# Bioenergy: Prosperity and Sustainability

Department of Commerce "Building Biofuels Infrastructure" June 19, 2007



#### The UN Foundation

- A Ted Turner Philanthropy, est. in 1998, to support UN causes
- Problems without Passports"
  - Health
  - Environment
- Priority on Clean Energy & Energy Access for the Poor
- Need to strengthen policy in developing as well as developed countries.



#### UNF Supports UN Programs

Expand the use of clean energy at the local and national level

Expand the interaction between the UN and the private-sector

 Dialogue to strengthen the current UN Framework Convention on Climate Change and to follow on agreement



#### **UN Partners**

## Key UN Agencies • UN Development Program (UNDP) Food and Agriculture Organization (FAO) • UN Environment Program (UNEP) Global Environment Facility (GEF) UN Industrial Development Organization (UNIDO)

## Current Initiatives

International Bioenergy Initiative (IBI)

- UN Agencies + UN Foundation = G8 Bioenergy Partnership (GBEP)
- UNF Sigma XI Report Confronting Climate Change - "Avoiding the Unmanageable and Managing the Unavoidable"
- High Level Panel on "Global Leadership for Climate Action", convened with the Club of Madrid.
- UNF- Energy Future Coalition- Biofuels FAQ



#### The UNF's IBI work:

Expanding energy access in developing countries

Advocating sustainability

Financing investment in biofuels and bioenergy

Promoting new trade opportunities

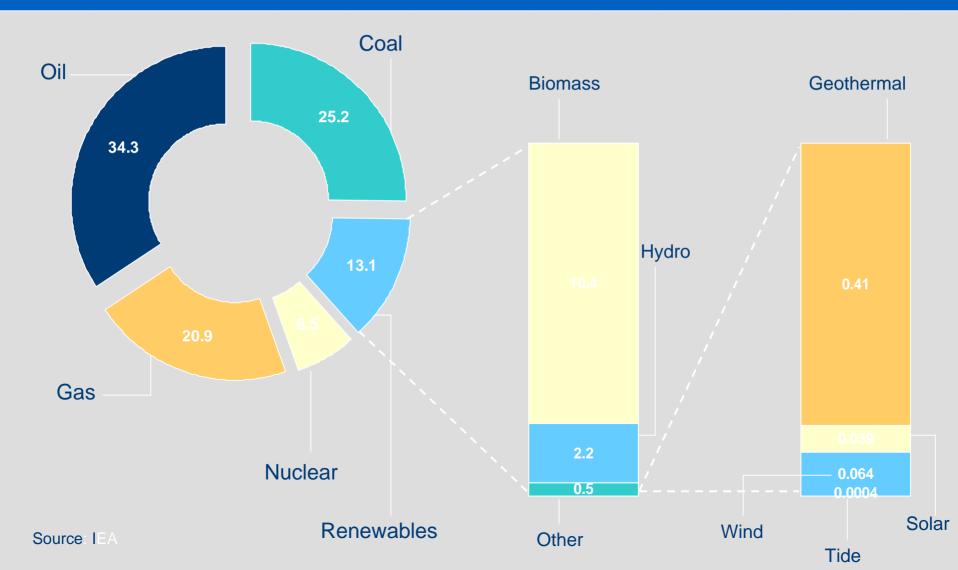


#### A Sense of Urgency

- Climate issue at scientific/political turning point
  - Global climate change accelerating & caused mainly by humans:
    - Average temperature 0.8° C above pre-industrial value
    - Increased incidence of extreme weather events
    - Accelerating sea-level rise, reduction in summer sea ice
    - Ecosystem boundaries moving
  - Political recognition of changes & urgency of situation:
    - Expect continuing increases at 0.2°-0.4° per decade with potential abrupt changes in climatic patterns and major impacts on economic and social systems
    - Climate change will make achievement of MDG's harder
    - Pressure building for resolute international action



## World Total Primary Energy Supply Fuel Share, 2004 %

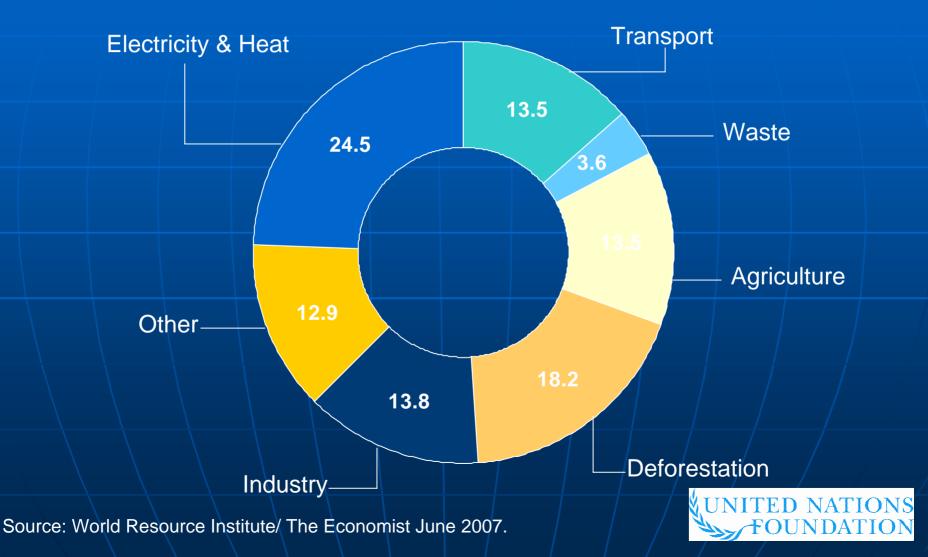


#### The Challenge Ahead

- To avoid exceeding the 2-2.5° C limit will require stabilizing atmospheric concentrations at the equivalent of no more than 450-500 parts per million of CO<sub>2</sub> (compared to about 380 ppm CO<sub>2</sub> equivalent today)
- That in turn requires global CO<sub>2</sub> emissions to peak no later than 2015-2020 at not much above their current level and decline by 2100 to about a third of that value.



# World GHG Emissions by Sector (%)



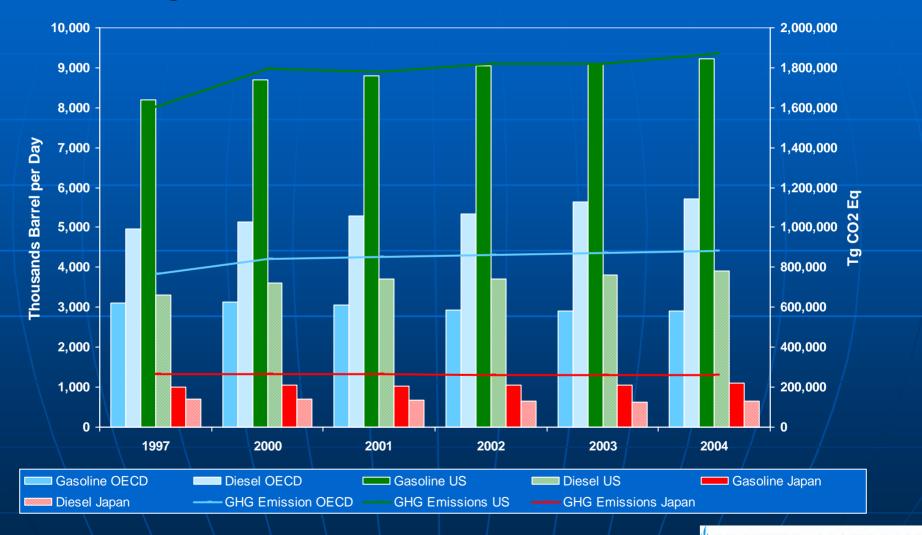
#### Early "Win-Win" Actions

Shifting to non-fossil fuel supply options.

- Designing and deploying only coal power-plants types that can be affordably retrofitted to capture and sequester CO<sub>2</sub>
- Increasing efficiency in transportation and commercial/residential buildings sector
- Expanding use of biofuels in transportation
- Promoting reforestation and afforestation
- Achieving a quadrupling of public and private investment in energy efficiency



## OECD Europe, US and Japan Transport Sector – GHG emissions



Source: Data compiled from IEA and UNFCCC database.

#### **Bioenergy is Critical to Success**

 Petroleum supplies nearly all transport fuel consumed today

 Replacing 25% of existing transport fuel with biofuels could reduce dependence on imported supplies and generate new domestic industries with the right policies.

 Higher volumes of biofuels – produced from forest and agricultural waste – can contribute even more to the solution.



## Charting the Way Forward

- The development of Life-Cycle Carbon Accounting Standards
- The adoption of incentive policies or mechanisms that support the production, use and development of the most climate friendly fuels
- New methodologies to provide carbon finance or credits to the best biofuel option
- Devise and implement policies to ensure regular review and evaluation of new feedstocks
- New financial mechanisms and policy toolkits that can support developing countries on their sustainable development strategy



## **Thank You!**

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