THE ROLES OF AGRICULTURAL COOPERATIVES IN CERTIFICATION AND PRODUCTION OF GEOGRAPHICAL INDICATION (GI) RICE IN THAILAND

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Prospects of competition in world rice market

- Continuation on high-yielding variety development would increase supply and put a pressure on price competitiveness.
- High quality rice becomes more preferred among high-income consumers in Asia and in the world.
FRAGRANT RICE HISTORIC EXPORTS SINCE 2007 (MMT)
(fragrant and fragrant broken combined)

Source: The Rice Trader, 2017
World Best Rice at TRT World Rice Conference

- 2009_Thailand Hom Mali Rice
- 2010_Thailand Hom Mali Rice
- 2011_Myanmar Paw San
- 2012_Cambodian Phka Mali
- 2013_Cambodian Phka Mali & California Calrose (japonica)
- 2014_Cambodian Phka Mali & Thailand Hom Mali Rice
- 2015_California Calrose
- 2016_Thailand Hom Mali Rice
What is Hom Mali Rice? Why is it special?

Commonly called **Jasmine Rice**

Hom = fragrant

Mali = Jasmine flower

Distinct characteristics include:

- Long tapered shape
- Soft: low Amylose Content (AC) ~12–17%
- Sticky: low Gelatinization Temperature (GT)
- Aromatic: typically due to 2-acetyl-1-pyrroline (2AP)
Consumer Preferences for Hom Mali Rice

- Well-preferred among Chinese, particularly Hong Kong, Singapore, high income group in China, etc.
- Asian in the U.S. and Canada preferred Jasmine more than domestic substitutes. (Goodwin et al., 1996; Suwansri et al., 2002)
- Highly differentiated between consumers who prefer and do not prefer it. (Suwannaporn and Linnemann, 2008)
- Consumers from rice-eating countries have higher preferences for Jasmine rice than non-rice-eating countries.
- Consumers of not the same country of origin prefer rice from Thailand the most (31% of respondents. Other major exporters such as the U.S., Vietnam, China and Pakistan are not highly recognized. (Suwannaporn and Linnemann, 2008)
Thai Hom Mali Certification Mark

- Used for domestic market
- Reach Thai Hom Mali rice standard
- Cover Hom Mali rice and Hom Mali brown rice
- Certified by Department of Internal Trade
Thai Hom Mali Certification Mark

- Used for export markets
- Reach Thai Hom Mali rice standard
- Contain $\geq 92\%$ Jasmine rice
- Since 2006, DNA-based test is mentioned for alternative test for adulterant.
- Some exporters use stain test (iodine stain for AC)
- In 2007, the Office of Commodity Standard of Thailand is made responsible for the test of authentication.
GI Rice of Thailand

- Under Trade–Related Aspects of Intellectual Property Rights (TRIPS)
  - GI is defined as ‘indications which identify a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation or other characteristics of the good is essentially attributable to its geographical origin’ (Article 22(1)) (WTO, 1994)
  - there will be no obligation under this agreement to protect geographical indications which are not or cease to be protected in their country of origin’ (Article 24) (WTO, 1994).

- Geographical Indications Protection Act of Thailand was passed in 2003.
Yoshihashi et al. (2004) found that KDML105 cropped in rain-fed area of “Thung Kula Ronghai” was higher in 2AP content than other areas, but only in limited water areas.

Thung Kula Ronghai Khao Hom Mali Rice was registered GI rice in Thailand in 2006.

Khao Hom Mali Thung Kula Rong–Hai under PGI (Protected Geographical Indication) of European Commission was registered on 12 February 2013.
Khao Hom Mali Thung Kula Rong-Hai (TKR)

- Specific varieties: KDML 105 and RD15
- Produce in TKR area only
- Process, packing in the 5 provinces of TKR area only.

- Natural factors and local knowledge which determine the quality of Khao Hom Mali TKR.
- Quality seeds, cultivation methods, constructing bunds and segmenting the paddy field into sections to retain sufficient water for the rice to grow.
- Water is drained from the fields about 10 days before harvest, when the mature rice is cut and dried for two or three days to reduce moisture.
Thung Kula Rong–Hai Area

- Directly translated into “Crying Kula Plain”
- Arid and salinity conditions
- Covers ~ 337,000 ha
GI certification symbols
GI certification process of Khao Hom Mali Thung Kula Rong-Hai Thai

Source: Ngokkuen and Grote (2012)
Control System of GI Khao Hom Mali Thung Kula Rong-Hai

- **Self control:**
  
  producers, processors, farmers, and industries have to control themselves following production manual

- **Internal control:**
  
  GI committee at provincial level has a responsibility to inspect the operation of producers, processors, farmers, and industries

- **External control:**
  
  Certification Body (CB) has a responsibility to perform GI control on behalf of the Department of Intellectual Property
Certification of GI Khao Hom Mali TKR

- **Thai GI**
  - Compliance with production manual consistent with CoP
  - Internally controlled by provincial GI committee
  - Valid for 2 years

- **EU PGI**
  - Externally controlled by Certification Body
  - Valid for 1 year

- Subsidized by Rice Dept or Dept of Intellectual Property
Ag Cooperatives in TKR

- Ngokkuen and Grote (2012)
  - being member of ag coop influenced the adoption of GI TKR Hom Mali rice certification.
  - distance to certified GI collectors/millers is one of the limitations to adopt GI certification
- Thung Kula Rong–Hai Hom Mali Rice Cluster
  - Initiated in 2009/2010
  - consisted of 20 ag coop
  - Supported by Ministry of Ag and Coop and local universities
  - revenues of member coops increased from 2.62 mil USD in 2006 to 5.57 mil USD in 2011
Ag Cooperatives in TKR

- Roi–Et Hom Mali Rice Cluster
  - consists of stakeholders in all Roi–Et province
  - 27 ag coops, 5 community enterprises, 1 company
  - cooperation across vertical integration
  - competition across horizontal integration
  - enhance competitiveness
  - network and sharing
Certified GI Ag Cooperatives in TKR

- Total 46 ag coops in TKR area engaging in Hom Mali rice production
- 3 are certified GI TKR Hom Mali Rice
  - Kaset Wisai Ag Coop (Kaset Wisai District, Roi-et province): collector, processor
  - Chumphon Buri Ag Coop (Chumphon Buri District, Surin province): collector, and milling capacity but not certified GI miller
  - Ag and Land Reform Chumphon Buri Coop (Chumphon Buri District, Surin province): collector – no milling capacity
Kaset Wisai Agricultural Coop (GI collector & processor)
Kaset Wisai Ag Coop (GI collector & processor)
Kaset Wisai Agricultural Coop (GI collector & processor)
Ag & Land Reform Chumphon
Buri Coop (GI collector)
Ag & Land Reform Chumphon
Buri Coop (GI collector)
Roi-Et Ag Marketing Coop (AMC) (non-GI)
Roi–Et Ag Marketing Coop(AMC) (non-GI)
GI Thung Kula Rong–Hai Thai Hom Mali Rice Products by Private Companies
GI Thung Kula Rong–Hai Thai Hom Mali Rice Products by Community Enterprises
The Roles of Ag Coop in GI Certification

- Intermediary is important under high uncertainties and society demand for collaborative innovation is strong (Agogue et al. 2013)
The Roles of Ag Coop in GI Certification

- Functions of innovation intermediation (Howell 2006)
  - Scanning and information processing for potential GI rice farmers
    - GAP/organic producers
  - Knowledge processing
    - Providing technical & info services by training, meetings, etc.
  - Gatekeeping & brokering
    - matching certified GI rice farmers and GI certified millers. Limitation of distance is eliminated.
    - Finding business deals with potential clients
The Roles of Ag Coop in GI Certification

Functions of innovation intermediation (Howell 2006)

- **Product testing and validating**
  - Minimum standard for Hom Mali rice
  - Efficient and less costly than individually managed
  - Cost reduction in administrative and technical procedures
  - Control and record keeping for traceability

- **Commercialization**
  - Marketing and sales through coop network and clusters
  - Identify market opportunities and ensure steady demand
Concluding Remarks

For high quality but new standards i.e. GI, consumer awareness of certification is relatively small, and there is high market uncertainty.

Cooperatives as intermediary are important for networking and brokering and can increase productivity i.e. reducing transaction cost.

Some cooperatives have higher capacity to be certified GI than the others.
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