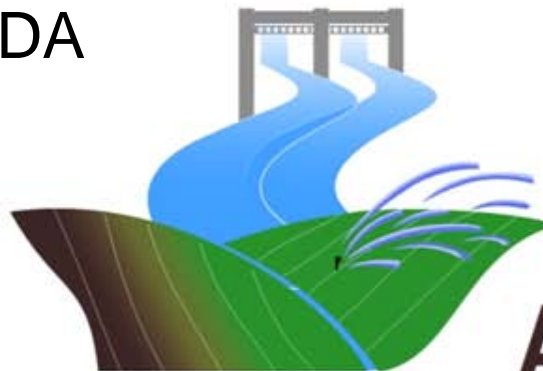


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PADDY PRODUCTION IN MUDA AREA: FROM INDIVIDUAL BASED TO COMMERCIAL FARMING

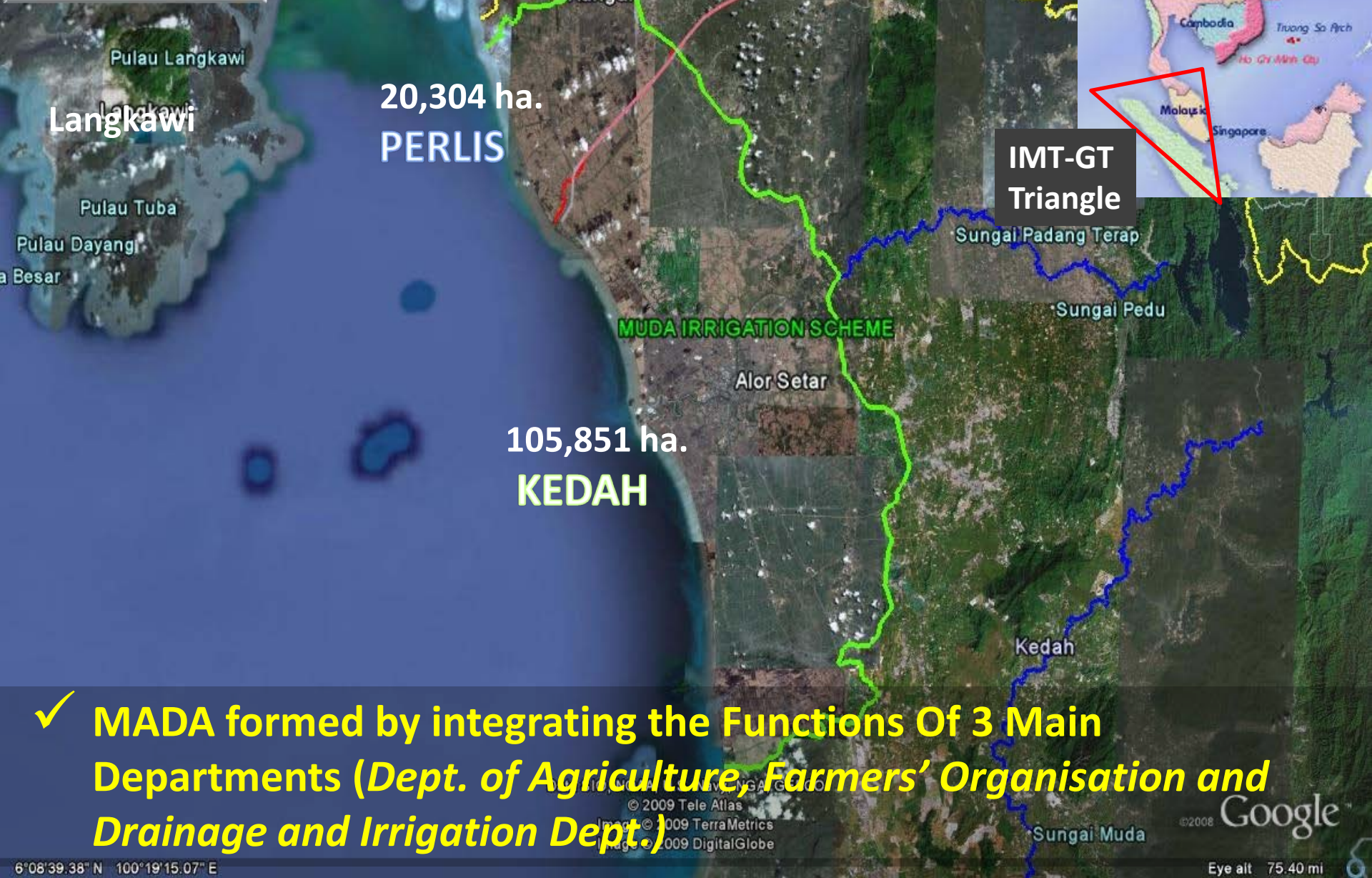
Nasiruddin Abdullah
Senior Water Management Engineer
Muda Agricultural Development Authority,
MADA



**Asian
Irrigation Forum**

11-12 April 2012 • Asian Development Bank, Manila, Philippines

MUDA IRRIGATION SCHEME

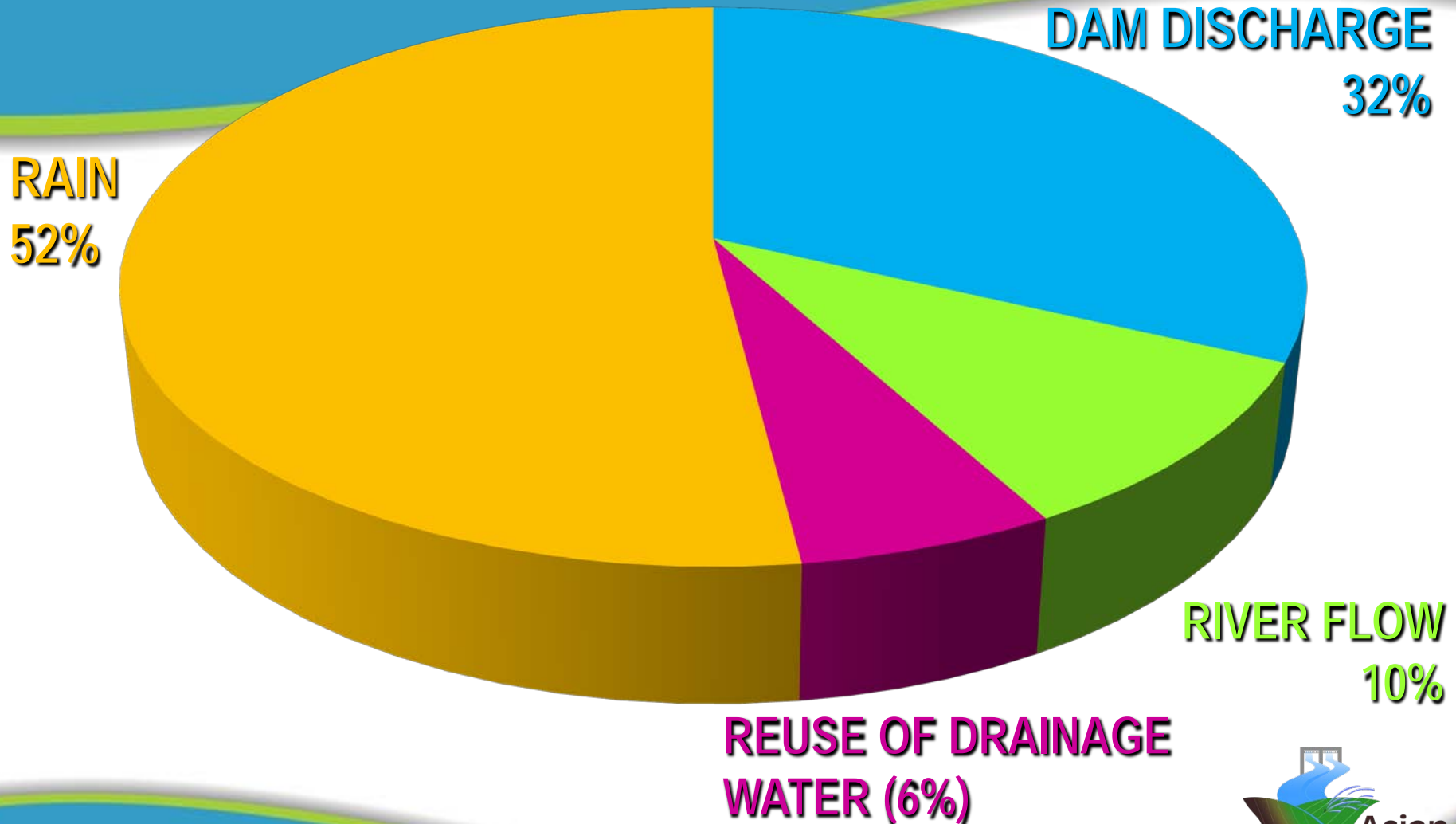


20,304 ha.
PERLIS

105,851 ha.
KEDAH

✓ **MADA formed by integrating the Functions Of 3 Main Departments (Dept. of Agriculture, Farmers' Organisation and Drainage and Irrigation Dept.)**

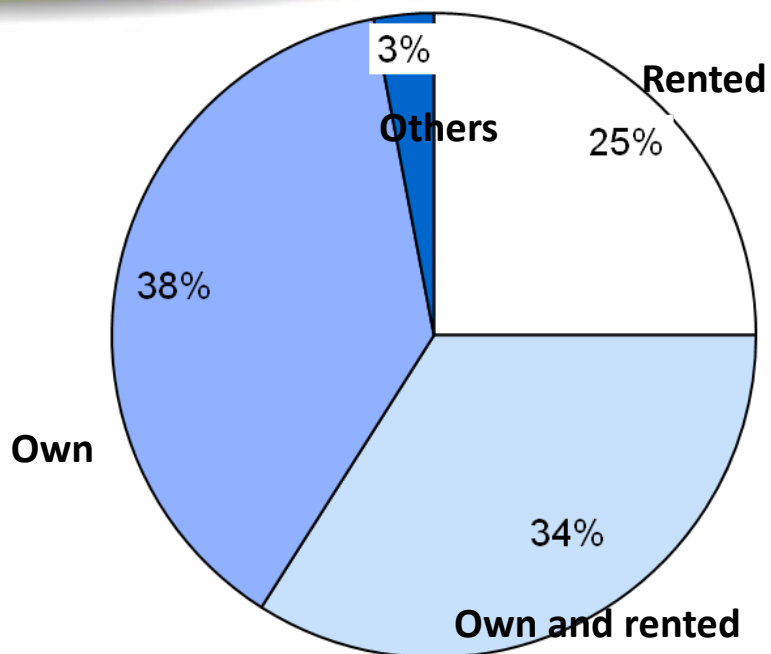
FOUR (4) WATER SOURCES FOR IRRIGATION



Reuse of drainage water introduced in 1983 as additional source of water.

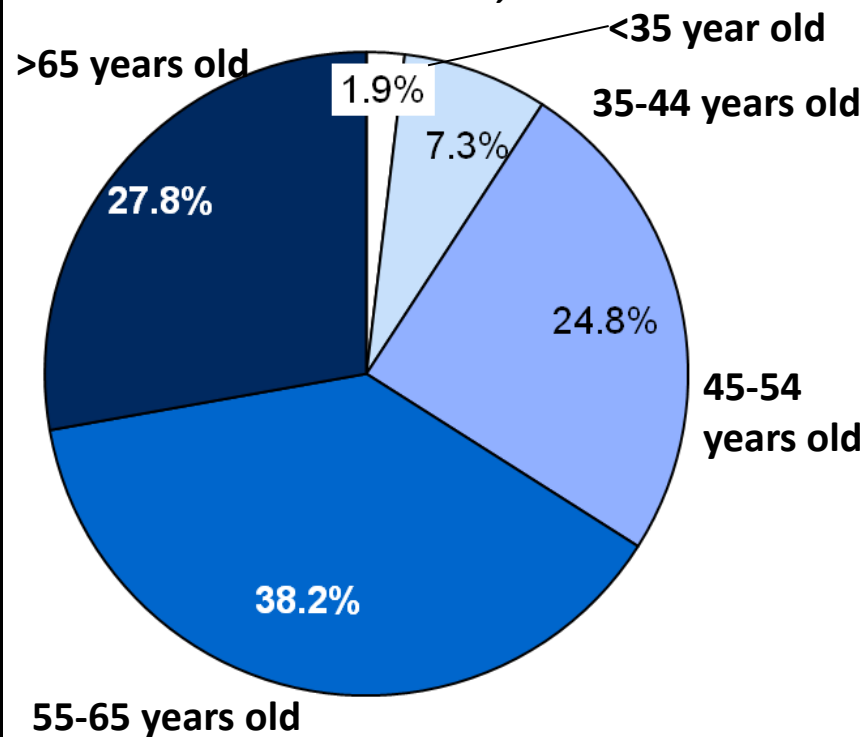
Paddy farms by land ownership status

100% = 96,558

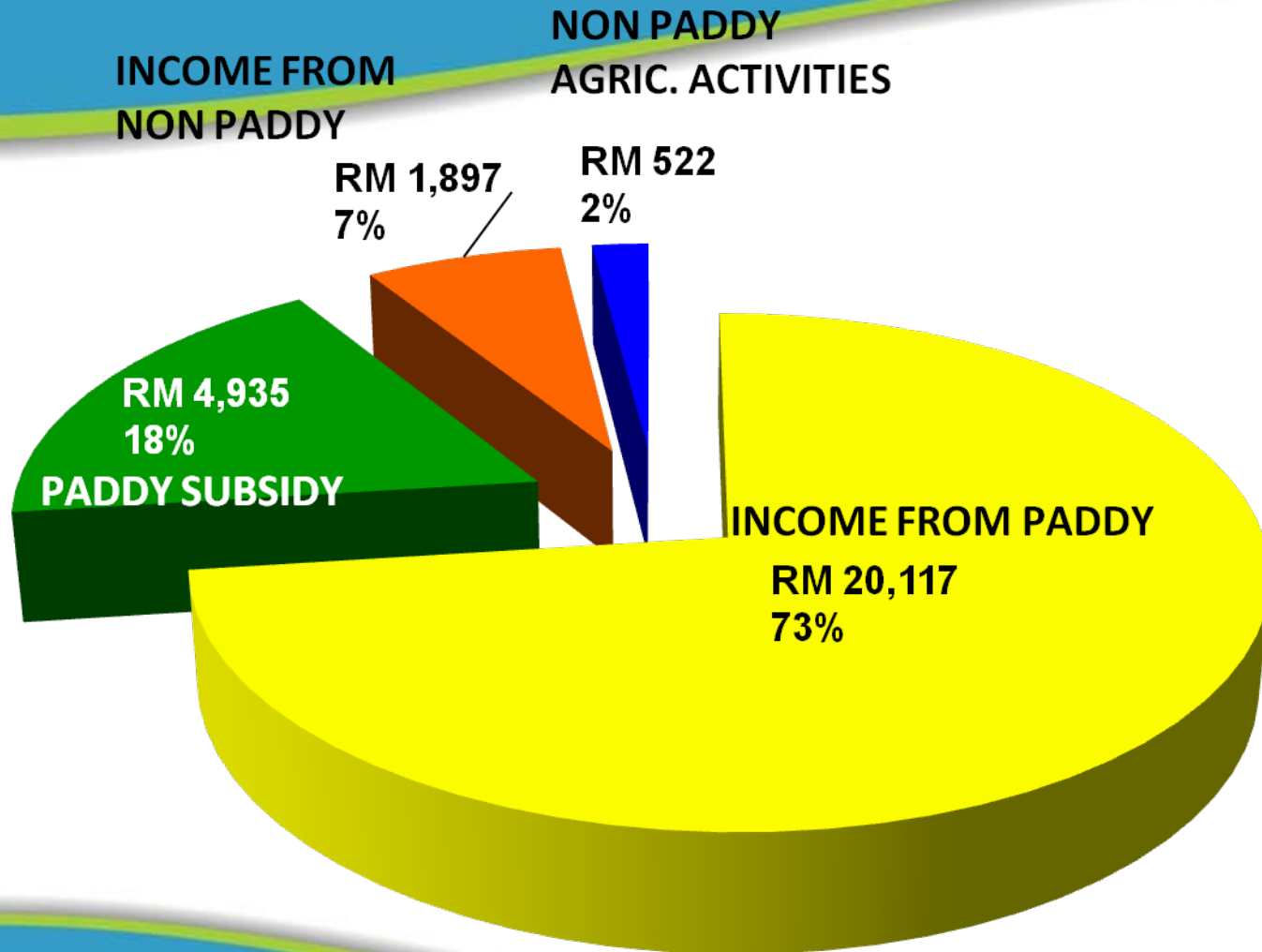


Paddy farmer population by age group

100% = 55,130

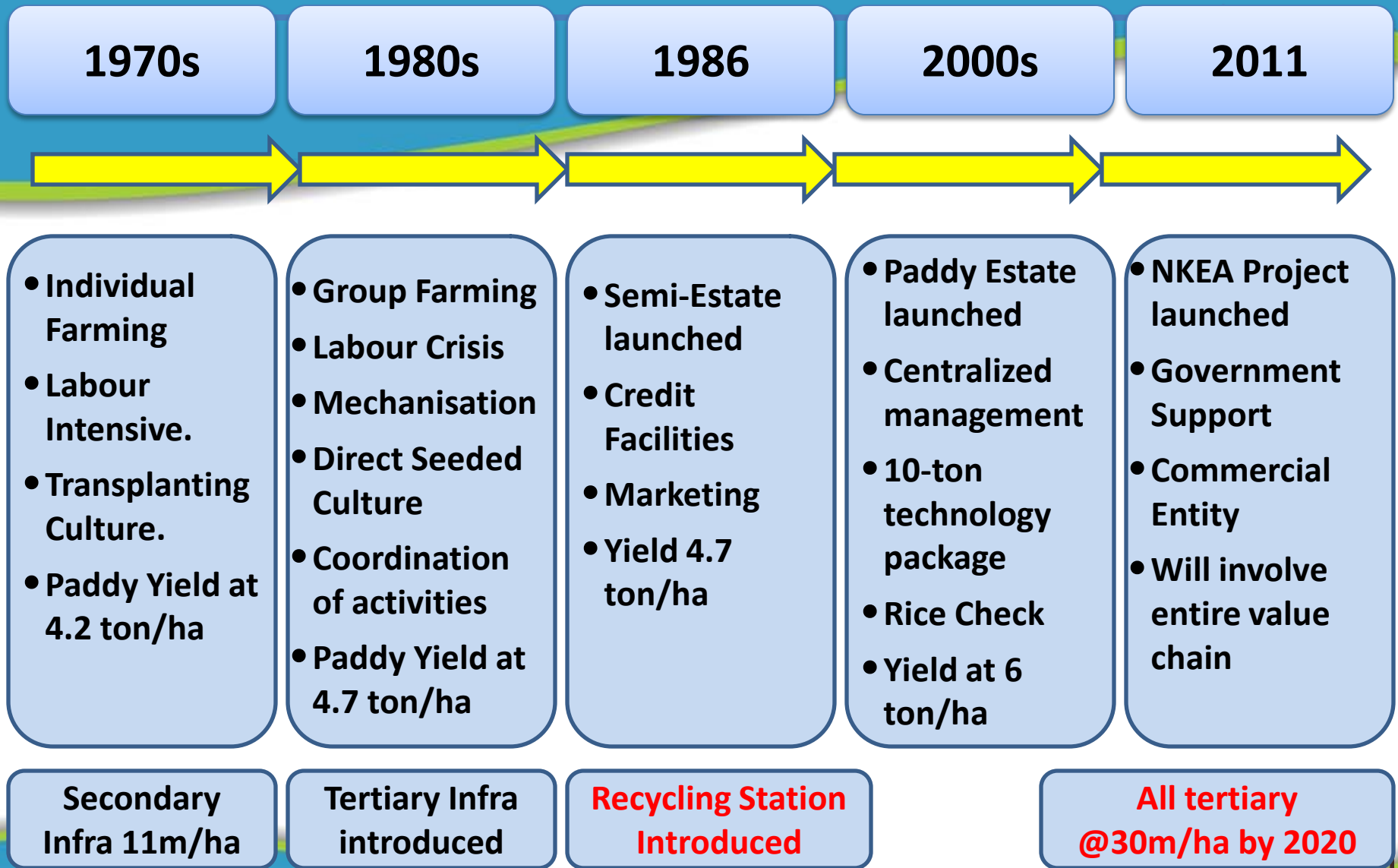


SOURCE OF NET INCOME/HOUSEHOLD/YEAR (BASED ON CCS SURVEY IN 2009)

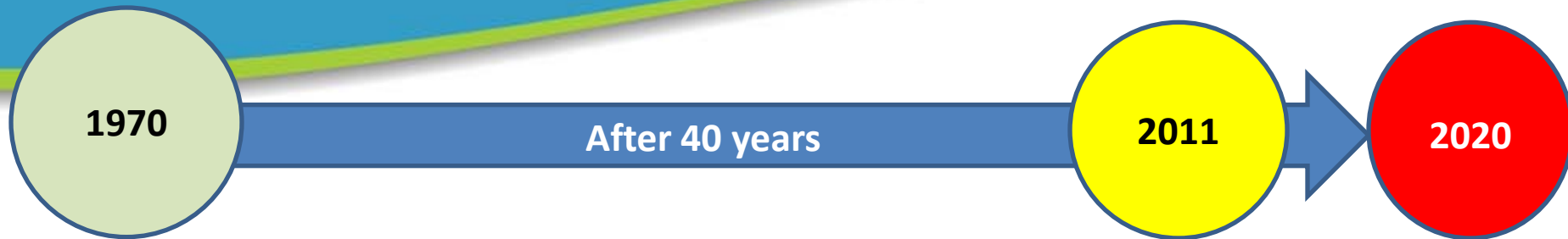


Source : Planning and Information Technology Division, MADA 2009

TRANSITION OF PADDY FARMING IN MUDA AREA



PADDY CULTIVATION ISSUES IN MUDA AREA



- Average paddy yield still low compared to some granary areas.
- Factors affecting paddy yield :
 - Low infrastructural density (18m/ha)
 - Uneconomic farm size
 - Unproductive age of farmers

NKEA Project To Increase Productivity of Paddy Farming in MADA

• Objectives

- Increase rice production to achieve SSL
- Increase farmers' income

• Improve farm management

- Entrepreneur farmers
- Mini estates
- Exit programme for traditional farmers

• Accelerate Technology use

- New varieties and production technologies
- Professional seed farming
- New milling technologies

• Expand Infrastructure

- Improvement irrigation density in areas with high potential to increase yield

Initial investment funded mainly through subsidy restructuring

- Yield increase from 5 mt / ha to 6.5 mt / ha through better management and irrigation
- Yield increase from 6.5 mt / ha to 8 mt / ha through better seed varieties
- Cumulative GNI contribution of RM3.2 bn up to 2020
- Annual GNI of RM826 mil from 2019 onwards
- Cumulative Capex of RM2.2 bn up to 2020

NKEA - Transformation Of Paddy Farming In MADA

1

- Average size of land cultivated (in MADA) = 2.12 ha. Target to increase to 500ha

Individuals → Farmers' Cooperatives as operator

Reduce no of workers on the land by 3x, adopt larger scale mechanisation, better agriculture practices

2

- How? Standardised contracts : mgmt fee

Contract: mgmt fees

Advance rental (5 – 10 seasons in advance)

Agrees to outsource land mgmt

AGRO BANK

Govt provides the capital required to pay advance rental

3 Proposed model enables income of landowner *and* land operator to increase

Current: Individual owner operator	RM1597*	Future: Passive landowner (excl income as employee)	RM2000**
Current: Individual operators	RM930*	Future: Operate 10 ha on profit sharing basis	RM10,000**

- Gain through profit sharing of higher yield
- Gain through larger scale of operations

*Yield of 5mt/ha, paddy price with subsidy RM1350/mt
 **Yield of 8mt/ha, paddy price RM1000/mt, no subsidy

IMPACT OF MUDA IRRIGATION SCHEME TO FARMER'S INCOME

IMPACT	BEFORE PROJECT	AFTER PROJECT
GROSS AVERAGE YIELD (tonnes/ha)	3.4 (1966)	5.8 (2007)
TOTAL PRODUCTION (tonnes)	316,992 (1966)	1,090,972 (2007)
VALUE OF PRODUCTION (RM)	8.5 MIL	709 MIL
CROPPING INTENSITY	100%	198%
LABOUR (manhours/season)	615 (1974) TRANSPLANTING	199.4 DIRECT SEEDING
NET HOUSEHOLD INCOME (RM/year)	1,092	15,391
NET HOUSEHOLD INCOME (RM/month)	91	1,283
MONTHLY PER CAPITA INCOME (RM)	18.20	256.52
% POVERTY LEVEL		
POOR	72	2.3
HARD CORE POOR	N/A	1.0

- Note :
1. Production Value (RM) does not include subsidy
 2. Base on GMP (RM 750/tonne)
 3. Poverty Level (2007): Poor = RM660/month, Hardcore Poor = RM400/month

CONCLUSIONS

The farmers in Muda Area have come a long way from individual-based farming to a farmer-owned commercial farming entity with an eye towards the whole value chain in the rice industry.

The NKEA project in the Government's Economy Transformation Programme will transform the Farmers' Organisations (FOs) into a profitable and enduring business entity.

However the NKEA project is only aimed at 50% of the Muda Area leaving the remaining 50% to create conducive business environment for greater private participation in the agri-food industry in parallel with the National Agri-Food Policy (2011-2020).



THANK YOU

