

# Subsidy in Agricultural Mechanization in Nepal



*Mr. Surya Prasad Paudel, Director General  
Department of Agriculture  
Er. Madhusudan Singh Basnyat  
CEO, Lezit Logic Pvt. Ltd  
Former Deputy Director General*

*7<sup>th</sup> Regional Forum on Sustainable Agricultural Mechanization in Asia and the Pacific  
Financing for Sustainable Agricultural Mechanization*

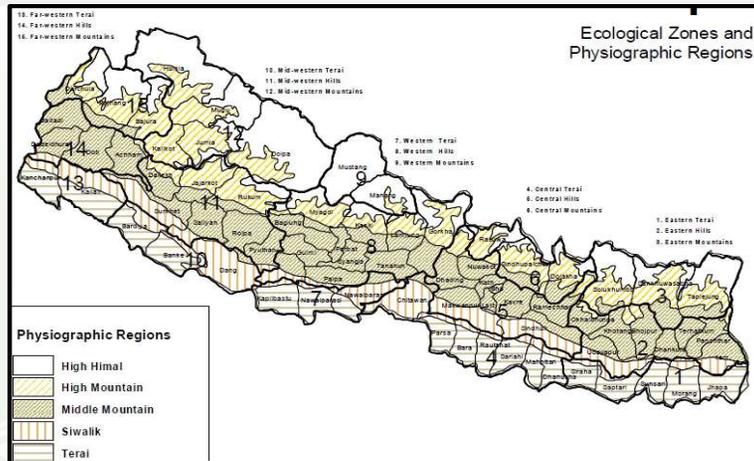
*27-29 November 2019, Jeonju, Republic of Korea*



CSAM



# Federal Democratic Republic of Nepal



- Total land area - **147,181 sq. km**, Only **0.1%** of total land mass of earth (EW-885 km, NS-193 km)
- Three geographical region **Terai, Hill & Mountain**
- Elevation ranges from **70 m to 8848 m**
- Climate temperate to sub tropical
- Rugged terrain and diversity (in all sense) the typical feature



# Nepal at a glance

- Predominantly an **agrarian country**
- Agriculture contributes **29.37 %** to GDP, **60%** employment
- **77 district, 6 Metro City, 11 Sub-Metro, 276 Municipality, 460 Rural Municipality**
- **Population 28.98 millions, 10 religions**
- **125 caste/ethnic groups, 123 languages spoken as mother tongue**
- **21 % people still below poverty line as of 2017**
- **21% of the land is cultivable (47% rain-fed)**
- **Average land holding – 0.68 ha**
- **“feminization of agriculture” has increased from 8 to 19 percent in the last 10 years (6th National Agriculture Census, 2013)**
- **Major crops: Paddy, Maize, Wheat, potato, lentils, tea, coffee, ginger and large cardamom and Horticulture**
- **Livestock: Cattles, Buffaloes, Sheep/Goat, Pigs and Poultry**

## Trend of Agricultural Mechanization 20 years

Types of Equipments	1991/92		2001/02		2011/12	
	Holdings using equipments ('000)	No. of items ('000)	Holdings using equipments ('000)	No. of items ('000)	Holdings using equipments ('000)	No. of items ('000)
Iron ploughs	315.1	354.5	870.3	890.2	1073.4	856.3
<b>Power tillers</b>	<b>5.6</b>	1.6	<b>15.6</b>	11.8	<b>75.7</b>	10.4
Shallow tube wells	50.9	48.2	119.7	109.5	367.7	262.0
Deep tube wells	20.1	15.7	58.6	51.5	159.7	82.0
Rower pumps	3.5	3.8	22.7	21.8	79.1	36.2
<b>Tractors</b>	<b>35.2</b>	5.5	<b>272.9</b>	150.6	<b>844.7</b>	37.4
<b>Threshers</b>	<b>85.6</b>	19.9	<b>249.5</b>	129.1	<b>803.1</b>	51.9
Pumping sets	81.1	41.3	210.4	146.1	548.2	150.3
Animal drawn cart	204.6	198.1	226.4	199.1	335.0	159.9
Sprayers	50.2	23.4	203.0	145.9	574.0	282.3
Others	296.5	878.4	449.0	1072.7	290.1	83.5

Source: National Sample Census of Agriculture, CBS

## Agricultural Machinery Import , 2016/17

HS Code	Description	Unit	Quantity	Value in NPR '000	Source Country
87011010	Tractor up to 1800 CC	PCS	12,650	871,737	India, China
87011090	Tractor more than 1800 CC	PCS	2,761	31,094	India, China
87019000	Other tractors	PCS	10	4,668	India, China
84321000	Ploughs	PCS	77,944	46,643	India, China
84322100	Disc harrows	PCS	7,828	42,251	India, China
84322900	Harrows (excl disc harrows), scarifiers, cultivators, weeders, hoes	PCS	315,292	861,138	India, China, Indonesia
84323000	Seeders, planters and transplanters	PCS	1,264	14,856	India, China
84323100	No-till direct seeders, planters and transplanters	PCS	172	654	India, China
84324000	Manure spreaders and fertilizer distributors	PCS	25,298	1,613	India, China
84328000	Soil preparation/cultivation machinery; lawn/sports-ground rollers	PCS	25,319	713,772	India, China
84331100	Mowers, powered, the cutting device rotating in a horizontal plane	PCS	613	14,322	India, China
84332000	Mowers (including cutter bars for tractor mounting)	PCS	443	17,339	India, China, Australia

Source: website of Department of Customs (<https://www.customs.gov.np/en/monthlystatistics.html>)

## Agricultural Machinery Import , 2016/17

HS Code	Description	Unit	Quantity	Value in NPR '000	Source Country
84333000	Haymaking machinery	PCS	1,949	51,576	India, China
84334000	Straw or fodder balers (including pick-up balers )	PCS	677	9,095	India, China
84335100	Combine harvester-threshers	PCS	1,930	353,761	India, China, Japan
84335200	Threshing machinery for agricultural produce	PCS	21,933	654,189	India, China, New Zealand, Turkey
84335300	Root or tuber harvesting machines	PCS	2,711	23,855	India, China
84335900	Harvesting machinery	PCS	17,802	58,737	India, China, Japan
84335100	Combine harvester-threshers	PCS	10,580	621,027	India, China, Japan
84335200	Threshing machinery for agricultural produce	PCS	20,719	665,613	India, China, New Zealand, Turkey
84335300	Root or tuber harvesting machines	PCS	19	2,654	India, China
84335900	Harvesting machinery	PCS	1,927	100,291	India, China, Japan
84336000	Machines for cleaning, sorting or grading eggs, fruit or other agricultural produce	PCS	356	10,427	India, China
84341000	Milking machines	PCS	647	27,416	India, China, Netherlands, Turkey

Source: website of Department of Customs (<https://www.customs.gov.np/en/monthlystatistics.html>)

# Agricultural Machinery Import , 2016/17

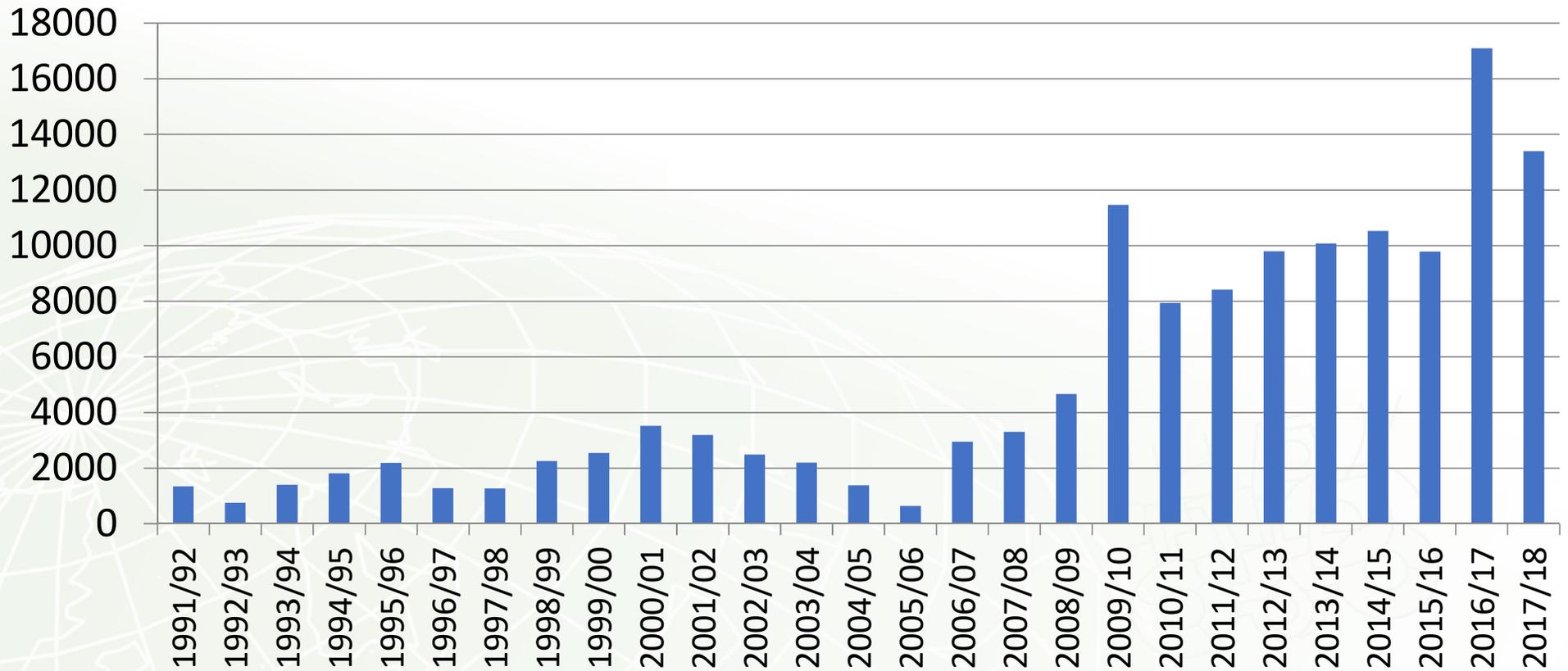
HS Code	Description	Unit	Quantity	Value in NPR '000	Source Country
84341000	Milking machines	PCS	647	27,416	India, China, Netherlands, Turkey
84342000	Dairy machinery	PCS	5,430	219,716	India, China, Turkey, Bulgaria, France
84361000	Machinery for preparing animal feeding stuffs	PCS	123,631	538,136	India, China, Netherlands, Germany, Republic of Korea
84362100	Poultry incubators and brooders	PCS	593,807	459,269	India, China, UK, Malaysia
84362900	Poultry-keeping machinery	PCS	1,220,465	942,237	India, China, European Union, Germany, Israel, Malaysia, Namibia
84371000	Machines for cleaning/sorting/grading seed grain or dried vegetables	PCS	11,098	723,534	India, China, Germany, Republic of Korea
84378000	Machinery for milling or working cereals, dried vegetables	PCS	9,945	495,736	India, China, Bangladesh, Indonesia, Thailand, Turkey, United States
84385000	Machinery for the preparation of meat or poultry	PCS	3,521	72,657	India, China, Germany, Canada, Spain
84386000	Machinery for the preparation of fruits, nuts or vegetable	PCS	3,536	52,647	India, China, European Union
84388010	Machinery for tea shorting, CTC, tea fermenting, tea drier	PCS	121,077	164,396	India, China, Germany, Japan, Sri Lanka, Taiwan

**Exchange Rate is  
1USD= 1USD =113.72  
as of 26th Nov 2019**

**Imports of agricultural machinery and transport equipment  
amounted to NPR 1,451,700,000 (\$12.8 million) F.Y. 2017-2018  
Source: Statistical Pocketbook of Nepal 2018, Central Bureau of Statistics**

Source: website of Department of Customs (<https://www.customs.gov.np/en/monthlystatistics.html>)

## Trend of Tractor/Power Tiller Registered



Source: Department of Transport Management  
(<https://dotm.gov.np/uploads/files/vehicles%20data%20till%202074-75.pdf>)

# Background for Subsidy in Agricultural Mechanization

- 2004- Directorate of Agricultural Engineering (DoAEngg), Department of Agriculture (DoA), Ministry of Agriculture Development (MoAD) now Ministry of Agriculture and Livestock Development (MoALD) after Federal System
- 2014-1<sup>st</sup> National Agricultural Mechanization Exhibition, organized by DoAEngg in joint collaboration with Agricultural Engineering Division (AED) under Nepal Agriculture Research Council (NARC) and Agriculture Enterprise Center (AEC) of Federation of Nepal Chamber of Commerce and Industries (FNCCI). During the exhibition 11-member Ad-hock committee was formed to establish Nepal Agricultural Machinery Entrepreneurs' Association (NAMEA).
- 2014-Agricultural Mechanization Promotional Policy was approved by the cabinet of Government of Nepal (GoN)
- 2014-Capital Subsidy in Agricultural Machinery was implemented by DoAEngg/DoA with approved operation guideline from MoAD

# Subsidy in Agricultural Mechanization

- Establishment of Post Harvest Service Center
- Establishment of Seed Bank
- Establishment of Resource Center
- Establishment of AgriMart
- **Demand Based Capital Subsidy in Agricultural Machinery**
- Establishment of Custom Hiring Center
- Installation of Zero Energy and Alternative Energy Lift Irrigation System
- Interest subsidy to establish Post Harvest Service Center
- Interest subsidy in Agricultural Machinery through cooperatives and micro finance
- Interest subsidy to establish cold storage through banks

# Demand Based Capital Subsidy in Agricultural Machinery

- **Operational Guideline** for Agricultural Mechanization Subsidy Program approved by MoAD
  - **Capital Subsidy Implementation Procedure:** -
    1. Notice of **Expression of Interest (Eoi)** of 30 days to select eligible suppliers of Agricultural Machinery
    2. **5-member Selection Committee** for evaluation of the Eoi
- Pre evaluation**
- eligibility legal paper
  - experience of the suppliers
  - 3 years of audited report
  - authorization from the principal company/manufacturing proof
  - brochure & catalog of the machine

# Demand Based Capital Subsidy in Agricultural Machinery

## Capital Subsidy Implementation Procedure: -

### 3. Detail evolution for financial and technical capacity of Suppliers

Financial capacity 30% weightage

- net worth
- increment of capital
- profit before tax etc. of last three years

Technical capacity 70% weightage

- administrative & technical professional
- spare parts availability
- sales outlets
- service centers
- experience of the company
- related experience etc.

**above 60%** eligible for subsidy program

# Demand Based Capital Subsidy in Agricultural Machinery

## Capital Subsidy Implementation Procedure: -

4. **Selection of machine** before 60<sup>th</sup> day from the date of notice published
  - **Categories** same specification machine in one
  - **Lowest price** in the category will be the **bench mark for subsidy**
5. **Agreement** between eligible suppliers and DoAEngg
6. All eligible suppliers detail with their machine and price published in the field level agriculture offices
7. **Notice of 15 days** published in the **national daily** to apply at the district level agriculture office

## Beneficiaries

- Farmers
- Farmers groups
- Cooperatives
- Private farms etc.

**It will also be advertised in FM and TV**

# Demand Based Capital Subsidy in Agricultural Machinery

## Capital Subsidy Implementation Procedure: -

### 8. Field level agricultural office will evaluate

- relevant documents
- shortlist the beneficiaries
- send the district wise demand to DoAEngg within 30 days of notice published in national daily.

### 9. DoAEngg will

- Collect the demand throughout the country
- Allocate the district wise budget according to Fiscal Year allocation for subsidy
- High priority will be given to less mechanized districts

### 10. Field level agricultural office will again

- shortlist the needy beneficiaries
- recommend them to the nearest dealer point of the district of the selected suppliers by the beneficiaries within the allocated budget

# Demand Based Capital Subsidy in Agricultural Machinery

## Capital Subsidy Implementation Procedure: -

11. The **beneficiaries** will submit

- **recommendation letter** from the field level agricultural office to the nearby dealer of the suppliers
- **Beneficiaries pay their part and take the machine they selected as per their demand** according to the approved list of DoAEngg.

12. The suppliers will

- **compile all the documents district wise** of their supply
- **claim for the subsidy amount** to DoAEngg

13 DoAEngg will

- **verify all the documents** submitted by the suppliers
- **pay the subsidy amount through bank payment to the suppliers**

# Demand Based Capital Subsidy in Agricultural Machinery

- Capital Subsidy Implementation Procedure: -

This was demand based subsidy program before federal system  
The **subsidy is 50 %** in general

The machine for subsidy are Tractor, Power Tiller, Mini Tiller and Attachments

Fiscal year wise subsidy in agricultural machinery through DoAEngg

2013/14 - NPR 40,000,000

2014/15 – NPR 70,000,000

2015/16 – NPR 120,000,000

2016/17- NPR 180,000,000

2017/18-NRS 90,000,000

**Exchange Rate is 1USD =113.72 as of 26th November 2019 of Nepal Rastiya Bank**

# Demand Based Capital Subsidy in Agricultural Machinery

## Capital Subsidy Implementation Procedure: -

Now no more DoAEngg and no subsidy program of this nature in the Central Government.

But 7 Provincial Government adopted this type of subsidy program in two type-

1. Shortlist the Suppliers first and collect demand from the Beneficiaries
2. Collect demand from the Beneficiaries first and short list the Suppliers

Both the process has some pros and cones

Subsidy percentage varies and overall budget of the Nation has gone up to 7 times than DoAEngg

Fiscal year 2018/19 – NPR 790,000,000 and increasing every year as demand is increasing

Exchange Rate is 1USD =113.72 as of 26th November 2019 of Nepal Rastiya Bank

# 4<sup>th</sup> National Agricultural Mechanization Exhibition

## 4<sup>th</sup> National Agricultural Mechanization Exhibition -2019

Date-22-25 November 2019

Venue- Chitwan Expo Center, Bharatpur, Chitwan

Exhibition Focus on B2C model

Visitor from **60/77 Districts** of **more than 30 thousands** (Real figure yet to come) to **observe the machine and technology for future subsidy program**



Nepal's Largest Exhibition on  
Agricultural Machinery,  
Equipment & Technologies

## 5<sup>th</sup> ReCAMA Member Meeting was held in the same venue

Date-22-24 November 2019

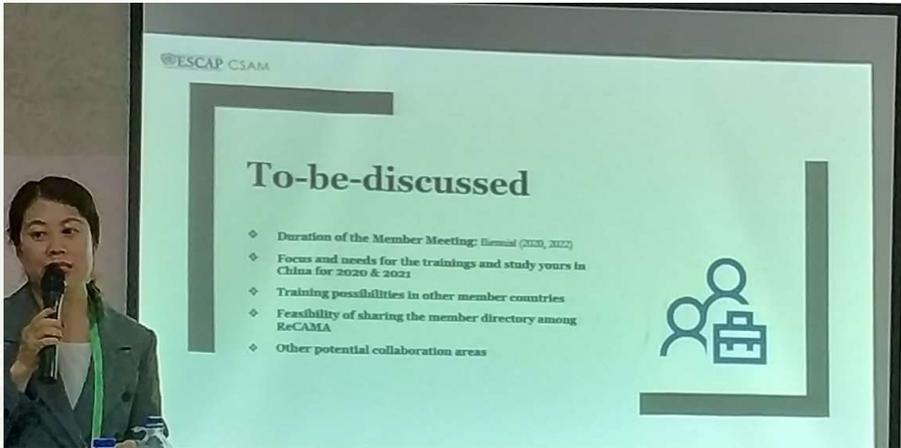
# 4<sup>th</sup> National Agricultural Mechanization Exhibition

## Some Clips



# 4<sup>th</sup> National Agricultural Mechanization Exhibition

## Some Clips



# Thank You All



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  - **Director General**
  - **Department of Agriculture**

- **Er. Madhusudan Singh Basnyat**
  - **CEO, Lezit Logic Pvt. Ltd.**
  - **Former Deputy Director General, Department of Agriculture**

Cell: +9779851172188 email: [suryapaudel4@gmail.com](mailto:suryapaudel4@gmail.com) Cell: +9779851022899 email: [basnyatms@ymail.com](mailto:basnyatms@ymail.com)