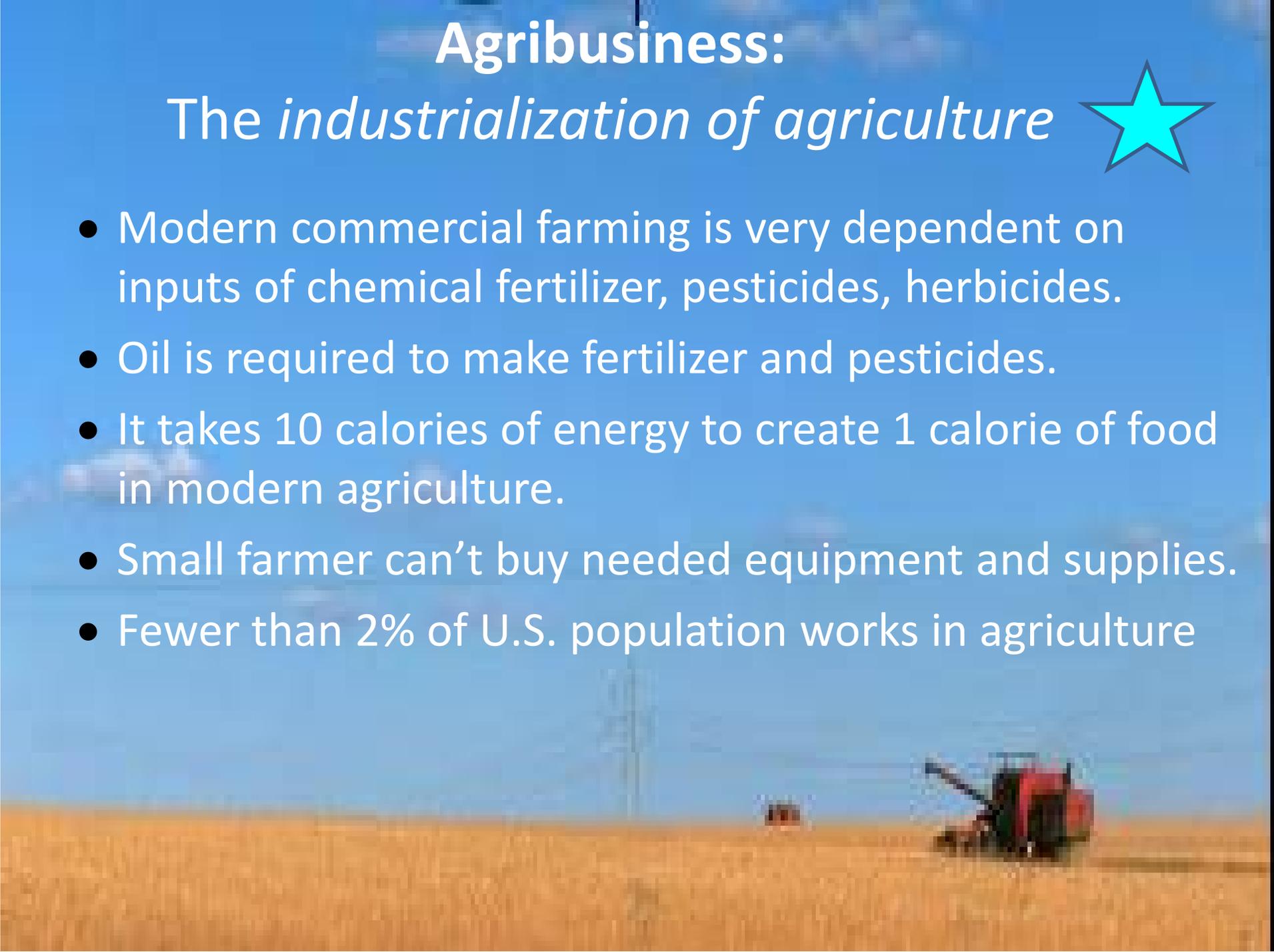


Agribusiness:

The *industrialization of agriculture*



- Modern commercial farming is very dependent on inputs of chemical fertilizer, pesticides, herbicides.
- Oil is required to make fertilizer and pesticides.
- It takes 10 calories of energy to create 1 calorie of food in modern agriculture.
- Small farmer can't buy needed equipment and supplies.
- Fewer than 2% of U.S. population works in agriculture

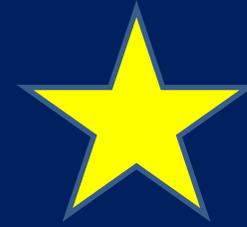


FOOD PRODUCTION

- Providing food in the United States and Canada is a vast industry.
- The mechanized, highly productive American or Canadian farm contrasts with the subsistence farm found in much of the world.
- This sharp contrast in agricultural practices constitutes one of the most fundamental differences between the more developed and less developed countries of the world.



ECONOMIC ACTIVITY LEVELS



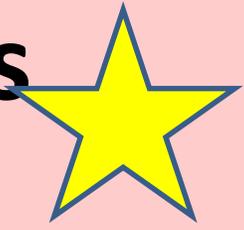
- **PRIMARY**
 - Involves products closest to the ground; farming, ranching, fishing, forestry, mining
- **SECONDARY**
 - Manufacturing of a primary product; processed foods, cars, chemicals
- **TERTIARY**
 - The service industry; bankers, lawyers, teachers
- **QUATERNARY**
 - Services involved with the exchange of money or goods
- **QUINARY**
 - Services involved with research and higher education

- *Agriculture is classified as a primary activity*

The Economics of Farming

- The reason why farming varies around the world relates to distribution across space of cultural and environmental factors.
- Elements of the physical environment, such as climate, soil, and topography, set broad limits on agricultural practices, and farmers make choices to modify the environment in a variety of ways.
- Broad climate patterns influence the crops planted in a region, and local soil conditions influence the crops planted on an individual farm.
- Farmers choose from a variety of agricultural practices, based on their perception of the value of each alternative.
- These values are partly economic and partly cultural.
- How farmers deal with their physical environment varies according to dietary preferences, availability of technology, and other cultural traditions.
- At a global scale, farmers increasingly pursue the most profitable agriculture

Classifying Agricultural Regions



Subsistence Agriculture:

*The production of food
primarily for consumption
by the farmer's family*

- Shifting Cultivation
- Pastoral Nomadism
- Intensive Subsistence Agriculture
- Found in “LDCs”

Commercial Agriculture

*The production of food
primarily for sale off the
farm*

- Mixed Crop and Livestock Farming
- Dairy Farming
- Grain Farming
- Livestock Ranching
- Mediterranean Agriculture
- Truck Farming
- Found in “MDCs”

Subsistence Farming

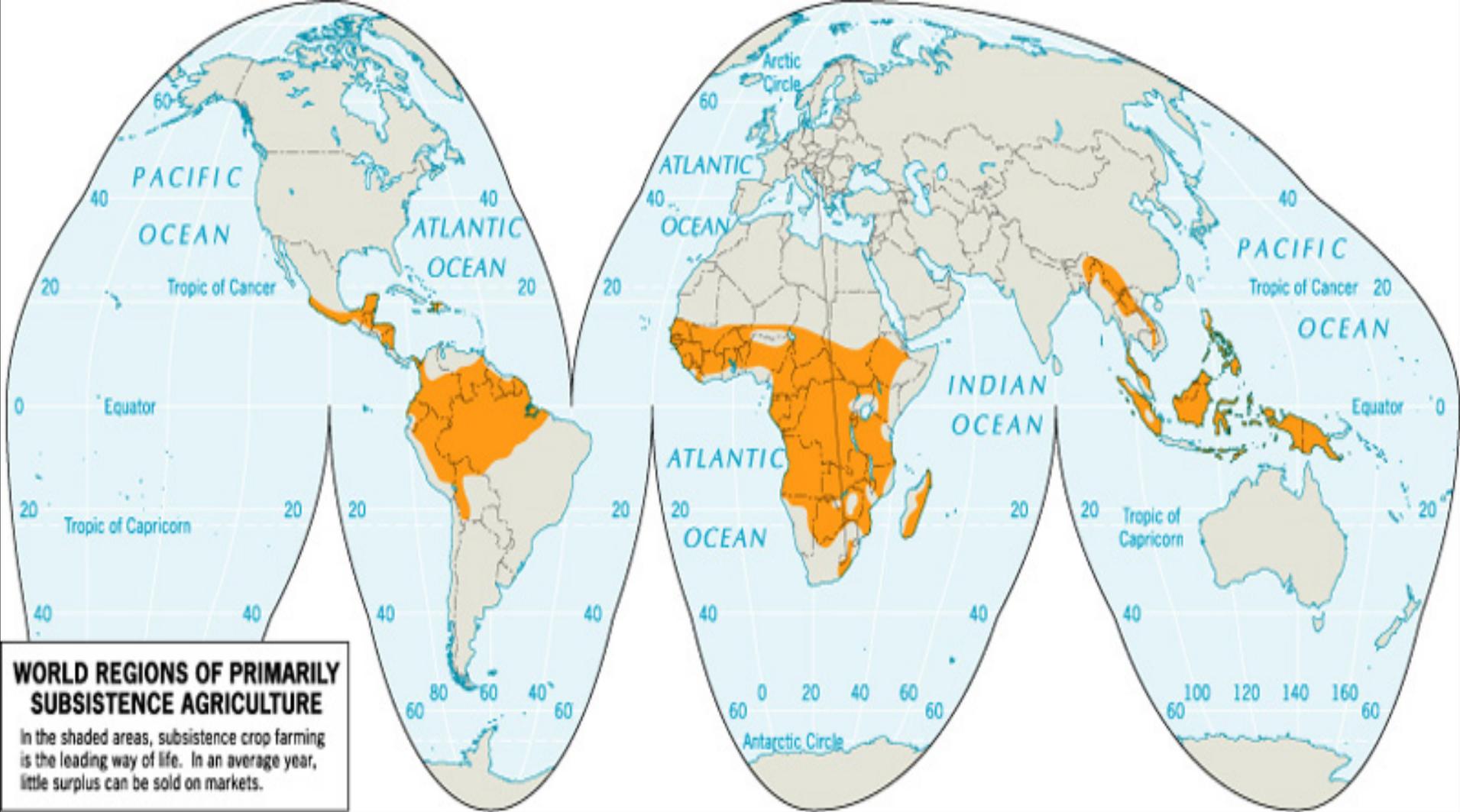
- World-wide, most farmers are subsistence-growing just enough to feed their families.
- They find building material and fuel in the natural environment-no cash economy
- Small fields-intensive farming on land they often don't own.
- Methods and tools used are generally very low tech.
- Found in South & Central America, Africa, South Asia, and South East Asia



Iranian farmer harrowing a field with mules



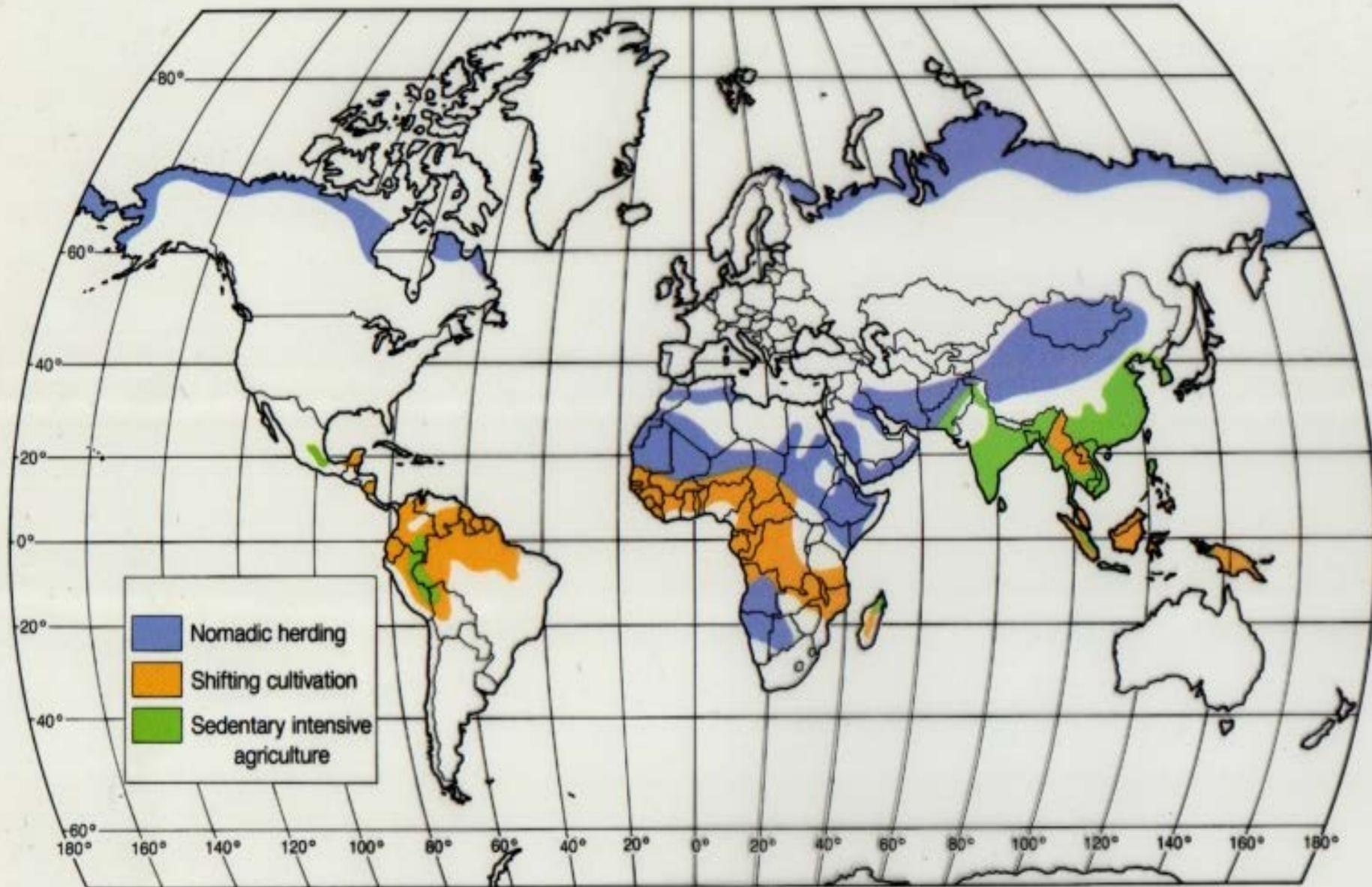
On the Greek island of Crete, a peasant plows a field with a donkey



World Regions of Primarily Subsistence Agriculture

On this map, India and China are not shaded because farmers sell some produce at markets; in equatorial Africa and South America, subsistence farming allows little excess and thus little produce sold at markets.

Subsistence Agriculture Regions



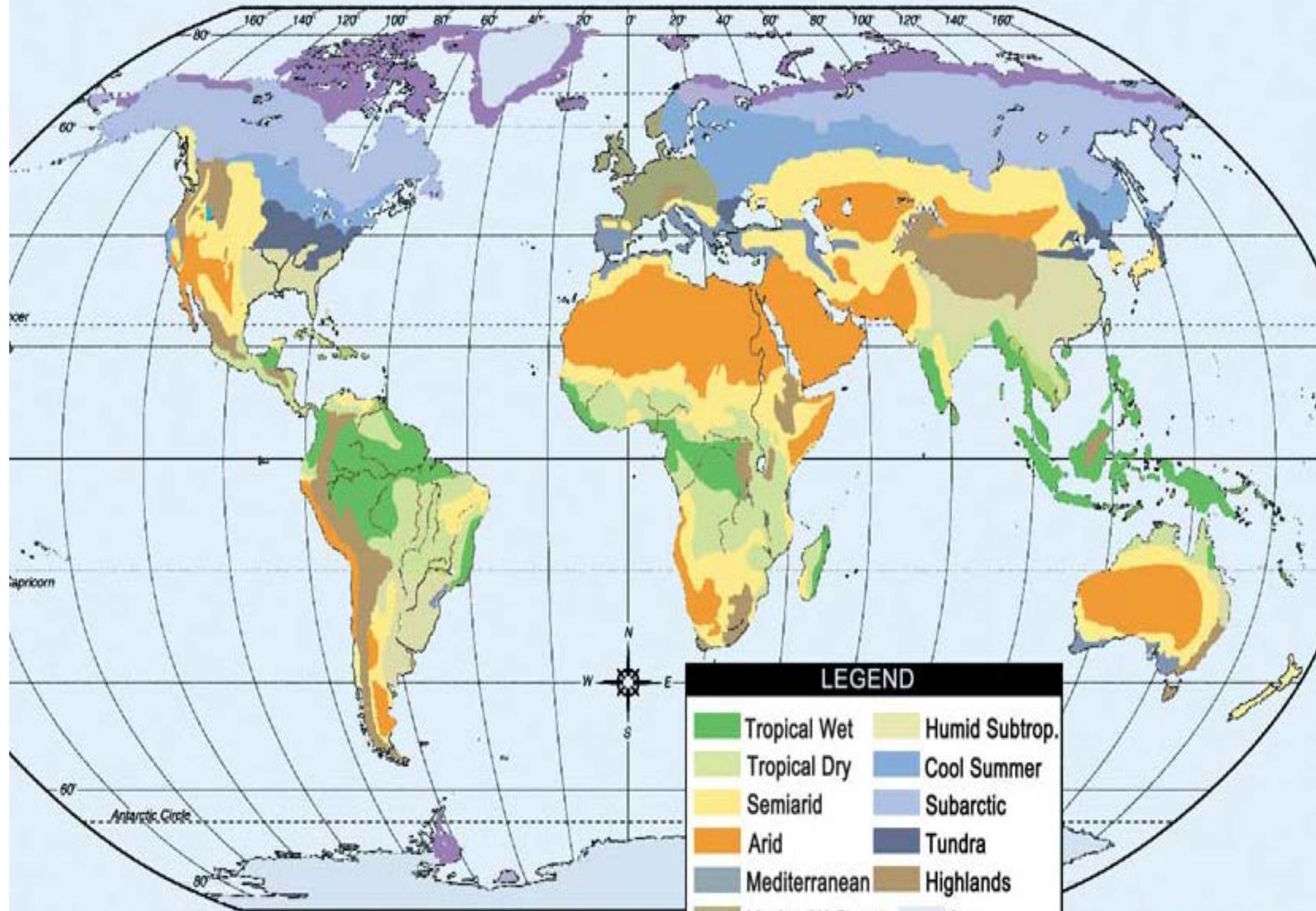


Shifting Cultivation

Vegetation “slashed” and then burned. Soil remains fertile for 2-3 years. Then people move on.

- where: tropical rainforests. Amazon, Central and West Africa, Southeast Asia (Humid Low Lats)
- Crops: upland rice (S.E. Asia), maize and manioc (S. America), millet and sorghum (Africa)
- Practiced by about 250 million people; usually live in small villages; land is owned by the village as a whole
- Uses a lot of land and doesn't produce a ton of food...so...
- Found in tropical regions of Latin America, Sub-Saharan Africa, and SE Asia

Declining at hands of ranching and logging.



LEGEND			
	Tropical Wet		Humid Subtrop.
	Tropical Dry		Cool Summer
	Semiarid		Subarctic
	Arid		Tundra
	Mediterranean		Highlands
	Marine W Coast		Ice

Intensive Subsistence Agriculture



Thai Rice Farmers

Wet Rice Dominant

- Planting rice on dry land & then moving the seedlings to a flooded field
- **where:** S.E. Asia, E. India, S.E. China
- very labor intensive production of rice, including transfer to sawah, or paddies
- most important source of food in Asia
- grown on flat, or terraced land
- **Farmers cultivate small amounts of land very efficiently to produce food for their families**

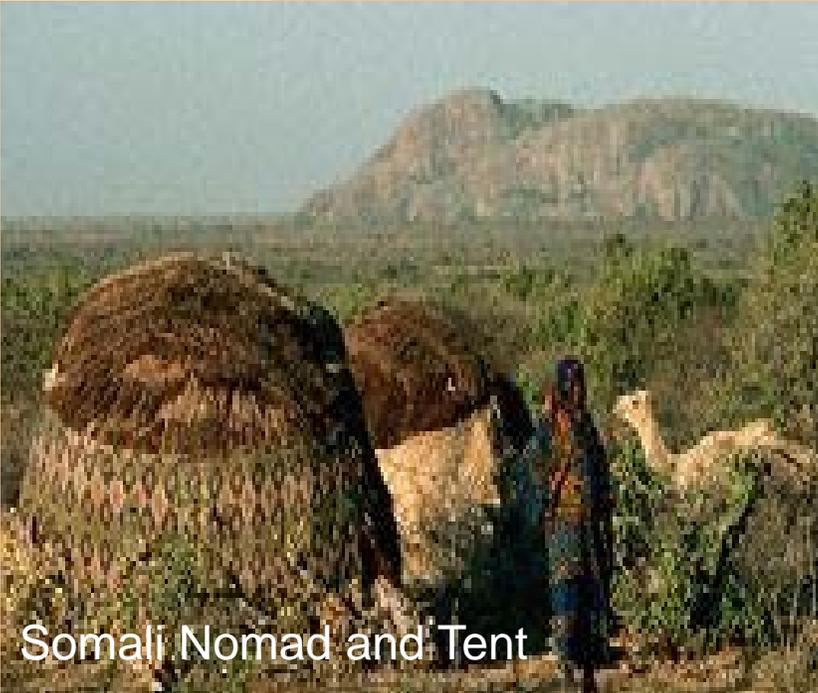
Intensive Subsistence Agriculture Cont...



- Double cropping – the process of getting two harvests on a field each year
 - For example, corn in one season and wheat in another
- Common in places with warm winters (S. China & Taiwan)
- Usually involves wet rice in the summer and wheat, barley, or another dry crop in the winter



Bedouin Shepherd



Somali Nomad and Tent

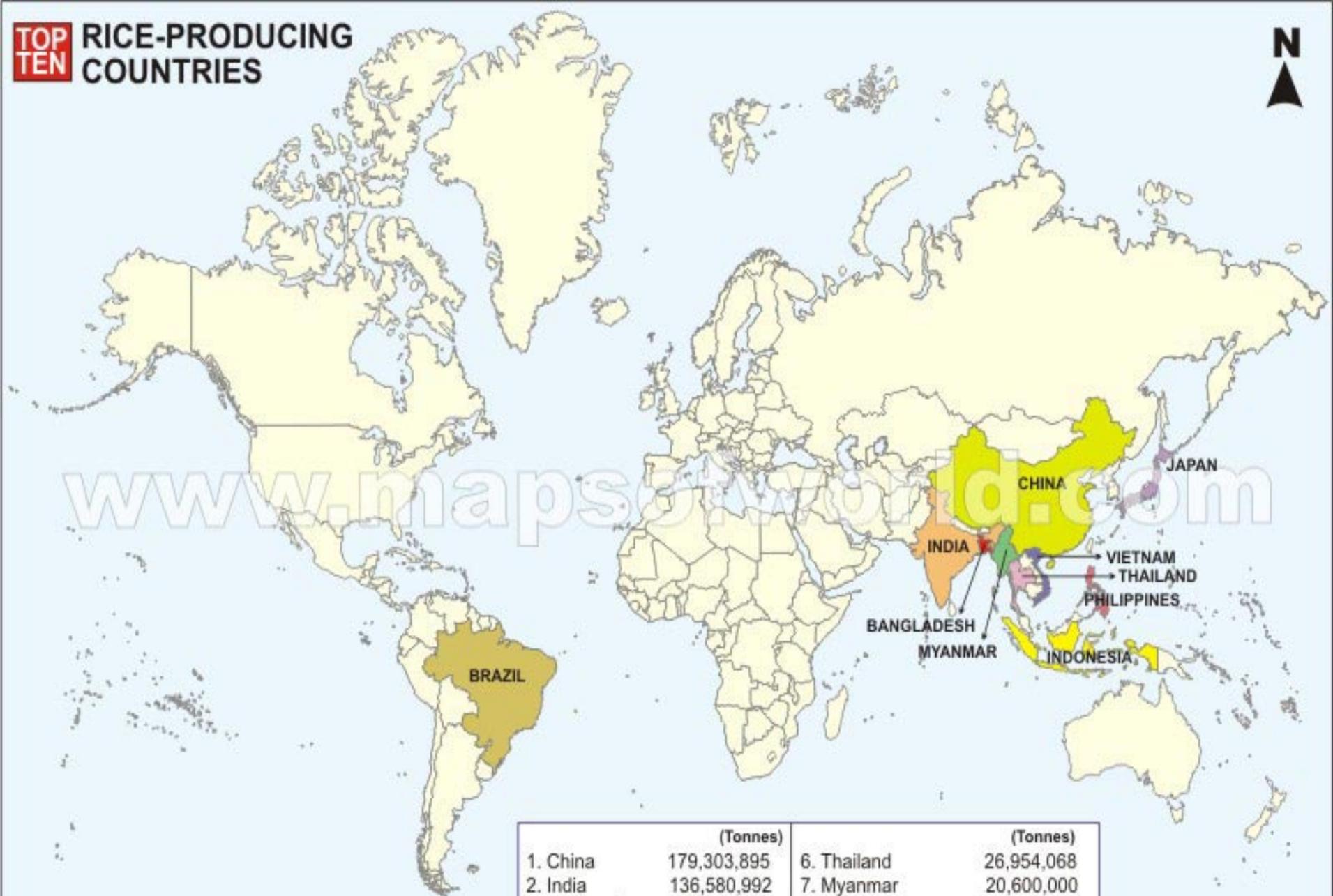


Pastoral Nomadism

The breeding and herding of domesticated animals for subsistence. (Drylands)

- **where:** *arid and semi-arid areas* of N. Africa, Middle East, Central Asia
- **animals:** Camel, Goats, Sheep, Cattle
- *transhumance*: seasonal migrations from highlands to lowlands
- Approx. 15 million practitioners occupying 20% of earth's land area
- Animals provide milk & skins; some crops planted
- Size of herd = source of power & protection

TOP TEN RICE-PRODUCING COUNTRIES

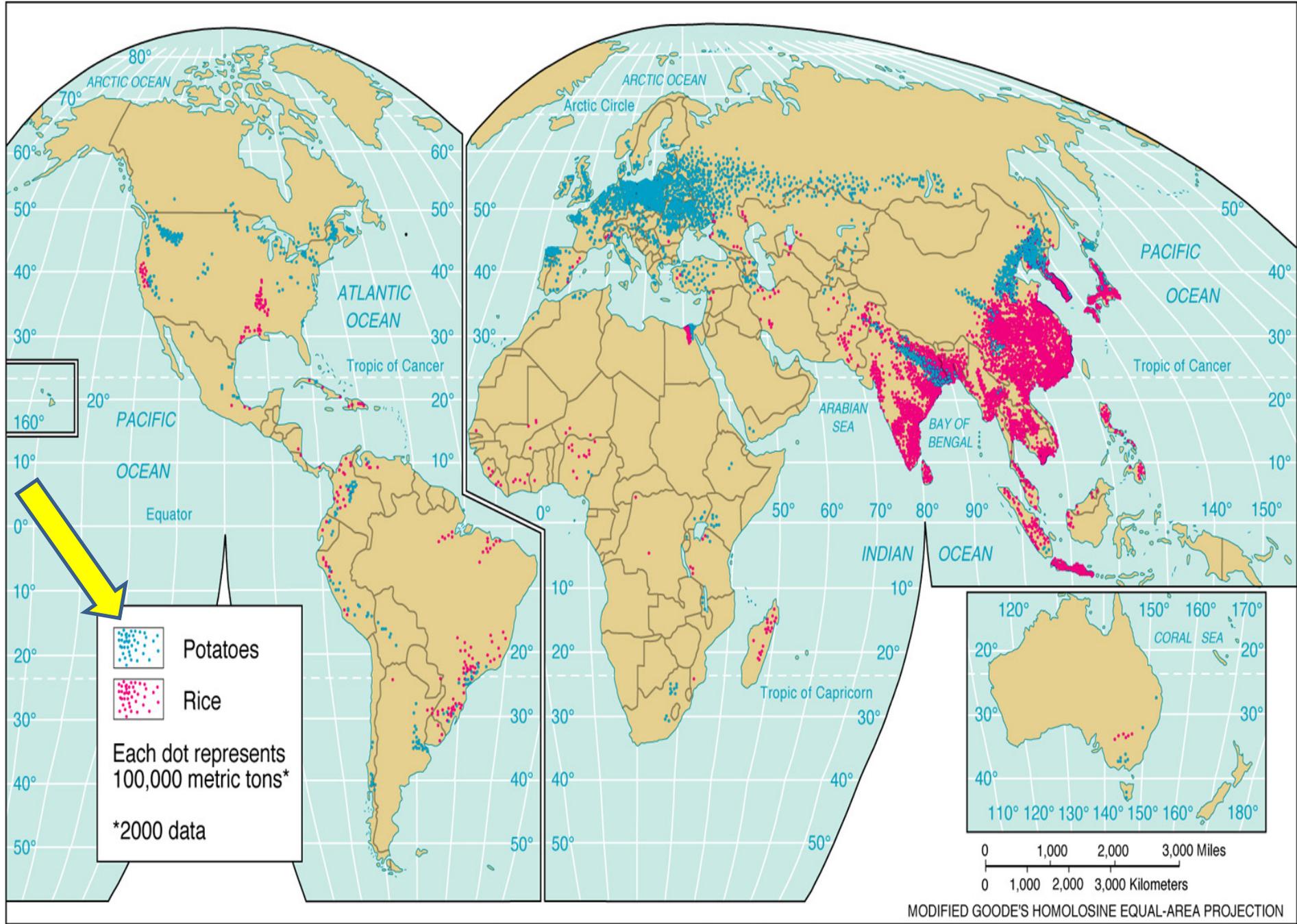


	(Tonnes)		(Tonnes)
1. China	179,303,895	6. Thailand	26,954,068
2. India	136,580,992	7. Myanmar	20,600,000
3. Indonesia	50,096,000	8. Philippines	12,954,900
4. Bangladesh	38,500,000	9. Japan	11,320,000
5. Vietnam	31,970,100	10. Brazil	69,115,552

Map not to Scale

Copyright © 2006 Compare Infobase Limited

World production of Rice(2001): 595,267,724 Tonnes



[Blue dots] Potatoes
 [Red dots] Rice
 Each dot represents
 100,000 metric tons*
 *2000 data



Commercial Agriculture

Agriculture

- Commercial Agriculture

Term used to describe large scale farming and ranching operations that employ vast land bases, large mechanized equipment, factory-type labor forces, and the latest technology.

- roots are in colonial agriculture
- today, global production made possible by advances in transportation and food storage

NAFTA-since it started in 1994 US corn imports into Mexico have tripled and Mexican corn production has gone down. Total population is increasing, thus many small villages are losing population to the maquiladora towns or they are migrating into the US