



# Potato Sector in Countries of Asi

## Summary of responses to UNECE Questionnaires

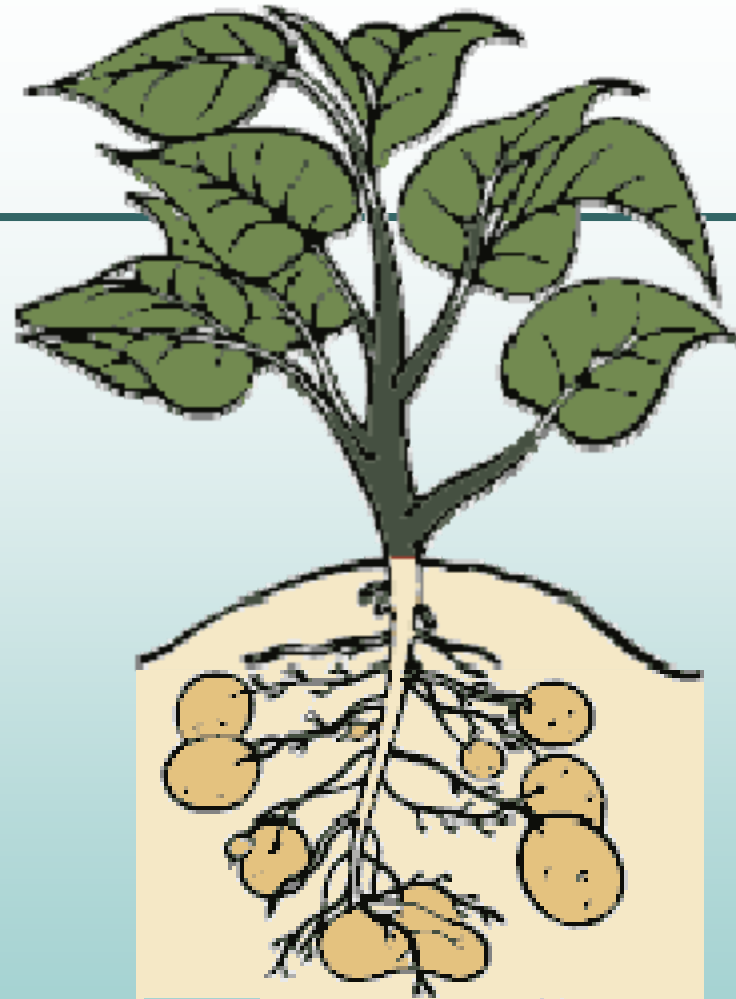
Gregory Wolff

Director, Horticulture Division  
Canadian Food Inspection Agency

# Outline

---

- Data Collection
- Survey Areas
- Potato Production
- Varieties & Uses
- Agronomic Practices
- Constraints
- Quality Control
- Seed Potato Certification
- Utilization of UNECE Standard
- Future Trends



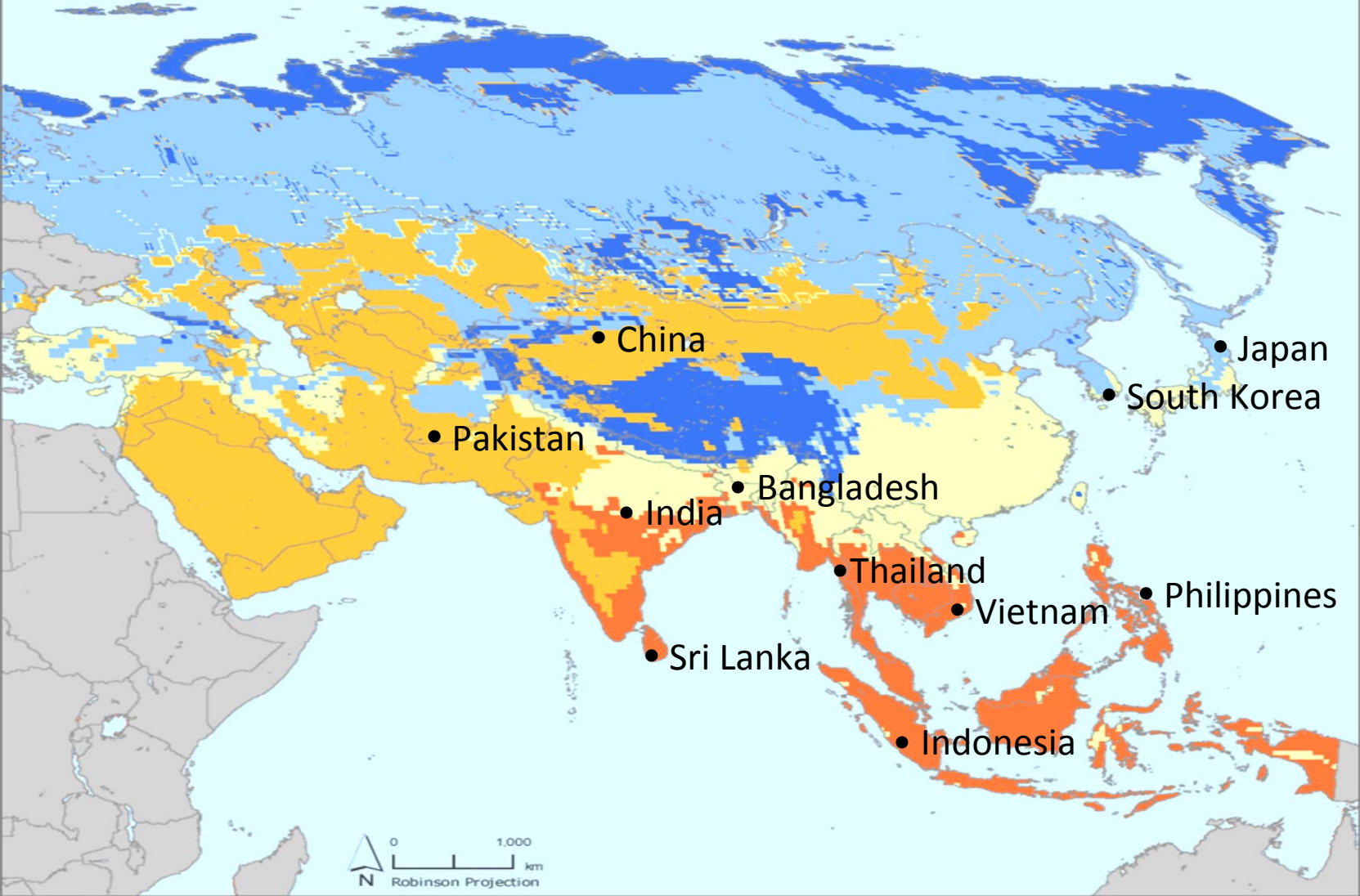
# Data Collection

---

- Data prepared by Ministry of Agriculture representatives in each country
- Questionnaires addressed:
  - Potato production
  - Agronomics considerations and constraints
  - Varieties grown & their usage
  - Elements of certification systems
  - Utilization of the UNECE standard
- Data generally for 2008-09 seasons



# Survey Area



Generalized Climate Zones: Tropical Dry/Desert Temperate Cold Polar/Tundra

# Production Seasons & Regions

---

- Potato production occurs in all climate zones in the region
  - Temperate, polar, cold, desert & tropical
- Number of production seasons varies:
  - One season in Bangladesh
  - Year-round in Thailand, Indonesia, Vietnam, Sri Lanka & India
- Number of distinct production regions varies:
  - 2 in Thailand
  - 8 in Indonesia



## Varieties & Uses

- “Atlantic” used for processing in:
  - Thailand
  - Indonesia
  - South Korea,
  - China, & Vietnam
- “Granola” used for fresh consumption in:
  - Indonesia
  - Philippines
  - Bangladesh
  - Sri Lanka

# Varieties & Uses

---

- Japan uses > 70 varieties
- Unique local varieties in many countries
  - For example: India
- Most countries using potatoes for processing as chips or French fries:
  - Not Sri Lanka & Bangladesh





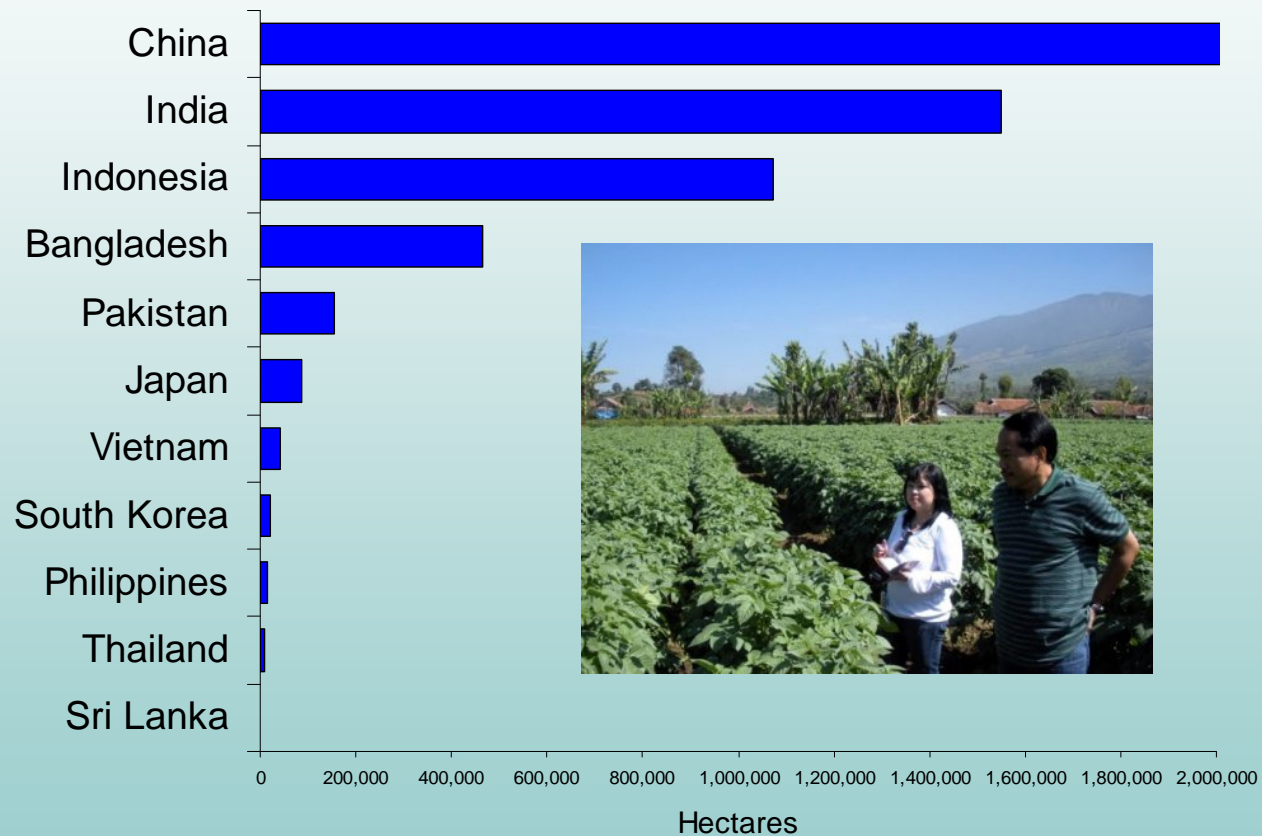
## Production Totals: Asian Region

- **Harvest Area : 8,716,561 Ha  
(48% world)**
- **Volume : 125,865,055 Tonnes  
(40% World)**
- **Average Yield : 17.8 Tonnes/Ha**
- **Average Consumption: 22.62 kg/Capita/Year  
(69% world)**

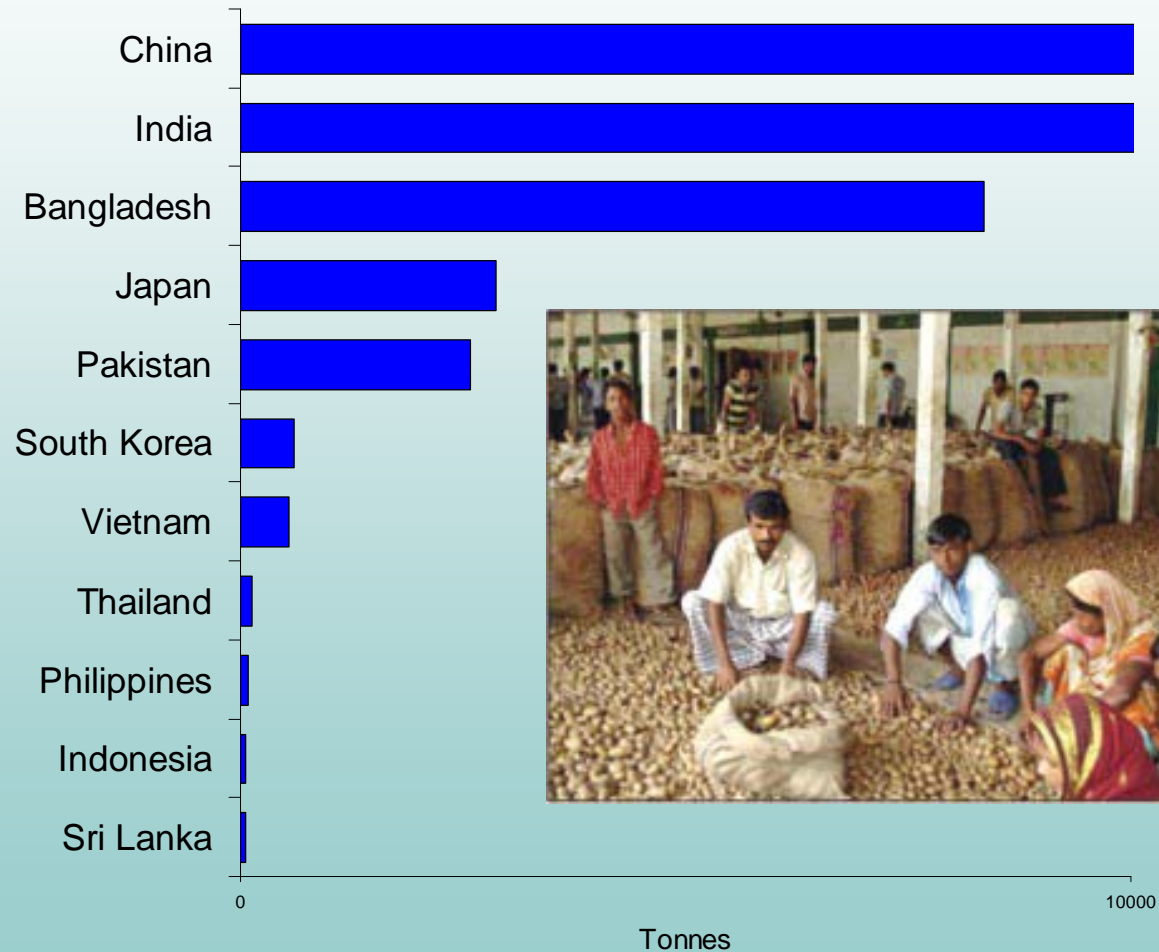
**Source: UNECE potato surveys & FAOSTAT**



# Production Area/Country (Ha)

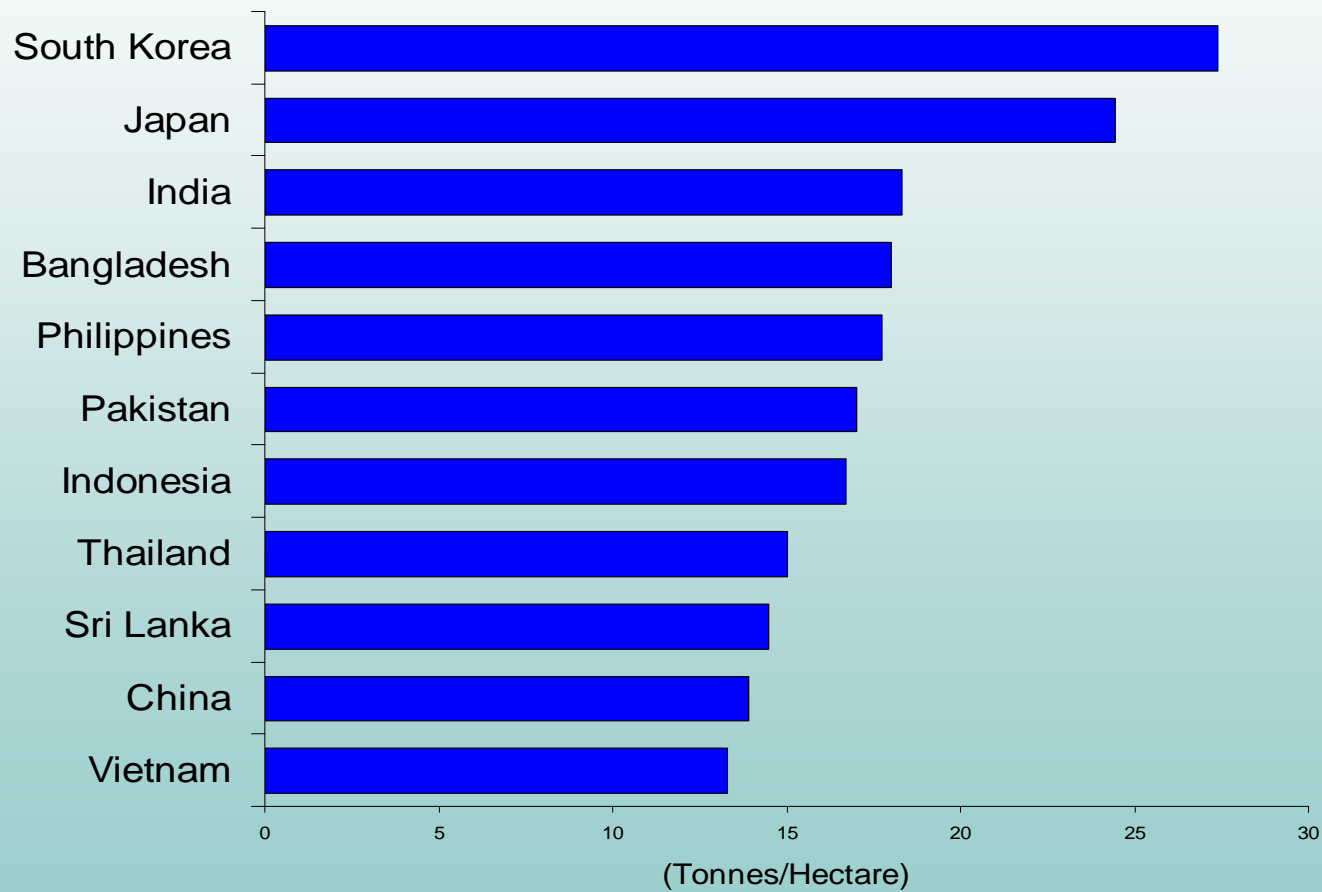


# Production Volume/Country (tonnes)

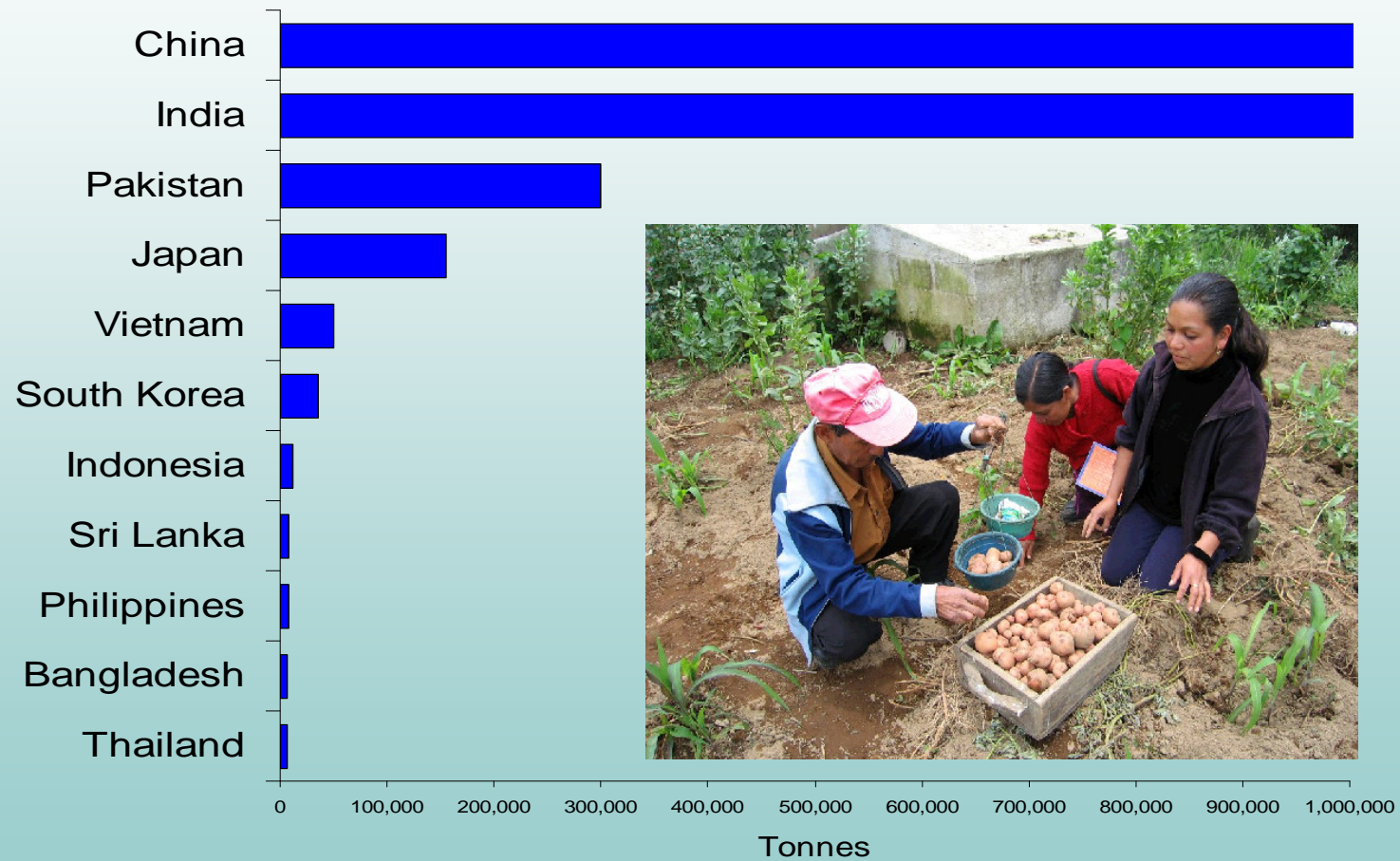


# Production Yield Per Country (tonnes/Ha)

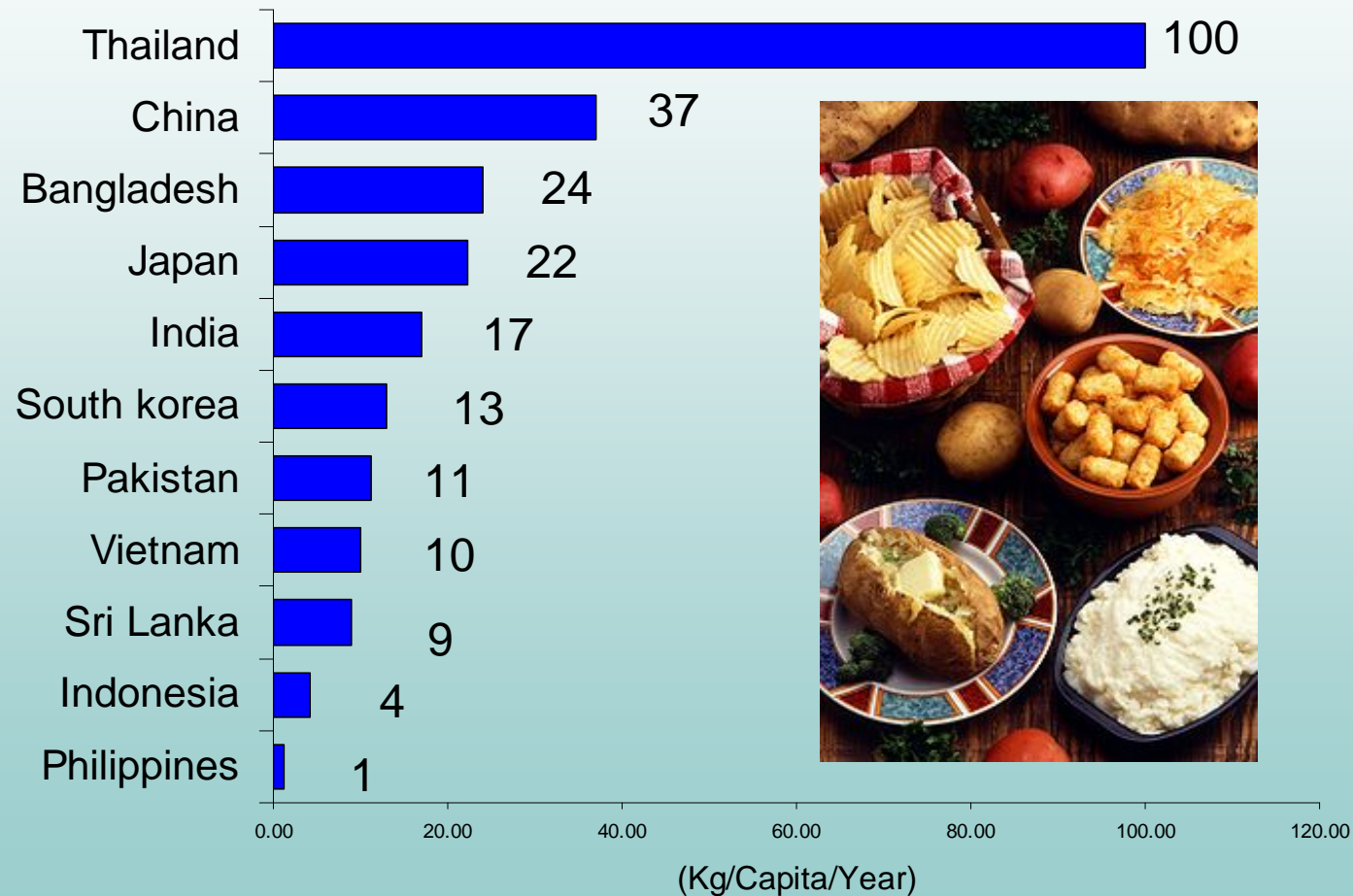
---



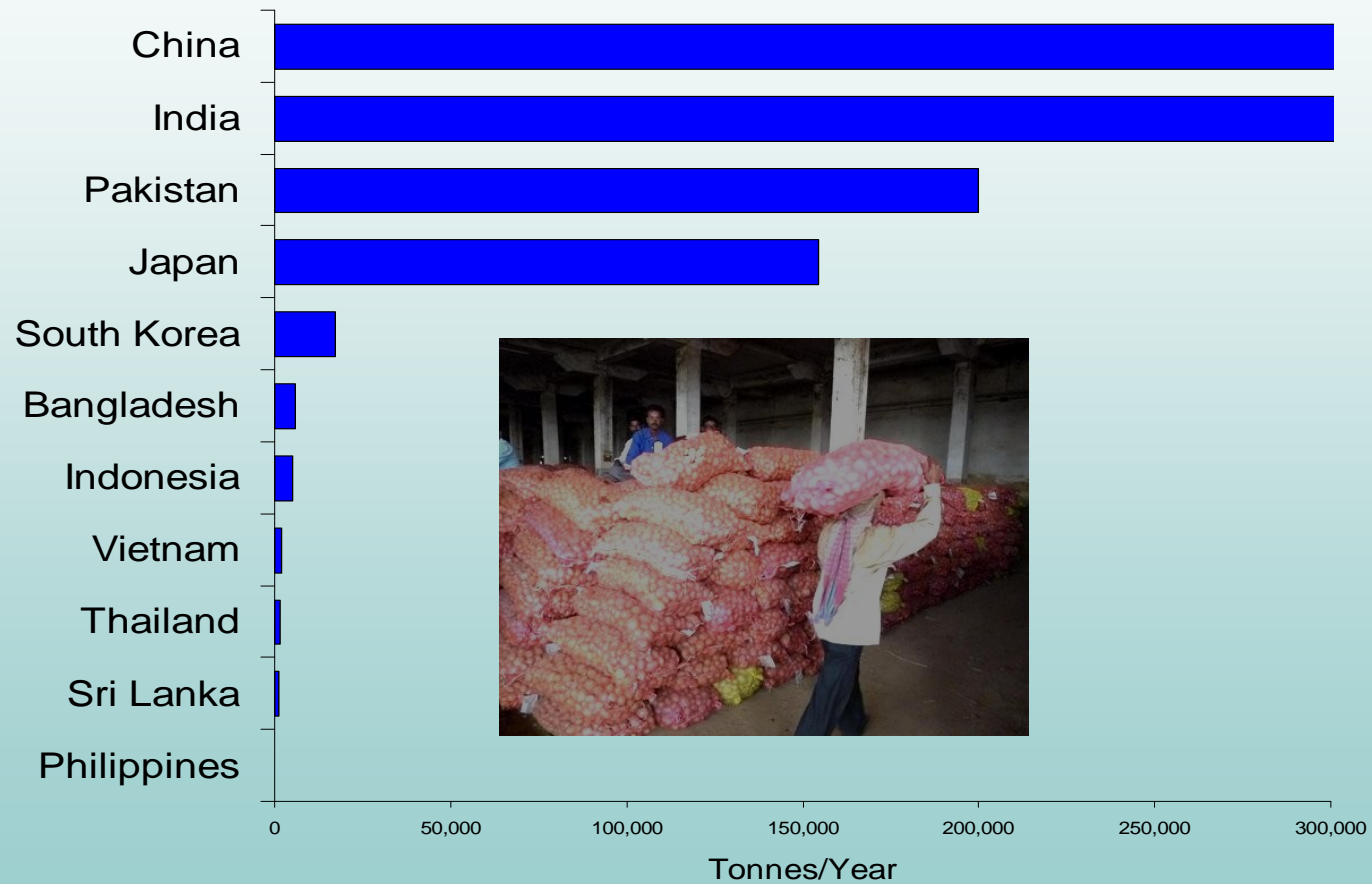
# Planting of Potatoes by Country (tonnes)



# Consumption/Country (Kg/Capita/Year)



# Certified Seed/Country (tonnes/year)



## Production and consumption highlights

---

- China & India have the highest production volume and area
- Bangladesh has a significant production volume
- Thailand is the greatest consumer of potatoes
- Vietnam has the highest yield despite lower production volume and area
- China & India have the highest planting quantities
- China & India have the highest seed production

## Agronomic Practices

- Whole & cut tubers
- Irrigation (sprinklers, rain fed)
- Storage (cold & traditional)
- Seed (import & own)
- Chemical fertilizers
- Planting (manual & machinery)



A person wearing a red shirt and dark shorts stands in a field of severely cracked and dry earth. The ground is parched, with deep fissures running across the surface. The person is looking towards the camera, and their shadow is cast on the cracked ground. The overall scene conveys a sense of drought and agricultural hardship.

## Constraints

- Diseases, viruses, & pests
  - Main constraint
- Climate
- Seed quality
- Soil quality
- Seed costs

# Constraints: Diseases, Viruses & Pests

---



# Quality Control

---

- Imported Seed - all Countries except for:
  - Japan
  - South Korea
  - China
  - India
- Cold Storage
- Certified Seed



# Seed Potato Certification

---

- Limited certified seed in some countries
- All countries have a certified seed production system
- Some countries have a complete system
- Main elements vary from country to country

# Seed Potato Certification

---

- Elements include:
  - Field & tuber inspection
  - Disease Tolerance
  - Purity of Seed
  - Variety registration
  - Seed labelling & tagging



# Seed Potato Certification

---

- Elements included:
  - Seed classification
  - Tissue culture
  - Screen house production
  - Lab analysis (Soil, Seed, Disease & viral testing)
  - Freedom from pests
  - Seeds Act



# UNECE Standard

---

- Not all countries were familiar with the standard
- Most countries intend to use UNECE Standard to:
  - Facilitate trade
  - Increase production
  - Improve current systems
  - Improve seed quality



## Future Trends

---





## Future Trends: Demand & Growth

---

- Future global demand & growth will be driven by increased consumption in Asia
  - (esp., China & India)
- Traditional rice-based diet is evolving to include more potatoes
- FAO reports production in Asia has increased on average 4.6% annually over the past 10 years

## Future Trends: Demand & Growth

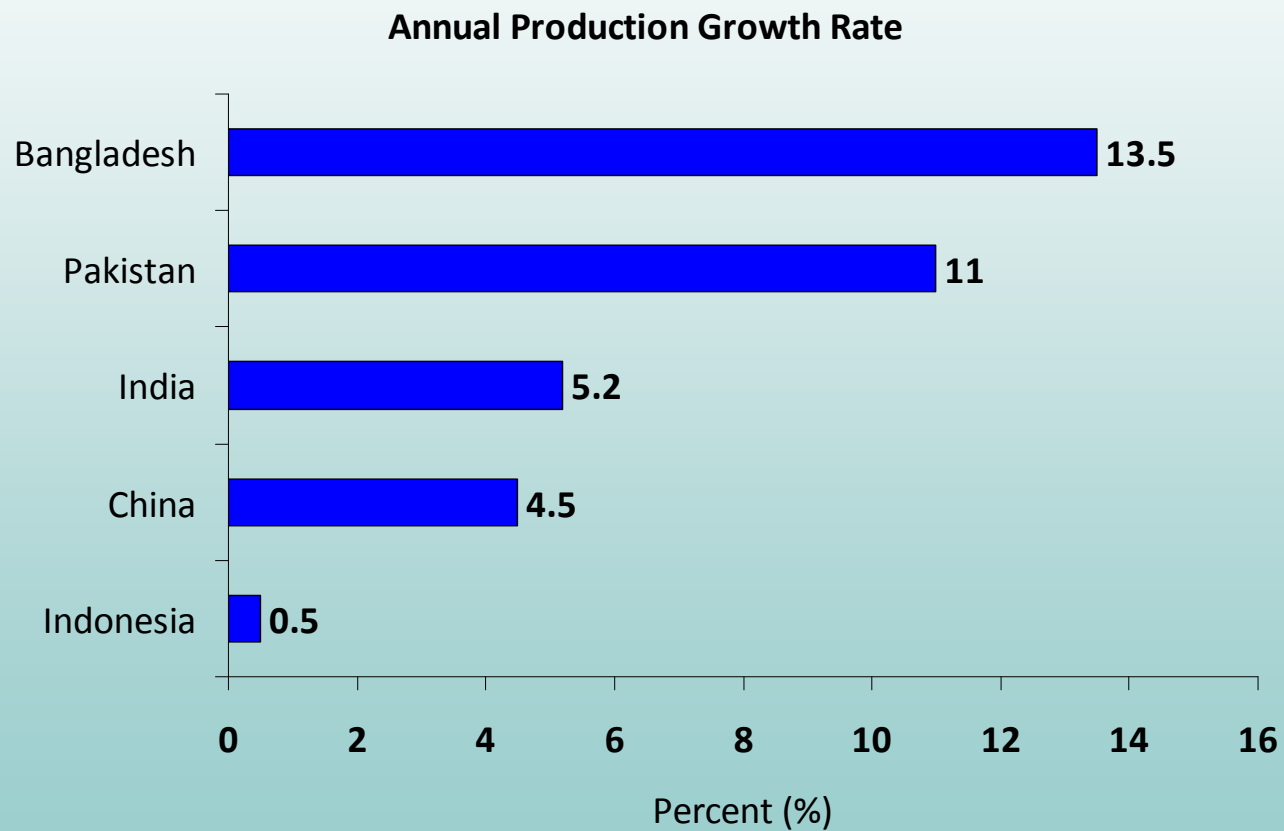
---

- Growth of the potato industry in Asia is due to:
  - Increase use of cold storage facilities
  - More processing plants
  - Irrigation
  - Growth of fast food industry



# Future Trends: Production

---



\* Source: FAOSTAT

# Future Trends: Climatic Changes

---

- Impacts will be greatest in southern countries by amplifying existing problems:
  - Drought,
  - Land degradation
- Increase disease & pest pressure
  - Late blight expected to expand
  - Larger populations of aphids & more seasons
  - As virus vectors, aphid threaten seed production



## Asian Region future - highlights

---

- Demand expected to grow
- Desire in most countries to increase production to meet demand
- Moving to an UNECE standard will promote
  - Increased yield and quality
  - National food security
  - Open new trade markets through internationally recognized standard

