

Enabling Environment for Custom Hiring of Agricultural Machinery: MALAYSIA



Agency Introduction:

MARDI



“ Malaysia Agricultural Research and Development Institute

“ Farm Mechanization and Automation Division



“ Research, development and testing of farm machinery for rice, vegetable, fruit, livestock.

Agriculture in Malaysia



- “ Malaysia is an agricultural country.
- “ GDP is the third behind manufacturing and services
- “ **Plantation crops**, oil palm, rubber and cocoa.
- “ **Food crops**, rice, vegetable and fruit.

Mechanization in Oil Palm Plantation



” Large tractor 80- 100hp mainly field transportation

” Smaller tractor 30-40hp for field maintenance and fruit collection



” Harvesting is the main challenge in mechanizing oil palm operation.

Mechanization in Rice Production



- “ **Rice** production is almost 100% mechanized
- “ Large **tractor** of 80hp is used for rotovation /land preparation
- “ Large **combine** of more than 100hp is used for harvesting
- “ Spraying, fertilizing , seeding mainly by **power blower**
- “ Transplanting in smaller scale by riding **transplanter**
- “ Large centrifugal **pump** at main pump house and smaller motorized pump at field

Mechanization in Rice Production

Operation	Machinery	% Machine Utilization
Land preparation	80hp tractor	98
Seed broadcasting	Power blower	85
Transplanting	Riding transplanter	5
P&D spraying	Power sprayer	90
Fertilizer application	Power blower	85
Harvesting	Large combine	97
Bulk transportation	1 ton truck	97

Status of Custom Hiring (in Rice Production)



- “ Tractors, combine harvesters and trucks are 100% hired from contractors
- “ Seeding , crop care, fertilizing operations 50% custom hired
- “ Machinery service provider, <10% Gov't agency, >90% private contractors

Number of Machinery Custom Hiring (in Rice Production)



“ 4 wheel tractor: Gov’t provides 250; private contractor 2,950 units



“ Combine harvester: Gov’t provides 92 private contractors 1,116 units.

Supporting Policies



- “ In the process of developing a master plan for national farm mechanization policy
- “ Part of policy is to develop farm machinery testing and development center
- “ Ensure the quality, suitability and safety of imported machinery.

Social and Economic Benefits



- “ The main beneficiary of custom machinery hiring is the small rice farming community.
- “ With out custom hiring services rice production industry can't operate.
- “ Custom hiring strengthening the economic and social life in rice farming villages

Social and Economic Benefits



- “ Custom hiring help in scheduling field operation.
- “ Makes water delivery through irrigation canal more efficient.
- “ Create economic and business opportunity for machinery service contractor .
- “ At national scale, custom hiring help in ensuring high level of sufficiency in rice supply.

Challenges and Constraints



- “ Weather, harvesting in wet for off-season production.
- “ Combine got bogged down in soft field
- “ Higher spare parts and maintenance cost, reduce profit

Solution and Suggestion



- “ Alternative machinery suppliers with acceptable quality and price.
- “ Development of farm machinery testing center, ensuring only quality and safe machinery being imported.

THANK YOU