ALiSEA
Agro-ecology Learning alliance in South East Asia

Workshop on the concept of agroecology and sustainable food systems in Cambodia

Agriculture context and problems identified in Cambodia

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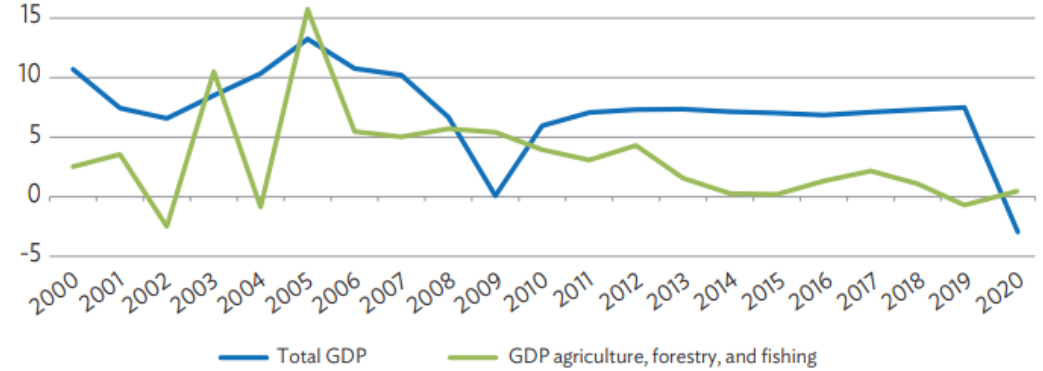
Agriculture context in Cambodia

- Agriculture in Cambodia is experiencing a rapid transition.
- Between 2004 and 2012, agricultural growth averaged 5.3 %, which was among the highest in the world.
- Increased harvests, more productive use of labor due to technology, and the extension of farmland all contributed to growth.
- Yet, agricultural growth has slowed down to around 1-2% in 2013-2014.
- World Bank report identified issues and proposes solutions to ensure that agriculture remains a source of growth and poverty reduction. (The World Bank Group, 2022)

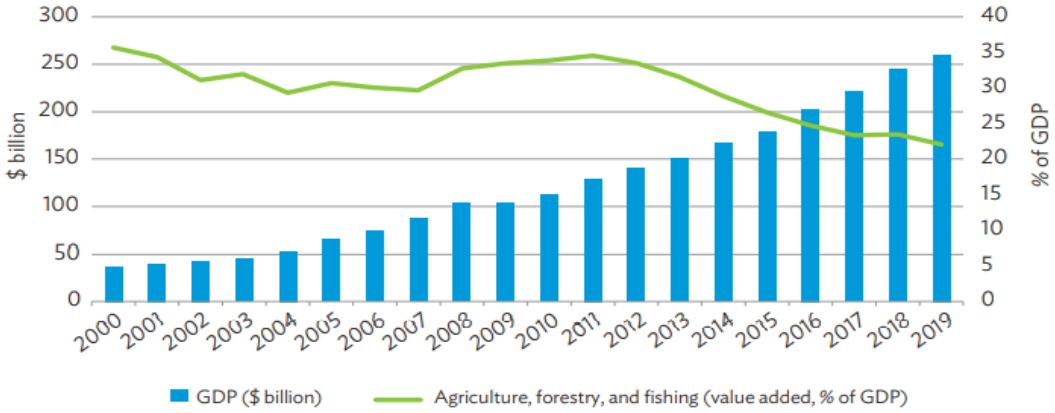
Growth in gross domestic product (Total vs. Agriculture), 2000-2020 (annual % growth)



GDP = gross domestic product.

Sources: Asian Development Bank. 2021. *Asian Development Outlook 2021: Financing a Green and Inclusive Recovery*. Manila; and World Bank national accounts data, and Organisation for Economic Co-operation and Development National Accounts data files (accessed 7 June 2021).

Total Gross domestic product and share of agriculture value added, 2000-2020



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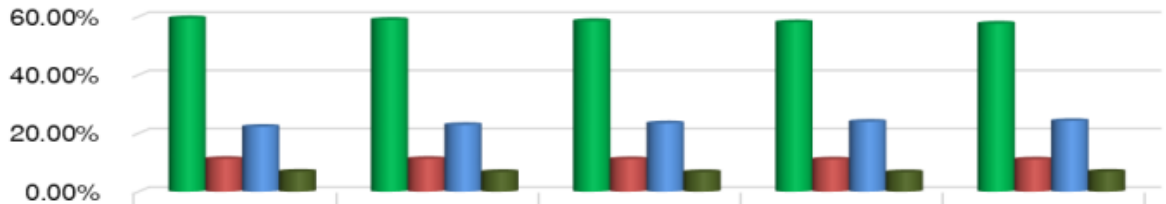
Source: World Bank national accounts data, and Organisation for Economic and Co-operation and Development National Accounts data files (accessed 7 June 2021).

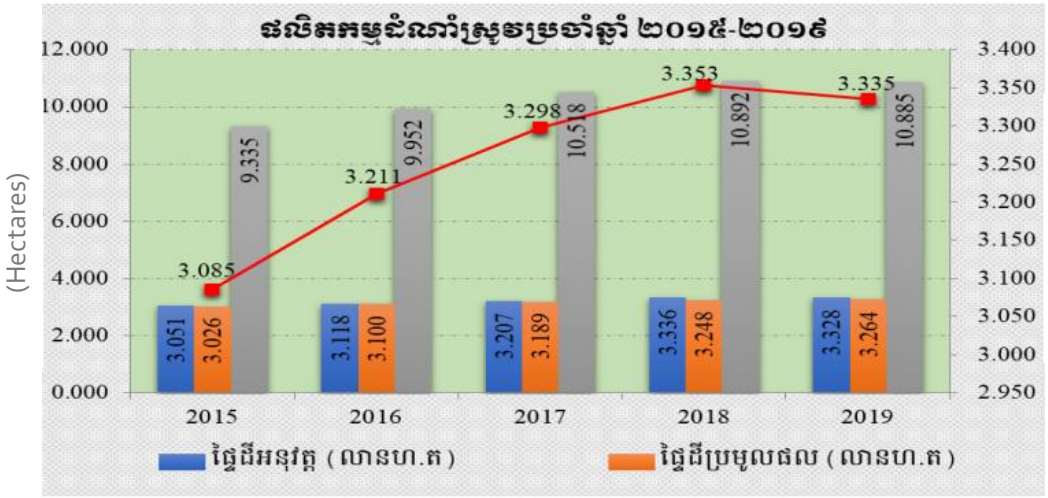
Share of Sub-agriculture sector, 2015-2019



	2015	2016	2017	2018	2019
Crops	59.50%	58.97%	58.55%	58.12%	57.67%
Livestock & Poultry	11.30%	11.30%	11.21%	11.12%	11.11%
Fisheries	22.29%	22.93%	23.48%	24.04%	24.30%
Forestry & logging	6.90%	6.80%	6.76%	6.72%	6.91%

Sources: Assessment by Ministry of Planning 2018

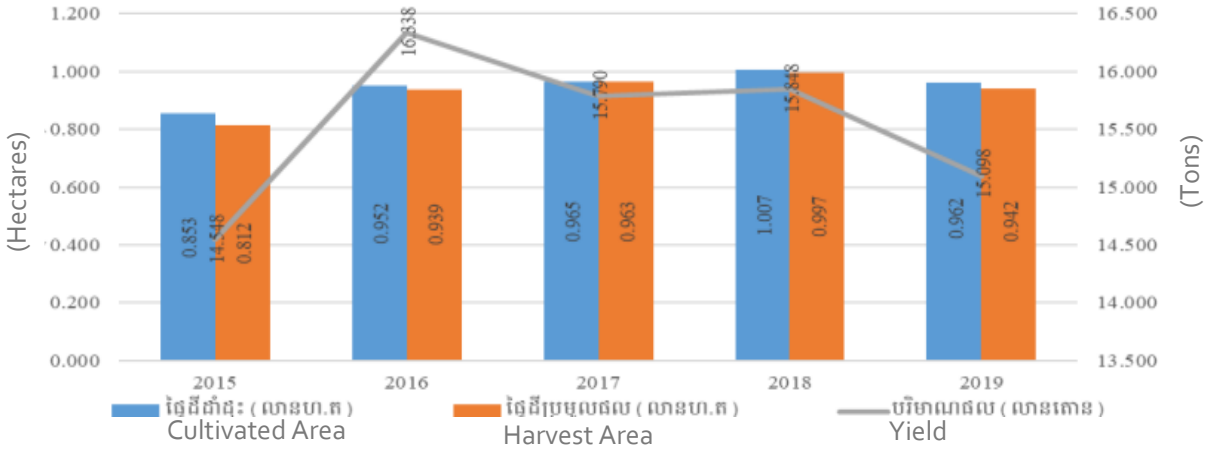
Total Rice production 2015-2019



Cultivated Area Harvest Area

Sources: MAFF's report 2019-2020

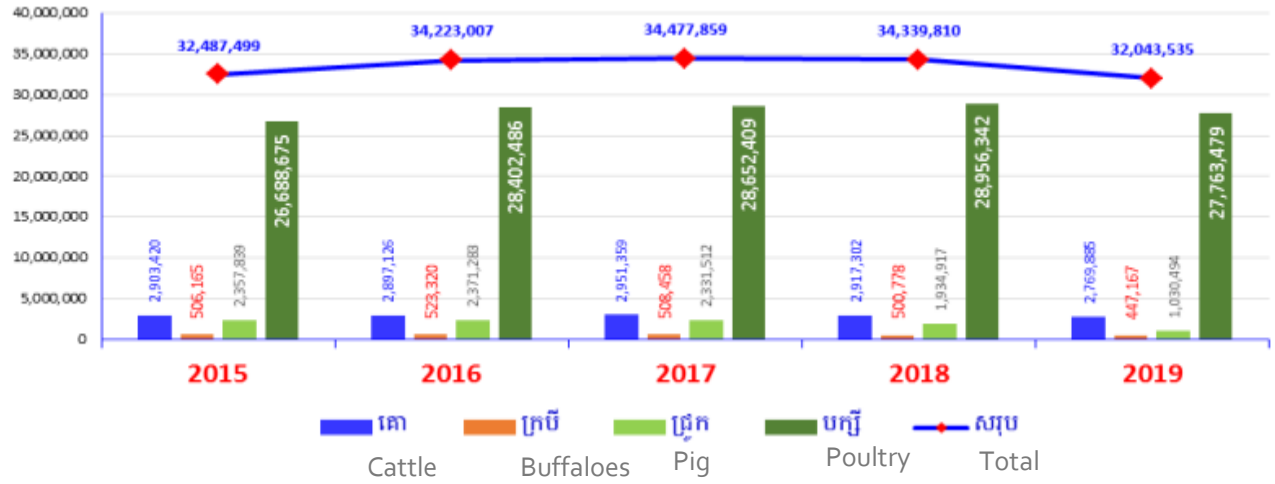
Industrial crops production, 2015-2019 (Short-term crops)



Cultivated Area Harvest Area Yield

Sources: MAFF's report 2019-2020

Household Animal Production, 2015-2019



Cattle Buffaloes Pig Poultry Total

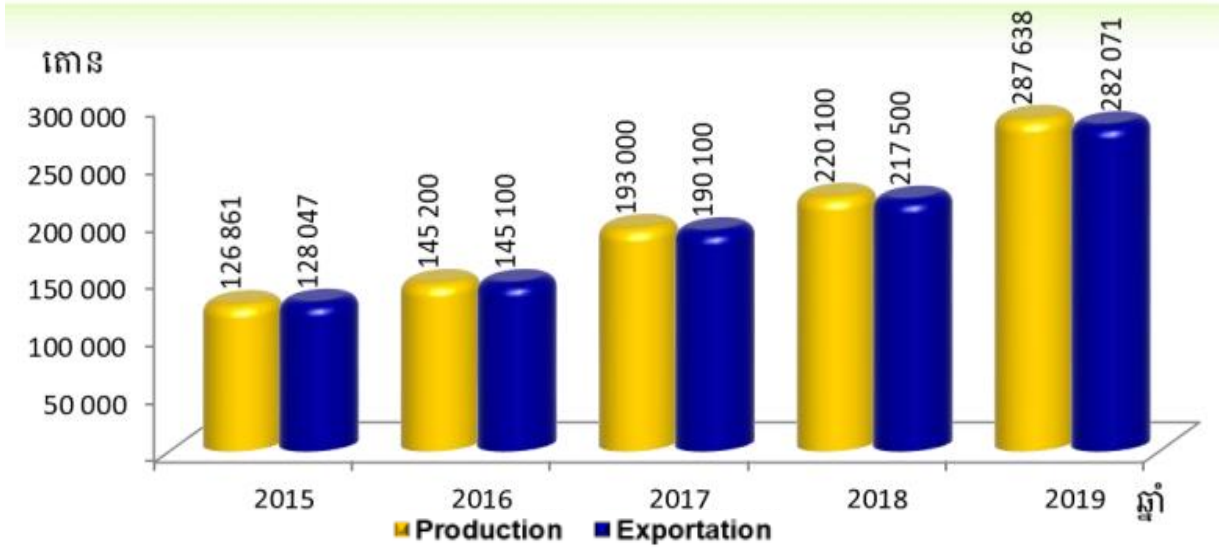
Sources: MAFF's report 2019-2020

Total agricultural production and rice production exported 2015-2019 (Tons)

Total exported Rice exported

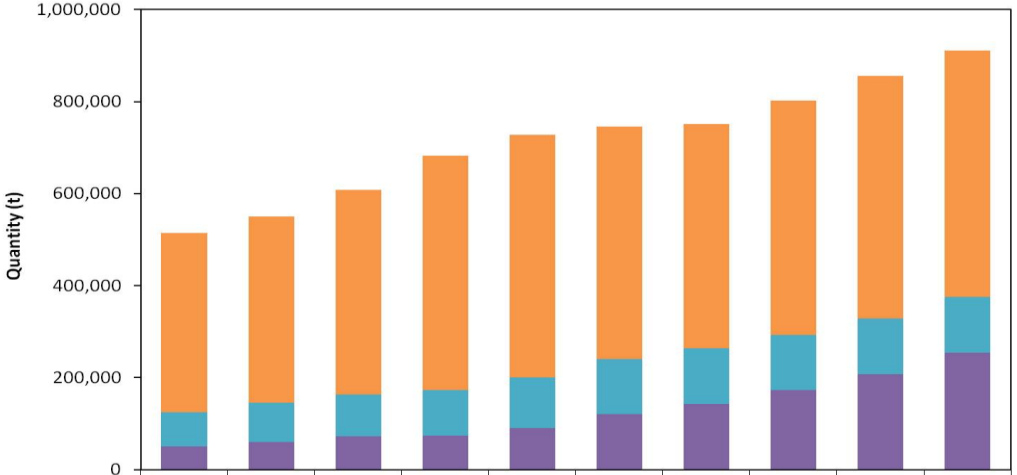
Sources: MAFF's report 2019-2020

Rubber production and exported 2015-2019



Sources: MAFF's report 2019-2020

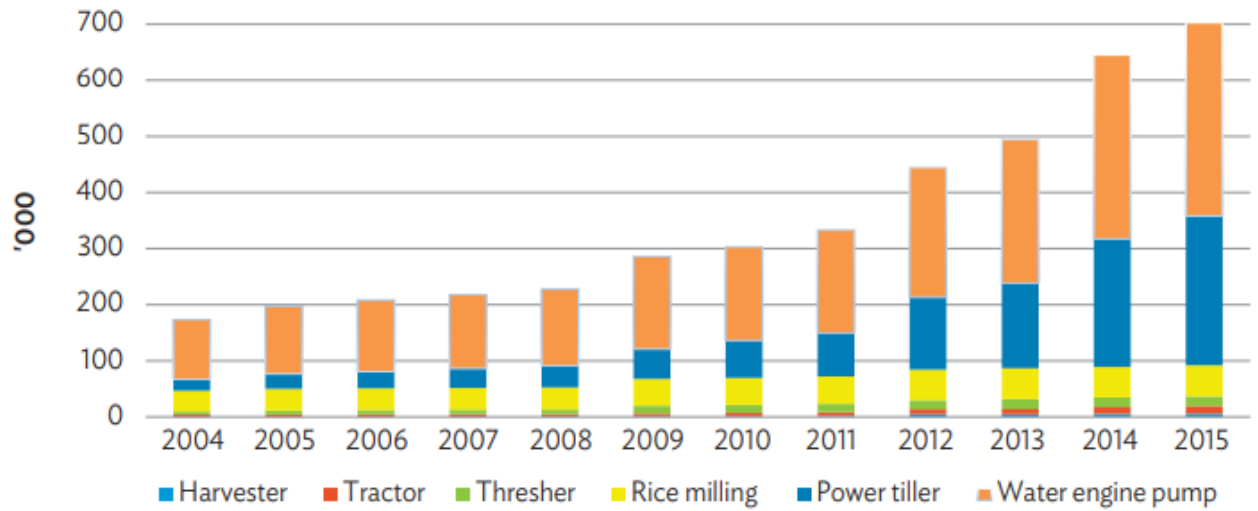
Fisheries production of Cambodia from 2009 to 2018 by quantity (T)



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Inland capture	390,000	405,000	445,000	509,000	528,000	505,005	487,905	509,350	527,795	535,005
Marine capture	75,000	85,000	91,000	99,000	110,000	120,250	120,500	120,600	121,025	121,100
Aquaculture	50,000	60,000	72,000	74,000	90,000	120,055	143,141	172,500	207,443	254,048
Total	515,000	550,000	608,000	682,000	728,000	745,310	751,546	802,450	856,263	910,153

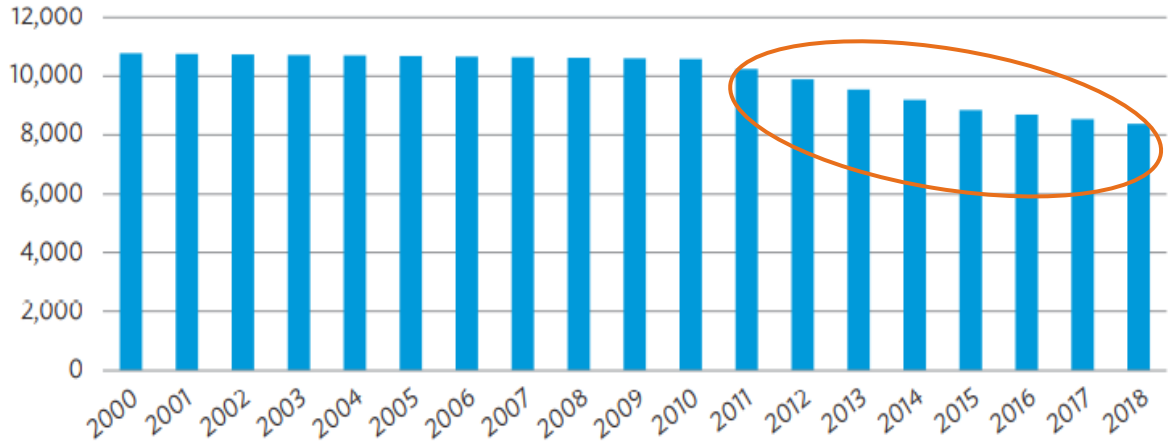
Source: FiA, 2018

Usage of main agricultural machinery, 2004-2015
(no. of units)



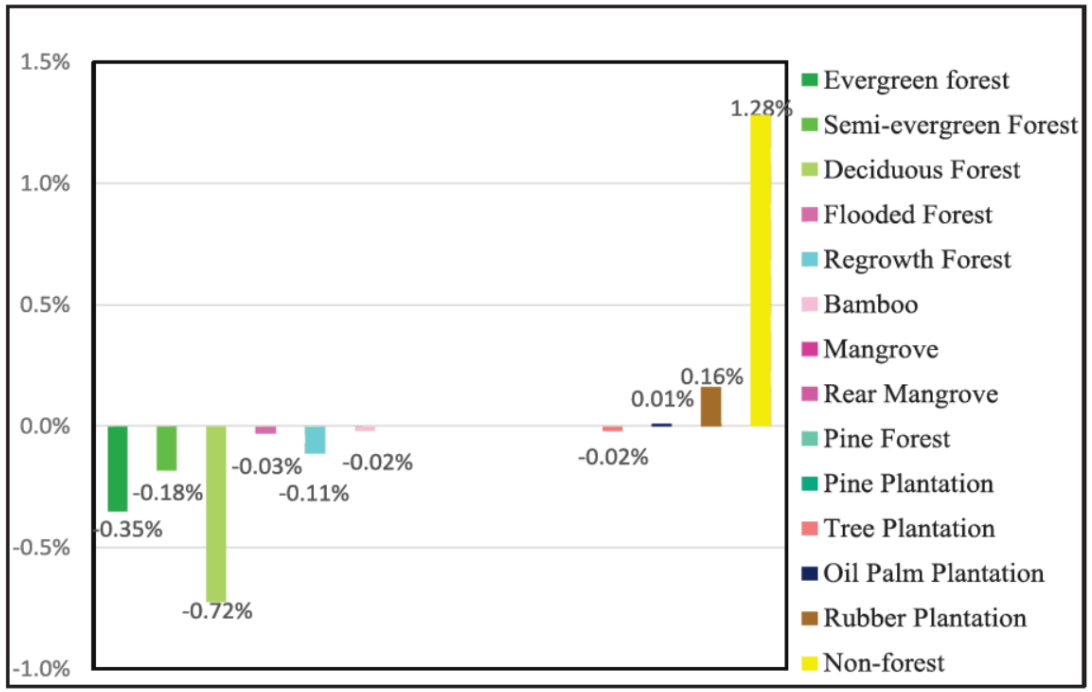
Source: BDLink (Cambodia) Co., Ltd. 2017. *Agriculture and Agro-Processing Sector in Cambodia.* Phnom Penh.

Total forest land area, 2000-2019 ('000ha)



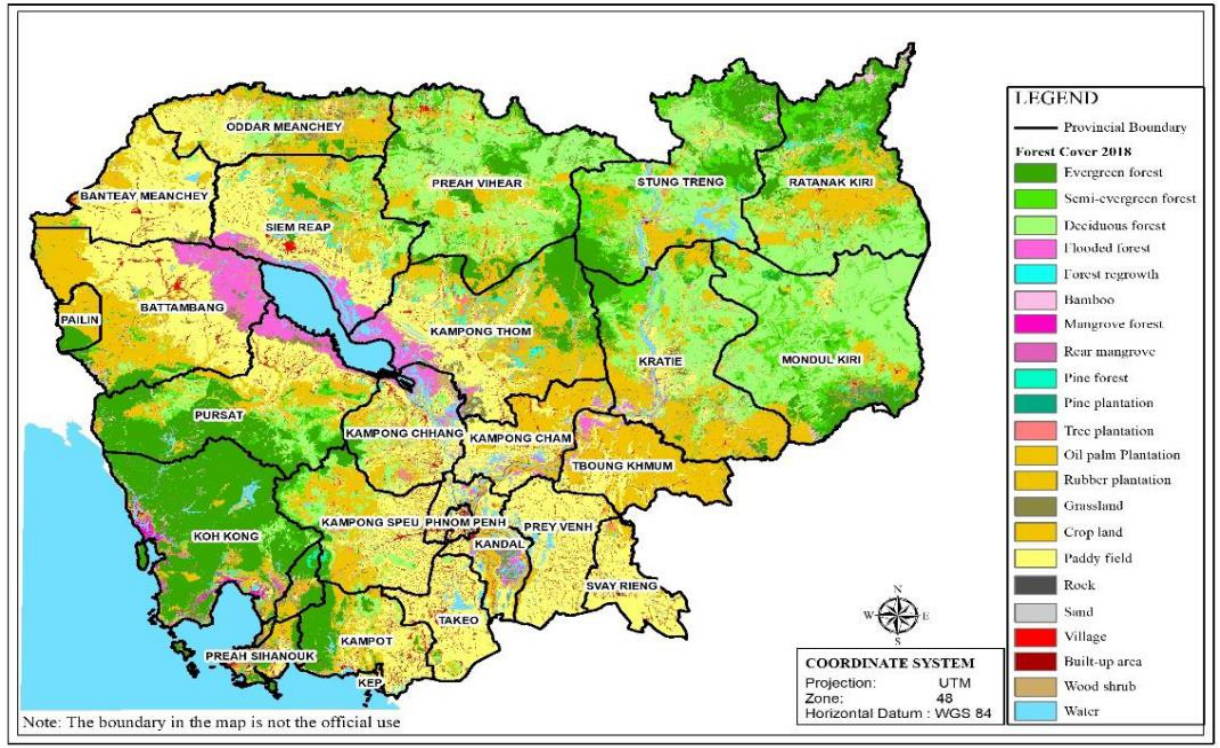
ha = hectare.

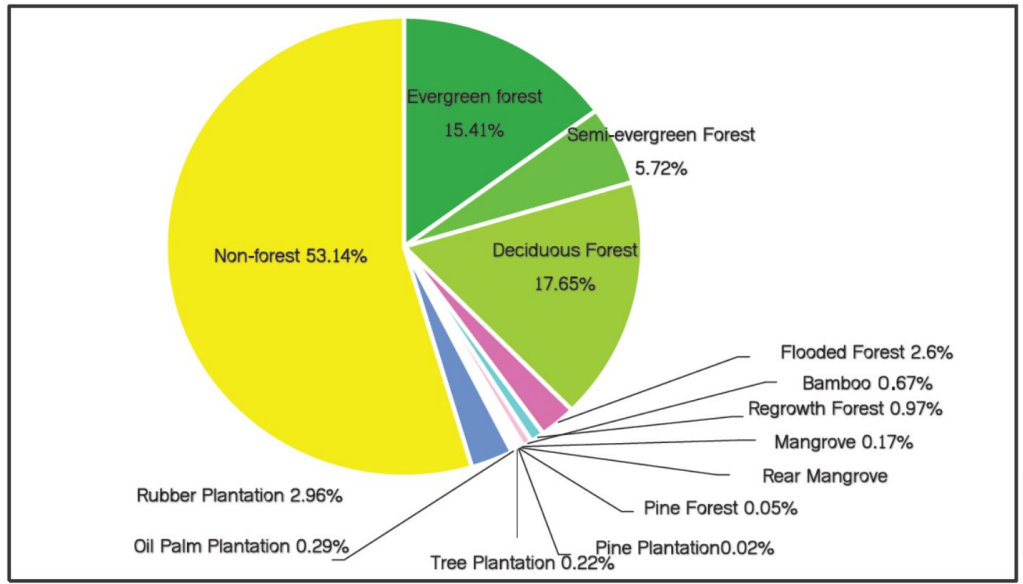
Source: Food and Agriculture Organization of the United Nations. FAOSTAT Database: Land Use (2000–2018) (accessed 7 June 2021).



Graphic 1: National land use/cover changes rate 2016 - 2018 Source: MoE (2018)

Cambodian Land use and Land cover (2016)





LAND DEGRADATION – LAND VULNERABLE TO EROSION

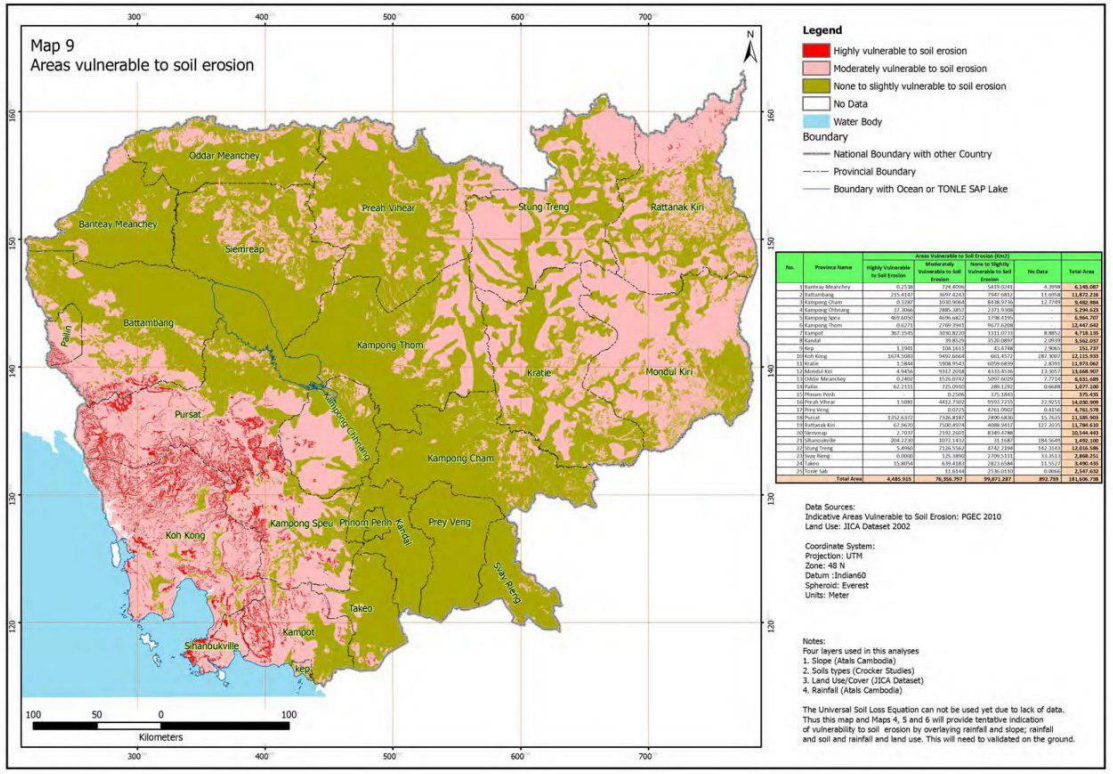
There is a need for the Cambodian agricultural sector to transform itself from increased production through land expansion with unsustainable use of land resources towards **Agroecology and Sustainable Intensification**.

- Vulnerability to soil erosion:
  0.49 million ha – highly
  7.63 million ha – moderately
  9.73 million ha – low to none

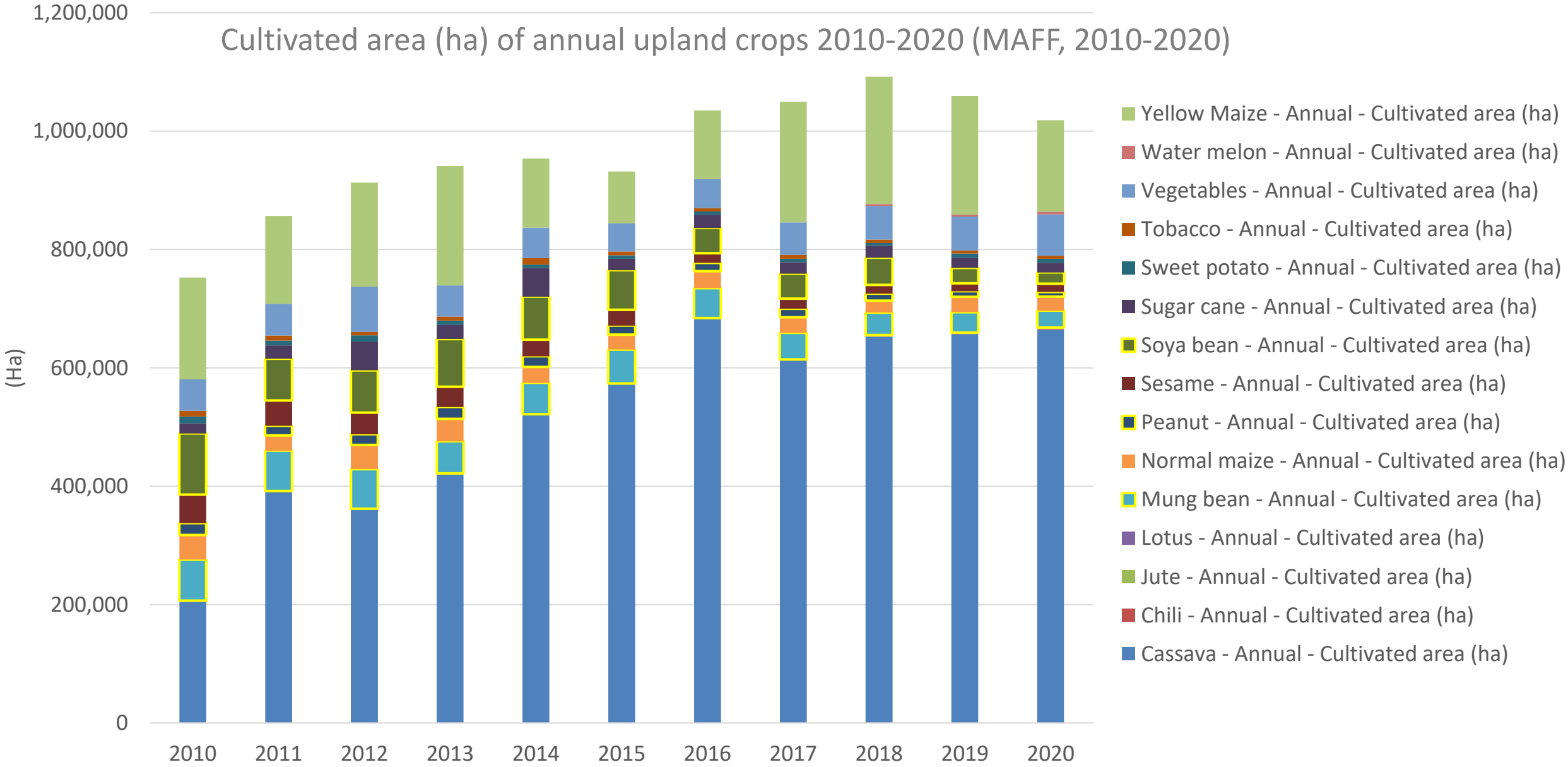
- Small holder farmers are particularly **vulnerable** to **climate change** given their high **dependence** on rainfall and minimal crop diversification.

- 6.3 million Cambodians living on degrading agricultural land in 2010, practicing poor land management.

- Annual cost of land degradation is estimated at USD 677 million or 3% of the country's GDP (UNCCD, 2018)

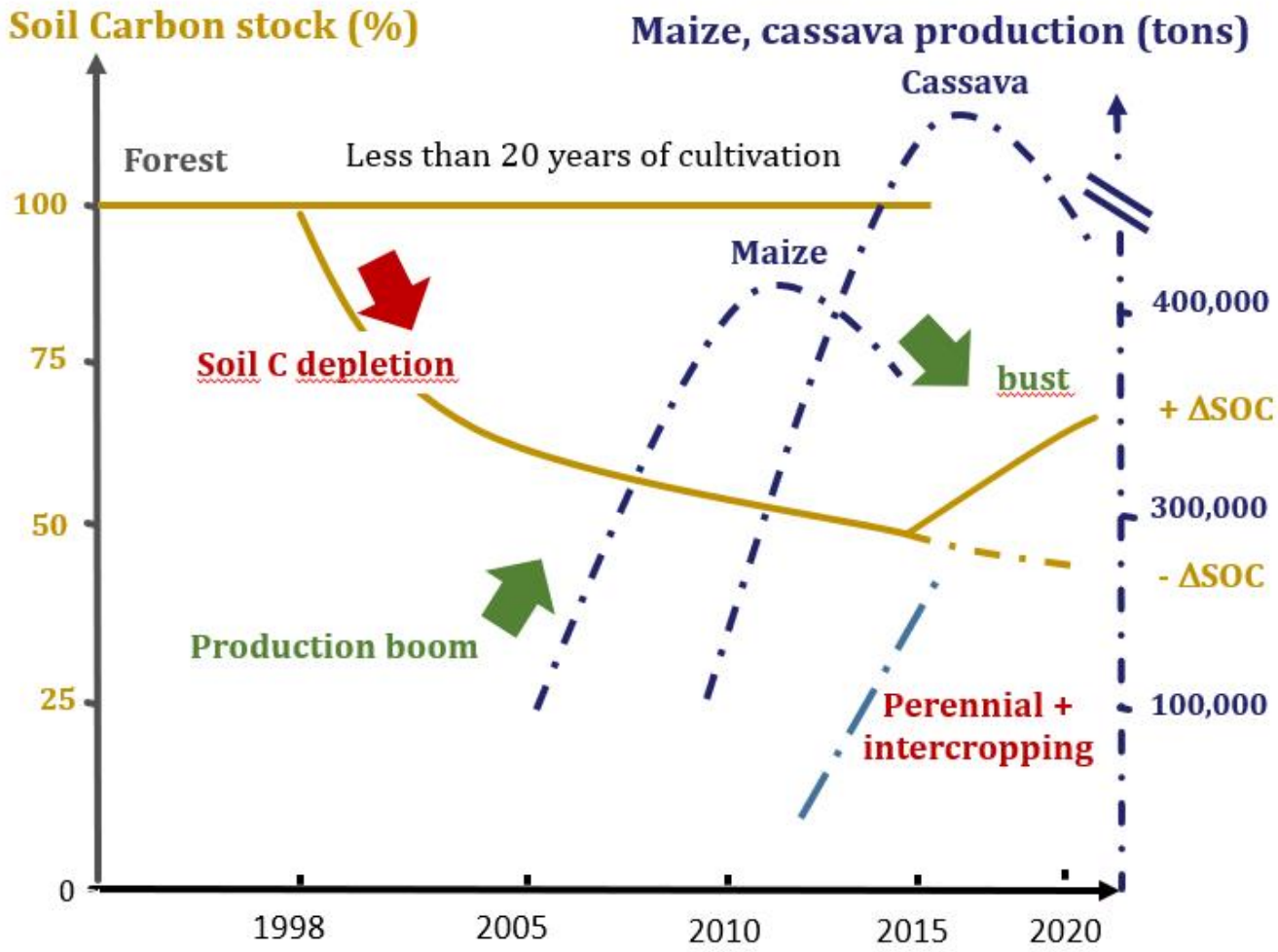


Transition toward monocropping: less area of pulse crops

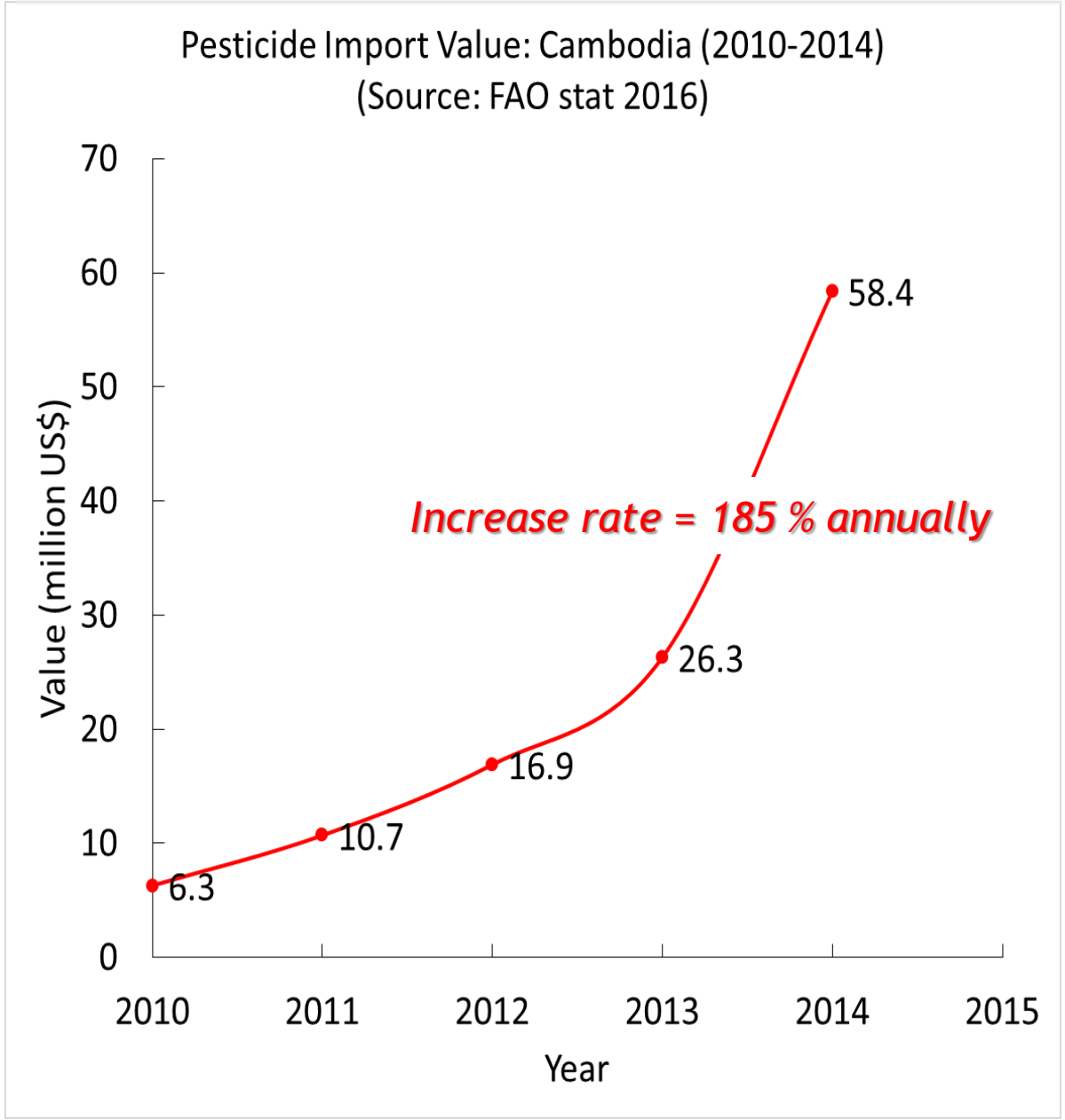


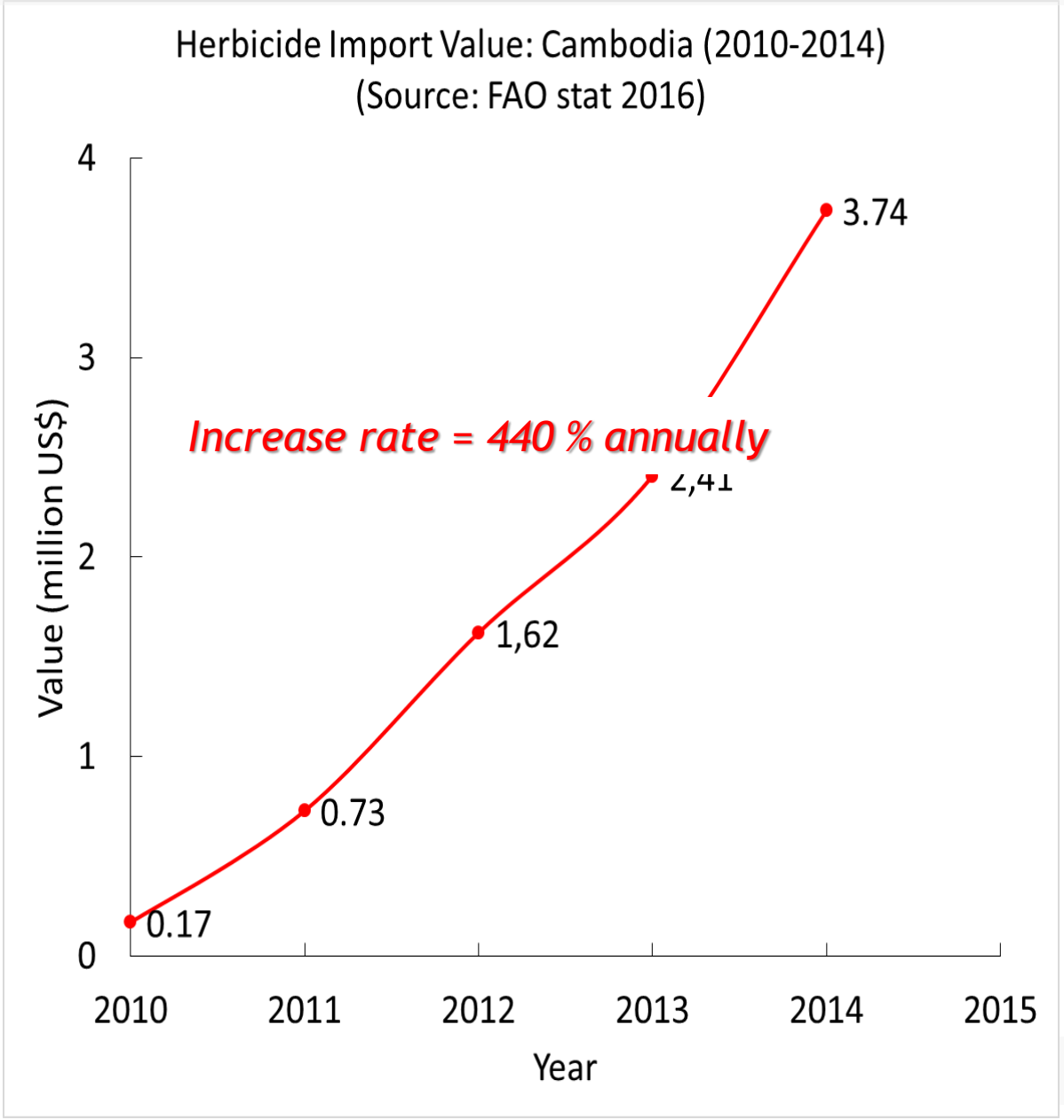
Challenges: Invest in Soil Organic C

Upland, North-west of Cambodia



Pesticide & herbicide use in Cambodia: Imported value (2010-2014)





Problems identified from 3 sources

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- Wind or rain erosion
- Loss of organic fertility and/or soil minerals
- Reduction of biodiversity
- Parasite attacks
- Frequent unforeseen weather occurrences and climate change
- Lack of farm autonomy (related to chemical inputs, animal feed, energy, etc.)
- Mediocre food quality
- Contaminations of the environment, products and people
- Contaminations of the environment, products and people
- Price fluctuation

LICA

- Soil degradation
- Drought, flood
- Biodiversity degradation
- High dependency on imported inputs
- Lack of diversification in farm production
- Imbalanced diets and emerging food scares
- Rural chemical pollution
- Low cost-effectiveness
- Lack of job opportunities in agriculture
- Agriculture is not modern

FAO

- Soil depletion
- Massive deforestation
- High levels of greenhouse gas emissions
- Water scarcities
- Biodiversity loss (Genetic diversity of crops, livestock, aquatic animals and trees continues to be rapidly lost)
- Health risks from parasitism
- Low variety of income sources from differentiated and new markets

Thank You

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