



# Trade and Investment Policies on Mechanization of Agriculture

**Case Studies of Selected Member Countries of the  
Regional Council of Agricultural Machinery Associations  
in Asia and Pacific (ReCAMA)**

**(Bangladesh, Indonesia, Pakistan, Philippines, and Turkey)**

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# GENERAL OBJECTIVE OF THE STUDY:

## Trade and Investment Policies on Mechanizing Agriculture

To contribute to the pool of knowledge available to countries as well as to other stakeholders of mechanization in Asia and the Pacific for better appreciation of the exchange, trade and investments on agricultural machinery in the Region.

# SPECIFIC OBJECTIVES:

1. present the current trends of agricultural development in each country;
2. present the initiatives and developments on sustainably mechanizing the agricultural sector in the country;
3. analyze the enabling environment for Trade and Investments for sustainably mechanizing the agricultural sector; and
4. generate relevant recommendations based on the analysis.

# SELECTED COUNTRIES FOR THE STUDY:

**Five countries selected:**

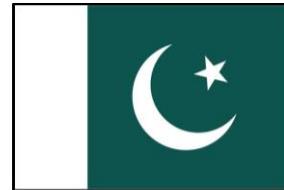
Bangladesh



Indonesia



Pakistan



Philippines



Turkey



*The selection was formulated based on the country's voluntary dedication and consideration of their experiences in agricultural policy making.*

# STUDY APPROACH

## Primary and Secondary Data

- collected data to describe different agricultural trends and development in the agricultural sector including agricultural mechanization

## National Statistics Office and other Institutions' Data

- Collected data from institutions' involved in agricultural mechanization development. Data were integrated, and presented in this report.

# REPORT STRUCTURE

**Chapter 1** - Introduction, significance and objectives of this study, including a brief introduction of the selected ReCAMA countries which includes the basis of selection, study approach and structure of the report.

**Chapter 2** - Description of the enablers of sustainable agricultural mechanization, including the role of the government and private sector in promoting sustainable agricultural mechanization in each selected country and the existing and governing policies on trade and investments on agricultural machinery and mechanization

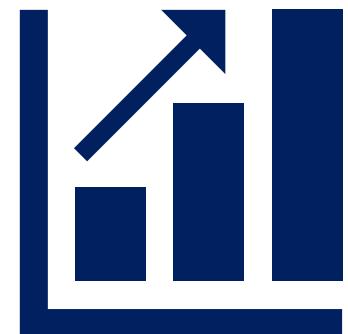
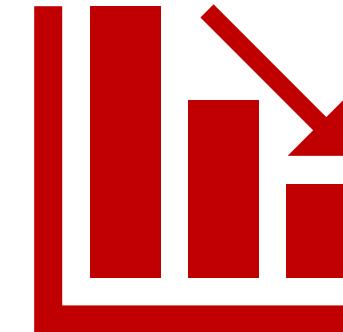
**Chapter 3** - Country profiles that explores the development trends of the agricultural sector and the sustainable agricultural mechanization initiatives of each of the selected countries, and the enabling environment for trade and investments for sustainably mechanizing the agricultural sector

**Chapter 4**- Discussions on the major findings, conclusions with policy recommendations for countries to adopt.

# SUMMARY OF FINDINGS: Agricultural Profile

## Trend in GDP contribution

	Agriculture Sector	Industry Sector
<b>Bangladesh</b>	Decreasing trend	Increasing trend
<b>Indonesia</b>	Increasing trend	Increasing trend
<b>Pakistan</b>	Increasing trend	Increasing trend
<b>Philippines</b>	Decreasing trend	Increasing trend
<b>Turkey</b>	Decreasing trend	Increasing trend



Shift from agricultural to industry and services sector

# SUMMARY OF FINDINGS: Agricultural Profile

## Staple food for the population

Bangladesh  
Indonesia,  
Philippines

- Rice
- Corn



Pakistan\*

- Wheat
- Rice
- Sugarcane
- Maize

Self-sufficient\*



Source: <https://medium.com/remote-sensing-in-agriculture/addressing-sugarcane-planting-failures-67689c0a7f4d>

Turkey\*

- Wheat
- Barley
- Maize

Self-sufficient\*



Source: <https://www.indiamart.com/proddetail/fresh-wheat-crop-14698986191.html>

Source: <https://www.saltspringsseeds.com/collections/barley-seeds>

# SUMMARY OF FINDINGS: Agricultural Profile

## All five countries:

- export their agricultural products particularly fruits, vegetables and nuts.
- smallholder farmers playing vital role in the production of the major crops. (0.5 ha to less than 5 ha)
- have established value chains for their major crops
- Practice custom hiring services for large machines
- Established Farmers' Organizations except Bangladesh



# SUMMARY OF FINDINGS: National Policies and Programs

COUNTRY	Roadmaps on sustainable agricultural mechanization	Laws and policies on agricultural mechanization	Reduced import duties and taxes	Safety nets to ensure quality machines	Establishment of agricultural machinery testing and evaluation centers
Bangladesh	✓	✓	✓	✗	✗
Indonesia	✓	✓	✓	✓	✓
Pakistan	✓	✓	✓	✓	✓
Philippines	✓	✓	✓	✓	✓
Turkey	✓	✓	✓	✓	✓

# SUMMARY OF FINDINGS: R&D, Status of Mechanization

Country	Research and Development	Status of Mechanization	Import and Export of Medium to Large Machinery
Bangladesh	Increasing R&D Outputs	Man-Animal-Small Machine Systems	Importer
Indonesia	Increasing R&D Outputs	Increasing use of Small to Large Machine Systems	Importer/Exporter
Pakistan	Increasing R&D Outputs	Man-Animal-Small to Large Machine Systems	Importer/Exporter
Philippines	Increasing R&D Outputs	Increasing use of Medium to Large Machine Systems	Importer
Turkey	Increasing R&D Outputs	Heavy user of medium to large Machine systems	Importer/Exporter

Shift from conventional/traditional farming methods TO - use of modernized and innovative machinery and technologies paving the way of increasing the use AMTs and increasing the Trade and investments of Machines in the 5 selected countries

# SUMMARY OF FINDINGS: Trade and Investments

<b>Country</b>	<b>Investment Environment &amp; Policy</b> (Machinery Manufacturers Association)	<b>Trade Environment and Policy</b> (Risks Management, Bilateral and Multi Lateral Agreements)	<b>Infrastructure Dev't.</b> (Road networks, Irrigation and Energy, Seaports, Processing zones, Trading centers, ITC facilities)	<b>Financial Dev't.</b> (Financial and banking system) Soft Loans Subsidies Incentives
<b>Bangladesh</b>	✓	✓	✓ Infra Development	✗ Land Con Initiatives
<b>Indonesia</b>	✓	✓	✓	✓
<b>Pakistan</b>	✓	✓	✓	✗
<b>Philippines</b>	✓	✓	✓	✓
<b>Turkey</b>	✓	✓	✓	✓

# SUMMARY OF FINDINGS: Trade and Investments Policies

**Trade and investment are important drivers of economic growth. To sustain agricultural growth, it is important to strategically allocate investments in areas of development where they are needed.**

**There is a shift from conventional farming to smart farming for sustainable and quality food production using advanced inputs and technologies, and management systems.**

**The government provide farmers with knowledge systems and innovations through various policies, infrastructural and financial support systems.**

**The private sector are encouraged to provide investment and financial support systems through public-private partnerships in the development and advancement of the agriculture sector with trade and investment of agricultural machinery**

# CONCLUSIONS:

In general, all the five countries through their government in collaboration with the public and private sector including the manufacturers' associations have established:

- policies on trade
- infrastructure
- networking
- safety nets

**Enabling the investment and trade environment of agricultural machinery to succeed for a more sustainable agri-machinery supply in the machinery value chain.**

# CONCLUSIONS:

The **acceleration and purposive use** of agricultural mechanization technologies in the agricultural production systems is for the upliftment of the lives of the farmers through increased productivity and income for prosperity.

While certain policies may differ in each country in terms of socio and geopolitical structures, these should **not serve as barriers** in knowledge and information exchange among farmers, especially the best practices implemented among geographically similar farming environments.

# CONCLUSIONS:

**Cooperation** among these countries shall lead to better trade and investment options, **opening and livening markets and industries** with agri-machinery that are built to **specifications and international standards** and are suited specifically to certain countries in need.

The success of such system shall be the **springboard for a richer trade and investment policies** that are **mutually beneficial** between and among countries.

# RECOMMENDATIONS:

1. The enacted laws and formulated national policies on agricultural mechanization **should be implemented as it is envisioned.**
2. There should be a **continuous strengthening of support and incentives** for the advancement of mechanization.
3. **Strengthening** of the local agri-machinery manufacturing industries.
4. **Continued research and development** on modern and innovative machinery.
5. **Establishment and strengthening** of the centers for standards and testing of machinery.

# RECOMMENDATIONS:

6. **Prioritization and modernization** of after sales service for machineries.
7. **Promotion** of precision agriculture and smart farming.
8. **Strengthen** capacity building and training facilities for farmers and farmer groups.
9. **Establishment of credit facilities** for farmers and service providers.
10. **Development of a central network** for the R&D of agricultural mechanization.
11. **Implementation of land consolidation** or clustering for mechanization.

# RECOMMENDATIONS:

*With all the conditions and enabling environment presented, Trade and Investment in Mechanizing the Agriculture will continue to flourish in these 5 countries under study:*

The **Government** should continue its role in providing directions by formulating policies on agricultural land, judicious use of natural resources such as land and water, labor policy, industrial policy, infrastructure development for agricultural production systems, financial support policy and **trade and investment policy**, among others.

# RECOMMENDATIONS:

**R&D institutions** supported by the government, and other financial institutions should continue exploring modern and innovative agricultural machinery and technologies with strengthened collaborations with the private sector for higher acceptance and marketability of these products. A regional network for the R&D of agricultural mechanization should be established for easier collaborations, joint undertakings and exchange of information and experiences that would support the Trade and investment industry in the region.

# RECOMMENDATIONS:

The **local manufacturing industry** of each of the countries should be strengthened to be able to contribute to increased demand for mechanization through the improvement of technologies and innovations (eg. Promotion of smart and precision farming equipment and technologies as the current trend of development) which could propel the livening of the agricultural machinery trade and investment in the Region.

# RECOMMENDATIONS:

The **private sector** composed of retailers, wholesalers, importers and investors shall continue assisting the government in ensuring quality AMTs available in the market for the farmers as end -users. Safety nets and Quality assurance of traded AMTs should be strengthened by continuously updating and formulating common international standards acceptable to all the countries (e.g. ReCAMA) involved.

# RECOMMENDATIONS:

**Land consolidation/Contiguous Farming** efforts should be enhanced for those countries that initially implemented the concept to allow the use of large machinery that would increase volume of production thereby increasing the yield and income of small farmer holders' and propel the trading and investment of high capacity and high-power agricultural mechanization technologies.

## ACKNOWLEDGEMENT:

Center for Sustainable Agricultural Mechanization (**CSAM**)

Regional Council of Agricultural Machinery Associations in Asia and The Pacific (**ReCAMA**)

Selected Member Countries:

Bangladesh  
Indonesia  
Pakistan  
Philippines  
Turkey

**END OF PRESENTATION  
THANK YOU FOR LISTENING ☺**