

A photograph of an offshore wind farm with several white wind turbines on a blue sea under a blue sky with light clouds. The largest turbine is in the foreground on the right, with its three blades extending upwards. Other smaller turbines are visible in the distance to the left.

United States, The World, and Energy

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USA's Current Situation...

- **Number 1 in Oil Consumption**
 - Production is decreasing while consumption is increasing
- **Number 1 in Natural Gas Consumption**
 - Production decreasing, while consumption has leveled off.
- **Total Energy produced from all sources is 69.640 quadrillion BTUs, while total consumed is 100.691 quadrillion BTUs.**

***In other words, we consume more than we produce.
So what do we do?***

Investigate the global problems/solutions.

Country 1: Germany



Energy Concerns

1. 61% of their energy derives from traditional fossil fuels, while only 7% is from renewable sources.
2. Sits in the top five countries in the overall consumption of oil and still relies heavily on coal in various forms.

Their Solutions

The government has taken a leading role in promoting energy conservation in providing Direct investment in R & D, direct subsidies, government sponsored loans, tax allowances, and subsidies for operational costs/feed-in tariffs.

What We Can Do

Provide money and tax credits for research and development for bio-fuels and solar, wind, and hydroelectric power.

Investigate the global problems/solutions.

Country 1: China



Energy Concerns

1. Number 2 in Oil Consumption
 2. China's per capita energy consumption has grown from less than 18 million BTUs in 1980 to about 31 million BTUs in 1996. It is projected to reach 58 million BTUs by 2015.
 3. China has allowed cars to become mainstreamed increasing air pollution.
- **Breakdown of Energy Usage:** Coal (57%), Oil (17%), Natural Gas (2%), Hydroelectric (2%), Nuclear (0.03%), Biomass (20%), **Geothermal (0%), Solar (0%), Wind (0%).**

Their Solutions

The government has implemented a new plan to conserve more energy, optimize energy/consumption mix, promotion of environmental protection, and protection of energy security.

What We Can Do

Provide incentives for purchasing zero emissions or environmentally friendly vehicles as well as increasing the fuel efficiency of vehicles.

Investigate the global problems/solutions.

Country 1: Tanzania



Energy Concerns

1. Their only current renewable energy source is solid biomass (Including fuel wood).
2. There is absolutely no production of coal, which is a main source of energy, so they require imports from other countries.

Their Solutions

Tanzania is a member of the South African Development Community (SADC). There are nine members of countries who focus on raising the living standards of all people by integrating the economies.

What We Can Do

Development of solutions that can be done by everyone in the country such as walking, riding a bicycle, or use mass transit instead of driving, Install compact fluorescent light bulbs, Air-dry your clothes on a laundry line , Install a programmable thermostat that automatically adjusts the temperature, and purchasing more energy efficient appliances.

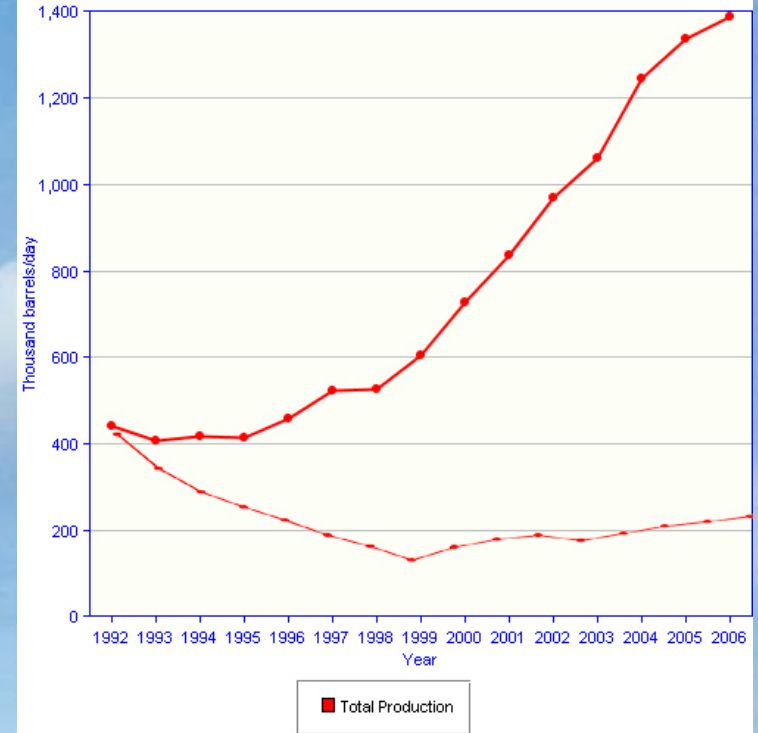
Investigate the global problems/solutions.

Country 1: Kazakhstan



Energy Concerns

1. Production FAR exceeds Consumption of Oil. →
2. Country is still restricted by older technologies.



Their Solutions

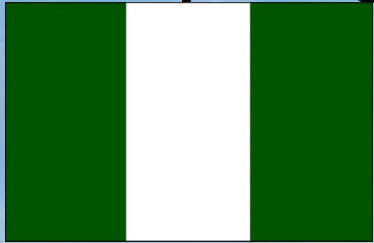
There is a high potential of renewable energies such as hydropower, solar, and wind energy. Kazakhstan is working closely with Exxon Mobil and other companies to improve their country by exporting more petroleum products.

What We Can Do

We need to increase the use of renewable fuels while phasing out older and inefficient technologies.

Investigate the global problems/solutions.

Country 1: Nigeria



Energy Concerns

1. Renewable resources make up most of the energy consumption since 1970.
2. Demand for fossil fuel is actually **RISING!**
3. Fuel wood is the main source of renewable resource in Nigeria due to political instability, which could cause serious societal problems over the long term.
4. Fuel wood is the major source of fuel for the average Nigerian, which means deforestation is a major issue.

Their Solutions

Production of fossil fuels outstrips consumption, so the government has begun planning for wise usage of natural resources as part of a diverse energy mix.

What We Can Do

We need to diversify sources of energy including all major sources of energy.

America's Solutions



1. Provide money and tax credits for research and development for bio-fuels and solar, wind, and hydroelectric power.
2. Provide incentives for purchasing zero emissions or environmentally friendly vehicles as well as increasing the fuel efficiency of vehicles.
3. Development of solutions that can be done by everyone in the country.
4. We need to increase the use of renewable fuels while phasing out older and inefficient technologies.
5. We need to diversify sources of energy including all major sources of energy.