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Born on 05th November 1967, in Saman Village,
Phonethong district, Champasak province, Lao PDR.

Current position: Director of Champasak Agriculture and
Forestry College.



1984-1910 studied on tropical agriculture in Germany

1991-1999 started work at CHAFC as lecturer

2000-2001 attended a long term training in Germany on
“Food processing and Plant nutrition”

2002-2003 worked at CHAFC again

2003-2005 studied MsC in Agronomy at Khon Kaen University, studied on Response of 3 lao
rice varieties to Nitrogen.

2005 –present work at CHAF

Involved in some projects:

- Agro-forestry in Laos,
- Awareness of environment
- BUCAP in Laos
- Oxfarm in Laos
- SIDCE in Laos



Rice production in Laos

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Introduction

- ▶ Laos is a mountainous country in the central of Southeast Asian, bordered by Vietnam to the east, Cambodia to the south, Thailand to the west and by Myanmar and China to the north...[\lao presentation 2013\map.pptx](#)
- ▶ Laos has total area of 236,800 km², total population of 6.2 million, and population density of 24 persons/km².



Introduction (Cont.)

- ▶ Main economic sectors are agriculture and forestry, industry, energy and tourism.
- ▶ GDP per capita is USD 1,088 (2010), about 80% of total population depend on agriculture.
- ▶ Climate can be divided in 3 seasons: rainy season, cool dry season and hot dry season, annual rainfall ranges from 1,350 to 3,700 mm.



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Situation of rice production in Laos

- ▶ Rice is the staple food in Lao PDR. The area planted with rice in the year 2001 was about 746,700 ha and accounted for about 80% of the total cropped area.
- ▶ Approximately 81% of the rice is produced in the rain-fed ecosystem.



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Situation of rice production in Laos (Cont.)

- ▶ The rain-fed low land rice area comprises 65% of the total rice area, and accounts for 69% of the production.
- ▶ The rain-fed upland rice area accounted for 21% of the rice-growing area, and contributed 12 % of the total rice production.
- ▶ Total rice production in 2001 was about 2.3 million tons. This was the third successive year that the Lao PDR has achieved a total rice production over 2 million tons.

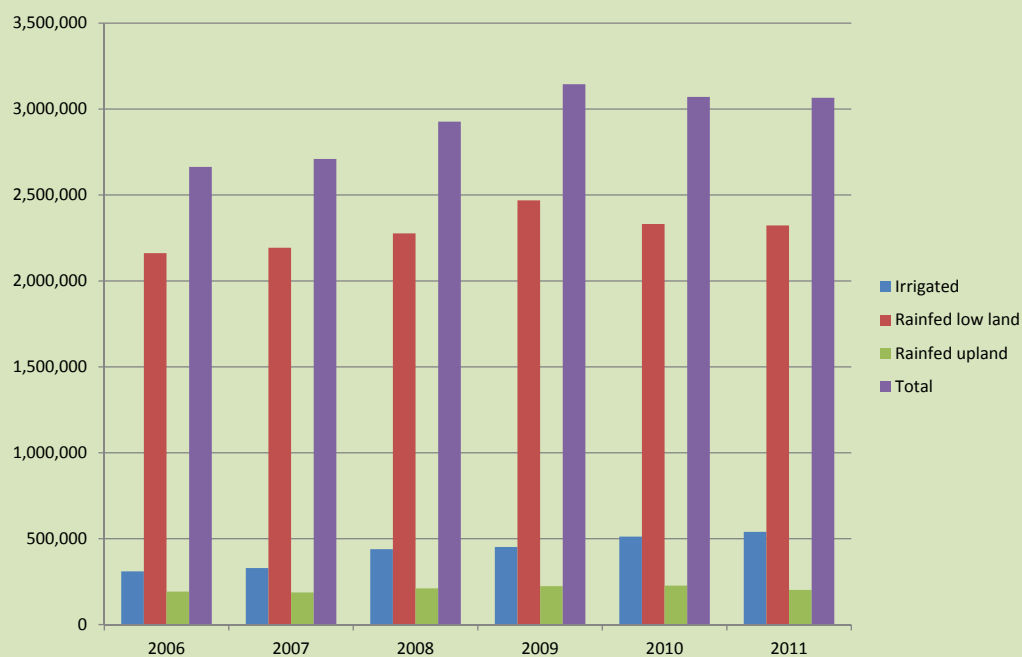
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Situation of rice production in Laos (Cont.)

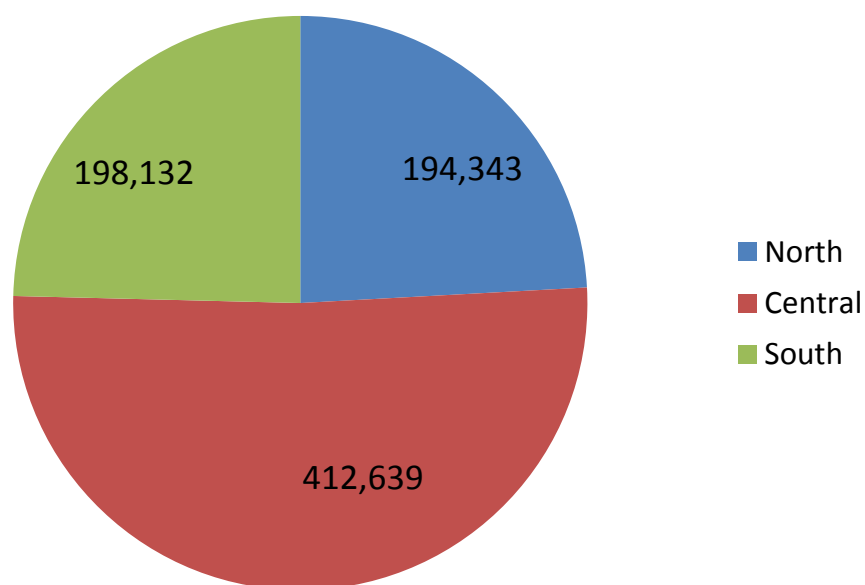
- ▶ The total rice production has increased to 2,663,700 tons, 2,710,050 tons, 2,927,140 tons, 3,144,800 tons, in year 2006, 2007, 2008, 2009 and decreased to 3,070,640 tons, 3,065,760 tons, in year 2010 and 2011, respectively. <..\lao presentation 2013\rice production.pptx>.
- ▶ In the year 2010, total rice production area reached 855,114 ha, which the main share is in central part of the country with 412,639 ha follows by southern part and northern part with 198,132 ha and 194,343 ha, respectively. <..\lao presentation 2013\rice area.pptx>

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Table 1. Rice production in 2006 – 2011 (tons)



Rice production area (ha)



Situation of rice production in Laos (Cont.)

- ▶ Rice farming in Laos can be divided in 3 ecosystems: rain-fed lowland, rain-fed upland and irrigated ecosystem.
- ▶ Rice production in Laos is an essential part of the livelihoods of around 724,000 producers.
- ▶ The second most popular crop is maize which produced by around 187,000 farmers.

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Situation of rice production in Laos (Cont.)

- ▶ While the total number of farmer households in Laos has increased by 17 percent between 1998/99 and 2010/11, the share of farmer households growing rice has decreased, possibly indicating some shift to other types of crops.

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Situation of rice production in Laos (Cont.)

- ▶ From about 77 percent of all farmer households growing rice in 1998/99 decreased to around 71 percent in 2010/11, (Census data 2012).
- ▶ Subsistence rice cultivation is still dominant but there is an increasing number of subsistence farmers marketing some produce.

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Situation of rice production in Laos (Cont.)

- ▶ According to the latest Census data, 71 percent of farm households in Laos sold some produce in 2010/11 versus 35 percent in 1998/99.
- ▶ In addition, the share of farmers producing mainly for sale has risen from only about 6 percent in 1998/99 to 30 percent in 2010/11.

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Political intervention

- ▶ There is no well developed regulation for rice market and rice trading. Mostly, it is a form of cross-border trade.
- ▶ There is some gaps of cooperation between private companies and government sector.
- ▶ Right now, the government is in process of drafting a policy for lao rice sector.



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Political intervention (Cont.)

- ▶ The government will more interact in rice sector start from the stage of production to processing, trading and export.
- ▶ According to the annual meeting of MAF 2013, held in Khammuan province, it mentioned that the input cost of the rice production is high (7,000,000 Kip/ha) but the rice price is low (2,000 kip/kg), farmers cannot get profit.



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Political intervention (Cont.)

- ▶ For sustain rice farming, rice farmers should get profit 30% of their total input.
- ▶ It was discussed that the quality of paddy and milled rice is important point for rice value.
- ▶ Food security and food quality should be our priorities, if we have surplus of quality products we can sell them with high price.

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Political intervention (Cont.)

- ▶ MAF has developed the following objective targets for the rice sector in 2015:
- ▶ Total paddy rice production increased to 4.2 million tons from 3.7 tons in 2010.
- ▶ Average yield of paddy increased:
 - from 3.7 tons/ha in 2010 to around 4.5 tons/ha in the Lowland rain-fed regimes, and
 - from 4.7 tons/ha in 2010 to around 5.5 tons/ha in the dry season regimes.
- ▶ 170,000 ha in the plains areas would be opened up and/or provided with facilities for intensification of rice production.

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Political intervention (Cont.)

- ▶ 600,000 tons of high quality, non-glutinous rice would be exported, mostly to countries in the ASEAN Region and also in the international market.
- ▶ Food insecurity and malnutrition would be reduced by one-half through increased availability, access to and utilization of rice and other foods.



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Rice acreage, yield, cropping pattern

- ▶ Farmers generally practice small-scale farming but average size of rice holdings has been increasing over the last twelve years.
- ▶ One household owns about 2.4 ha of land for rice farming, each household has 3–5 members but only 2–3 members can work as main labour.



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Rice acreage, yield, cropping pattern (Cont.)

- ▶ Glutinous rice accounts for around 92 percent of rice grown in Laos. The average yield is 3.49 tons/hectare.
- ▶ The rice production pattern is usually as one crop per year, only for the area where irrigation is available second crop can be cultivated.
- ▶ Common second crops are rice, maize, soybean, mungbean, longbean, water melons and cucumber.

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Intensity of input use

- ▶ In general, farmers use low input on fertilizer and pesticide in rice farming which is one reason of low yield but our government also announces to reduce using chemical fertilizer and pesticide in all agricultural production.
- ▶ In average, farmers use about 100 kg of urea, 150 kg of 16-20-00 fertilizer (N-P-K)/ha in rice production.

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Intensity of input use (Cont.)

- ▶ Nowadays, the improved varieties has been introduced and farmers are aware that rice seed is important factor for increasing yield, more than 80 % of rice farmers use improved variety seeds for rice production in rainy season and 100 % in dry season.



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Intensity of input use (Cont.)

- ▶ The dominant improved varieties of R1 and R2 produced by seed stations in Laos are TDK8 and TDK 11, which were released over past 5 years, followed by TDK 1 and PNG 3.
- ▶ It is expected that demand for these varietals will remain strong over the coming years.



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Off-farm incomes

- ▶ Off-farm income is an important part of rice farmer income, especially in dry season when they do not grow rice they find other jobs such as growing vegetable, weaving, house construction etc.
- ▶ Average income ranges from 3,000,000 to 10,000,000 kip/person in about 5 months.



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Farm economic data

- ▶ Farm economic data is available in many levels in Laos, it can be provided by District Agriculture and Forestry Office (DAFO), Provincial Agriculture and Forestry Office (PAFO), Department of Agronomy, Ministry of Agriculture and Forestry (MAF), Department of Planning and Investment of MAF, National Agriculture and Forestry Institute (NAFRI).



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Table 1: Gross margin of different farmer types

	Farmer Types		
	Type A	Type B	Type C
Production Practice	Low input wet season rice (lowland)	Average input wet season rice (lowland)	Higher input wet season rice (lowland)
Hired Labour		x	x
Mechanization for field preparation	x	x	x
Fertilizer (in crop)	x	x	X
Pesticide			X
Modern seed Varieties	x	x	X
<u>NOT</u> replacing R3 seed every 3 years	x	x	X
Contract Threshing		x	X

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Farm economic data

- ▶ The current gross margin per hectare of type A (including hired labour) is US\$267 with a return to labour of US\$2.4 per day.
- ▶ The current gross margin per hectare of type B (including hired labour) is US\$245 with a return to labour of US\$ 3.8 per day.
- ▶ The current gross margin per hectare of type C (including hired labour) is US\$489 for wet season and US\$526 for dry season with returns to labour days of US\$6.0 and US\$4.8 respectively.

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Constraints and challenges for rice production

- ▶ There is a number of factors affecting to rice production such as
- ▶ Technology usage, input usage, competitiveness of labour and market,
- ▶ Infrastructure, access to credit
- ▶ Soil and climatic conditions

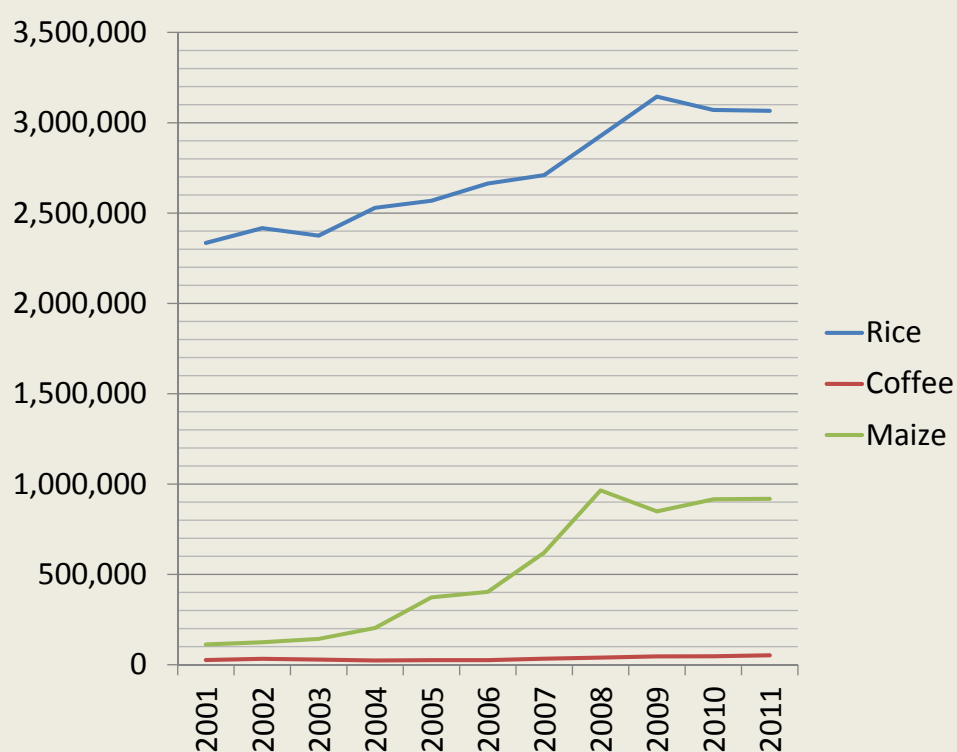
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Constraints and challenges for rice production (Cont.)

- ▶ With low price of rice and high input compared to other crops may lead farmers to grow other crops such as maize or other higher output crops. [rice and other crops.pptx](#). [rice and maize price.pptx](#)
- ▶ With increasing of industrial enterprises and high income for workers, very few labours will be left for rice farming.

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Table 2: Rice and other crops (ton)



Rice and maize price

Crops	unit	2011	2012
Ordinary rice	Kip/kg	3,000	2,666
Glutinous rice	Kip/kg	2,000	1,683
Maize	Kip/kg	1,200	1,300
Sweet corn	Kip/kg	4,000	5,000



Thank you for
your attention