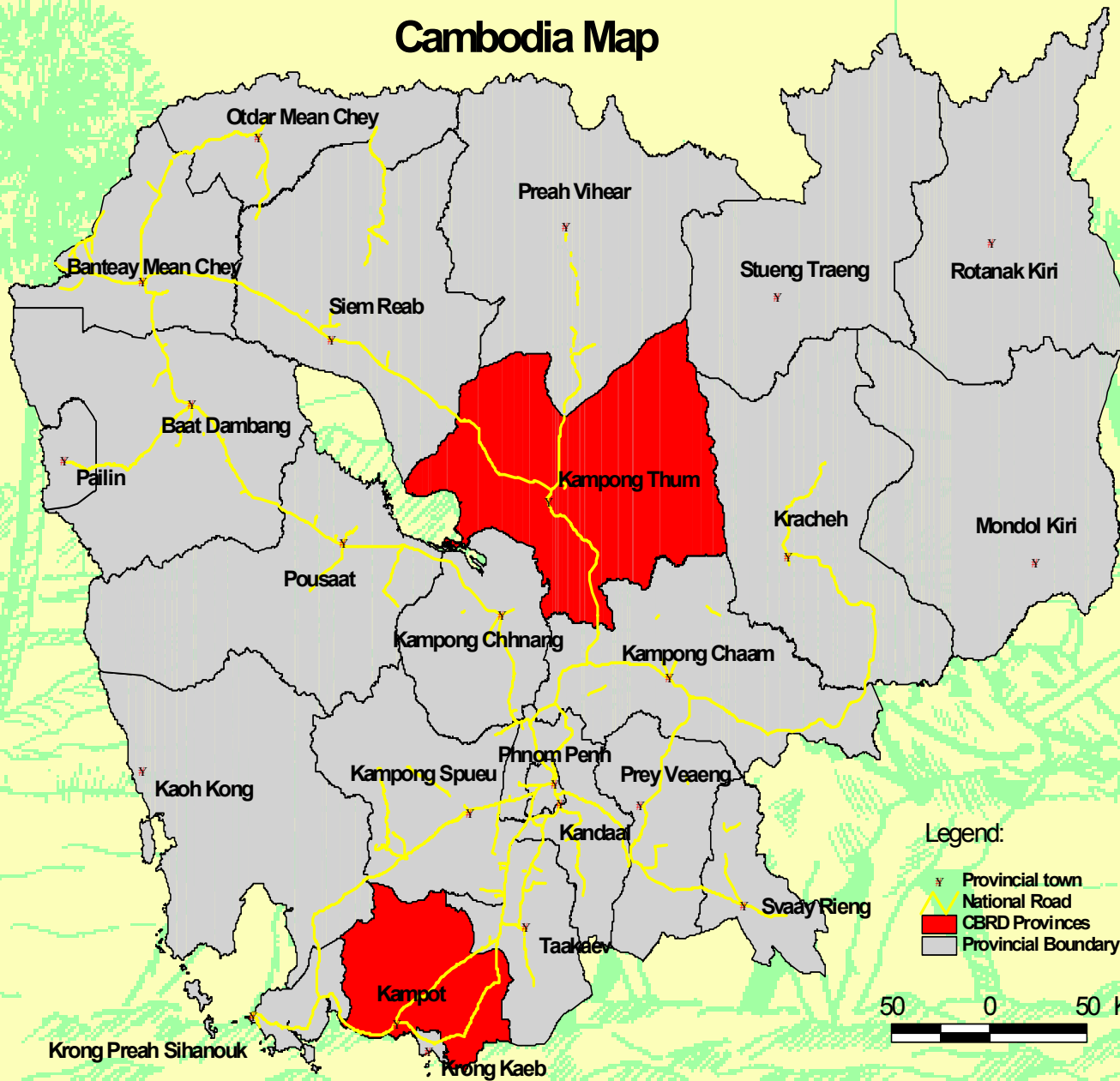


Experiences with System of Rice Intensification (SRI) in Cambodia

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Cambodia Map



Cambodia's Agricultural Sector - Overview

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Population living in rural areas: 85% of 12 million people

Agriculture contribution to GDP: 40%

Total paddy production in 1999: 4.04 million tons

77% of the work force work in agriculture

Total land area in Cambodia: approx. 18 million ha

-- 37% are considered arable

-- 3.9 million utilized for agriculture

-- paddy is cultivated in 90% of agricultural land

-- 11% of paddy area has some irrigation

Total paddy production in 1999: 4,041 tons

Average Yield of rice crop in 1999: 1.87 t/ha

Total rice requirement: 151.2 kg/capita

Rice production in 1999: 179 kg/capita



Elements of System of Rice Intensification (SRI)

SRI

Transplanting young seedling

- seedling 8 – 14 days old
- select strongest seedling from seed bed

Fast and careful transplanting

- seedling exposed not longer than 30 minutes
- avoid damaging root system as much as possible
- transplant root in L-shape

No. of seedlings transplanted per hill

- transplant one seedling per hill
- re-transplant after a week

Spacing of transplanted seedling and transplanting in rows

- spacing between seedlings 25 cm on poor soils
- spacing up to 50 cm on good soils
- transplant in rows



Elements of SRI contd.

SRI

Water management

- (daily) alternate flooding and draining of paddy field
- maintain less water in the field

Weeding

- do weeding regularly
- weeding needs to be done more often, because field is not always submerged in water

Soil and nutrient management

- apply fertilizer, compost and green manure show good results
- aridate the soil, combine with weeding raken

Land preparation

- good soil leveling before transplanting
- possible to combine with zero-tillage



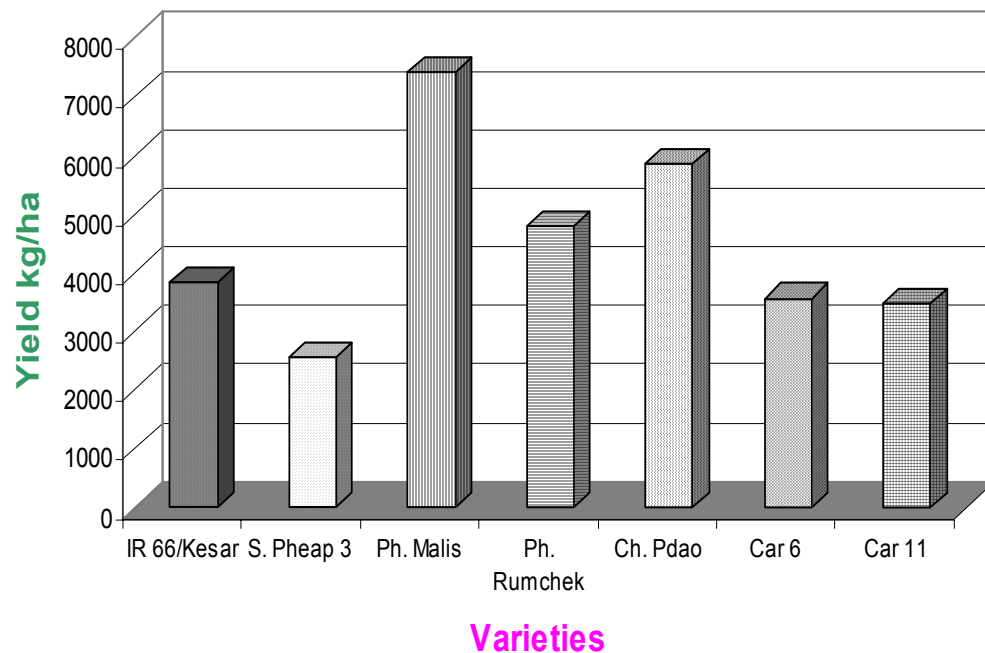
Yields of SRI plots during wet season 2001

Parameter	Total	Average	Min	Max
No of villages	19			
No of farmers	20			
Plot size (ha)	5.7	0.3	0.003	1.0
Average Yield (kg/ha)	84,997	4,140	1,920	14,400
Yields for plot size class	No of plots			
< 0.1 ha (kg/ha)	7	5,879	2,600	14,400
0.1 - 0.5 ha (kg/ha)	8	4,066	2,571	7,500
< 1 ha (kg/ha)	5	2,264	1,920	2,400

Yields of SRI plots during wet season 2001

- Average yield: > 4 tons/ha
- Higher response from traditional varieties
- None of the farmers practiced all of SRI elements yet

Result of SRI demonstrations in rainy season 2001 (n=20)



Benefits from SRI

- Increased yields (4-8 t/ha, and >10 t/ha)
- Increased factor productivity (land, labor, water, purchased inputs like seed, etc.)
- Higher income for farmers
- Higher potential for diversification
- Positive environmental side effects
- Maintenance of greater agro-biodiversity

Challenges from SRI

- Increased labor requirement (for weeding, transplanting and water management)
- Increased burden for women
- Greater skills required
- Non-availability of water control measures
- Low adoption due to highly unconventional practices
- Strong resistance from researchers

Bright prospects for rural farmers

