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## Agriculture Sector in Nepal: Policies, Priorities, and Issues



Mr. Rajendra Prasad Bhari  
Secretary

Ministry of Agriculture and Livestock Development, Government of Nepal

USA Time: July 26, 2020 (Sunday) 9:00 PM EST

Nepal Time: July 27, 2020 (Monday) 6:45 AM

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July 26, 2020 @ 9 PM EST

NAPA Webinar Series: 18

# **Agriculture Sector in Nepal: Policies, Priorities and Issues**

**Rajendra Prasad Bhari**  
**Secretary**

**Ministry of Agriculture and Livestock Development**  
**Government of Nepal**





# 1. Overview of Nepalese Agriculture

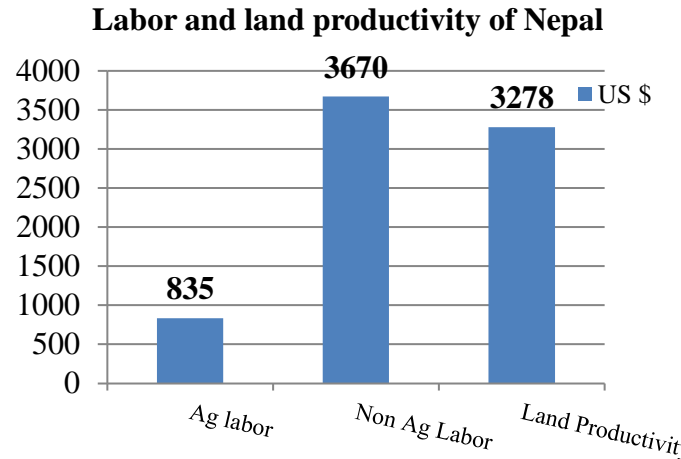




# Land Use Distribution By Use Category

Category	Area ( <sup>'000</sup> Hectares)	Percentage
<b>Agricultural land cultivated</b>	3,091	21.0%
Agricultural land uncultivated	1,030	7.0%
Forest	4,268	29.0%
Shrubland	1,560	10.6%
Grass land and pasture	1,766	12.0%
Water	383	2.6%
Others	2,620	17.8%
Total	14,718	100%

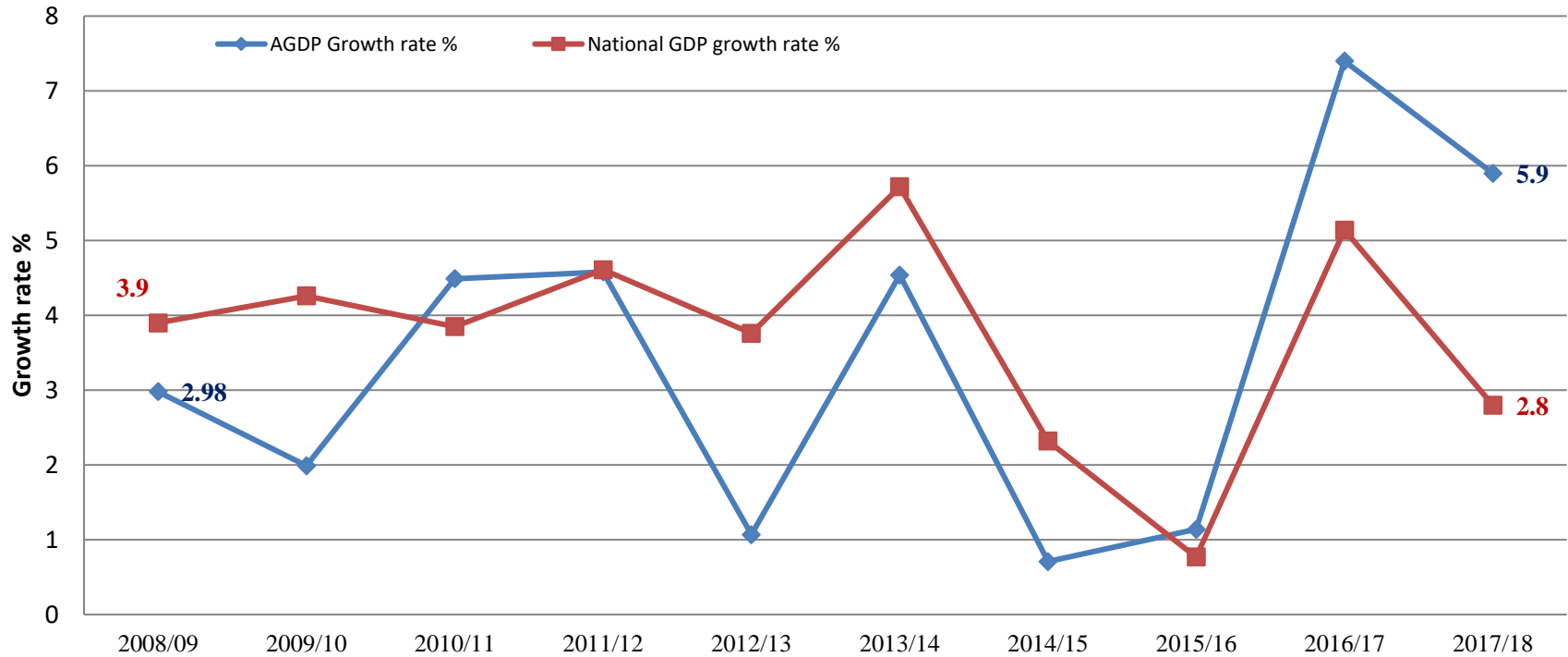
- **Agriculture:** Largely subsistence base
- Fundamental instrument for sustainable development and poverty reduction (World Bank, 2008)
- **Contribution:** 27.6% in GDP and absorbs about **two-thirds of the labor market**
- **Employment:** **58% self-employed** and **3% on wages** earning
- **Productivity of agricultural labor:** very low i.e. **\$ 835**
- **Productivity of Agricultural Land:** **\$3278/ha**
- **Average farm income:** Nominal (NRs.56665/household) which constitutes around 27.7% of total household income



- Population engaged in Agriculture: 60.4%
- **Cultivated Area: 3.91 millions ha**
- Irrigated Area: 1.38 millions ha (1/3<sup>rd</sup> of cultivated area)
- **Major Exports: Cardamom, Tea, Coffee, Lentil, Honey**
- **Fast growing commodities: vegetables, spices, dairy, poultry, fish**
- Major Imports: Cereals, Onion, fruits, Oils
- Monsoon dependent, year-round only around 22% of cultivated land
- Suffered massively from natural calamities; Floods, Land Slides, Cold Weather, Drought



# National GDP and Agriculture Growth Rate (%)

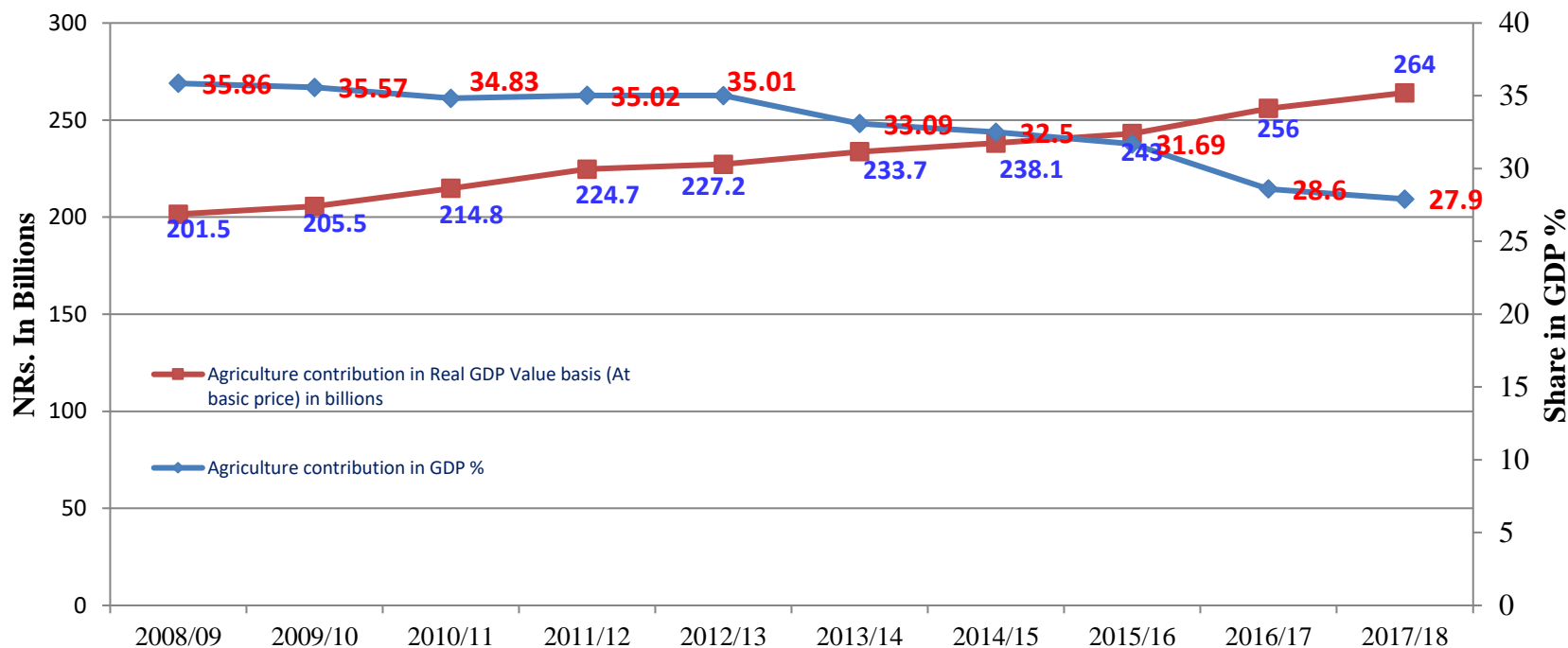


**Growth in agricultural output fluctuates (6 to 1% )**

Each high growth period followed by a phase of low growth with **approximately 2.9% growth** rate since past decade



# Agriculture contribution in National GDP



Source: Economic Survey, 2018

- Share of agriculture in National GDP is **decreasing by 0.7% per annum**
- **Contribution of agriculture in GDP on value basis is increasing by 2.9%/annum, however,** both are at very slow pace
- Hence, the overall efforts of agriculture transformation hasn't been effective to a desired level



# Farming Systems in Nepal

- **Farming system of Mountain (15%)**
- High mountains -covered with snow year round
- Human settlements is up to 3500 masl
- Cold climate/temperate crops: apple, apricot, oat, etc.
- **Farming system of Hill (68%)**
- Comprises of hills ranging from 800 to 4,000 masl
- Pleasant climate and subtropical to temperate in upper hills.
- Crops: mandarin, vegetables, maize, coffee, tea
- **Farming system of Terai (Plain) (17%)**
- Tarai, the southern plain area with subtropical climate
- Hot climate, granary of Nepal.
- Crops: Cereals, pulses, oilseed, fish, vegetables, tropical fruits



# Cropping Pattern in Nepalese Farming Systems

## Rice and Maize Based cropping pattern

### Terai (Plain) (<1000 masl )

Irrigated area	Rainfed area
Rice-Wheat-Rice	Rice-Fallow-Fallow
Rice-Wheat-Fallow	Rice-Wheat-Fallow
Rice-Maize-Rice	Rice-Lentil-Fallow
Rice/Lentil-Rice	Rice-Rapeseed –Fallow
Rice-Wheat-Maize	Rice- Fallow-Tobacco
Rice-Pegionpea- Wheat	Jute-Rapeseed-Fallow
Rice-Potato-Maize	Jute-Wheat-Fallow
Rice- Wheat- Jute	Maize-Chickpea, Lentil
Rice – Potato- Jute	Rice/Lentil
Rice- Rapeseed, Pulses- Jute	Rice- Fallow- Jute
Rice-Vegetables- Vegetables	Rice-Vegetables-Fallow
Rice-Vegetables-Spring Rice	Rice - Potato –Maize

### Mid-hill (1000-2000 masl)

Irrigated area	Rainfed area
Rice-Wheat-Fallow	Maize/Millet-Wheat
Rice-Wheat-Rice	Maize/Millet-Fallow
Rice-Wheat-Maize	Maize + Soybean- Rapeseed-Fallow
Rice-Black Gram (in bund)-Wheat	Maize-Wheat
Rice-Barley	Maize-Oat
Rice-Maize	Maize + Upland Rice
Rice-Rapeseed-Maize	Maize + Upland Rice- Wheat
Rice-Rapeseed-Rice	Maize-Vegetables- Rapeseed
Rice-Potato-Maize	Maize- Vegetables- Vegetables
	Vegetables-Vegetables- Vegetables
	Maize-Ginger-Fallow

## High hill (>2000masl)

<b>Irrigated area</b>	<b>Rainfed area</b>
Rice-Barley	Maize –Fallow
Rice- Necked Barley (Uwa)	Maize –Wheat
Rice-Wheat	Wheat- Finger Millet (2 years cropping pattern)
BuckWheat- Necked Barley (Uwa)	Maize- Necked Barley (Uwa)-Finger Millet (2 years cropping pattern)
Potato + Necked Barley (Uwa) – Fallow (2 years cropping pattern)	Maize-Wheat-Finger Millet 2 years cropping pattern)
Rice-Fallow-Finger Millet-Barley-Wheat (2 years cropping pattern)	Potato-Fallow, Potato-Buck Wheat, Maize-Rapeseed, Uwa-Fallow, Maize-BuckWheat
Wheat-Vegetables-Fallow	

### **Intercropping in fruits for soil cover and soil nutrient enrichment**

- Fruits+Legumes-Fallow
- Fruits+Legumes+Cole crops-Fallow
- Fruits+Ginger/Turmeric-Fallow





## 2. Status of major agricultural commodities



# 1. Salient Features of Major Agricultural Indicators

## 1.1 Cereal crops (Area in Hectare and Production in Metric Tonnes)

Cereal crop	2073/74 (2016/2017)		2074/75 (2017/18)		2075/76 (2018/19)	
	Area	Production	Area	Production	Area	Production
Paddy	1,552,469	5,230,327	1,469,545	5,151,925	1,491,744	5,610,011
Maize	900,288	2,300,121	954,158	2,555,847	956,447	2,713,635
Wheat	735,850	1,879,191	706,843	1,949,001	703,992	2,005,665
Millet	263,596	306,704	263,497	313,987	263,261	314,225
Buckwheat	11,090	12,039	10,296	11,472	10,311	11,464
Barley	27,370	30,510	24,648	30,510	24,409	30,550
<b>Total</b>	<b>3,490,663</b>	<b>9,758,892</b>	<b>3,428,986</b>	<b>10,012,742</b>	<b>3,450,163</b>	<b>10,685,550</b>



## 1.2 Cash Crops

Area in Hectare and production in Metric Tons

Crops	2073/74 (2016/2017)		2074/75 (2017/18)		2075/76 (2018/19)	
	Area	Production	Area	Production	Area	Production
Oilseeds	207,978	214,451	224,595	245,867	260,307	280,530
Potato	185,879	2,591,686	195,173	2,881,829	193,997	3,112,947
Sugarcane	70,807	3,219,560	78,609	3,679,508	71,625	3,557,934
Jute	7,477	11,018	7,507	11,159	7,285	10,585
Cotton	143	127	120	125	97	99
Rubber	700	805	555	296	476	249



# 1.3 Pulses

## Area in Hectare and Production in Metric Tons

Crops	2073/74 (2016/2017)		2074/75 (2017/18)		2075/76 (2018/19)	
	Area	Production	Area	Production	Area	Production
Lentil	206,969	254,308	198,605	249,491	208,766	251,185
Chickpea	9,933	10,969	9,882	11,271	9,653	10,675
Pigeon Pea	17,091	16,497	16,428	16,211	16,753	16,538
Black Gram	23,429	19,499	24,305	20,839	23,492	19,928
Grass Gram	8,075	9,354	7,757	9,187	7,952	9,329
Horse Gram	6,351	5,690	6,205	5,664	6,119	5,754
Soyabean	23,563	29,061	21,897	27,681	25,179	31,567
Others	30,644	32,817	26,303	28,397	33,826	37,011
<b>Total</b>	<b>326,055</b>	<b>378,196</b>	<b>311,382</b>	<b>368,741</b>	<b>331,740</b>	<b>381,987</b>

## 1.4 Other crops

Area in Hectare and production in Metric Tons

Crop	2073/74 (2016/2017)		2074/75 (2017/18)		2075/76 (2018/19)	
	Area	Production	Area	Production	Area	Production
<b>Fruits</b>	110,501	1,018,308	111,744	1,086,931	<b>120,028</b>	<b>1,178,352</b>
<b>Vegetables</b>	277,393	3,749,802	286,864	3,958,230	<b>297,195</b>	<b>4,271,270</b>
<b>Tea</b>	28,522	24,653	28,595	24,804	<b>28,732</b>	<b>25,206</b>
Coffee	2,646	466	2,650	513	2,761	530
Chili	10,077	49,718	10,500	52,500	10,692	67,167
Large Cardamom	17,002	6,521	17,004	6,849	18,273	7,954
Ginger	22,649	279,504	23,000	284,000	22,132	284,427
Garlic	8,116	56,668	8,500	59,500	10,107	71,902
Turmeric	6,777	65,999	7,300	71,500	10,160	98,904
Silk worm	1,757	55	1,421	30	1,457	32
Honey(No. of Hives)	240,000	3,950	242,000	3,980	<b>242,500</b>	<b>3,990</b>
Fish		83,898		86,544		91,832
Mushroom fresh		10,850		10,500		11,255

## 2.1 Livestock Population (Total Number)

CATEGORY	2015/16	2016/17	2017/18	2018/19
CATTLE	7,302,808	7,347,487	7,376,306	7,385,035
BUFFALOES	5,168,809	5,177,998	5,277,819	5,308,664
SHEEP	800,658	801,975	800,749	798,889
GOAT	10,986,114	11,165,099	11,647,319	12,283,752
PIGS	1,291,308	1,328,036	1,435,369	1,488,338
FOWL	68,630,638	70,007,151	72,245,732	75,709,330
DUCK	392,255	394,775	404,670	416,400
MILKING COW	1,026,135	1,029,529	1,039,538	1,078,775
MILKING BUFFALOES	1,355,384	1,509,512	1,535,948	1,560,584
LAYING HEN	12,353,515	12,388,889	12,517,558	12,526,979
LAYING DUCK	180,927	183,940	186,912	190,747



## 2.2 Livestock Production

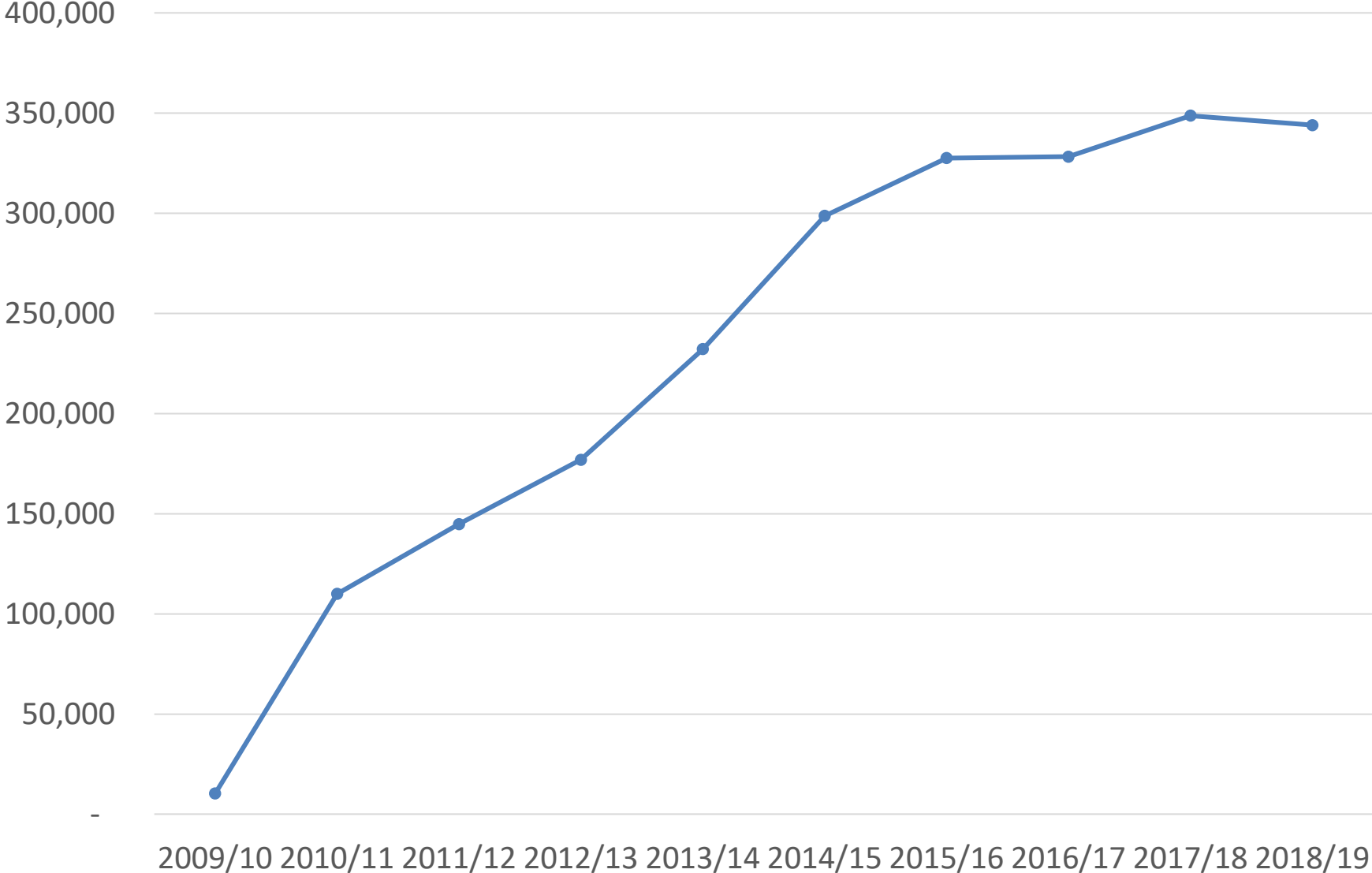
PRODUCTS	2015/16	2016/17	2017/18	2018/19
MILK PRODUCTION (Mt.)	1,854,247	1,911,239	2,092,403	2,168,434
- COW MILK	643,806	665,285	754,126	795,530
- <b>BUFF. MILK</b>	<b>1,210,441</b>	<b>1,245,954</b>	<b>1,338,277</b>	<b>1,372,905</b>
MEAT (NET) PRODUCTION (Mt.)	322,059	332,544	346,179	357,082
- <b>BUFF</b>	<b>175,005</b>	<b>180,080</b>	<b>185,180</b>	<b>188,574</b>
- MUTTON (Sheep)	2,684	2,714	2,754	2,763
- CHEVON	65,583	67,706	70,802	73,914
- PORK	23,509	24,535	28,214	28,579
- CHICKEN	55,041	57,268	60,122	62,899
- DUCK	237	241	280	353
EGG PRODUCTION ('000 Number)	1,308,072	1,352,296	1,512,265	1,549,689
- <b>HEN EGG</b>	<b>1,294,166</b>	<b>1,338,312</b>	<b>1,498,024</b>	<b>1,534,680</b>
- DUCK EGG	13,906	13,984	14,241	15,009
WOOL PRODUCTION(Kg.)	588,348	594,312	594,639	589,738

### 3. ANNUAL SALES OF CHEMICAL FERTILIZER

Fertilizer: In Metric ton.				
Type	2015/16	2016/17	2017/18	2018/19
Urea	213,063	205,425	235,304	215,733
DAP	107,121	114,802	105,619	120,893
Potash	7,336	7,991	7,811	7,377
Total AICL& STCL	327,520	328,217	348,734	344,004

Demand: 700,000 MT per Year

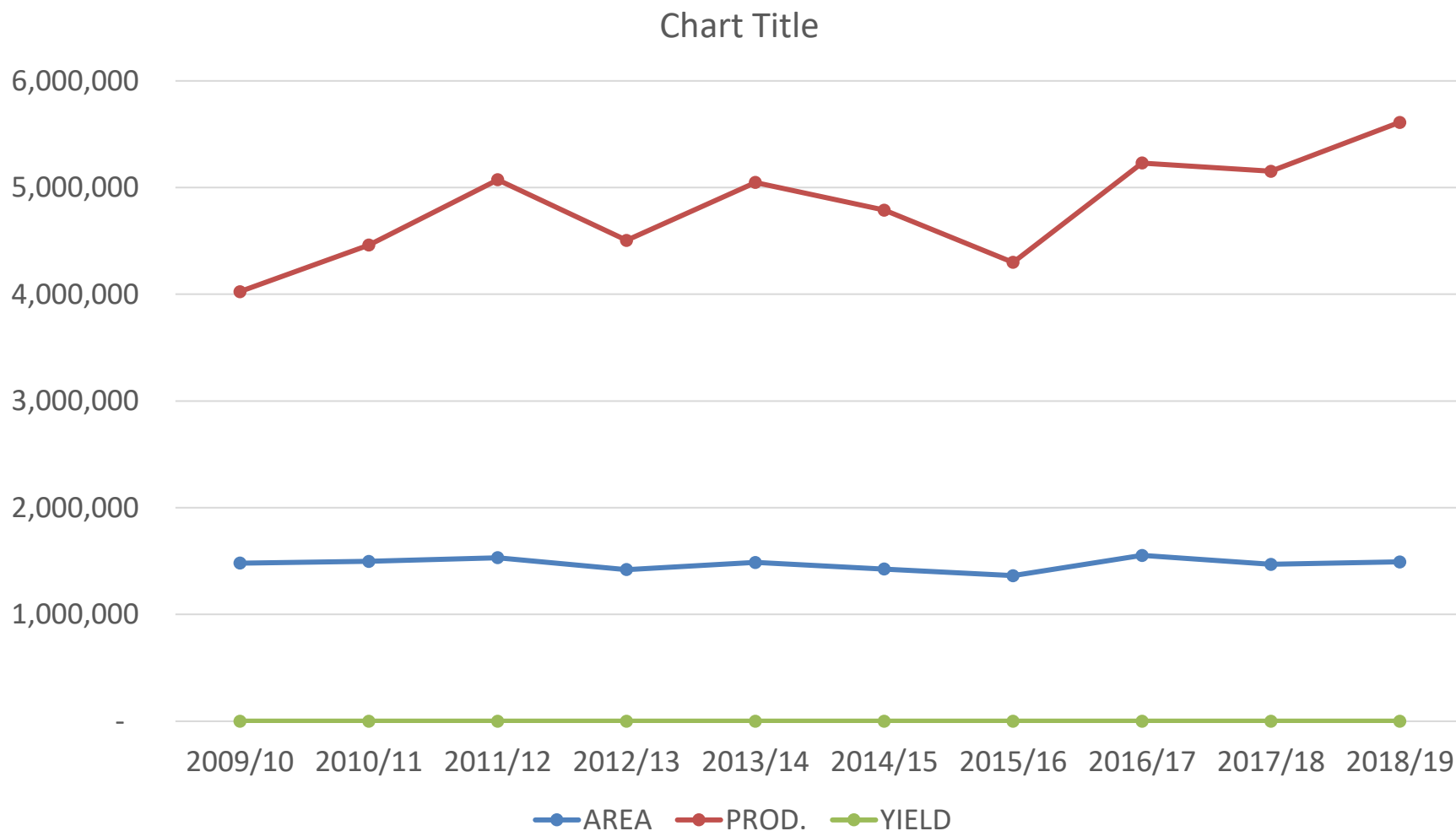
# SALES TREND OF CHEMICAL FERTILIZER





# Area (ha), Production (MT) and Productivity (MT/ha)

## Paddy

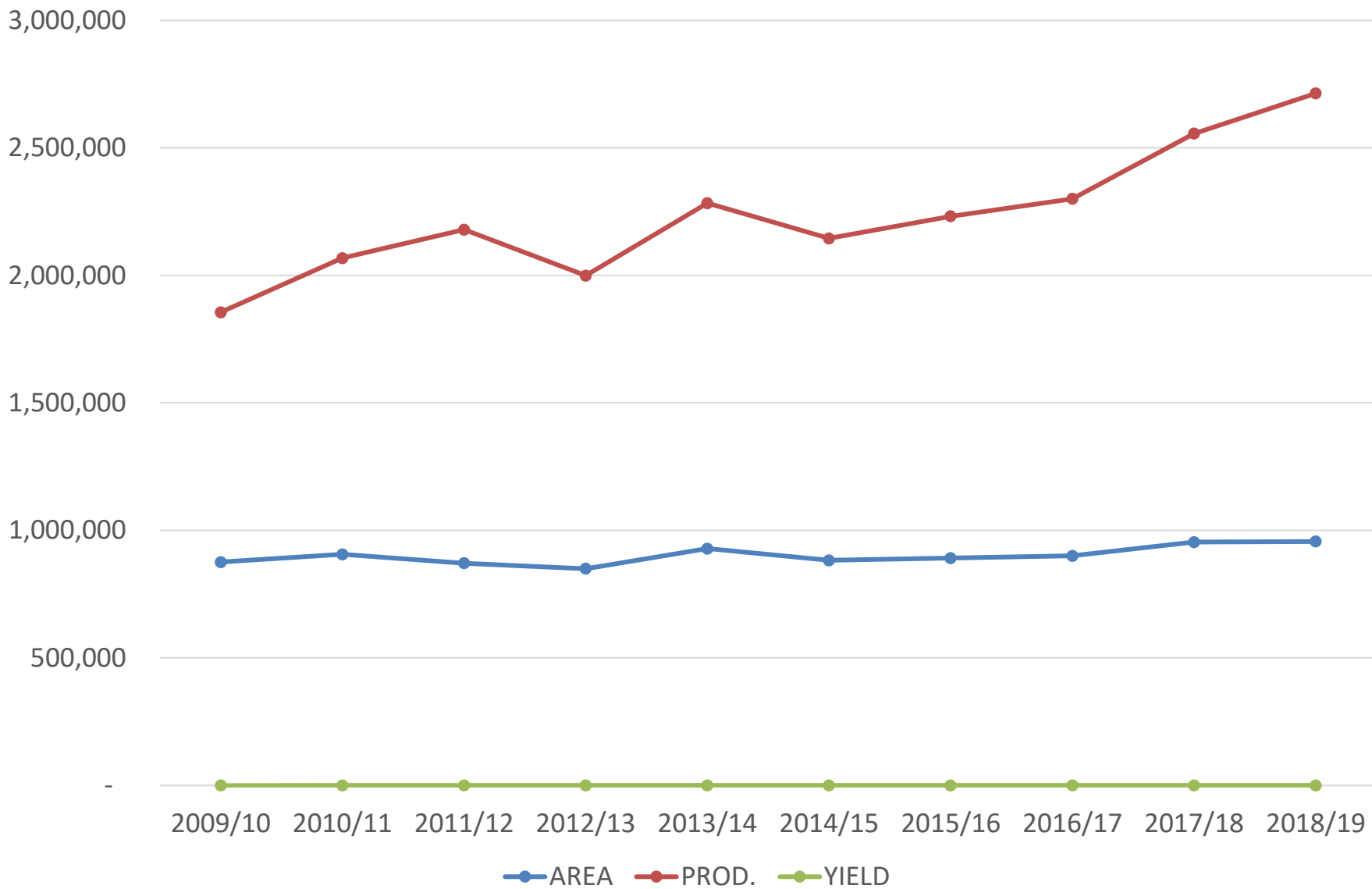


**Rice shares 17% to total AGDP and supplies 53% of cereals requirement and 33% of total calorie requirement**

(Source: CBS 2018)

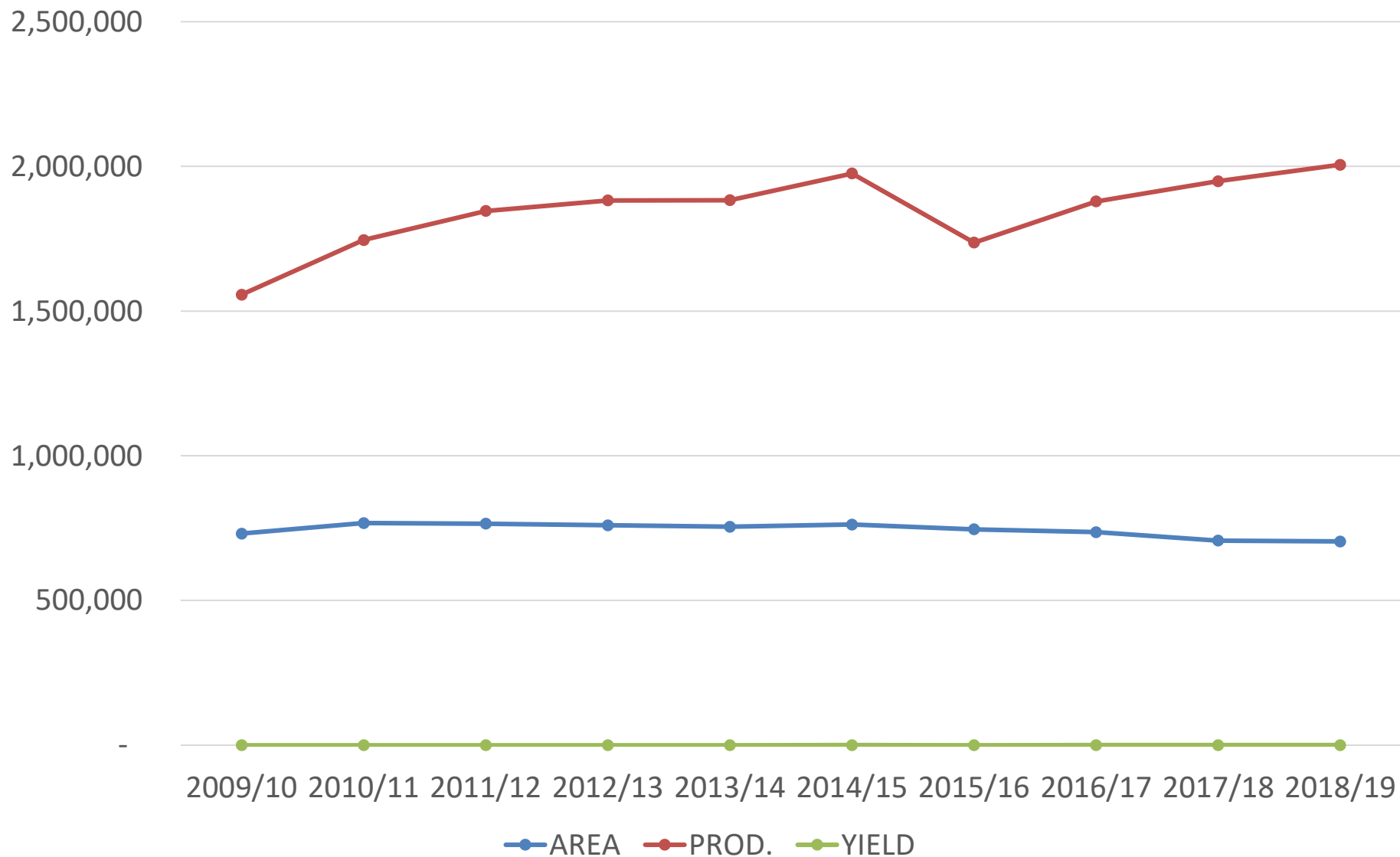
# Area (ha), Production (MT) and Productivity (MT/ha)

## Maize



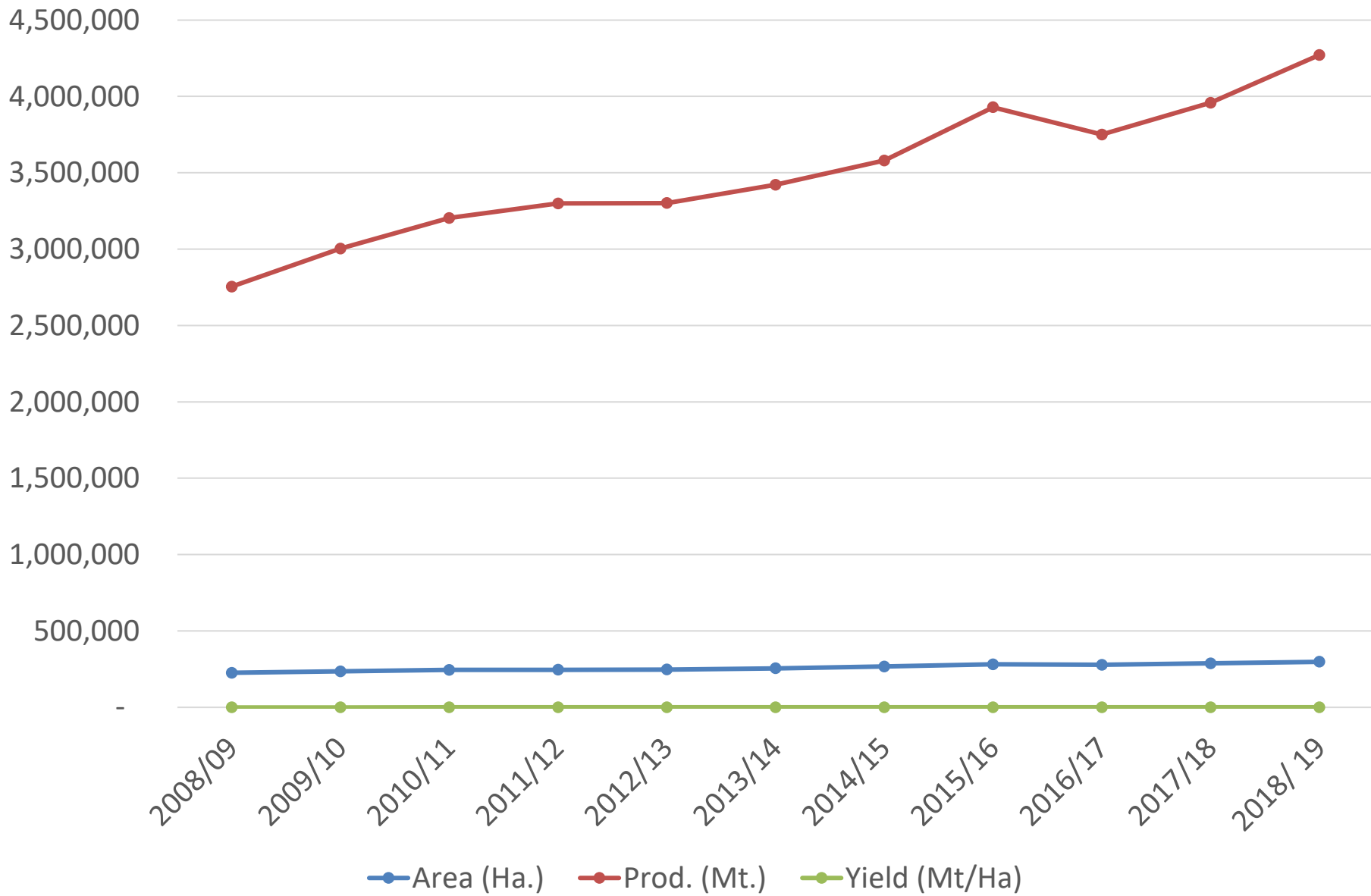
(Source: CBS 2018)

# Area (ha), Production (MT) and Productivity (MT/ha) Wheat



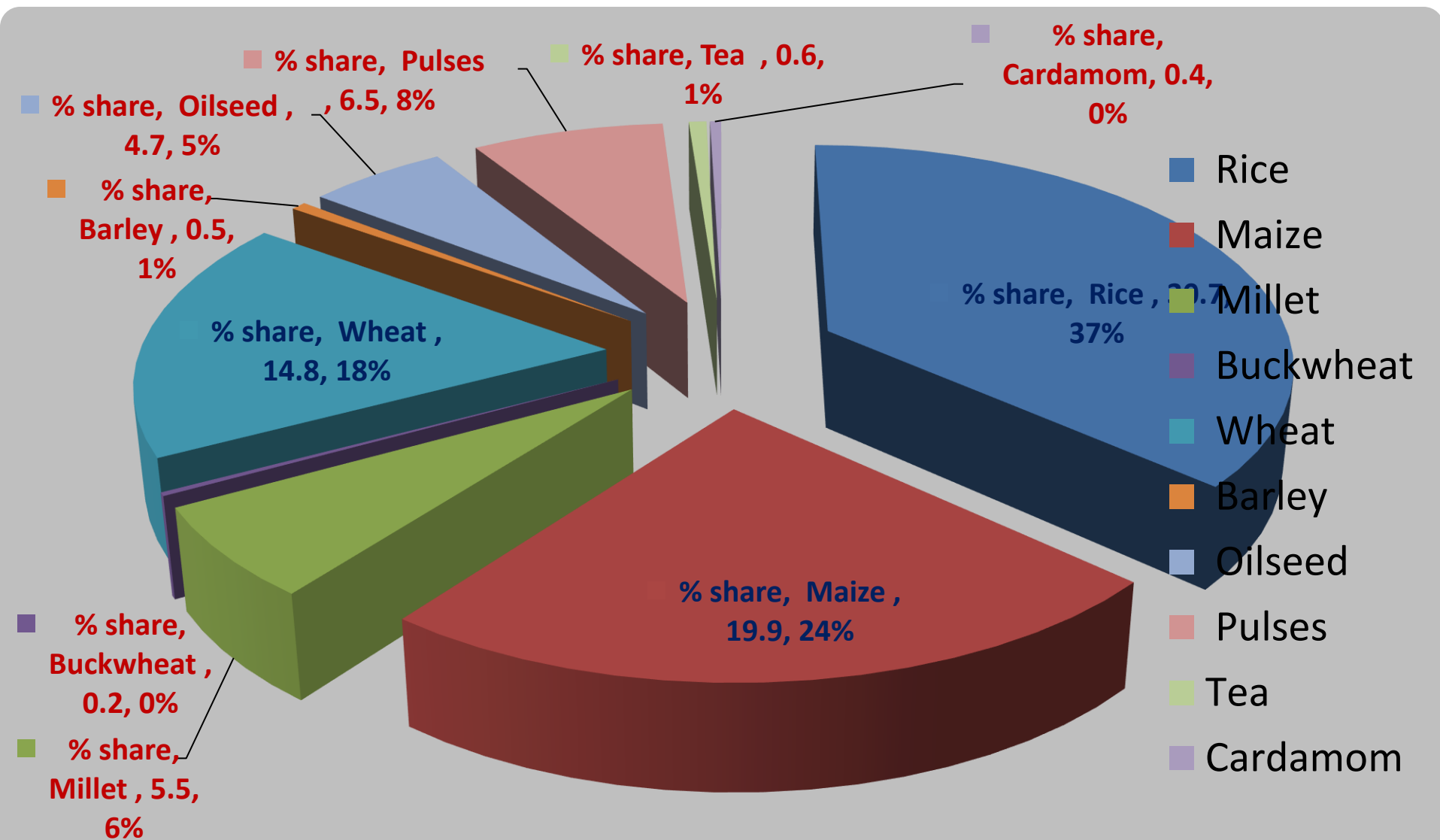
(Source: CBS 2018)

# Area (ha), Production (MT) and Productivity (MT/ha) Vegetables



(Source: CBS 2018)

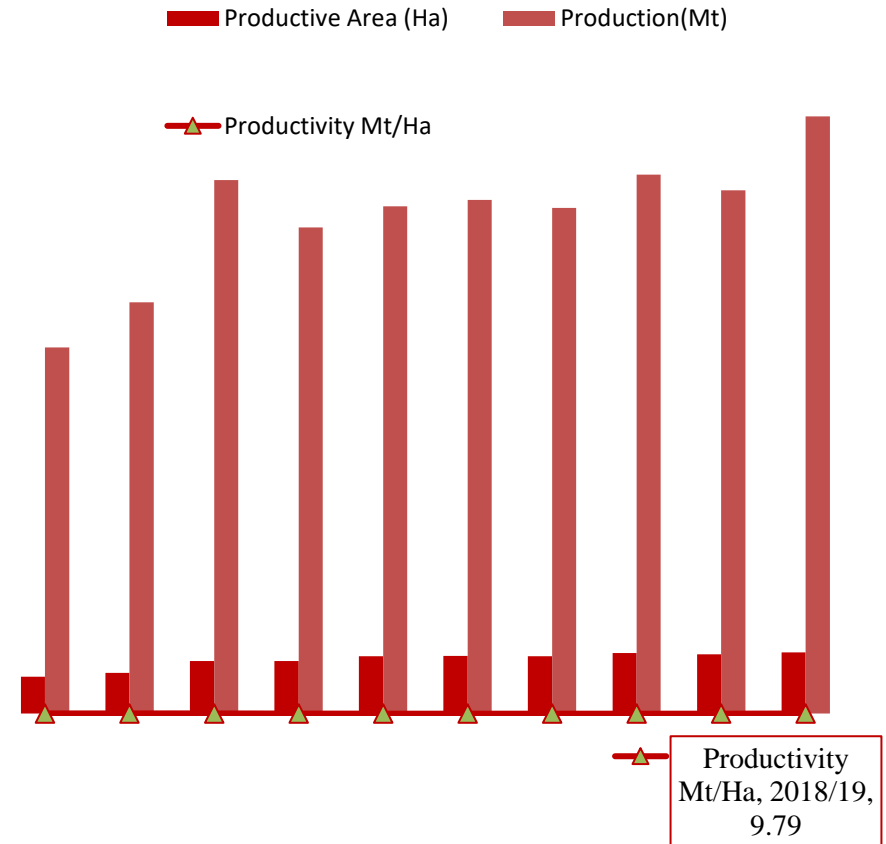
# Percentage share in area under crops





# Fruits

- Citrus fruits (26% of area and 22% of production)
- Tropical fruits (57% of total area and 65% of production)
- Temperate fruits (17% of area and 3% of production)
- Total area covered by fruits is 4.79% of total cultivated area.
- Productive area : 1.2 lakh ha
- Production: 11.5 lakh Mt
- Productivity has decreased over a decade by 2% to **9.79 Mt/ha in 2018/19**.
- Reduction in yield of citrus due to citrus decline problem



Agriculture Development Strategy (ADS), 2014

Ministry of Agricultural  
Development

Singhdurbar



National Land  
Use Policy



### 3. Agriculture Policies and Strategies

#### National Agriculture Policy 2004

प्रकाशक :  
नेपाल सरकार  
कृषि विकास मन्त्रालय  
खाद्य सुरक्षा, कृषि व्यवसाय प्रवर्द्धन  
तथा वातावरण महाशाखा  
कृषि जैविक विविधता शाखा  
सिंहदरवार, काठमाडौं  
फोन: ४२११९४०  
Web page: [www.moad.gov.np](http://www.moad.gov.np)



नेपाल सरकार  
कृषि विकास मन्त्रालय  
सिंहदरवार, काठमाडौं  
२०७३

#### Agri Bio-Diversity Policy

कृषि जैविक विविधता नीति २०६३  
(पहिलो संशोधन) २०७१

प्रकाशक :  
नेपाल सरकार  
कृषि विकास मन्त्रालय  
खाद्य सुरक्षा, कृषि व्यवसाय प्रवर्द्धन  
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नेपाल सरकार  
कृषि विकास मन्त्रालय  
सिंहदरवार, काठमाडौं  
२०७३

## Government aim:

➤ “Prosperous Nepal and Happy Nepali” - National Aim

➤ **Nepal's target to graduate:** ‘Developing’ country by 2022 and ‘middle income’ country by 2030

➤ “Protected Agriculture and Assured Saving” - Agricultural Aim

➤ **Transformation:** Diversified commercialized agriculture from subsistence base

➤ **Doubling agricultural production:** Different crop commodities within 5 years (National Policy, 2019/20)



## National Goal and Indicators for Prosperity (in 15<sup>th</sup> Five-year plan)

S.N.	Indicators	Unit	FY 2017/18 (Actual)	FY 2023/24 (Target)
1	<b>Economic Growth (Average)*</b>	<b>%</b>	<b>6.8</b>	<b>9.6</b>
2	<b>Per Capita Income*</b>	<b>USD</b>	<b>1047</b>	<b>1595</b>
3	<b>Population under poverty line (Absolute Poverty)*</b>	<b>%</b>	<b>18.7</b>	<b>11</b>
4	<b>Ratio of upper 10 and lower 40 per cent income earning population (Palma Ratio)</b>	<b>Ratio</b>	<b>1.30</b>	<b>1.25</b>
5	<b>Gini Coefficient based on Assets</b>	<b>Coefficient</b>	<b>0.31</b>	<b>0.29</b>

\* Provisional estimate of FY 2018/19

## **National Goal and Indicators for Prosperity.....**

<b>S.N.</b>	<b>Indicators</b>	<b>Unit</b>	<b>FY 2017/18 (Actual)</b>	<b>FY 2023/24 (Target)</b>
<b>6</b>	<b>Life Expectancy (At birth)</b>	<b>Year</b>	<b>69.7</b>	<b>72</b>
<b>7</b>	<b>Child Mortality under 5 years of age (per thousand live birth)</b>	<b>No.</b>	<b>39</b>	<b>24</b>
<b>8</b>	<b>Literacy rate (above 15 years of age)</b>	<b>%</b>	<b>58</b>	<b>90</b>
<b>9</b>	<b>Youth literacy rate (15-24 years of age)</b>	<b>%</b>	<b>85</b>	<b>99</b>
<b>10</b>	<b>Net enrollment in basic education (1-8 class)</b>	<b>%</b>	<b>92.3</b>	<b>99.5</b>
<b>11</b>	<b>Employment rate (above 15 years of age)</b>	<b>%</b>	<b>38.5</b>	<b>48.5</b>
<b>12</b>	<b>Unemployment rate</b>	<b>%</b>	<b>11.4</b>	<b>6</b>
<b>13</b>	<b>Share of formal sector in employment</b>	<b>%</b>	<b>36.5</b>	<b>50</b>



## **National Goal and Indicators for Prosperity.....**

<b>S.N.</b>	<b>Indicators</b>	<b>Unit</b>	<b>FY 2017/18 (Actual)</b>	<b>FY 2023/24 (Target)</b>
<b>14</b>	<b>Access to electricity (household)</b>	<b>%</b>	<b>90.7</b>	<b>99</b>
<b>15</b>	<b>Population having access to basic drinking water facilities</b>	<b>%</b>	<b>88</b>	<b>99</b>
<b>16</b>	<b>Internet Users (in total population)</b>	<b>%</b>	<b>55.4</b>	<b>80</b>
<b>17</b>	<b>Electricity Production (installed capacity)</b>	<b>Mega Watt</b>	<b>1020</b>	<b>5000</b>
<b>18</b>	<b>Labour Productivity</b>	<b>Rs. ('000)</b>	<b>184.6</b>	<b>276</b>
<b>19</b>	<b>Agricultural Productivity (Major crops)</b>	<b>MT/ha</b>	<b>2.97</b>	<b>4.0</b>

# National Goal and Indicators for Happiness

S.N.	Indicators	Unit	FY 2017/18 (Actual)	FY 2023/24 (Target)
1	Under weight children (under 5 yrs)	%	27.0	15.0
2	Huma Dev Index (HDI)	Index	0.57	0.62
3	Multidimensional Poverty	%	28.6	13
4	Family having own shelter	%	85.3	89
5	Vulnerable Women	%	26.3	13.0

# National Goal and Indicators for Happiness

S.N.	Indicators	Unit	FY 2017/18 (Actual)	FY 2023/24 (Target)
6	Ratio of registered crime incidence and Investigation	Ratio	86.7	100
7	Nepali Citizen having National Identity Card	%	-	100
8	Birth Registration of Children under 5 yrs of age	%	56	100
9	Basic food secured family	%	48.2	80.0

# Agriculture in 15<sup>th</sup> Five-Year Plan

(FY 2019/20 to 2023/24)

## 1. Agriculture

**Vision:** Sustainable, Competitive and Prosperous  
Agriculture Economy

**Goal:** Increased inclusive and sustainable and economic  
growth by transforming agriculture

### **Objectives:**

1. Increasing production and productivity for ensuring food security
2. Increasing employment and income by developing agro-based industries
3. Balancing agricultural trade by developing capacity on commercialization and competitiveness

**Comprehensive Agriculture Bill, 2077 under formulation**

# Agriculture in 15<sup>th</sup> Five-Year Plan

(FY 2019/20 to 2023/24)

## 2. Food Security and Nutrition

**Vision:** Society of Food Sovereignty, Sustainable Food and nutrition security

**Goal:** availability and access to safe and quality food

### Objectives:

1. Availability of basic food
2. Increase access to food
3. Improving food distribution system

**Right to Food and Food Sovereignty Act 2019. Regulation in draft phase**



# Agriculture in 15<sup>th</sup> Five-Year Plan

(FY 2019/20 to 2023/24).....

## 2. Land management

**Vision:** Productive and sustainable land management

**Goal:** Sustainable land management

### **Objectives:**

1. Legitimate use of land
2. Assured land map and geo-information system
3. Modern and techno-friendly land management system

**Land Use Policy and Land Act 2019 under implementation**

## Five Interlinked Policies/Strategies in Agriculture:

1. **INPUTS:** Support/subsidies to the source i.e. inputs (fertilizer, seed, irrigation, power)
  - 50 to 65% of price subsidy in chemical fertilizer
  - Rs. 15 per kg cash back mechanism who uses the improved variety of seeds.
  - Program support to deep tube-wells and shallow tube-wells
  - 50% price subsidy who use electricity in agriculture (Krishi Meter)

## **Five Interlinked Policies/Strategies in Agriculture.....**

**2. AGRICULTURE LOAN:** Subsidized loan to farmers and agro-entrepreneurs.

- 15% compulsory lending to agriculture sector
- ADBL will be responsible for agricultural lending
- Provision of swap of agri loan from other commercial banks to the ADBL
- Agriculture loan on 5% per annum for agro-entrepreneurs (upper ceiling of Rs. 100 Million)
- Kishan Credit Card through ADBL
- Refinancing (पुनर्कर्जा) at 2% interest for sick industry (रुग्ण उद्योग)

## **Five Interlinked Policies/Strategies in Agriculture.....**

**3. TECHNOLOGY:** Appropriate technology and technical human resources

- Technology generation by NARC
- 6000 technical human resources are vacant in local governments
- Immediate strategy to fulfill these posts:
- One village one Technician (OVOT) from last 2 years.
- 2 Technicians (Agri and Livestock) per Municipality from current FY 2020/21



## **Five Interlinked Policies/Strategies in Agriculture.....**

**4. INSURANCE:** Covering risk in agribusinesses through crop and livestock insurance

- 75 % subsidy on premium for crop and livestock insurance
- Rs. 200,000/- of accidental insurance for crop/livestock insurer (farmer)

**5. MARKET:** Regulate agriculture market and assured price

- Minimum support price (MSP) for Paddy, Maize and wheat
- Top up incentive for Sugarcane producers
- Procurement of major crop products by Food and Trade Company Ltd.
- Infrastructural support for collection centers, market centers, food grain warehouses
- Support for agro-machineries

# Agriculture Policy and Strategies

<b>National Agriculture Policy 2004</b>	<b><u>Acts</u></b>
Agribusiness Promotion Policy 2006	Food Act 2023
Agri bio-diversity policy, 2006	Seed Act 2045
National Tea Policy 2000	Pesticide Act 2048
National Coffee Policy 2003	Plant Protection Act 2007
Dairy Development Policy, 2007	Right to food and food sovereignty Act 2018
National Seed Policy 1999	Slaughterhouse and meat inspection Act 2055
National Fertilizer Policy 2001	Crop and livestock insurance directive, 2012
Irrigation Policy 2013	<b>Orders</b>
Rangeland Policy 2011	Fertilizer control order 2055
National Land Use policy 2015	Kalimati Fruits and Vegetables Market Development Committee order 2063
National Cooperative policy 2012	<b>Regulations</b>
Climate change policy 2010	Food, Seed, Pesticides, Irrigation, slaughterhouse and meat inspection,
Agri mechanization promotion policy 2014	Signatory of SDG, ZHC, WTO Member
Honeybee promotion policy 2017	<b>Agriculture Development Strategy ADS 2015-2035</b>
	<b>Seed Vision 2013-2025</b>

# National Agriculture Policy, 2004

## Objectives

- **Agricultural production and productivity** shall be increased.
- The **bases of a commercial and competitive farming system** shall be developed and **made competitive** in the regional and world markets.
- **Natural resources**, as well as the environment and biodiversity, shall be **conserved**, promoted and properly utilized.

## Policies

- **Utilizing the local potentialities, comparative advantages and special opportunities**, and ensuring the development, extension and utilization of appropriate agricultural technologies.
- **Opportunities of income and employment shall be created** by laying emphasis on the commercialization and diversification of agriculture
- **A scientific land-use system**
- **Irrigation facilities, agricultural roads, rural electrification and appropriate agricultural technologies** expanded
- **Farmer's groups** shall be utilized to provide on-site extension services
- **Agricultural credit** shall be guaranteed

- **Concept of land bank** introduced
- **Large production pockets** shall be developed to produce agricultural products in quantities and of qualities that match the
  - demands of the market
- **Agriculture and livestock insurance programme** shall be extended
- **Organic farming** shall be encouraged
- The production and **use of high-breed seeds and improved breeds** shall be encouraged
- The agriculture and livestock **quarantine services shall be systematized and strengthened**

# Conservation, Promotion and Utilization of Natural Resources and the Environment by

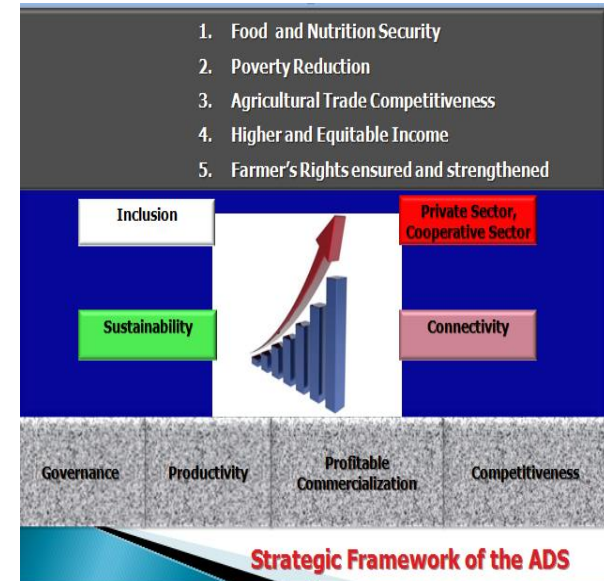
- Arrangement shall be made for **gene banks and in situ conservation** shall be encouraged in order to conserve bio diversity.
- Participatory biodiversity parks** shall be established in feasible areas.
- A **conservation-oriented farming system** shall be gradually developed by managing watersheds and controlling erosion of soil by rivers

**Revision of this Policy is being done by MoALD**



# Agriculture Development Strategy (2015-2030)

- 20 years vision with 10-year Action Plan for agriculture development
- **Complementary policy** (Broad based, inclusive, balanced and **sustainable development**)
- Vision: self-reliant, sustainable, competitive and inclusive agriculture sector
- **Economic growth** and contributes to **improved livelihoods** and **food and nutrition security** leading to food sovereignty



1. Food and Nutrition Security
2. Poverty Reduction
3. Agricultural Trade Competitiveness
4. Higher and Equitable Income
5. Farmer's Rights ensured and strengthened

**Inclusion**

**Private Sector,  
Cooperative Sector**

**Sustainability**

**Connectivity**



**Governance**

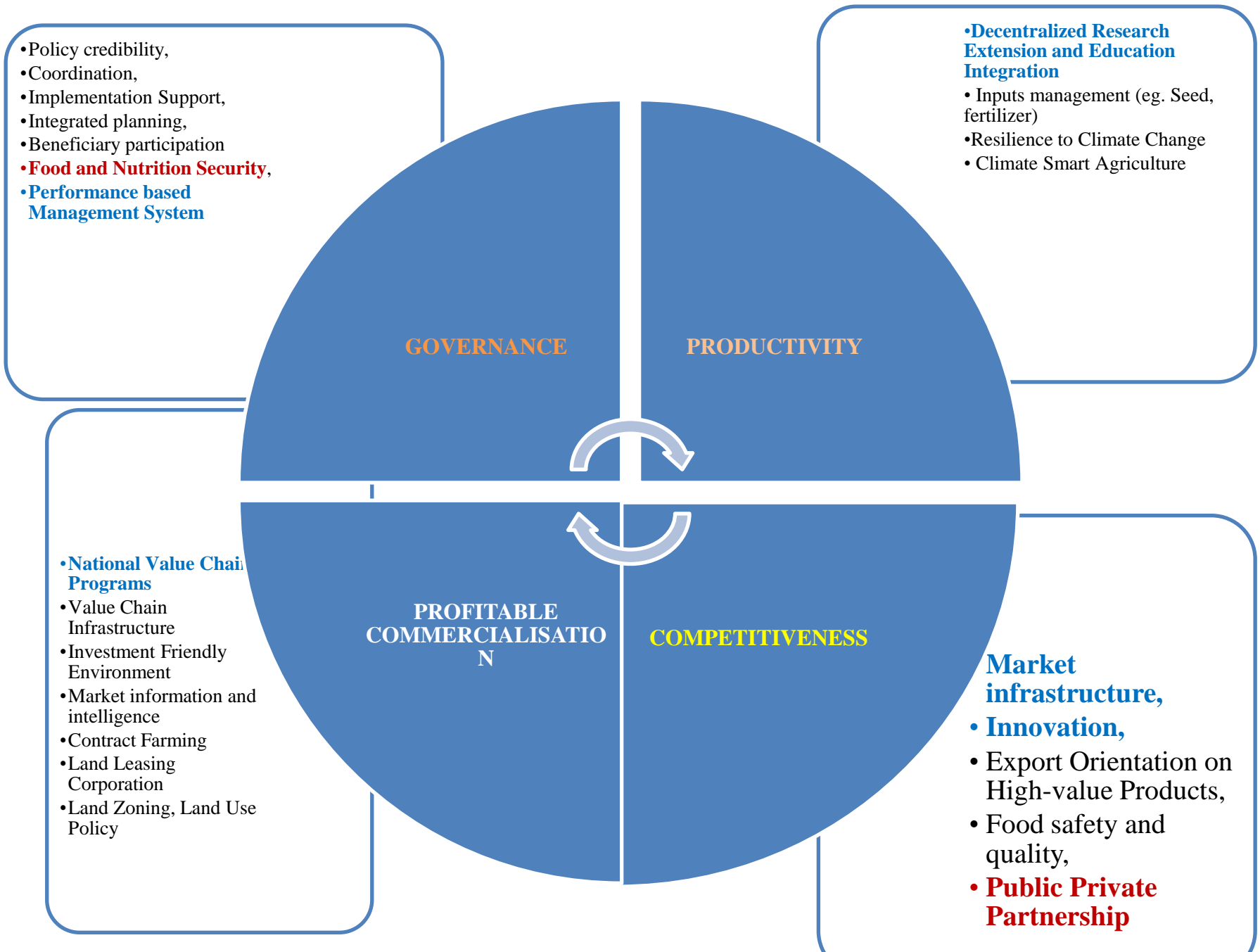
**Productivity**

**Profitable  
Commercialization**

**Competitiveness**

**Strategic Framework of the ADS**

# ADS Pillars and Priorities



## ADS Programs



```
graph TD; A[ADS Programs] --> B[Flagship Programs]; A --> C[Core Programs]; A --> D[Other Programs]; B --> E["1. Food and Nutrition Security Program<br/>2. Decentralized Science, Technology and Education Program<br/>3. Value Chain Development program<br/>4. Innovation and Agro Entrepreneurship program"]
```

The diagram is a hierarchical flowchart. At the top is a grey box labeled 'ADS Programs'. A vertical line descends from this box and splits into three horizontal lines, each ending in an arrow pointing to a yellow box. The first yellow box is labeled 'Flagship Programs' and has a pinkish-red section below it containing text. The second yellow box is labeled 'Core Programs' and has a green section below it containing text. The third yellow box is labeled 'Other Programs' and has a light green section below it containing text. A large blue arrow points from the 'Flagship Programs' box down to a large light blue box at the bottom, which contains a numbered list of four programs.

### Flagship Programs

(Multi-sectoral type of program and require different management structure)

### Core Programs

Implemented through existing government agencies

### Other Programs

Currently ongoing programs but not a part of flagships and core programs

1. Food and Nutrition Security Program
2. Decentralized Science, Technology and Education Program
3. Value Chain Development program
4. Innovation and Agro Entrepreneurship program

# Flagship Programs

The ADS envisages some prioritized national programs around which could be mobilized sufficient consensus, resources, and effective management. These prioritized national programs will be referred to as “ADS Flagship Programs”. The flagship programs of the ADS are:

1. Food and Nutrition Security Program (FNSPA)
2. Decentralized Science, Technology and Education Program
3. Value Chain Development Program
4. Innovation and Agro-entrepreneurship program

# 1. FOOD AND NUTRITION SECURITY PROGRAM (FANUSEP)

- FANUSEP aims at improving food and nutrition security of the most disadvantaged groups.
- It will consist of three subprograms:
  - I. Nepal Food Security Project (AFSP),
  - II. Food and Nutrition Security Action Plan (FNSP),
  - III. A new national food and nutrition security project to be designed and implemented to complement NAFSP and FNSP.



## 2. DECENTRALIZED SCIENCE, TECHNOLOGY, AND EDUCATION PROGRAM (DESTEP)

- DSTEP aims at decentralizing the extension and research system while fostering coordination of research, extension, and education.
- The decentralized extension system will include three main measures:
  - I. establishment of Community Agricultural Extension Service Centers (CAESC)
  - II. strengthening capacity of existing and planned Agriculture and Livestock Service Centers
  - III. promoting a voucher system to empower farmers to access the best available agricultural input and extension service providers

# 3. VALUE CHAIN DEVELOPMENT PROGRAM (VADEP)

- VADEP aims at developing prioritized value chains.
- The prioritized value chain commodities are:
  - 1) maize,
  - 2) dairy,
  - 3) vegetables,
  - 4) lentil,
  - 5) Tea

## 4. INNOVATION AND AGROENTREPRENEURSHIP PROGRAM (INAGEP)

- INAGEP aims to foster agricultural innovation and agroentrepreneurship through the combination of tax incentives, agribusiness incubators, and matching grants.
- The main beneficiaries of this program will be private enterprises including micro, small and medium enterprises, cooperatives, and targeted groups including the youth, women, and disadvantaged groups.

# Core Programs

- These are the regular program for agriculture development in Nepal which are implemented through existing government agencies.
- For example:
  - Agriculture Extension Service
  - Laboratory Services
  - Regulation Services
  - Agriculture Research Programs

# Other Programs

- Currently ongoing programs but not a part of flagships and core programs.

For example:

- Mission Programmes: Citrus Mission, Fish Mission, Maize Mission, Finger Millet Mission
- Projects under MoALD:
- PACT (now phased out)
- HIMALI (phased out)
- HVAP, RISMFP etc.

# Projects under MoALD

Recently phased out projects:

- HIMALI (ADB funded, phased out 2 yrs)
- PACT (WB funded, recently phased out 1 yr)
- HVAP (IFAD funded, recently phased out 1 yr)
- RISMFP (ADB funded, recently phased out 1 yr)



# Projects under MoALD

Currently running foreign aided projects

- ADS Implementation Support Project (EU funded 40 million USD)
- Policy Based Lending (ADB funded, 50 million USD)
- Food and Nutrition Security Enhancement Project (FANSEP, GAFSP supported, supervision entity by WB, 28 million USD)
- Agriculture Sector Development Programme (ASDP, IFAD funded, 68 million USD)
- Nepal Livestock Sector Innovation Project (NLSIP, WB funded, 80 million USD)
- Value Chain Development of Fruits and Vegetables (UN/KOICA supported)

# Other Bilateral Projects in Agriculture

- KISAN-II by USAID (including Joint Rice Intervention Program)
- Nepal Seed and Fertilizer Project (NSAF) implemented by CIMMYT supported by USAID
- NASDP, implemented by Helvetas, supported by SDC (phasing out)
- NAMDP, implemented by Swiss Contact supported by SDC (Prov. # 1)

# Projects in Pipeline

- Rural Economic and Employment Development Project (REED) (WB funded 100 million USD to be implemented by MoALD)
- Value Chain Initiative for Transformation of Agriculture (VITA) (IFAD funded, to be implemented by ADBL)
- Climate Smart Agriculture (WB), under conceptualization
- Fruits Development Project (ADB), under conceptualization

# Cost of ADS (10 Years)

Contributions	USD million	Rs billion	Rs billion/year	Percent
GoN/Donors	4,683	444.9	44.5	89
Private/Community	600	57	5.7	11
<b>Total</b>	<b>5,282</b>	<b>501.8</b>	<b>50.2</b>	<b>100</b>

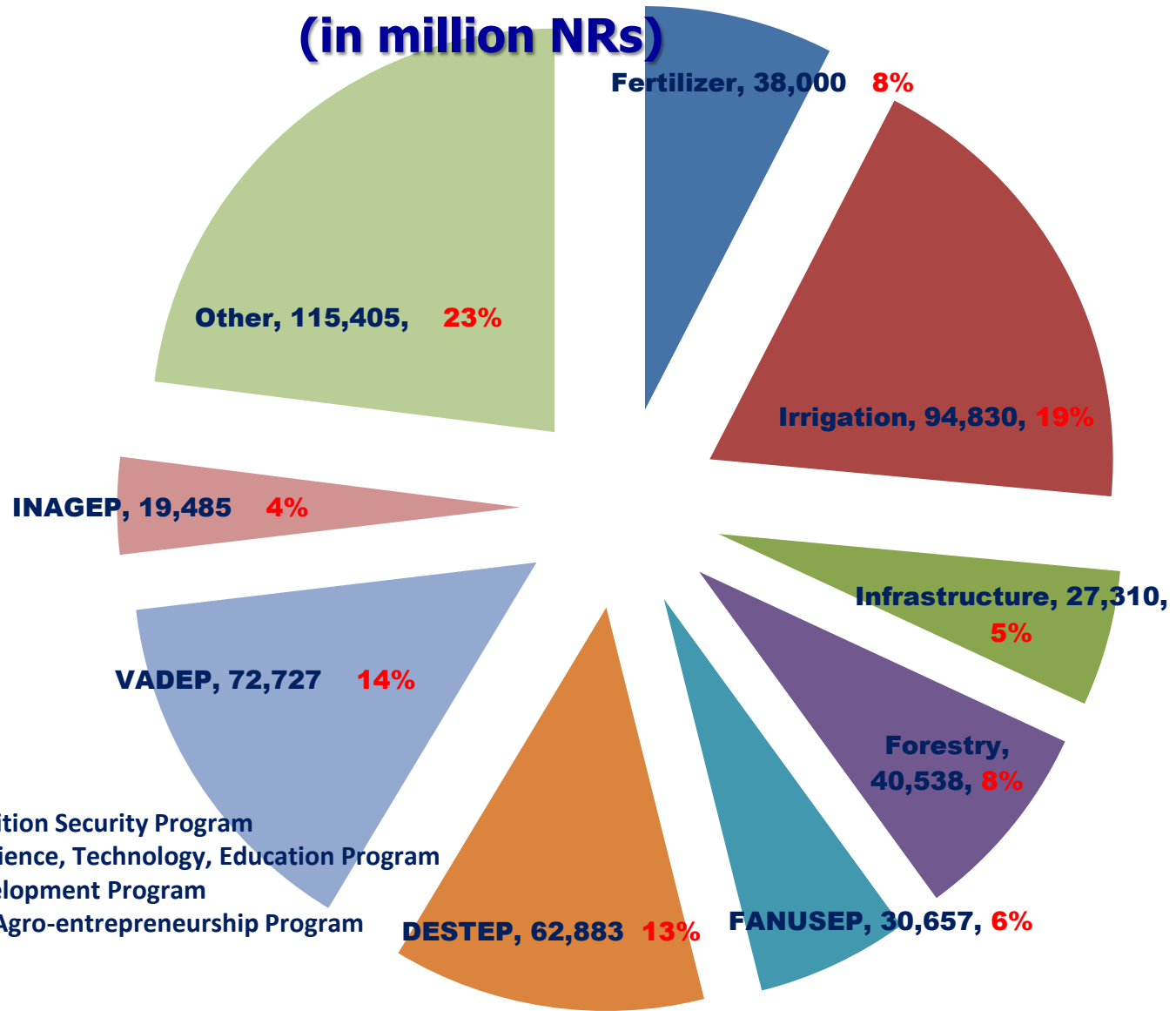
**Flagship Programs = 37 percent**

**Core Programs = 40 percent**

**Other programs = 23 percent**

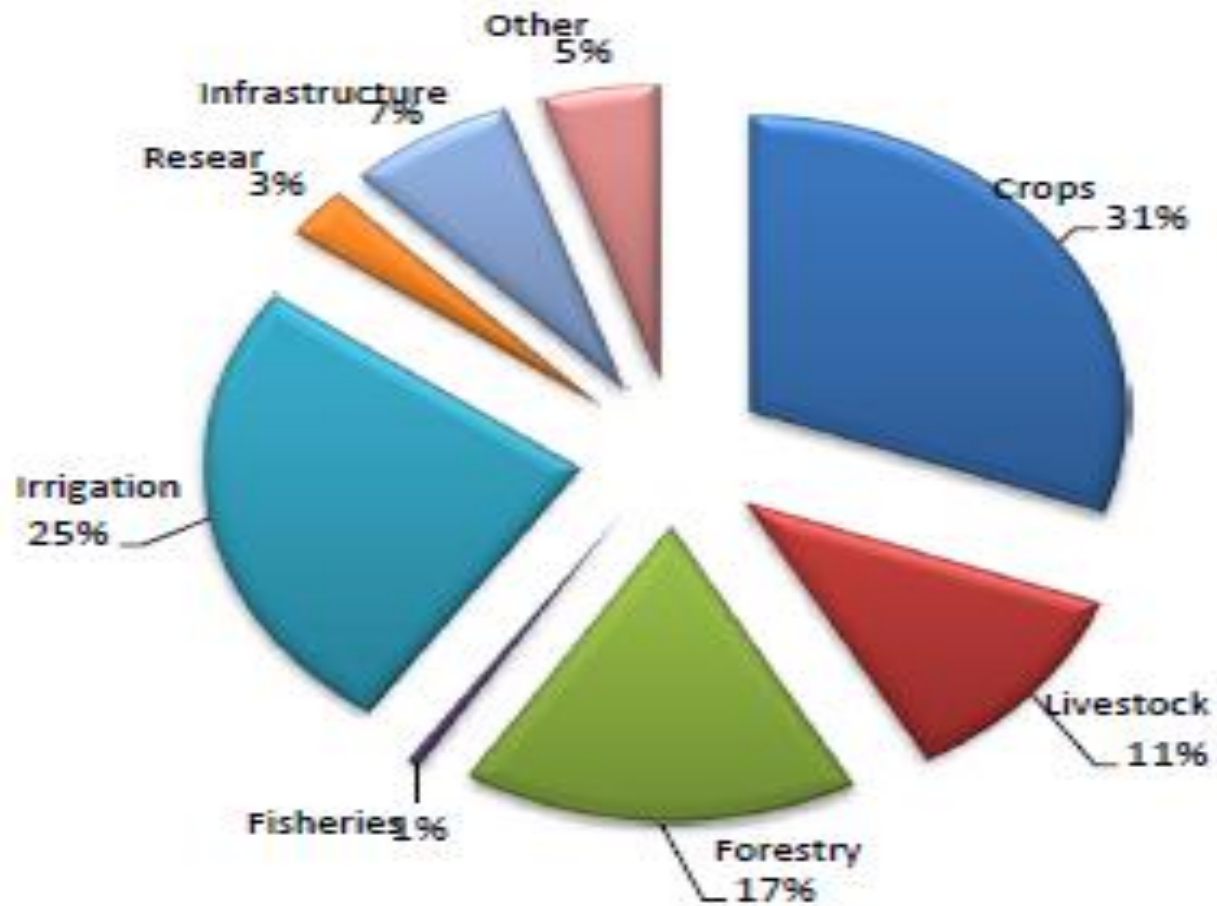
# ADS Budget Projection for 10 Years

(in million NRs)



FANUSEP : Food and Nutrition Security Program  
DESTEP : Decentralized Science, Technology, Education Program  
VADEP : Value Chain Development Program  
INAGEP : Innovation and Agro-entrepreneurship Program

# Expenditure by Sub-Sector

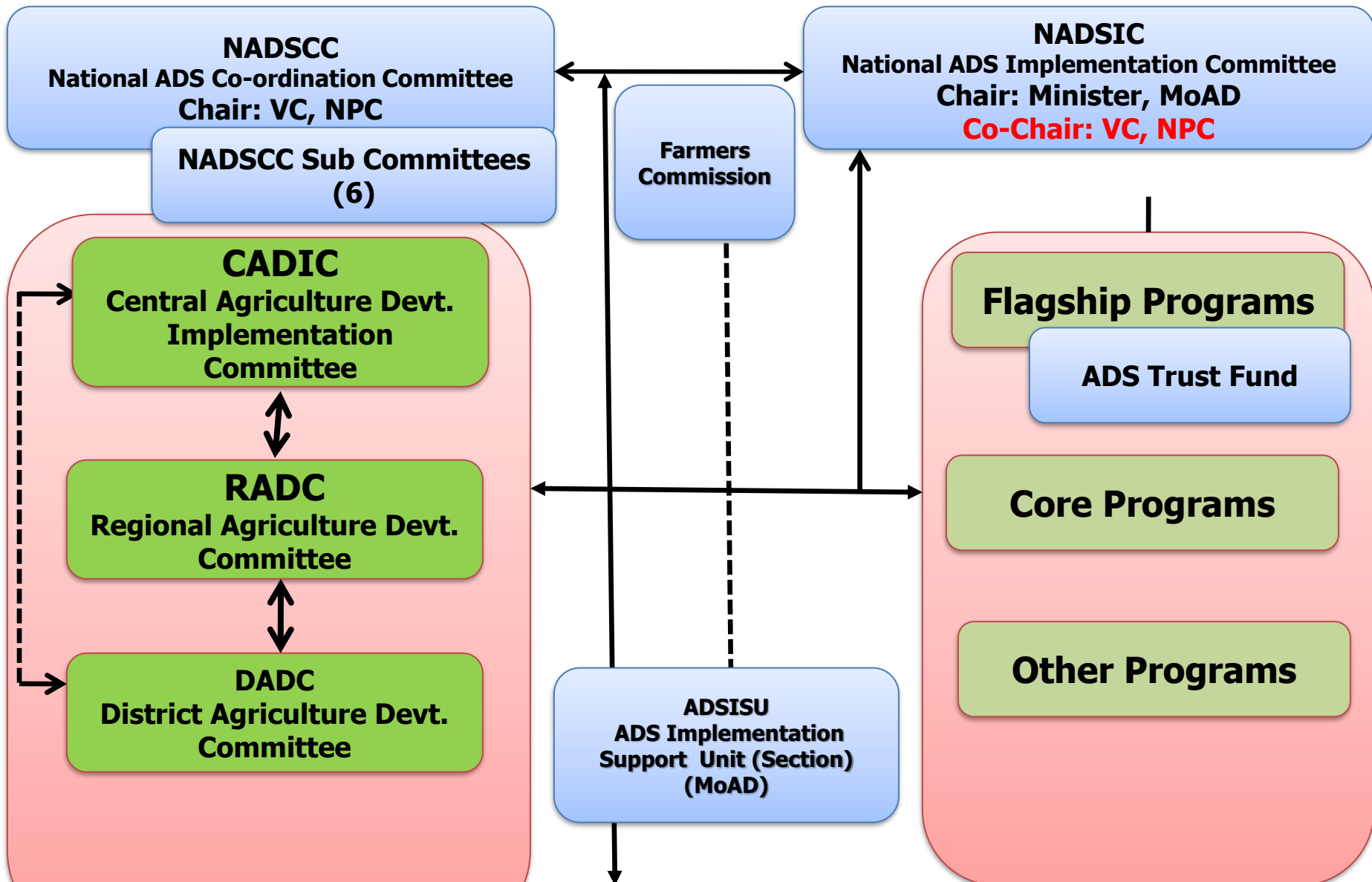




# ADS Implementation Supporting Institutions

- **ADS Action Plan:** 10 Years
- **ADS Implementation Guideline:**
- **ADS Trust Fund:** ATF Regulation formed but yet to be approved
- **National Commission on Farmers:**
- **Different Committees:** NADSIC, NADSCC, ADS-JSR
- **MoAD/ADSISU:**
- **ADS Focal Unit/Focal Person:** Concerned Ministries, Departments, Directorates and Centers.

# Institutional Arrangement for ADS Implementation



**Community Agriculture Service Centers (CAESC)**

# **ADS Implementation Trust Fund (ATF)**

**ATF is a** Multi-donor Trust Fund with implementation modality agreeable to both GoN and development partners.

## **ATF may be used for**

- Implementation of Flagship Programs
- TA support for effective implementation of ADS

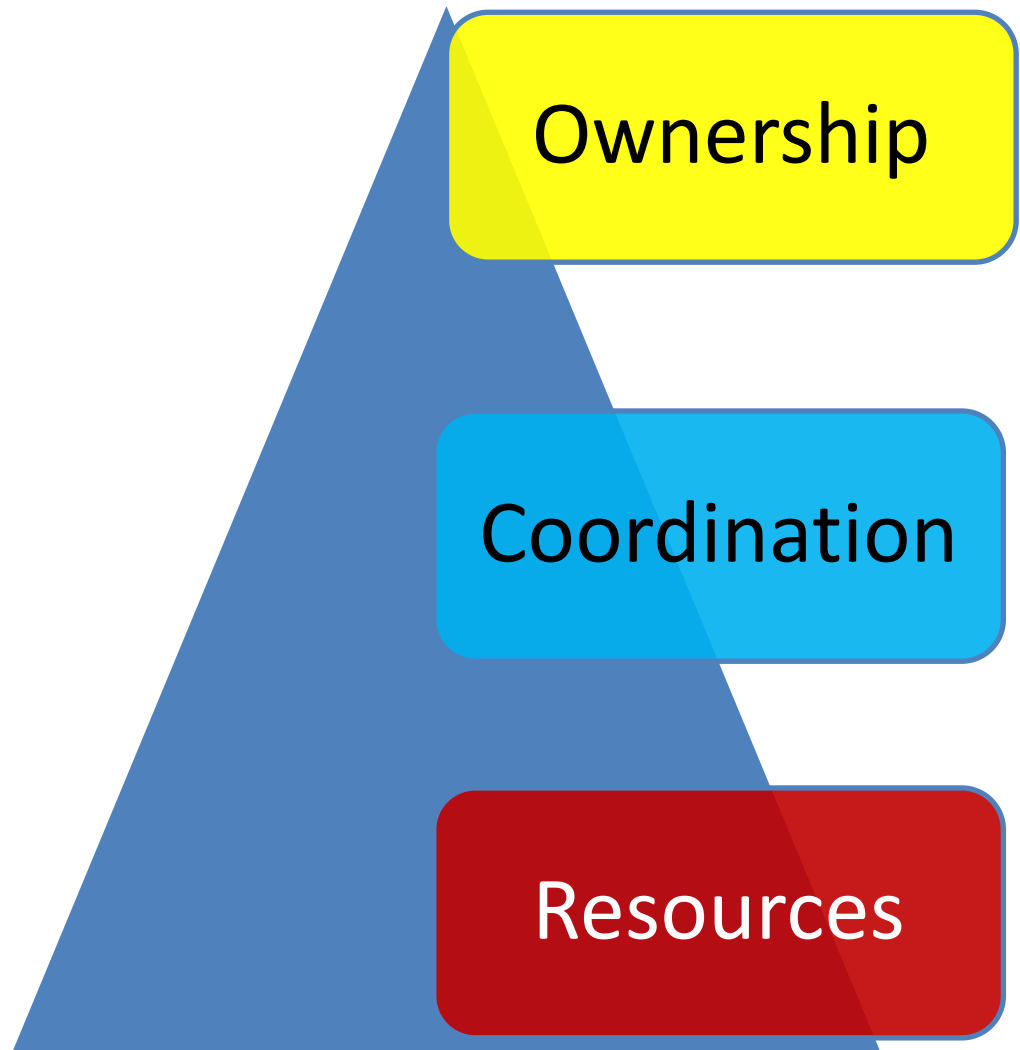
# Monitoring and Evaluation of ADS

- Living Document
- Creation of responsible institutions
- Periodic reporting to Parliamentary Committee on Agriculture and water Resources
- Review after state restructuring
- Independent review in every 5 years

# **Prominent Issue**

- **Ownership of the strategy at wider level**
- **Policy coherence with respect to ADS**
- **Budget Commitment and resource management including management of Trust Fund**
- **Coordination among different stakeholders**
- **Adjustment with state restructuring**

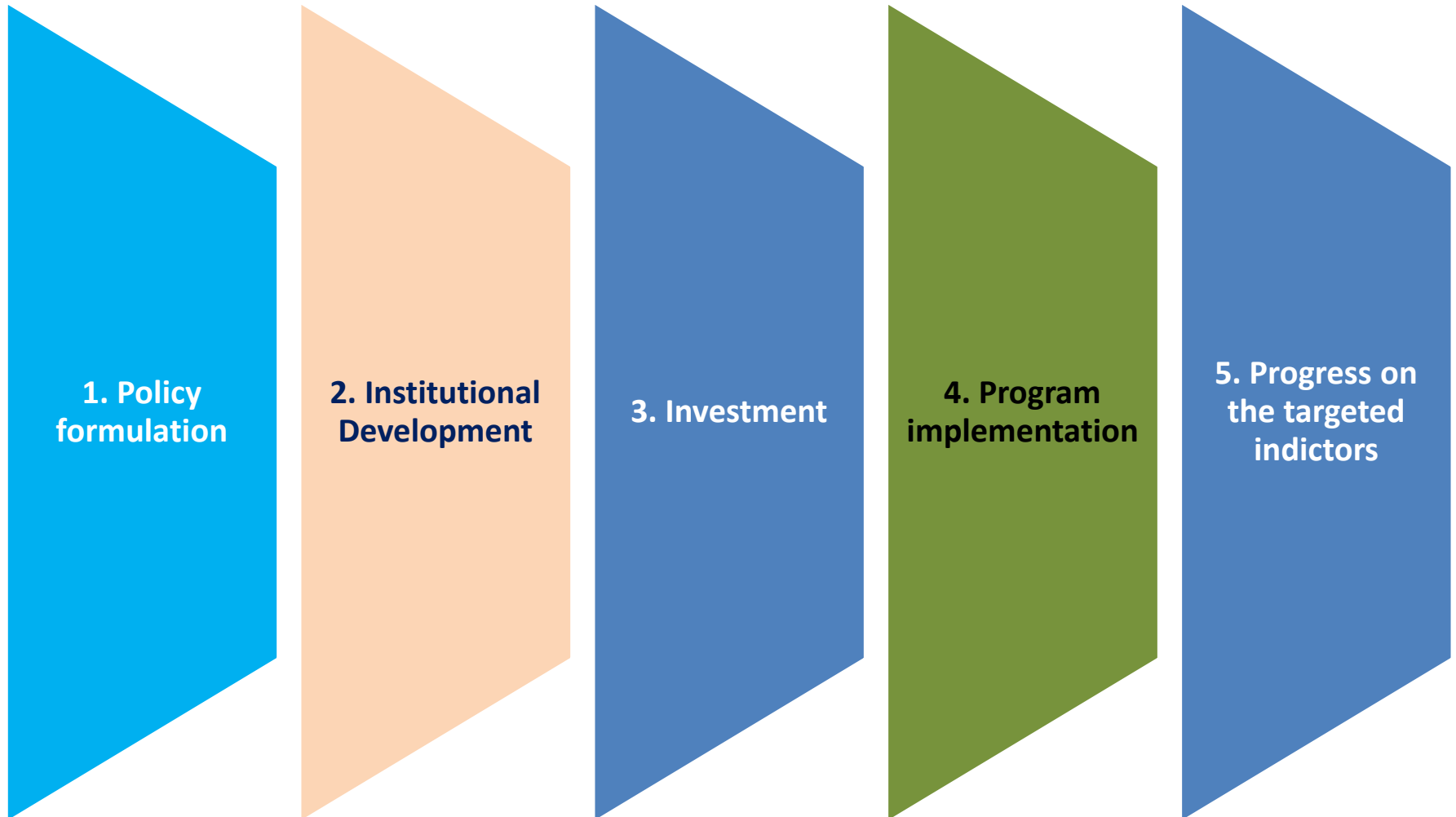
# Successful Implementation of ADS:



# Implementation Status of ADS



## ➤ Assessment based on following 5 criteria



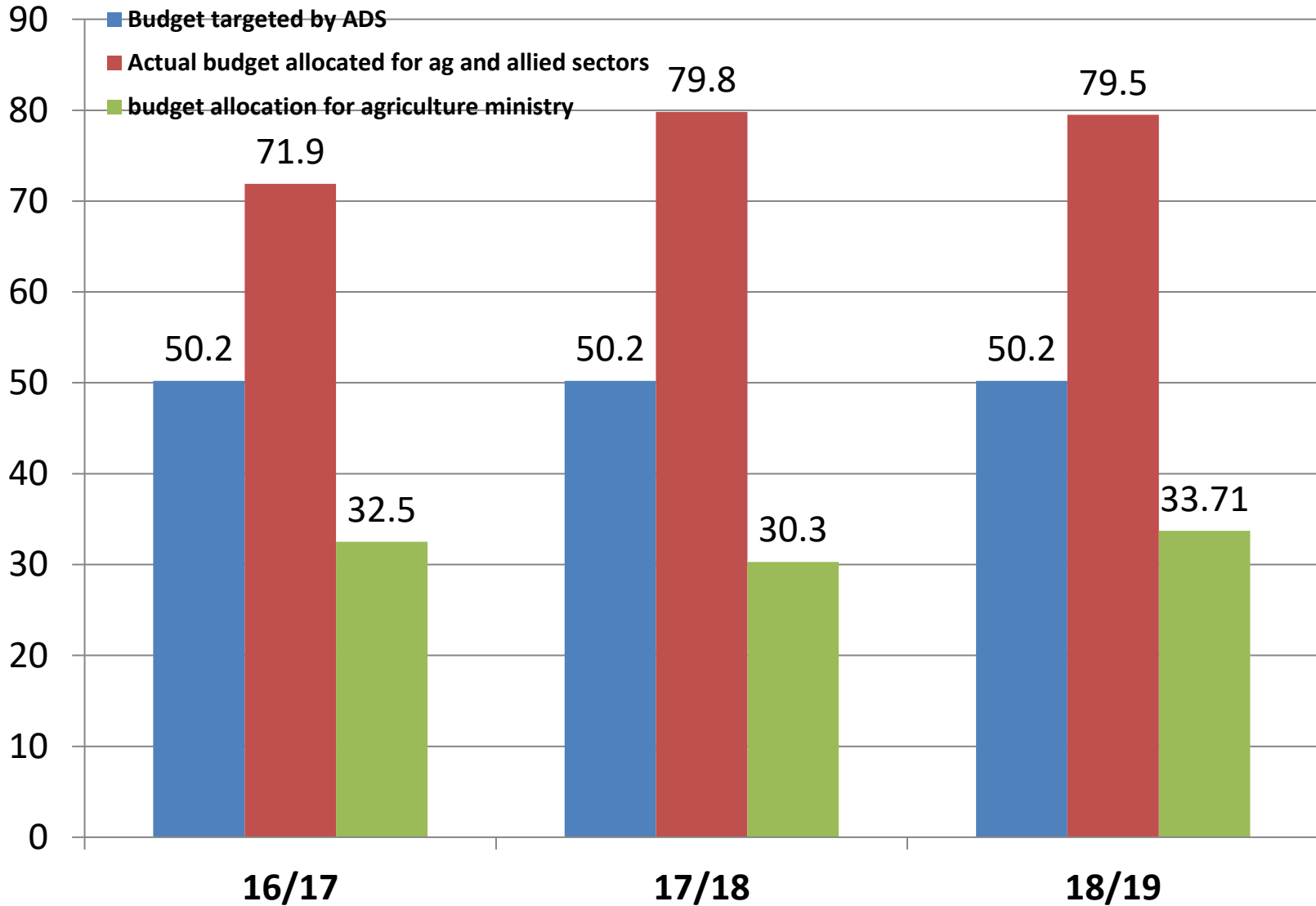
# Policy Formulation

- Formulation of Food Security and Food Sovereignty Act
- Food and Nutrition Security Plan of Action has been approved as per the decision of the Minister level dated 2072/11/10
- Agribusiness Promotion Act is being drafted
- Food hygiene policy prepared
- Land Use Act issued
- Good Agricultural Practice launched
- **Land bank concept introduced**

# Institutional Development

- **National farmers commission**
- **National ADS Implementation committee**
- **National ADS Coordination committee**
- **ADS Coordination unit established**
- **Flagship manages recruited**
- **Focal units established in related agencies**
- **ADS Experts recruited at provincial level**

# Budget Allocation Status (in Billions)

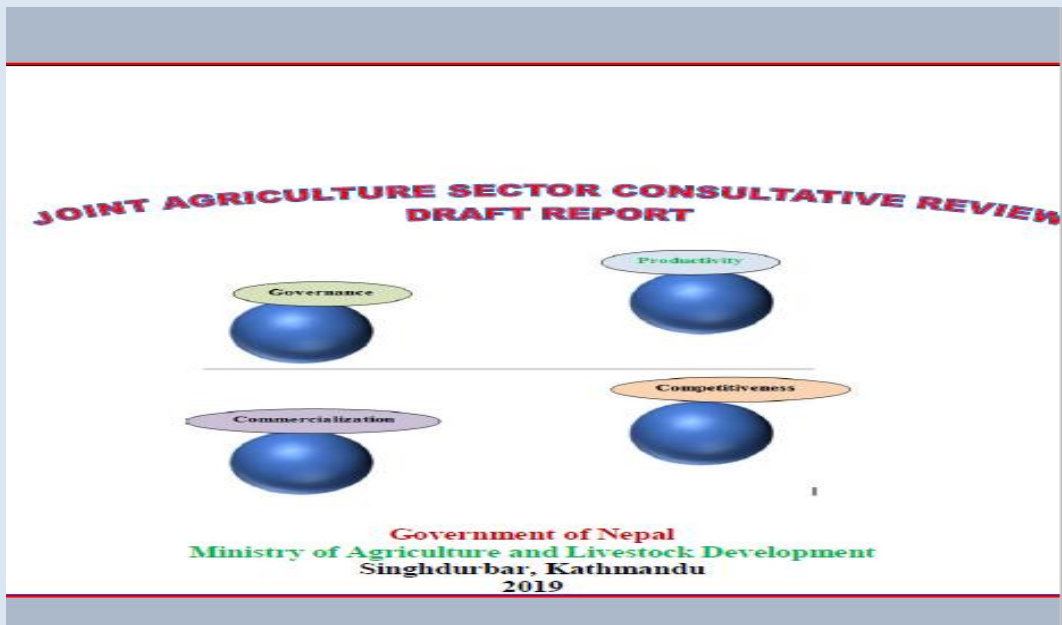


- 1. Primeminister agriculture modernisation project (PMAMP).** As a supportive project of ADS implementation, it is being approved and implemented as per the decision of the Council of Ministers of the GoN (2073) and activities under all flagships conducted through this project.
- 2. Food and Nutrition Security Enhancement Project and ASDP.** Proposal under AFSP II has been approved through GAFSP. To come into operation Project under the Food and Nutrition Security Flagship. IFAD funded ASDP project is working in value chain development.
- 3. Budgetary support from the European Union.** Rs. 36 million in budget support and Rs. 4 million in technical assistance from the European Union for ADS.
- 4. ADB Technical Support to ADS Value Chain Flagship.** Asian Development Bank is conducting a study through a consultant to provide technical assistance for ADS value chain augmentation flagship.
- 5. As a regular program.** Food security, value chain development, commercialization and competitiveness enhancement programs are being conducted through the Ministry and its subordinate bodies.

➤ ADS Implementation Action Plan prepared

➤ ADS Monitoring plan drafted

➤ Second Agriculture sector review report prepared includes the progress of ADS indicators



## 5. Progress based on ADS Targeted Indicators

Vision Component	Indicator	Baseline (FY2015/16)	Targets (FY2020/21)	Intermediary Achievement/Trend	Achievement Status
Self-Reliance	Food Grains Self-Sufficiency	16% food grains trade deficit	Reduce to zero deficit	Food grains trade deficit has not decreased. NRs79 billion imports and NRs11.43 billion exports registered from 16 July to 15 November 2018, with major share occupied by food grains. Cereals worth NRs44.58 billion imported in FY2017/18.	-ve
Sustainability	Year-round irrigated area (ha)	25.2% of cultivated land	35% cultivated land	41,180 ha irrigated area developed in FY2016/17 and 39,669 ha in FY2017/18. Irrigating additional 56,880 ha targeted for FY2019/20.	+ve
	Nutrient content in soil (%)	1.96	3	Could not find recent data in absence of annual monitoring system. However target seems very ambitious	-ve
	Degraded land (m ha)	3.72	2.88	Degraded land area decreased in recent years, although credible data not available. 15,460 ha degraded land restored in FY2017/18. However natural disasters also increases	Neutral
	Forest coverage (%)	44.7	44.7	44.7% land is covered by forests and shrubs in FY2017/18.	+ ve
	Land productivity (AGDP/ha) (\$)	3,278	4,184	No evidence of agriculture land productivity increased during last two FYs.	Slightly +ve
	Agribusiness GDP contribution to overall GDP (%)	8	9	Agribusiness GDP perceived to have increased during last two FYs, given govt.'s high priority in agribusiness, although no mechanism to annually monitor progress.	Slightly +ve



<b>Vision Component</b>	<b>Indicator</b>	<b>Baseline (FY2015/16)</b>	<b>Targets (FY2020/21)</b>	<b>Intermediary Achievement/Trend FY2017/18.</b>	<b>Source of Information</b>
Competitiveness	Agriculture trade balance (\$ m)	1,123	1,073	Ag. trade deficit widening	-ve
	Agricultural exports (\$ m)	225	456	Ag. export earnings increased to \$287 million.	Slightly positive
Inclusiveness	Women or jointly owned agricultural land (%)	16	20	Women owned 19.7% of land	+ve
	Farmers' access to agricultural programs (%)	18.2	22	Around 20% farmers accessed govt. extension services	Slightly positive
Agricultural growth	Average agri. GDP growth (%)	2.23	4	AGDP grew by 5.2% (at base price level) in FY2016/17 and 2.8% in FY2017/18.	Slightly +ve
Livelihood	Agri.GDP/labor (\$)	835	1,029	AGDP/labor is estimated to have increased to \$953.	Slightly +ve
	Rural poverty (%)	24.3	19	Decreased national poverty (21.6% in FY2015/16), although no mechanism in place to annually monitor.	Slightly +ve

Vision Component	Indicator	Baseline (FY2015/16)	Targets (FY2020/21)	Intermediary Achievement/Trend	Source of Information
Food and Nutrition Security	Food-based poverty (%)	27.6	19	Malnourishment decreased to 24.4	+ve
	Nutrition <ul style="list-style-type: none"> <li data-bbox="224 601 639 715">• Stunting -below 5year child (%)</li> <li data-bbox="224 715 639 886">• Underweight - below 5-year child (%)</li> <li data-bbox="224 886 639 1015">• Wasting- below 5-year child(%)</li> <li data-bbox="224 1015 639 1200">• BMI - women having 18.5 or less(%)</li> </ul>	37.4	29	Decreased to 35.8	
	30.1	20	Decreased to 27		
	11.3	5	Decreased to 9.7		
18.1	15	Decreased to 16.5			

# Some issues and Challenges for ADS Implementation

- ❖ Adjustment with state restructuring (being exercised by MoALD in coordination with provincial Agriculture Ministries)
- ❖ To ensure ownership and ownership at all levels
- ❖ To reconcile future policies
- ❖ Management and operation of ADS trust fund
- ❖ Creation and implementation of contemporary act
- ❖ Functional coordination among stakeholders

# General Issues

- ❖ Information Flow between 3 Tiers of Government has been very weak.
- ❖ Still poor coordination among 3 agencies – Research, Education, and Extension
- ❖ Duplication of many activities by 3 level of governments (In principle: Regulation by central; Monitoring by provincial; and Implementation by local government)
- ❖ Capacity of technical human resources (No. and quality)
- ❖ Departments of Agriculture and Livestock Services need to be re-structured to act as **Center of Excellence**.
- ❖ International collaboration with Association of Nepalese Agricultural Professionals of Americas (NAPA)

**THANK YOU**