

# Role of PMAMP in Agricultural Mechanization in Nepal

Presented by:

Chaitya Narayan Dangol

Senior Agricultural Engineer

Prime Minister Agriculture Modernization Project

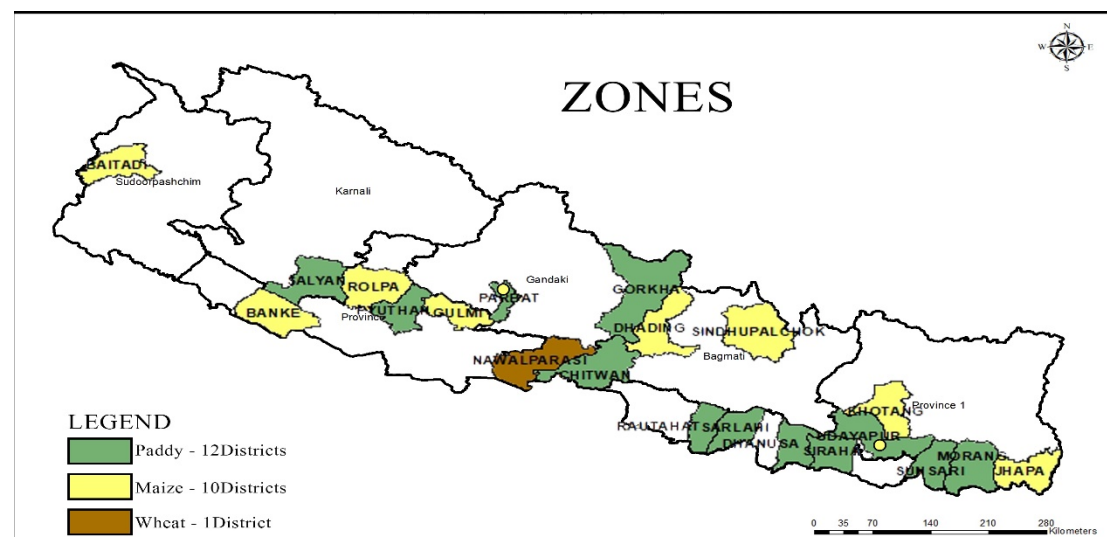
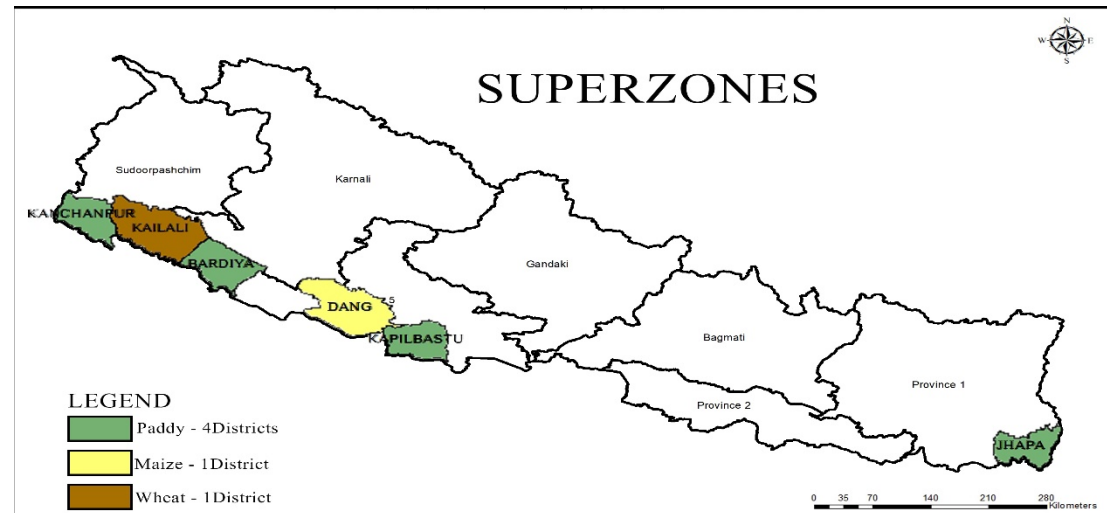
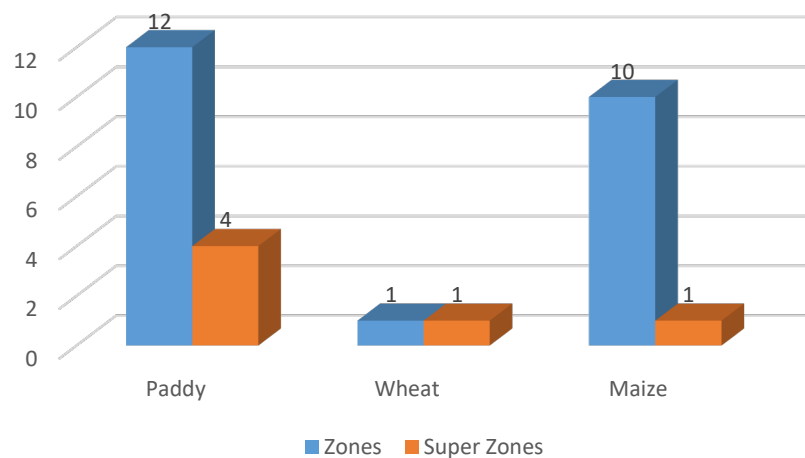
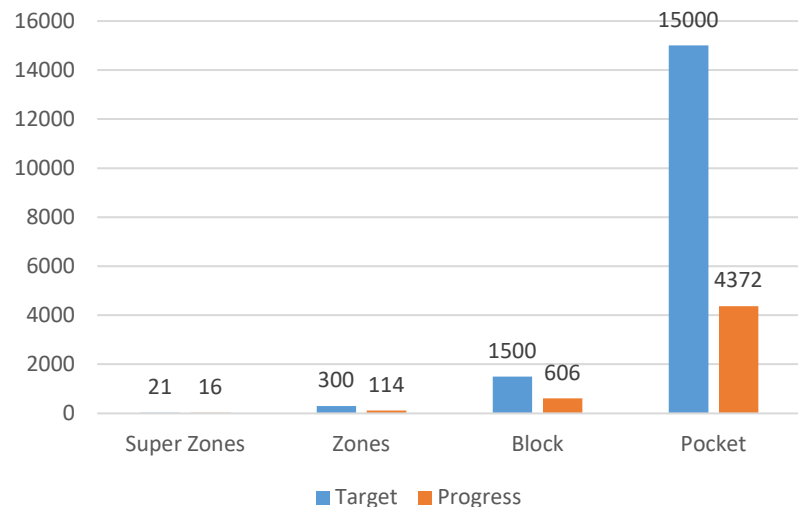
Khumaltar, Lalitpur

# Introduction

- Approval of Project by Cabinet in 10 Jan 2017 (2073/09/26)
- Duration: December, 2016 to July, 2026 (10 Years)
- Vision: Development of sustainable and self-reliant agricultural sector through transformation of subsistence agriculture to modernized and commercial one.
- Total Allocated Budget: US\$ 1.12 billion (NPR 130.742 billion)
- Allocated Budget for Agri. Mech.: US\$ 0.09 billion (NPR 10.20 billion)
- In line with agriculture development concept of 14<sup>th</sup> periodic plan (2017 to 2019) and Agricultural Development Strategy (2015-2035)
- Implemented in 77 districts of Nepal
- Project Management Unit in Centre and 58 Project Implementation Units at the field level
- 15 Prioritized Major Crops: Paddy, Wheat, Maize, Vegetables, Potato, Citrus Fruits, Apple, Mango, Banana, Milk, Fish, Meat, Export Potential Commodities (Cardamom, Coffee, Ginger, Turmeric), Oilseeds and Honey

# Project Implementation Approach

Project is implemented through consolidated farming approach forming components (Super Zones, Zones, Block and Pocket.)



# Criteria for Formation of Components

## Super Zone

Crops/Livestock	Unit	Criteria	Remarks
Crops	Hectares	1000	
Fish (Reservoir Area)	Hectares	1000	

## Zone

Crops/Livestock	Unit	Criteria	Remarks
Crops	Hectare	500	
Bee	Beehive Number	5000	
Fish (reservoir area)	Hectare	500	
Cow	Number of Improved Breed	2000	5000 l/day milk production by beneficiaries.
Buffalo	Number of Improved Breed	1000	
Goat	Number of Improved Breed	15000	
Pig	Number of Improved Breed	1000	

## Block

Crops/Livestock	Unit	Geographical area			Remarks
		Terai	Hill	Mountain	
Crops	Hectare	100	70	50	
Bee	Beehive Number	1000	1000	800	
Oyster or Button Mushrooms	K.G.	10000	10000	10000	Mushroom seeds
Sitake Mushroom	Log Numbers	25000	25000	25000	
Plastic House Farming	Hectare	10	10	6	
Fish (reservoir area)	Hectare	60	40		
Trout fish (raceway)	Square Meter	3000	3000	2000	
Cow	Number of Improved Breed	200	200	150	2000 l/day milk production by beneficiaries
	Local / hybrid number	600	600	300	
Buffalo	Number of Improved Breed	200	150	120	
	Local / hybrid number	400	300	250	
Goat	Numbers	5000	5000	3000	Doe
Pig	Numbers	500	500	300	Sow

# Basis for Formation of Clusters

## Pocket

Crops/Livestock	Unit	Geographical area			Remarks
		Terai	Hill	Mountain	
Crops	Hectare	10	7	5	
Bee	Beehive Numbers	300	300	200	
Oyster or Button Mushrooms	K.G.	1000	1000	1000	Mushroom seeds
Shiitake Mushroom	Log Numbers	5000	5000	5000	
Plastic House Farming	Hectare	10000	10000	6000	
Fish (reservoir area)	Hectare	6	4	-	
Trout fish (raceway)	Square Meter	1500	1500	1000	
Cow	Number of Improved Breed	100	100	60	1000 l/day milk production by beneficiaries
	Local / hybrid number	300	300	200	
Buffalo	Number of Improved Breed	100	80	60	
	Local / hybrid number	200	150	100	
Goat	Numbers	1000	1000	600	Doe
Pig	Numbers	100	80	60	Sow

# Modernization/Commercialization Strategies

Consolidated  
farming

Application of  
modern  
agricultural  
technology

Establishment  
of agricultural  
processing and  
marketing  
infrastructure

**Agricultural  
mechanization**

Effective  
coordination  
among  
research,  
education and  
extension

Smart output  
based  
facilitation

Quality control  
and value  
addition of  
agricultural  
commodity

Adoption of  
appropriate  
agricultural  
System to  
address climate  
change

# Progress Status (2019/2020)

S.N.	Program	Units	Quantity
1	Small Irrigation Infrastructure	Nos	3311
2	Solar Irrigation Scheme	Nos	62
3	Rainbow Traout Raceway	Nos	68
4	Fish Hatcheries	Nos	8
5	Screen Houses	Nos	105
6	Tissue Culture Labs	Nos	2
7	Bio-Pesticide Industry	NOs	8
8	Organic Fertilizer Industry	Nos	8
9	Custom Hiring Center	Nos	569
10	Small Farm Machineries	Nos	1255
11	Post Harvest Centers	Nos	366
12	TMR Industry	Nos	2
13	Potota Chips Industry	Nos	4
14	Rustic Stores	Nos	6
15	Soil and Plant Protection Mini Lab	Nos	6

Crops	Productivity (T/ha)	
	Baseline	2019/2020
Paddy	4.26	4.89
Maize	3.53	3.98
Wheat	2.93	3.1
Vegetables	19.16	19.49
Potato	23.27	22.07
Fish	5.43	6.55
Citrous Fruits	12.1	11.55
Apple	6.9	11.3
Banana		24
Cardamom	0.56	0.36
Ginger/Turmeric	9.87	12.18
Honey (T/hive)		0.02

# Issues and Challenges in Mechanization

- Lack of testing, quality control and demonstration facilities of imported equipment – possibilities of failure technology import
- Insufficient availability of spare parts in stock due to weak financial status of dealers and traders
- High import tax @15% and 13% VAT on spare parts & attachments, whereas 1% import tax and free VAT in Tractors and power tillers
- Limited access to repair and maintenance service centers of agricultural machineries due to lack of adequate trained human resources
- Poor functioning of CHC due to lack of regulation/guidelines
- Inefficient use of machineries due to lack of training and wrong selection of machineries



# Way Forward

1. Preparation of operational guidelines for CHC
2. Bringing Agricultural Mechanization Policy, 2071 in action – Research and extension of scale appropriate machineries, subsidy in agricultural machineries, training and demonstration of machineries, tax exemption in spare parts and raw materials, rental fixation of CHC, Organization management and human resource development
3. Establishment of Training and Testing Institute for quality control, training and registration of machineries

