



**Webinar: Food Security and Agriculture Resilience in the
Perspective of Water- use Efficiency
Medan Area University, Indonesia
28th July, 2020**

IRRIGATION SYSTEM AND RICE PRODUCTION IN THE MEKONG DELTA OF VIETNAM

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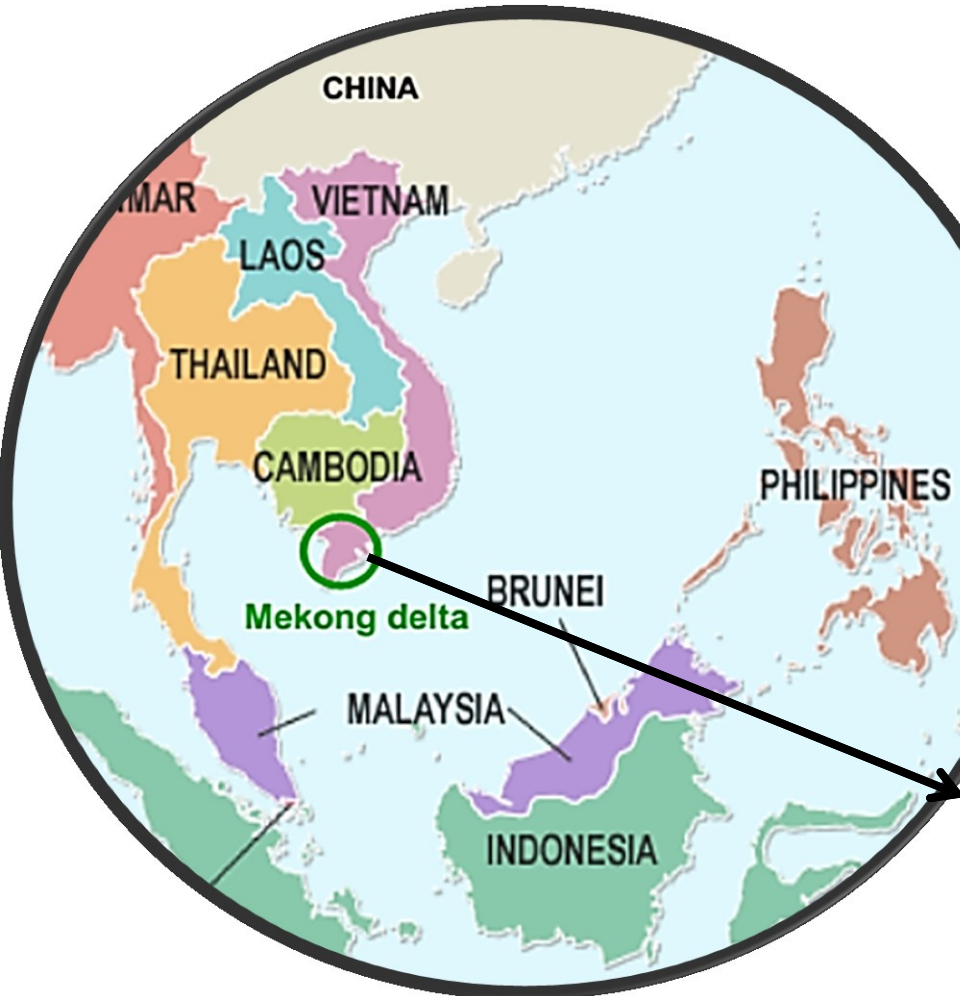
- **The Mekong River and the Delta**
- **Irrigation system**
- **Rice production**
- **Future strategy**



1- THE MEKONG RIVER AND THE DELTA

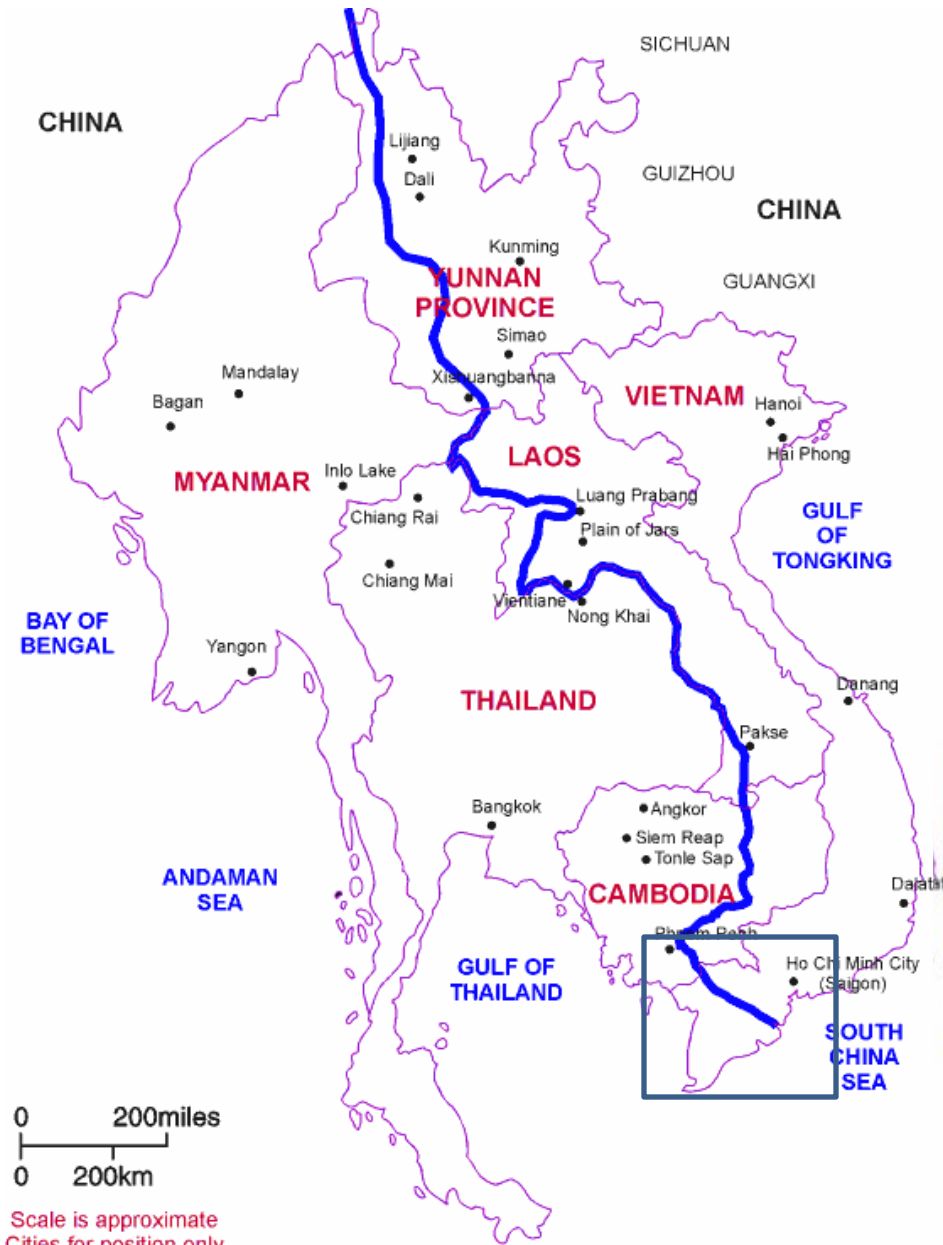


The Mekong Delta in Vietnam



The Mekong river

- 4000 km
- Journey: 6 countries: china, Lao, Myanmar, Thai Lan, Cambodia and Vietnam
- Providing sediment – fertile Delta

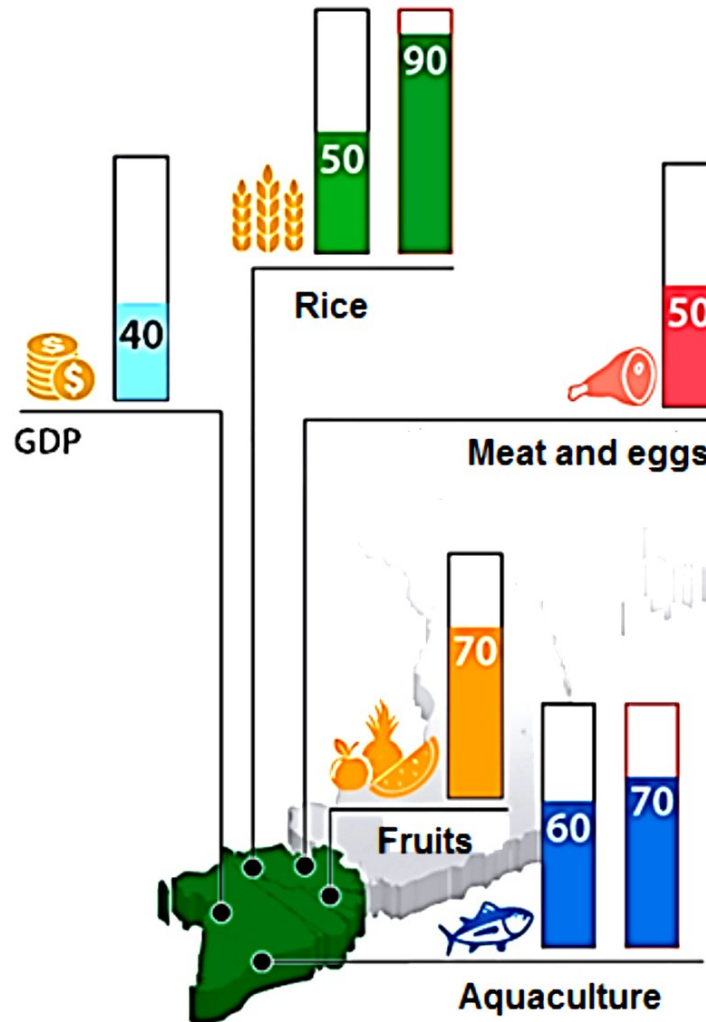


The main farming systems



- 4 million ha
- 21 million people

Agricultural sector in the VMD



□ % National production □ % For export

Nguồn: Viện Chính sách và chiến lược phát triển nông nghiệp nông thôn

<http://infographics.vn>

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2- IRRIGATION SYSTEM



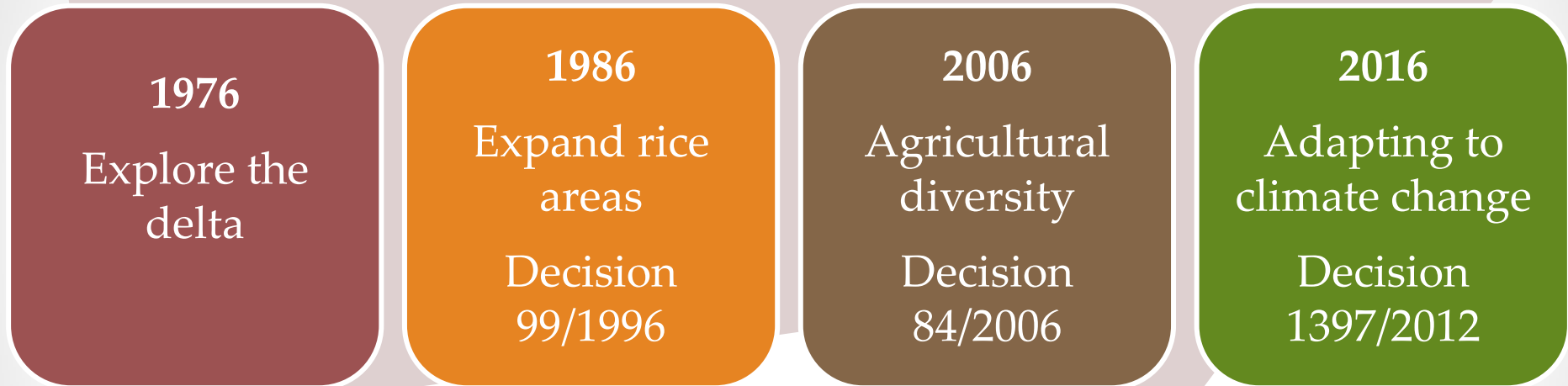


Living
along
riverbanks



1975 - 1988

- Many canals were built
- Two rice crops expanded
- The economic: centralized economy - to market economy



Development of irrigation system in the Delta

Rate of irrigated area (%)

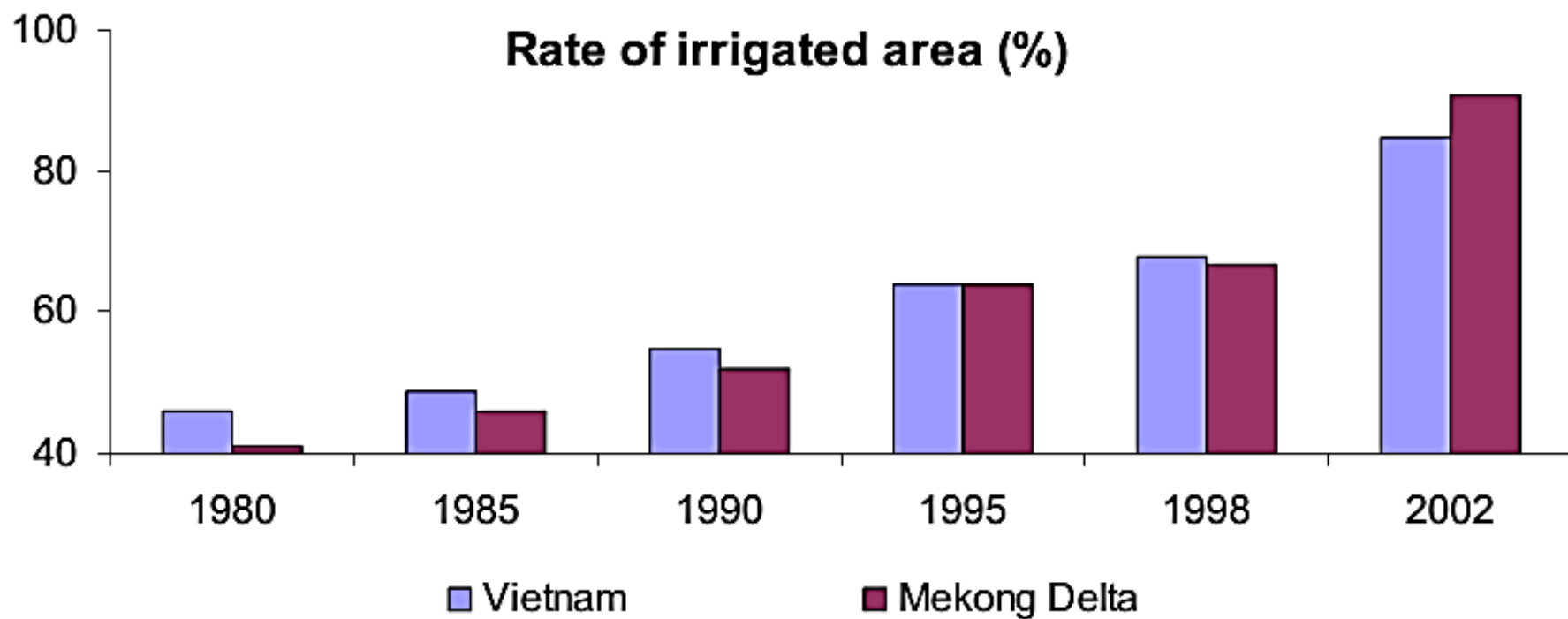
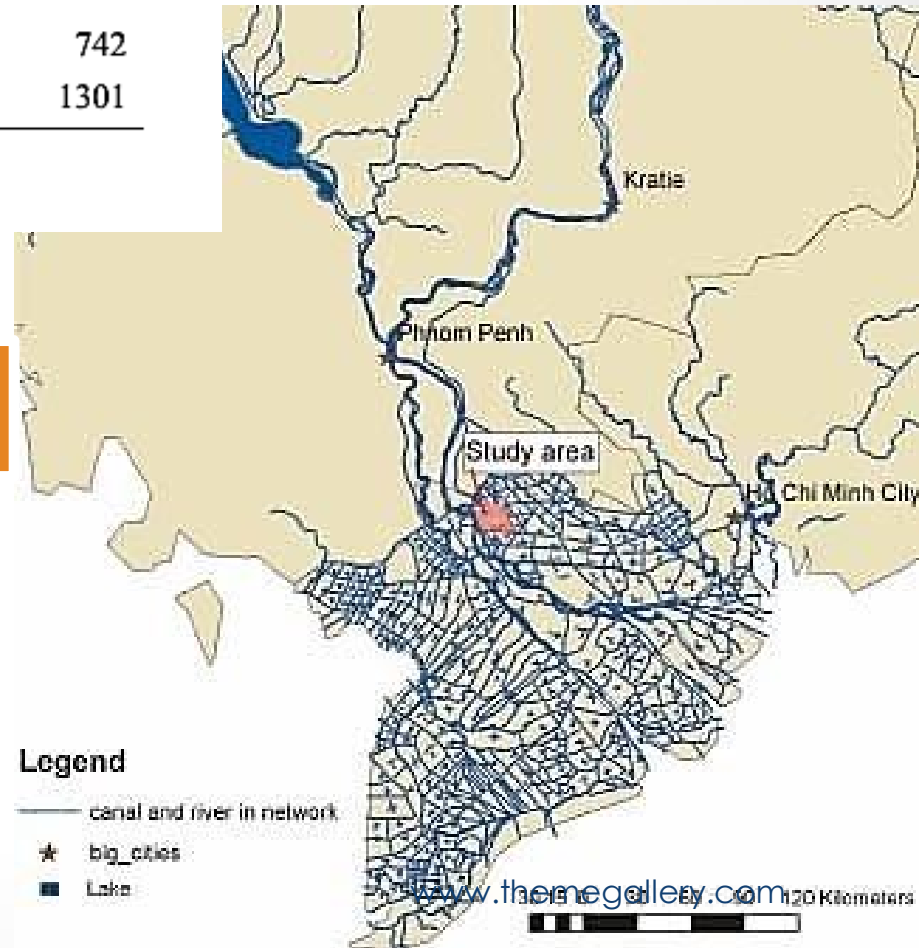


Table 10. Characteristics of canal system in the Delta

Sluice/canal and dyke	Unit	Km
Sluice (manhole: 3- 100m)	984	
Sluice (manhole <3m)	20517	
main canal	133	3190
Canal ¹⁶ level I (50.000 - <75.000 ha)	1015	10961
Canal level II (10.000 - <50.000 ha)	7656	26894
Canal level III (2.000 - <10.000 ha)	7656	50019
Sea embankment	523	617
River embankment	281	742
Dyke	890	1301

Source: (SIWRP, 20117)

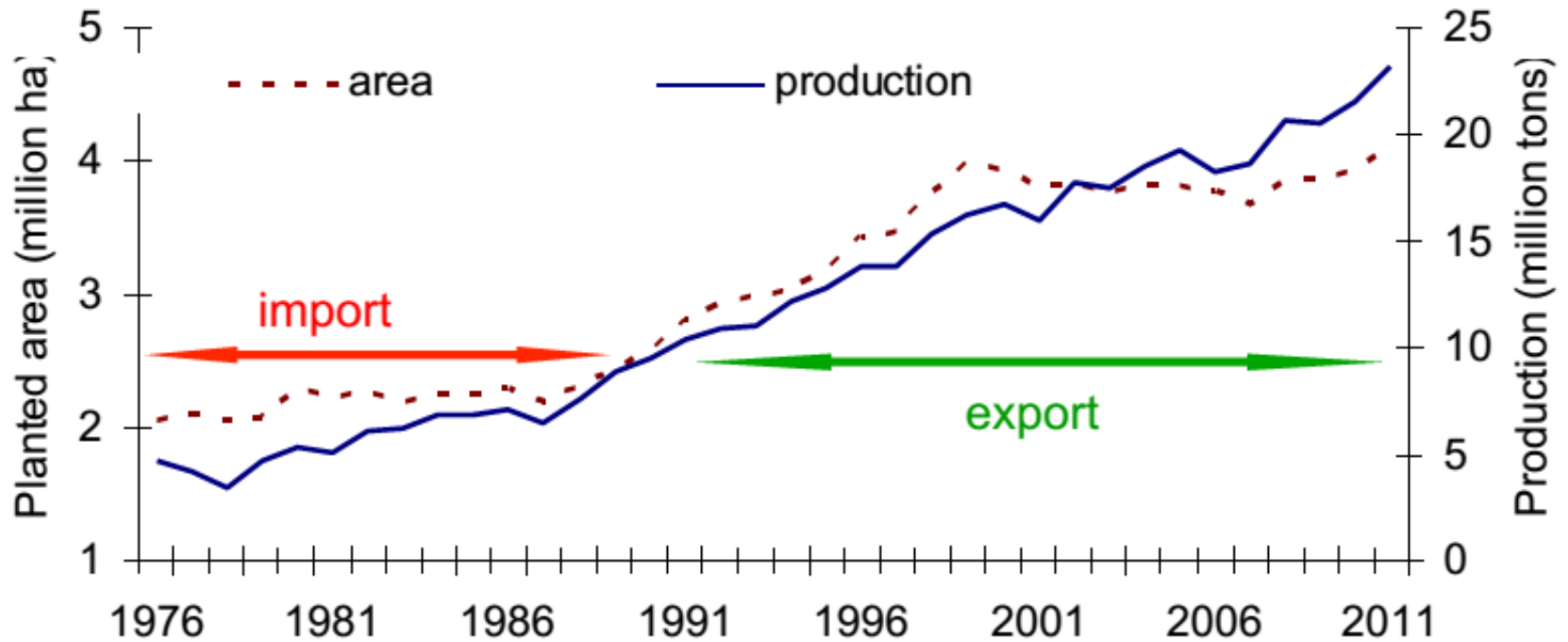
4 Km length/ Km²



3- RICE PRODUCTION



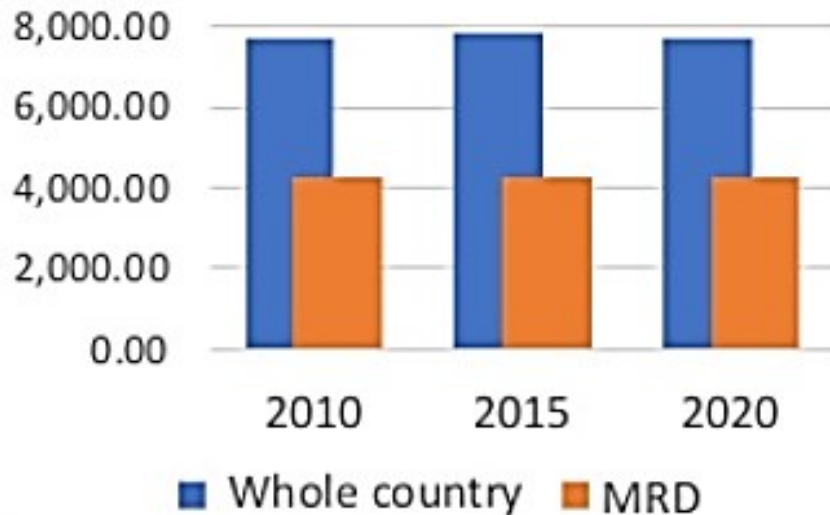
Rice development in the Mekong Delta



Country reunion
1975

Rice is the most important crop in Vietnam

Cultivated rice areas (1000 ha)

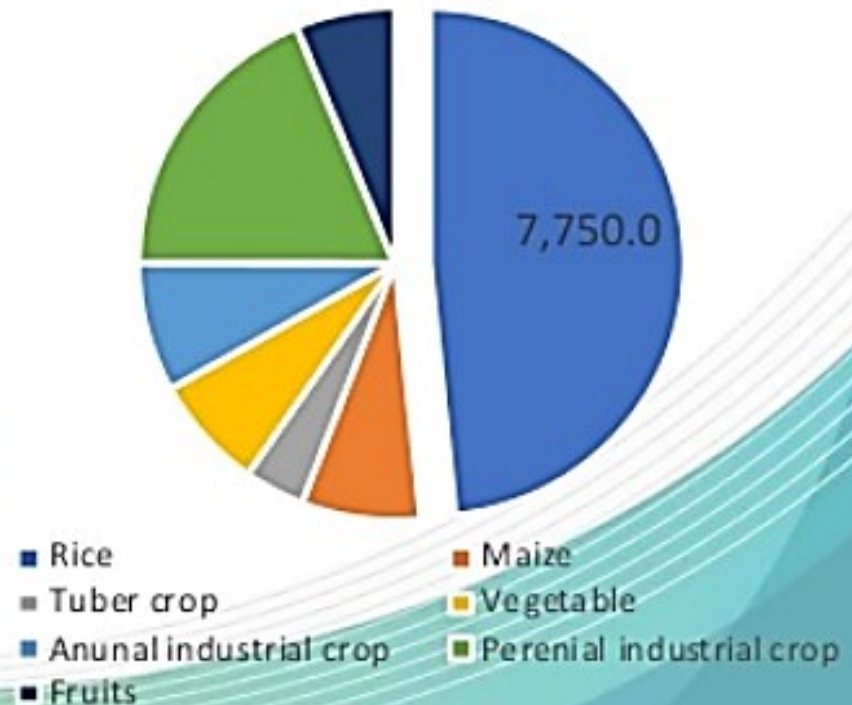


Source: GSO (2016), GoVN (2012)



The MRD, the most important region for rice: 12% of natural areas, 19% of population, half of rice cultivated area, shared 50% of rice quantity, 95% of rice for exportation

Ratio of crop, 2020



Source: GSO (2016), GoVN (2012)

Comparison of rice yield (tons per ha)

	1976	1985	1990	1995	2000	2005	2011
World	2.5	3.3	3.5	3.7	3.9	4.1	4.4
<u>Vietnam</u>	2.2	2.8	3.2	3.7	4.2	4.9	5.5
<u>Mekong delta</u>	2.3	3.0	3.7	4.0	4.2	5.0	5.7

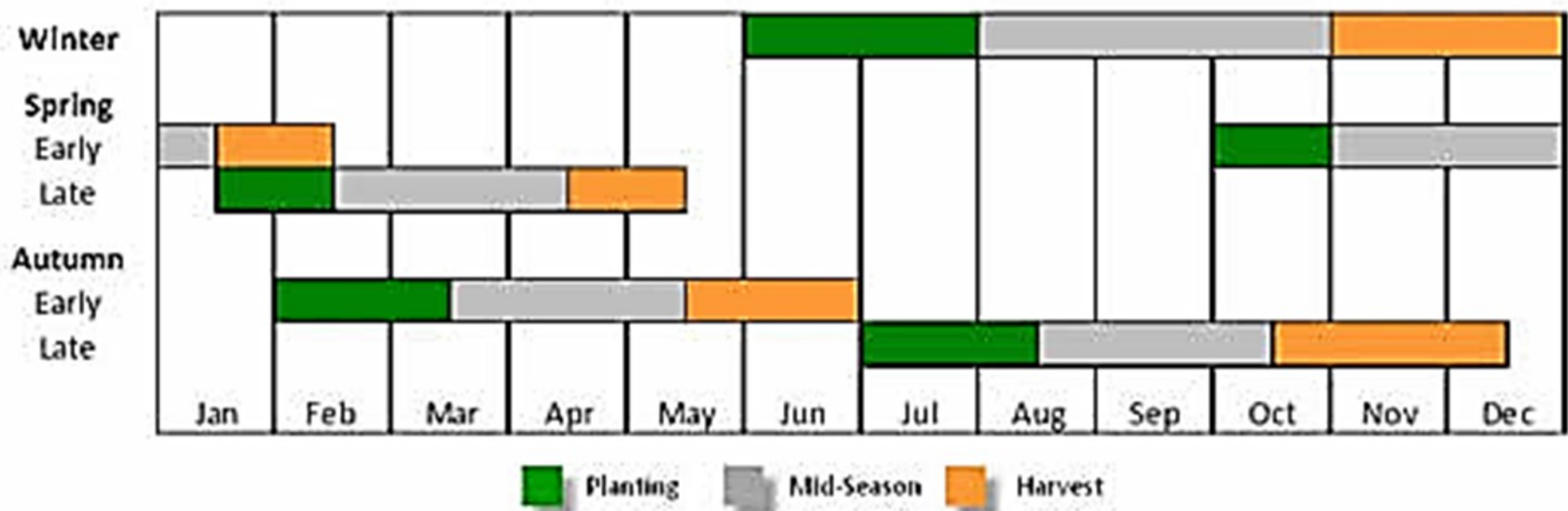


	1995	2000	2005	2010	2015
1 Land for rice (million ha)	-	-	1,90	1,92	1,91
2 Rice areas * (million ha)	3,19	3,95	3,83	3,95	4,30
3 Yield (ton/ ha)	4,02	4,23	5,04	5,47	5,96
4 Rice Production (million ton)	12,83	16,70	19,29	21,59	25,59

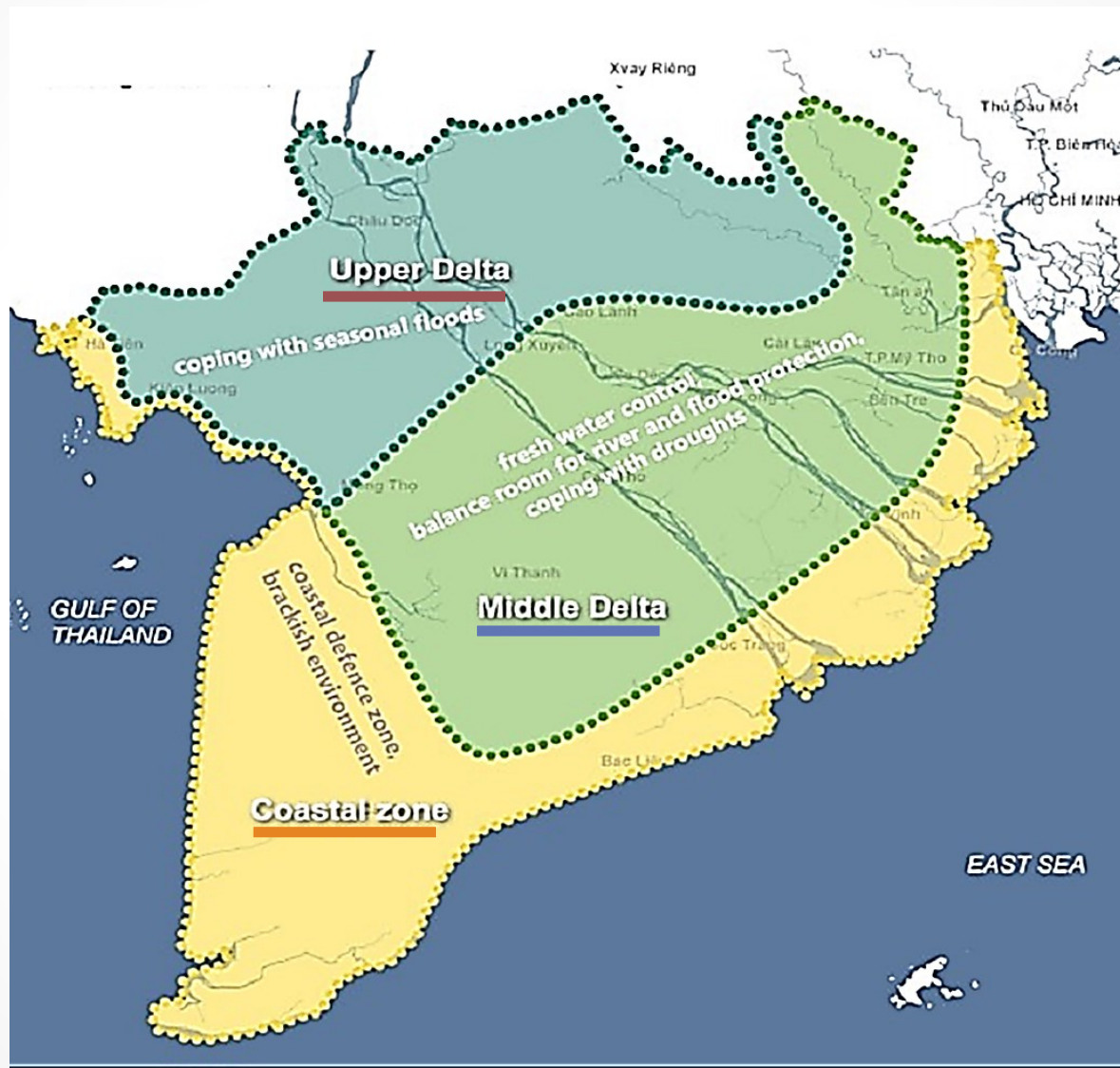
(*): Two or three crops of rice per year are calculated

Source: (MONRE, 2017), (National Statistic book, 2017).

Mekong River Delta: Seasonal Rice Crop Calendar



4- FUTURE STRATEGY



Water use of the Mekong river

1996

Use a lot of water
to reduce the
flood's impact

Renovation

2006

Living with
flood

Open stage

2016

Restructure
agriculture -
ecological zone

Adaptation



1
Aquaculture



3
Rice

Land use to 2050

	Land	(Ha)
1	Rice	1,4 - 1,5 million ha
2	Biennial trees	600 – 700 thousand ha
3	Aquaculture	700 thousand ha
4	Protected forest	350 thousand ha

Discussion...





Thank you for your attention

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