

## Country Presentation

# Nepal

## The 10th Session of the Technical Committee of CSAM & Regional Workshop on Establishing a Regional Database of Agricultural Mechanization in Asia and the Pacific

17-19 November 2014  
Siem Reap, Cambodia



**Shreemat Shrestha,**  
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**Nepal Agricultural Research Council**



# Database of Agricultural Mechanization in Nepal



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**Nepal Agricultural Research Council**



# National System of Agricultural Statistics in Nepal

## The legal frame and statistical advisory bodies:

- The present statistical system of Nepal can effectively be considered as a decentralized system with the Central Bureau of Statistics (CBS) discharging a pivotal job.
- CBS was created in 1958 by virtue of Statistics Act, 2058 as the sole agency for the collection, consolidation, publication and analysis of statistics. A National Statistical Council (NSC) was formed in 1988 as the coordinating and policy making body in the area of statistics.

## The main Objectives of the NSC are:

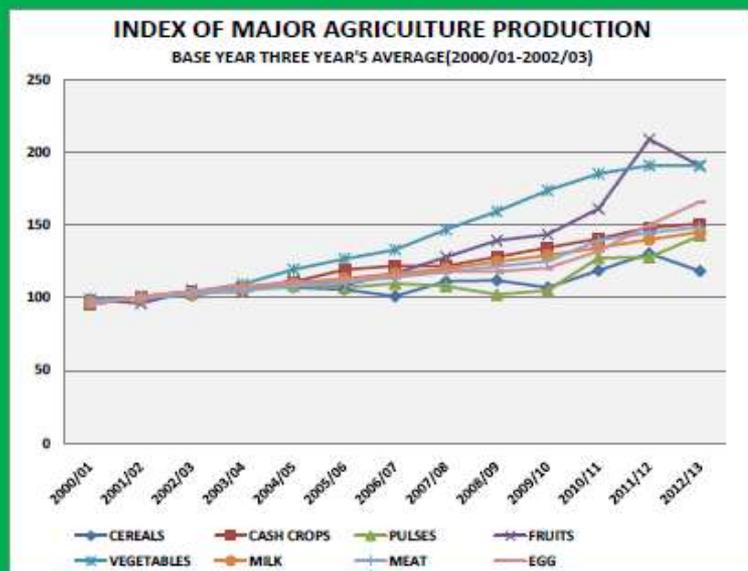
- I) To develop an integrated statistical system by formulating short term and long term statistical plans and policies and implementing them so as to ensure the availability of relevant, reliable and high quality data,
- II) To bring about co-ordination among all the governmental and non-governmental organizations that conduct economic and social data collection, processing, analysis and publication activities and
- III) To develop a standardized statistical system.

# Source of Agricultural Statistics in the Country

- Central Bureau of Statistics (CBS) - decennial agricultural census and crop and livestock survey
- Ministry of Agricultural Development (MOAD) - data are based on the field reports of the extension workers and is mainly used for forecasts and early warning purposes

# Nepalese Agricultural Statistics Publication

## STATISTICAL INFORMATION ON NEPALESE AGRICULTURE 2012/2013 (2069/070)



Government of Nepal  
Ministry of Agricultural Development  
Agri-Business Promotion and Statistics Division  
Statistics Section  
Singha Durbar, Kathmandu  
Nepal

## National Sample Census of Agriculture Nepal 2011/12

### National Report

Government of Nepal  
National Planning Commission Secretariat  
Central Bureau of Statistics Kathmandu,  
Nepal  
December 2013

# **Structure and organization of the major agricultural statistics agencies**

## **Central Bureau of Statistics**

Designation : Deputy Director General

E-mail : [uttmmalla@cbs.gov.np](mailto:uttmmalla@cbs.gov.np)

Fax : 977-1- 4227720

Telephone : 977-1- 4241801

Website/URL of institution : [www.cbs.gov.np](http://www.cbs.gov.np)

## **Ministry of Agriculture and Cooperatives**

Designation : Joint Secretary

E-mail : [agribusiness@moac.gov.np](mailto:agribusiness@moac.gov.np)

Fax : 977-1-14225825

Telephone : 977-1-14228137

Website/URL of institution : [www.moac.gov.np](http://www.moac.gov.np) / [www.aicc.gov.np](http://www.aicc.gov.np)

# Major domains and selected indicator

Domain		Statistics/Indicators
Production	Crops	Volume of crop production Harvested area Yield per hectare
	Livestock and Poultry	Livestock and poultry population Volume of livestock and poultry production
	Fishery	Volume of fishery production Pond area
Macroeconomic indicators		Gross Value Added in Agriculture sector (GVA) Agriculture Production Index (API) Productivity
Trade		Volume of export and import of agricultural commodity Value of export and import of agricultural commodity
Price/Inflation		Average monthly prices of selected agricultural products Consumer price index by commodity group (CPI) Wholesale Price Index by commodity group (WPI)
Food Consumption		Food Balance Sheet

Domain		Statistics/Indicators
Resources/Input	<b>Land Use</b>	Agricultural land Land under temporary crop Land under permanent crop Land under permanent meadows and pastures Wood land and forest All other land
	<b>Fertilizer</b>	Volume of fertilizer import Value of fertilizer import Value of sales Area treated with chemical fertilizer and quantity used
	<b>Pesticides, Insecticides and Herbicides</b>	No. of holdings using for major crops
	<b>Irrigation</b>	No. of holdings reporting and area irrigated
	<b>Agricultural Machinery</b>	number of holdings owning/ using agricultural machineries
	<b>Labor and employment</b>	Rural population Active population in agriculture Labor force in agriculture Total employment Nominal and real wage rates by sectors Agricultural workers

Domain	Statistics/Indicators
Rural Services	Rural employment Rural income Agricultural credit
Others	Demography of holder

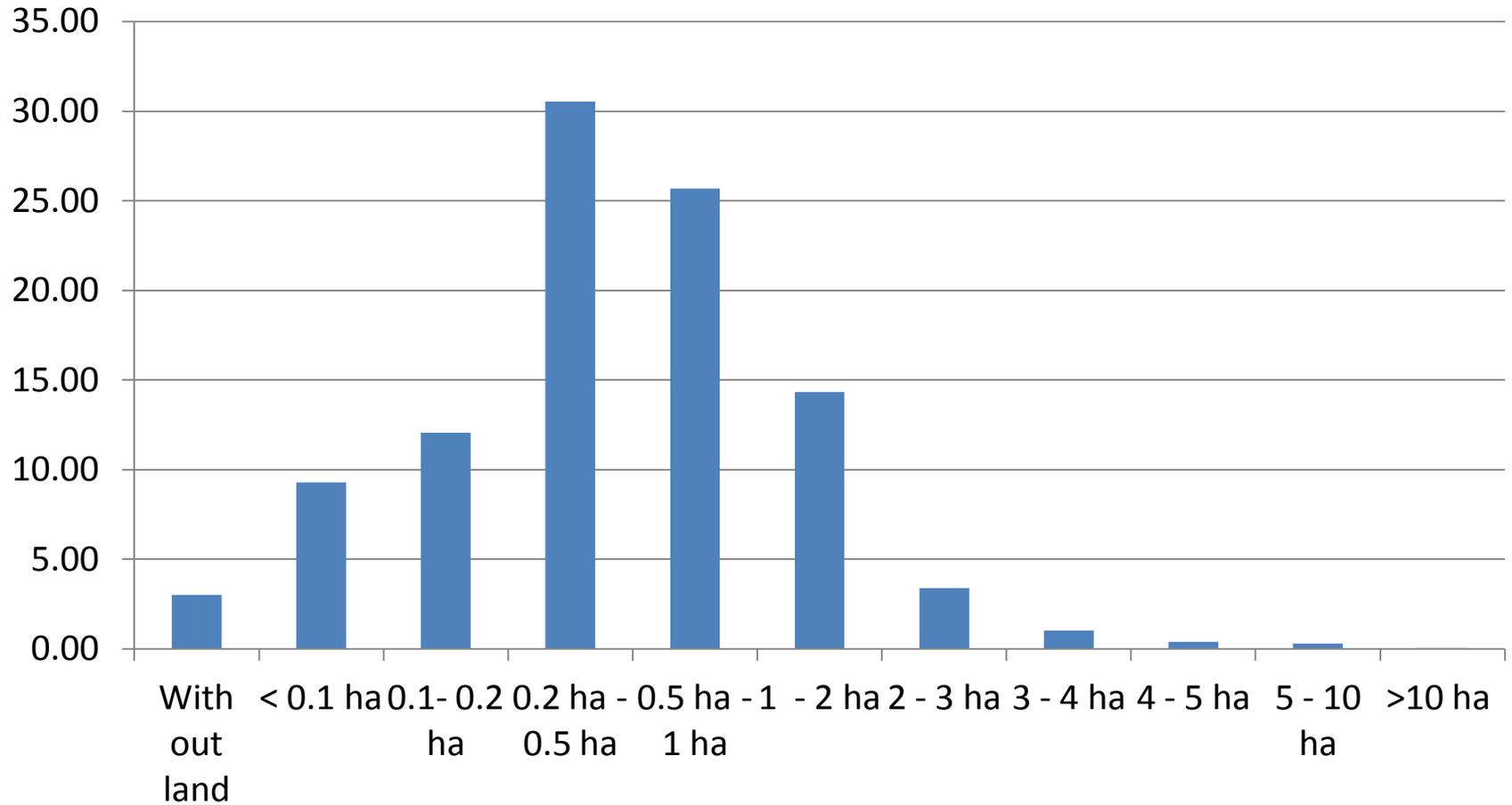
### **Department of Transport:**

- Tractors and Power tillers registered in each fiscal year

### **Department of customs:**

- Import and Export of agricultural machinery

# Land Holding ( Agricultural Census)

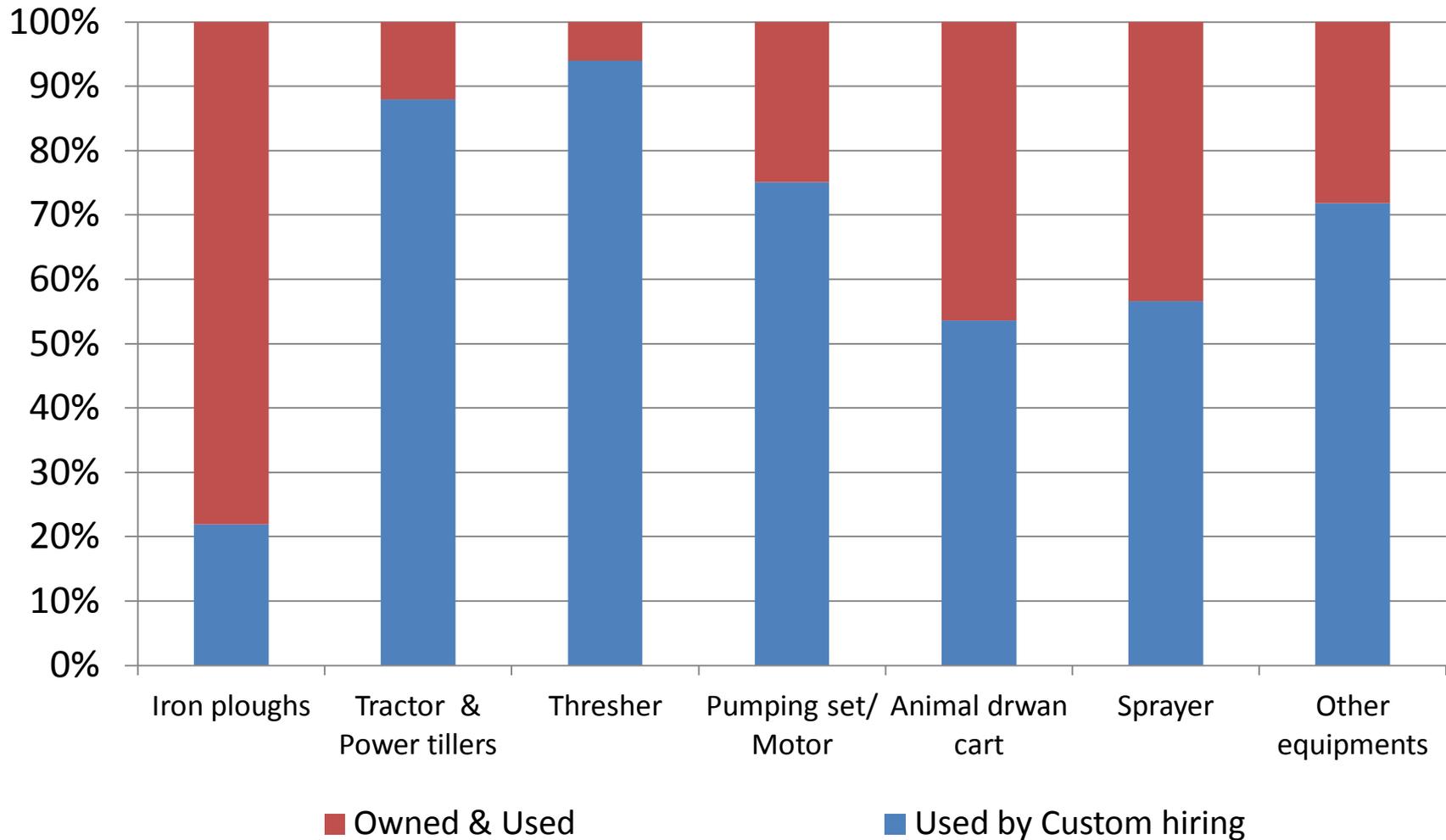


# Status of Agricultural Mechanization

( Source: National Sample Census of Agriculture, CBS, 2012)

Machinery/Equipments used	No of Households	% Households
Iron ploughs	1,073,441	28.02
Tractor & Power tillers	920,371	24.03
Thresher	803,154	20.96
Pumping sets	548,203	14.31
Sprayers	574,014	14.98
Shallow tubewells	367,744	9.56
Deep tubewells	159,725	4.17
Treadle pump (Dhiki)	79,145	2.06
Animal drawn cart	334,978	8.74
Other Equipments	290,084	7.57

# Share of HH Using Rented Agricultural Equipment and Self Owned Equipment



# Custom Hire Charge of Agricultural Operation

Custom Hiring Service	Eastern	Central	Western	Mid Western	Far Western
Tractor with Cultivator (Rs. Per hour)	1200 to 1500	1200 to 1500	1200	1000 to 1200	1100 to 1500
Tractor with rotovator (Rs. per hour)	1600 to 2000	1500 to 2000	2000	1400 to 2000	-
Power Tiller (per hour)	500 to 600	500- 600	600	300 to 500	400 to 600
Animal Drawn Plough (Rs. Per day)	450 to 1000	1000	1000	700 to 1000	1300
Sprayer (per day)	25 to 100	80 to 100	25 to 40	80 to 100	15 to 50
Pump set (Rs. Per hour)	300 to 400	250 to 350	300 to 500	250 to 400	250 to 300
Thresher ( grain: grain threshed)	1:20 to 1:10	1:12 to 1:8	1:15 to 1:10	1:13 to 1: 8	1: 9 to 1:07
Combine Harvester (Rs./hr)	5000	5000	4800 to 5000	-	4500

**1USD= Rs. 98**

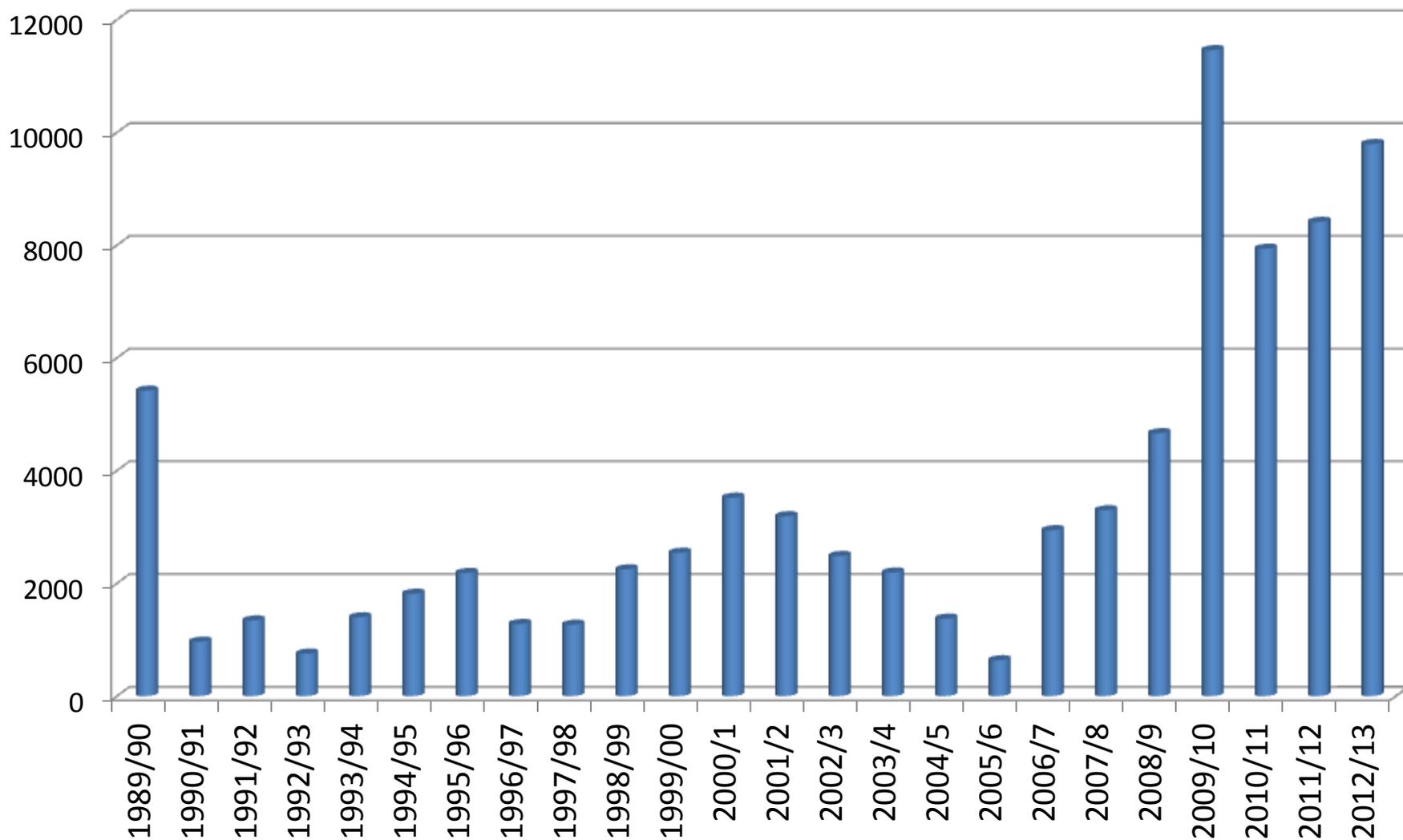
# **Lack of detailed information on agricultural mechanization in Existing agricultural Statistics**

- Crop wise agricultural mechanization status
- Operation wise agricultural mechanization status in each crop
- Horsepower used per ha in each crop
- Numbers of agricultural machinery owned/ rented /used in an area and service centers
- Numbers of Machinery manufacturing establishments and their annual production
- Import and export of agricultural machinery
- Accidents related to agricultural machinery
- List of service centres/ dealers of agricultural machinery in each area
- List of training centre and human resource lower level/ mid level and higher level agricultural mechanization related
- Number of local artisans and their workshop in each area and hand tools produced volume
- Gender disaggregated data in involvement of labour in each operation

# Challenges and Constraints

- Lack of awareness by CBS and MOAD on importance of mechanization database
- Lack of agricultural mechanization related trained manpower in CBS and MOAD
- Need to involve more agencies viz. Department of transport management, department of commerce and trade, department of industry, Custom department etc.
- Lack of proper Adoption of harmonized code of import/ export of agricultural machinery

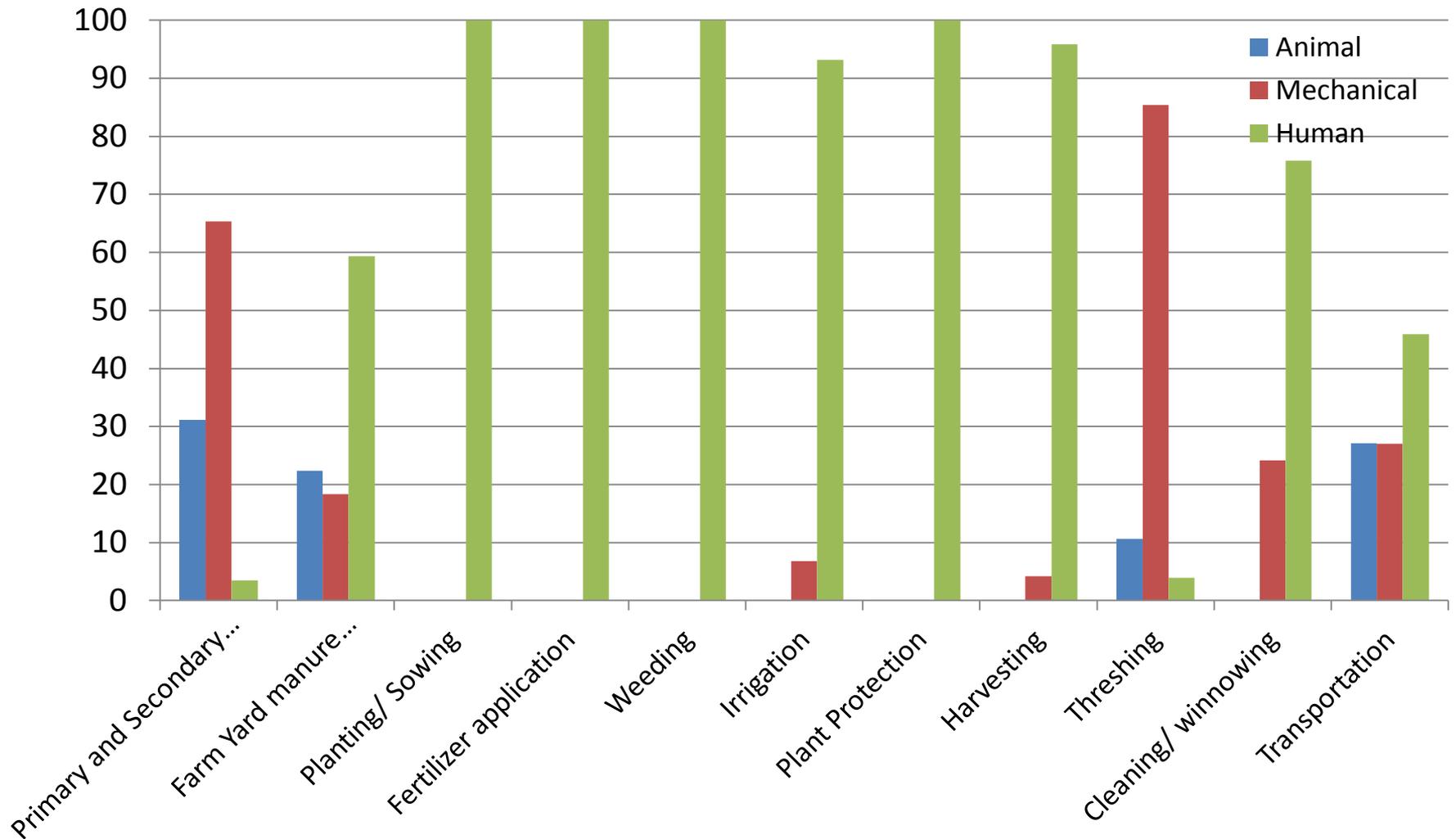
# Trend of Tractor Registered in Nepal



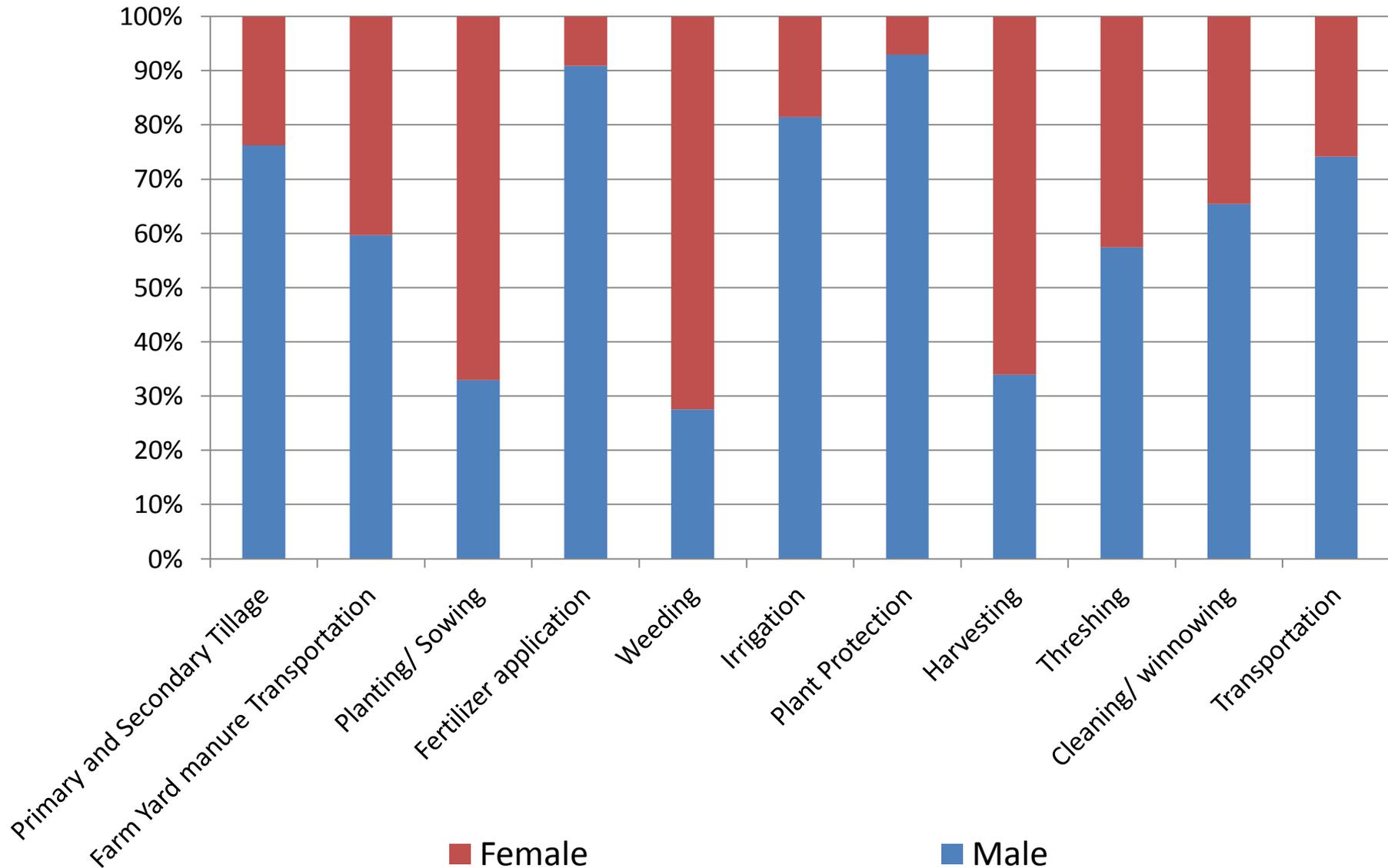
# Sample Survey on the status of Agricultural mechanization in Nepal

- Agricultural Engineering Division, Nepal Agricultural Research Council has recently started to conduct the **Sample Survey on Agricultural mechanization in Nepal**. Field work of terai region is accomplished and data entry and analysis is going on. The survey of mid hill and high hill will be accomplished in 2015. and Final report will be published by the end of 2015.

# Farm Power Used in Agricultural Operation in Terai



# Gender-wise Farm Labour Involvement in Agricultural Operation in Terai



# Regional Database on Agricultural Mechanization

- Need of common format, terminology methodology so that data from each country can be compared and build the regional database
- Help to facilitate trade on agricultural machinery and technology transfer within and across the regions.
- Learning on success/ failures in agricultural mechanization from similar agro ecosystem
- Strong base for the preparation of regional agricultural mechanization strategy

# Suggestions and Recommendations

- Minimum common framework for national database on agricultural mechanization ( data sets, methodology, data updating time frame)
- Awareness of the stakeholders on the importance of national and regional database on agricultural mechanization
- As multiple agencies are involved the frame work need to be agreed and owned by each agencies with in the country
- Capacity building in data collection and analysis
- Focal agency for coordination and updating with in the country.
- Regular sharing of member country data to CSAM
- CSAM responsible to maintain regional data base make available to all the countries. Web based data management.



Everest Expeditions

Thank You