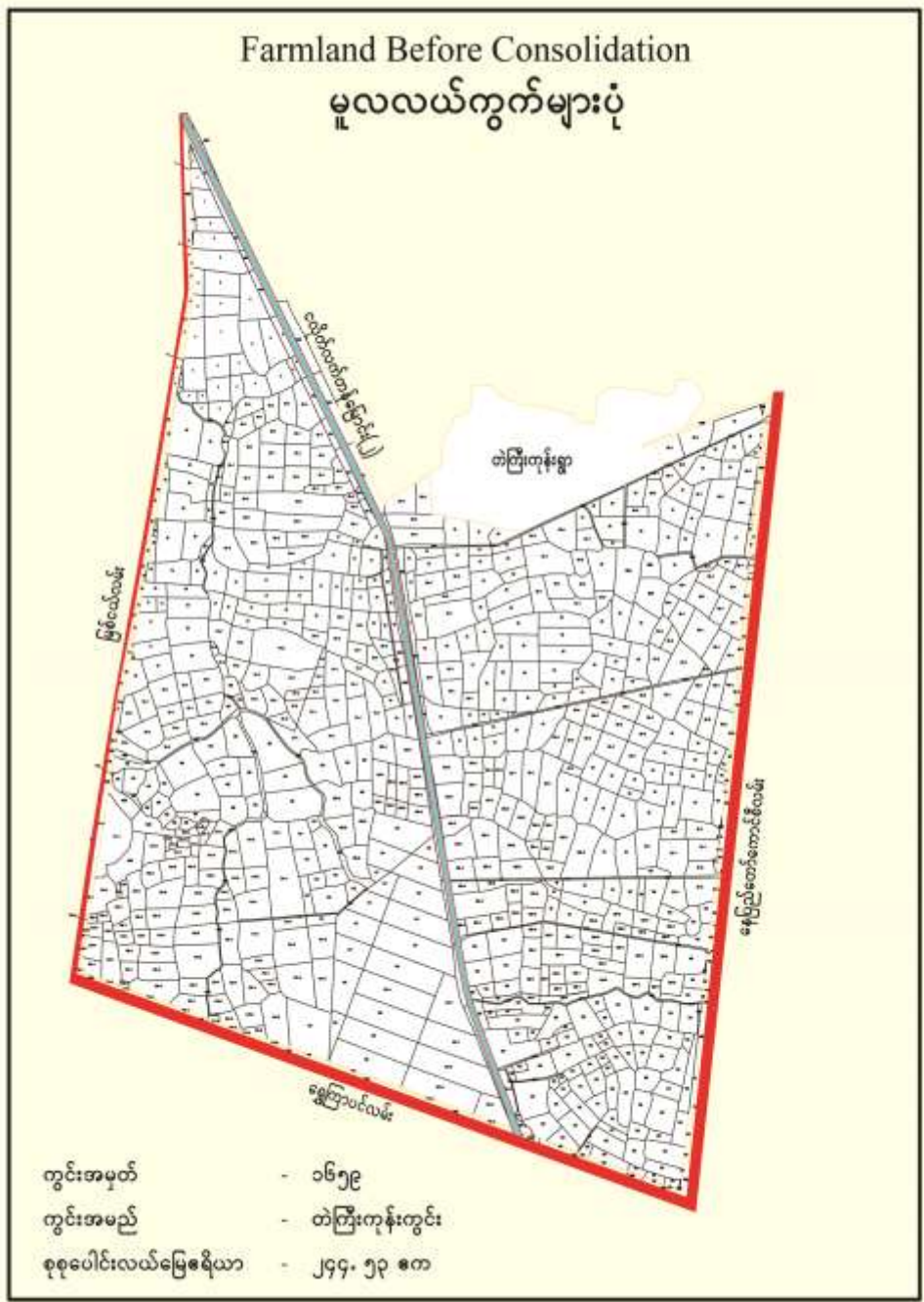
Land Consolidation Project by JICA



Category	Field Condition	Width (ft)	Length (ft)	Acreage
Field lot	Paddy Field	360	120	1.0
Field block	Paddy Field	360	1,200 - 2,400	10 - 20
Farm block	Paddy Field	360 - 720	1,200 - 2,400	20 - 40

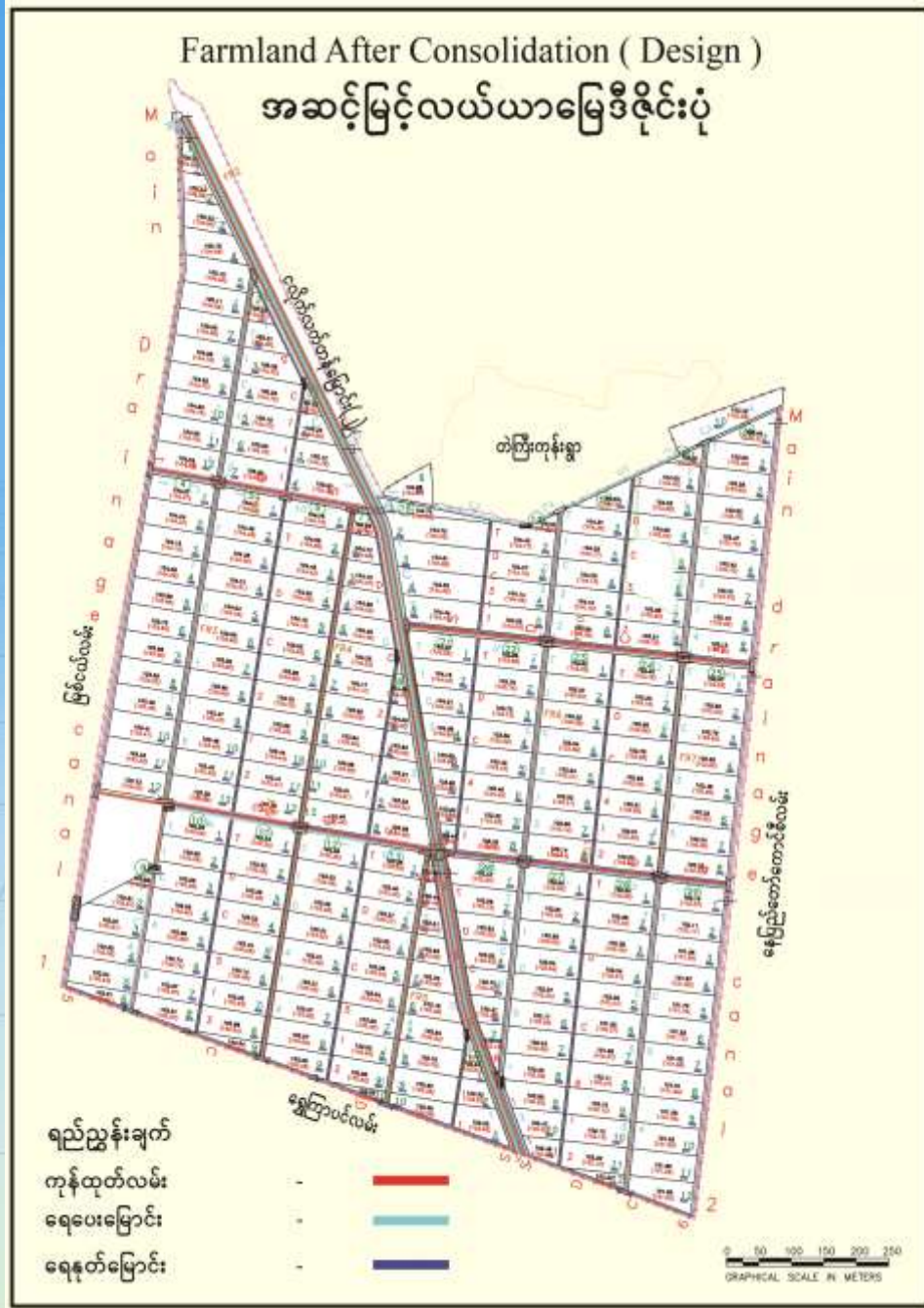
Outline of the Project

➤ Farmland before Consolidation



Outline of the Project

➤ Farmland after Consolidation



Outline of the Project

➤ Summary of the Project

Summary of Project

Project Location : Tegyi Gone Village
Zabu Thiri Township
Nay Pyi Taw

Project Area : 100 Hectares

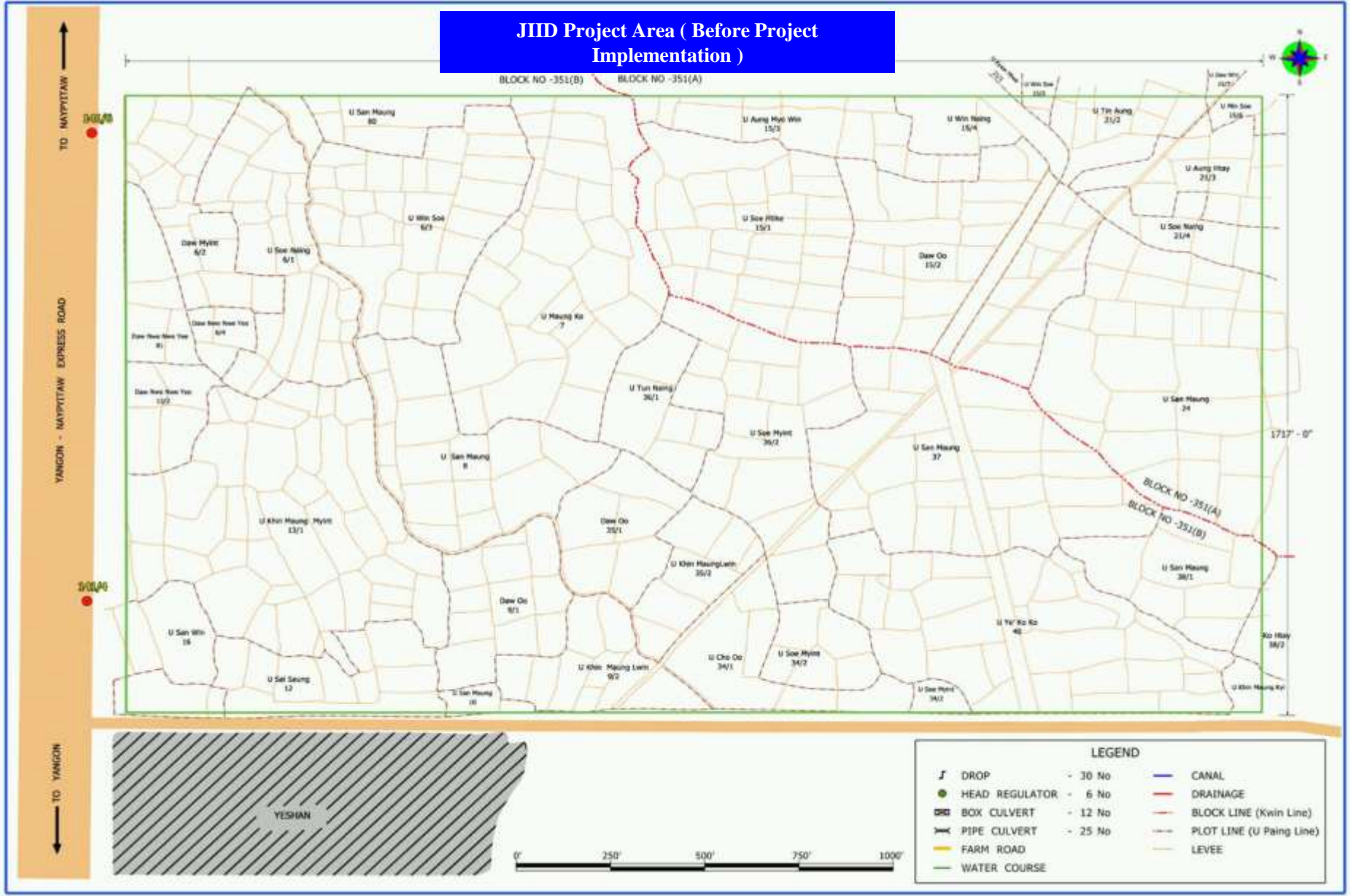
Total Farmers : 97 Nos.

Main Components : Farm Road - 11 Nos. @ 9.4 km
Irrigation Canal - 33 Nos. @ 14.89 km
Drainage Canal - 20 Nos. @ 9.54 km
Bridge - 2 Nos.
Hydraulic Structures - 123 Nos.
Exhibition Hall &
Agricultural Machinery Warehouse

Construction Period : 2 December 2014 to
31 March 2015 (4 months)

Project Implementing Organization
: Korea International Cooperation Agency
Korea Rural Community Corporation
&
Ministry of Agriculture and Irrigation

JIID Project Area (Before Project Implementation)



LEGEND

	DROP	- 30 No		CANAL
	HEAD REGULATOR	- 6 No		DRAINAGE
	BOX CULVERT	- 12 No		BLOCK LINE (Kwin Line)
	PIPE CULVERT	- 25 No		PLOT LINE (U Paing Line)
	FARM ROAD			LEVEE
	WATER COURSE			



↑ TO NAYPYITAW

YANGON - NAYPYITAW EXPRESS ROAD

↓ TO YANGON

30040

50040

BLOCK NO -351(B) BLOCK NO -351(A)

BLOCK NO -351(A)

BLOCK NO -351(B)

1737' - 0"

30040

30040

30040

30040

30040

30040

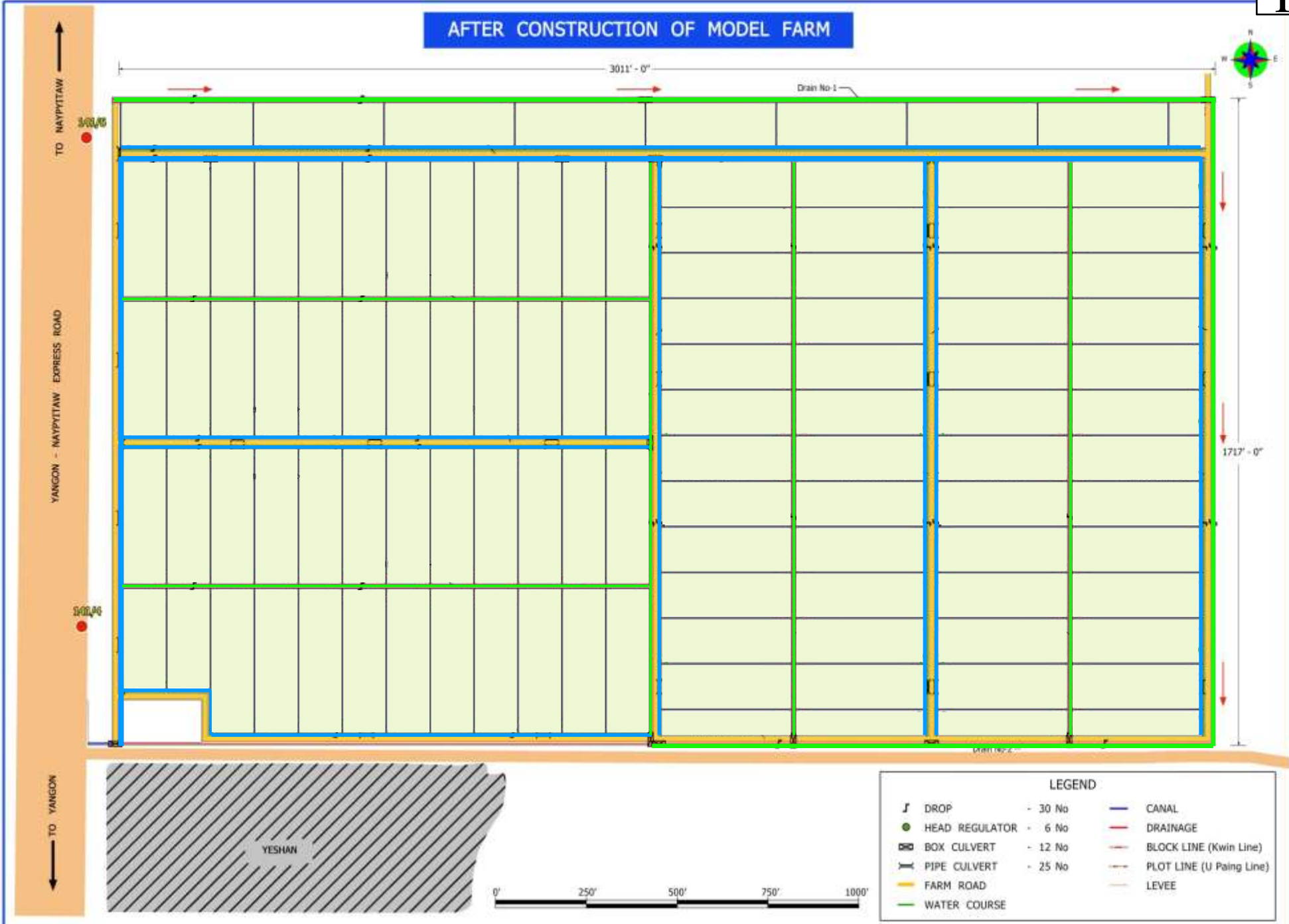
30040

30040

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AFTER CONSTRUCTION OF MODEL FARM



↑ TO NAYPYITAW

YANGON - NAYPYITAW EXPRESS ROAD

↓ TO YANGON

3011' - 0"

1717' - 0"

Drain No 1

Drain No 2

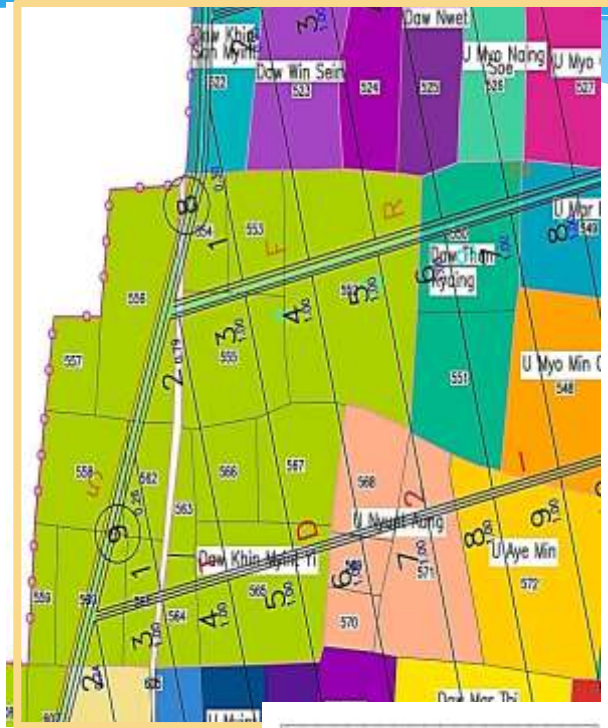
YESHAN

LEGEND

- | | | | | |
|--|----------------|---------|--|--------------------------|
| | DROP | - 30 No | | CANAL |
| | HEAD REGULATOR | - 6 No | | DRAINAGE |
| | BOX CULVERT | - 12 No | | BLOCK LINE (Kwin Line) |
| | PIPE CULVERT | - 25 No | | PLOT LINE (U Paing Line) |
| | FARM ROAD | | | LEVEE |
| | WATER COURSE | | | |



Map for The Ownership of Farmers (Cadastral Map)



Blank Map

မြန်မာနိုင်ငံတော်အစိုးရပြည်ထောင်စုအဖွဲ့အစည်း (IFAD)
(၄၅၆၈၈)



Institutional change (Joint Management) through PLUP of Land Consolidation

- Up dated Cadastral Map and attribute area data of proposed land consolidation block are approved by PLUP Team and each beneficiary farmers through PIC.
- Final Design and Reallocation Plan approved by PLUP Team and each beneficiary farmers through PIC
- Extension of Joint Management in construction of land consolidation, operation and management of an irrigation canal for sustainable irrigation development with the experience of PLUP Process
- Then extension to other irrigation canals of the project and then to other irrigation projects (Think big and start with small steps)

Challenges in smooth institutional change

- Lack of Law (or) Legal instructions for Land Consolidation.
- Lack of experienced officials and National Specialist to implement the PLUP process efficiently
- Lack of group work when grievance issues rise up

Challenges in smooth institutional change

- Improper provision of service provider (only specialist) for social/community mobilization.
- Limited capacity of counterparts to International Technical Assistant (ITA) for Design
- Limited capacity to have approved and issued land titles using updated cadastral maps and attribute area data

Measures against Challenges in smooth institutional change

- Establishment of Law (or) Legal instructions (Guidelines) for Land Consolidation base on the experience
- Before Law (or) Legal Instruction (Guidelines) have been established **close and joint back up** of Local Government, Local Authority (MIA) and Ministry (MOALI) for land consolidation activities.
- Capacity building of Officials, National Specialists and Service Providers to implement the PLUP process efficiently.
- Set up of grievance system ahead of grievance issues rise up (social safeguard mechanism)

Measures against Challenges in smooth institutional change

- Provision of service provider (not only specialist) in time and strength needed
- Capacity building of counterparts to International Technical Assistant (ITA) for Design.
- Capacity building of surveyors and managers to have approved and issued land titles using updated cadastral maps and attribute area data with the participation of all farmers of an area planned for land consolidation.

Way forward

- Capacity building for all stake holders of Sustainable Irrigation Development through Land Consolidation to access Advanced Survey Technology and Agriculture Land Management System.
- To look for the assistance and aid from Local, Regional and International Organization for capacity building to implement Model land Consolidation Projects proving that it is the solution for sustainable development of Irrigated Agriculture.

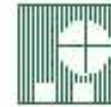


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Thank You for your Attention!