

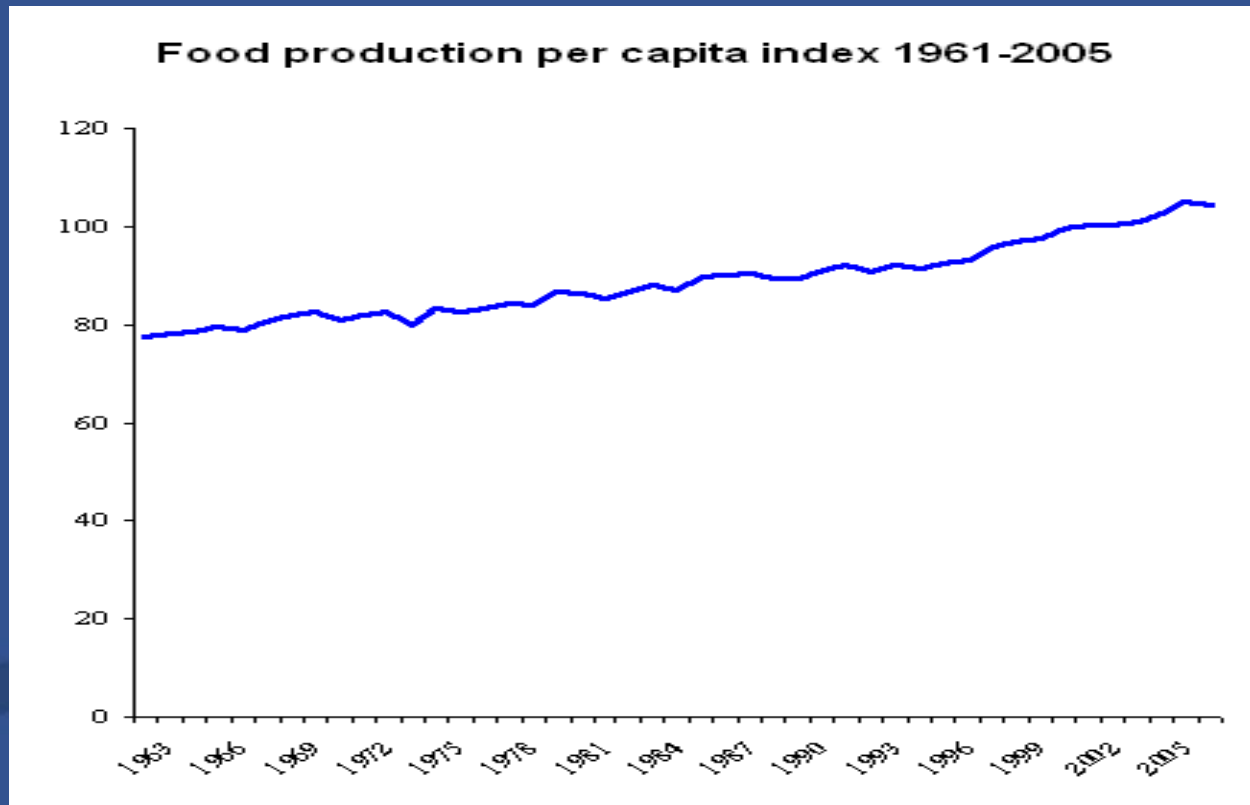
Food Security: A Global Perspective

**Major General John Hartley AO (retd)
CEO – Future Directions International**

Food Security

**Food security is the availability
of food and access to it**

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In 2006 more than 1 billion people were overweight while 800,000 were undernourished

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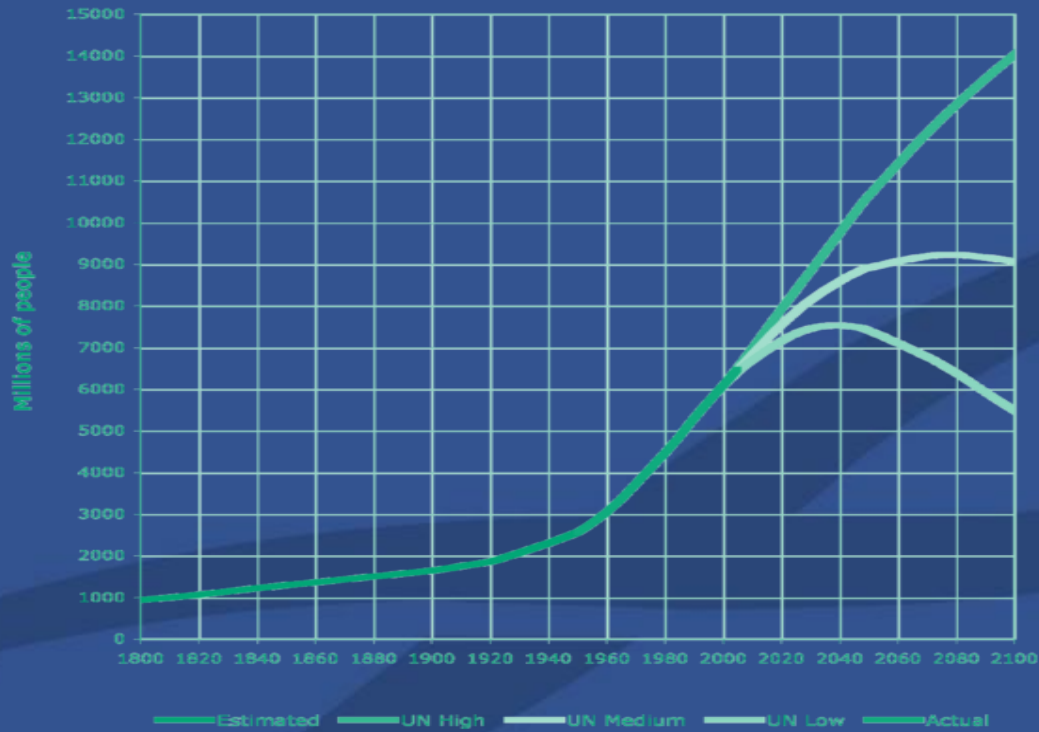
1 billion chronically hungry
2 billion intermittently affected

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Possible Causes

- Export Restrictions and Panic Buying
- US Dollar Depreciation
- Increase in Biofuels
- World Oil Prices at more than \$100 per Barrel
- Global Population Growth
- Climate Change
- Loss of Agricultural Land
- Growing Consumer Demand in India and China

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Historical Perspective

- Indian Subcontinent: 1750=125 million; 1941=389 million; today=1.22 billion
- Java: 1815=5 million; today=130 million
- Kenya: 1830=2.9 million; today=37 million

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World Population

- **Asia has over 60% of world's population of more than 4 billion**
- **China and India have about 37% of world's population**
- **Africa has about 1 billion**

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Demand for Fresh Water

- Tripled over last 100 years
- Doubling every 21 years
- One-third population faces chronic water shortages by 2025

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Falling Water Tables

- **Severe:** India, China and the US
- **Serious:** Pakistan, Afghanistan, Algeria, Egypt, Mexico and Iran

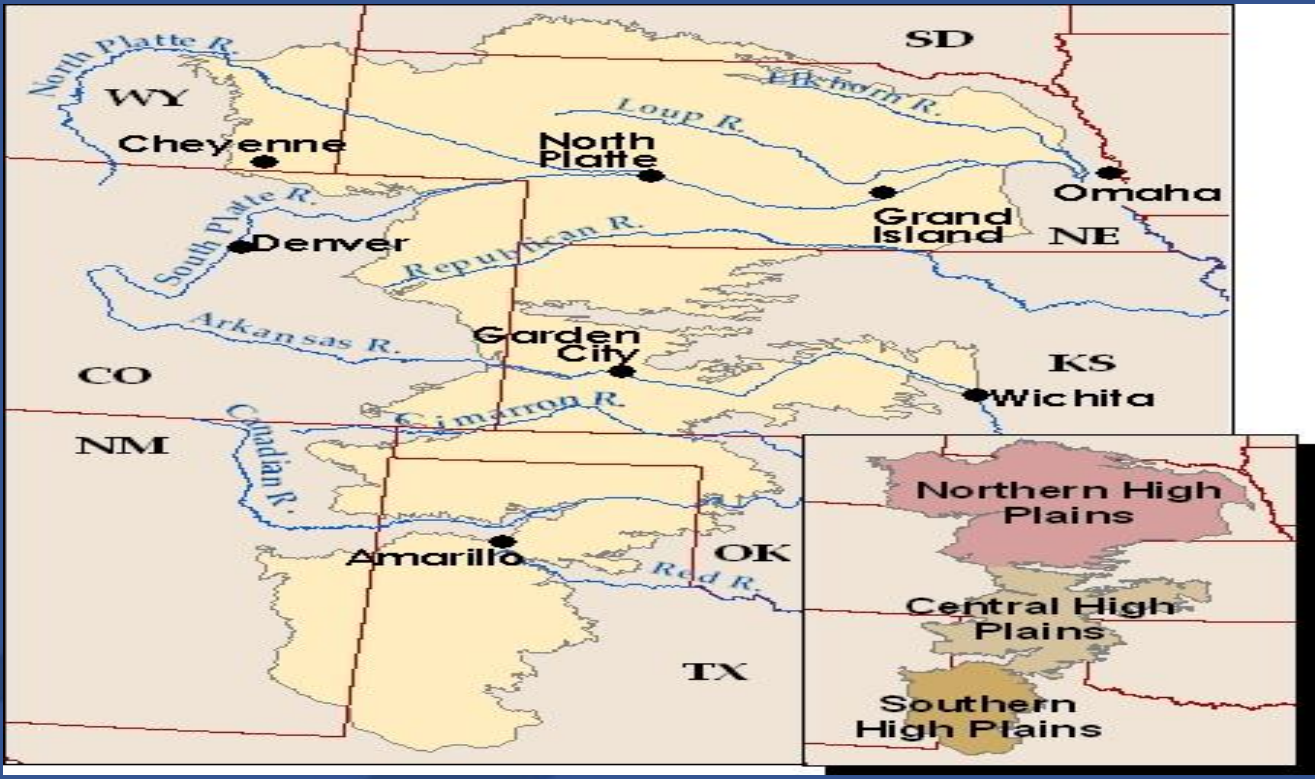
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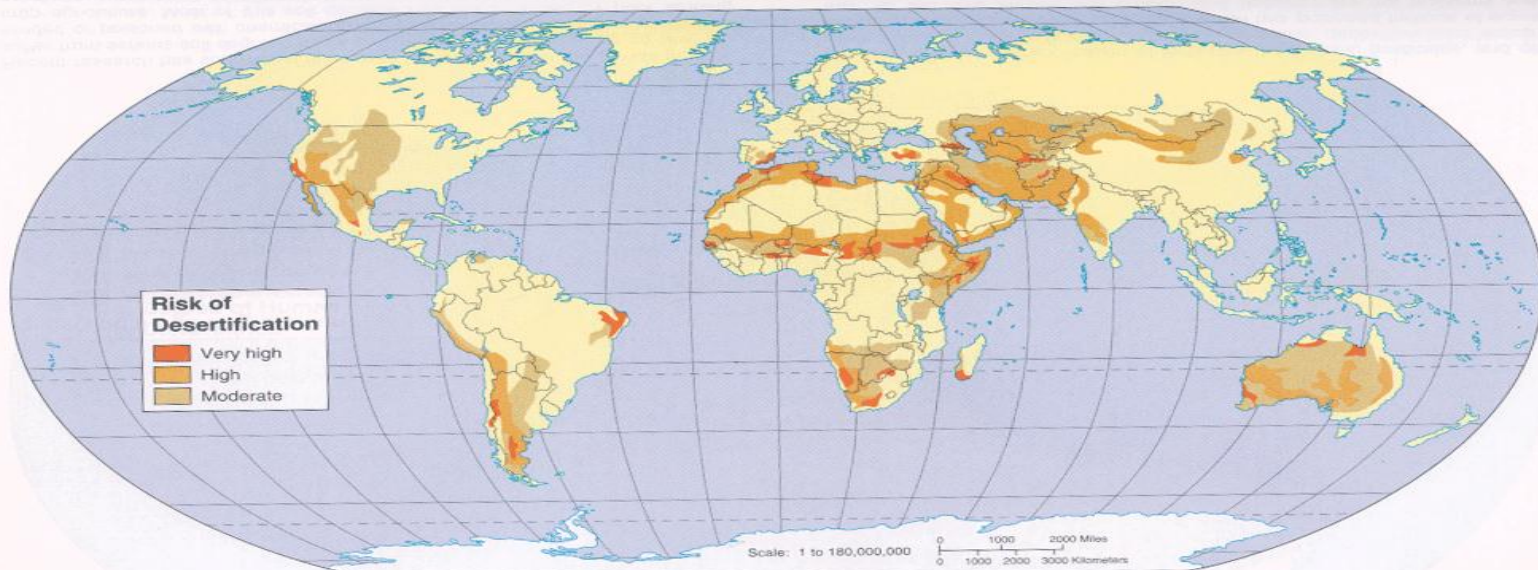
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Raegat Al_bassmat

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Map 55 The Risks of Desertification



The awkward-sounding term "desertification" refers to a reduction in the food-producing capacity of drylands through vegetation, soil, and water changes that culminate in either a drier climate or in soil and plant systems that are less efficient in their use of water. Most of the world's existing drylands—the shortgrass steppes, the tropical savannas, the bunchgrass regions of the desert fringe—are fairly intensively used for agriculture and are, therefore, subject to the kinds of pressures that culminate in desertification. Most desertification is a natural process that occurs near the margins of desert regions. It is caused by dehydration of the soil's surface layers during periods of drought and by high water loss through evaporation in an environment of high temperature and high winds. This natural process is greatly

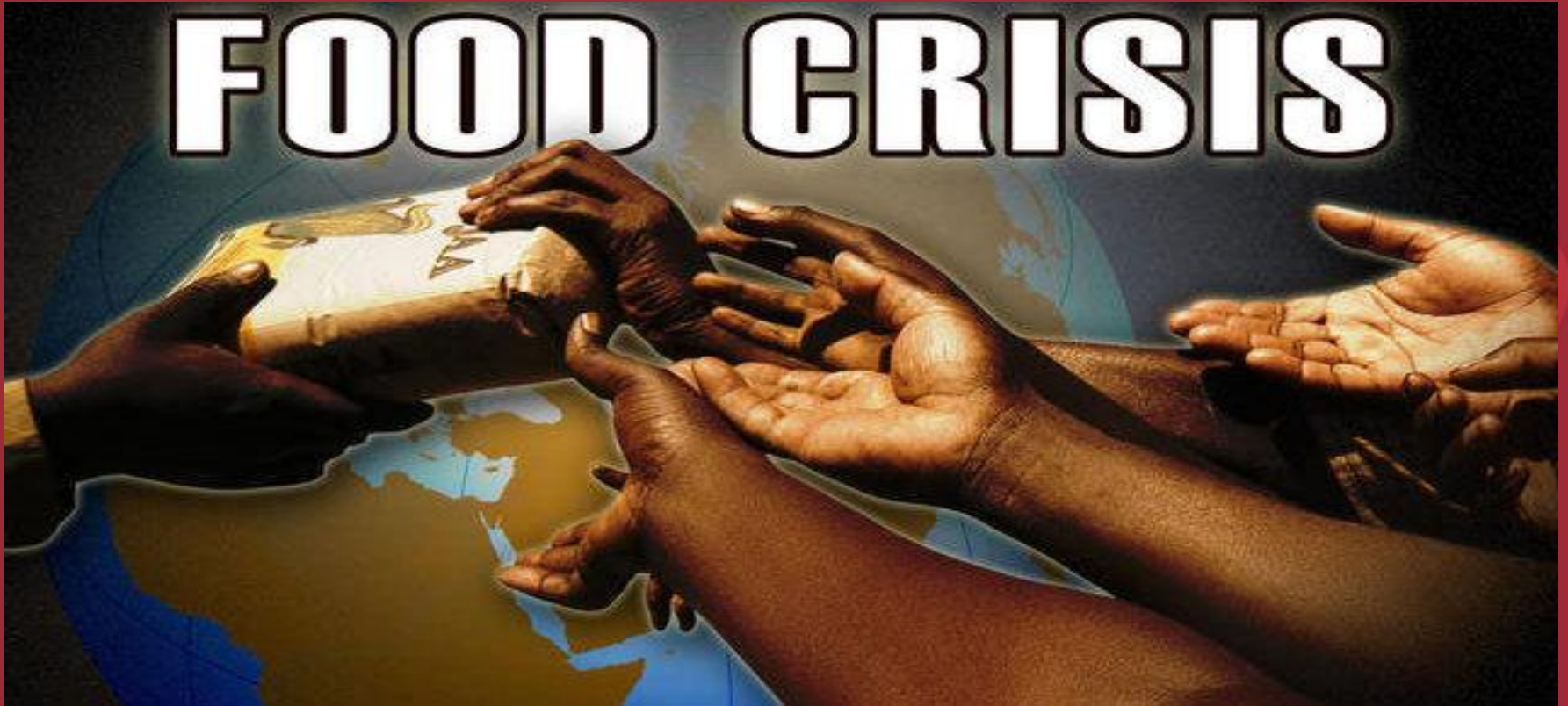
enhanced by human agricultural activities that expose topsoil to wind and water erosion. Among the most important practices that cause desertification are (1) overgrazing of rangelands, resulting from too many livestock on too small an area of land; (2) improper management of soil and water resources in irrigation agriculture, leading to accelerated erosion and to salt buildup in the soil; (3) cultivation of marginal terrain with soils and slopes that are unsuitable for farming; (4) surface disturbances of vegetation (clearing of thorn scrub, mesquite, chaparral, and similar vegetation) without soil protection efforts being made or replanting being done; and (5) soil compaction by agricultural implements, domesticated livestock, and rain falling on an exposed surface.

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FOOD CRISIS



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Thank you

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