NO PREP

Natural Resources & Distribution

Mapping Global Wealth

Includes: Student reading, case study, differentiated questions, teacher key

Name: Period: Date:

Natural Resources & Distribution: Mapping Global Wealth

Renewable vs. Nonrenewable Resources

Natural resources fall into two broad categories: renewable resources—such as forests, freshwater, and solar energy—that can replenish naturally over time, and nonrenewable resources—like coal, oil, and minerals—that exist in finite quantities. Renewable resources often require sustainable management to avoid depletion; for example, overharvesting timber can lead to deforestation and habitat loss. In contrast, nonrenewable resources form over geological timescales, so once extracted, they cannot be replaced within human lifespans. Understanding this distinction helps students grasp why countries rich in hydropower

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Global Patterns of Resource Distribution

Resource endowments are unevenly spread across the globe. Oil reserves concentrate in the Middle East and Russia, while major copper and cobalt deposits lie in Chile and the Democratic Republic of Congo. Forest cover dominates parts of Canada, Russia, and Brazil, and freshwater availability varies drastically from the Great Lakes region to semi-arid zones in Central Asia. These patterns arise from geological history, climate, and topography. Table 1: Key Resources and Leading Producers Mapping these deposits reveals geopolitical hotspots: nations with scarce resources may face import dependence and higher prices, whereas resource "haves" can leverage exports for economic growth. Yet abundance brings its own risks:

"resource curse" dynamics can lead to corruption, economic volatility, and underinvestment in other sectors, highlighting that raw wealth doesn't always translate to broad prosperity.

Geopolitical Impacts & Economic Strategies

Countries rich in nonrenewables often wield significant global influence. Oil-exporting states use OPEC production quotas to affect world prices, while rare earth elements underpin modern electronics and defense systems, giving producers strategic leverage. Conversely, water-scarce nations invest heavily in desalination or water-sharing agreements, sometimes sparking diplomatic tensions. Economic strategies vary: some governments establish sovereign wealth funds to invest resource revenues for long-term benefits (e.g., Norway's Government Pension Fund), while others lack the institutional frameworks for transparent management. Students should consider how resource management shapes trade policies, foreign aid, and infrastructure projects, and why diversification—through manufacturing or service industries—helps buffer against commodity price swings.

Key Information

Resource	Type	Top Producer(s)
Crude Oil	Nonrenewable	Saudi Arabia; Russia
Timber	Renewable	Canada; Brazil
Copper	Nonrenewable	Chile; Peru
Freshwater	Renewable	Canada; Russia
Rare Earth Metals	Nonrenewable	China; United States

Case Study Excerpt: Botswana's Diamond Diplomacy

Botswana, a landlocked nation in Southern Africa, was one of the world's poorest countries at independence in 1966. The discovery of vast diamond deposits transformed its trajectory. Rather than leasing extraction solely to foreign companies, Botswana's government negotiated equitable joint ventures with De Beers, ensuring a significant share of profits stayed home. Diamond revenues funded ambitious infrastructure projects—paved roads, modern hospitals, and schools—while the government established the Pula Fund, a sovereign wealth fund designed to stabilize the economy against future market shocks. By the 2000s, prudent fiscal management and anti-corruption measures earned Botswana a reputation for good governance. The nation used resource wealth to diversify into tourism—leveraging its wildlife reserves—and beef exports. While diamonds still account for over 70 percent of export earnings, Botswana's GDP per capita rose from under $200 in 1966 to about $6,700 by 2020. This case illustrates how transparent institutions and strategic planning can turn nonrenewable resource wealth into sustained development, rather than the "resource curse" seen elsewhere.

1. How did the Pula Fund help Botswana manage its diamond revenues?

2. In what ways did diversification beyond diamonds strengthen Botswana's economy?

Multiple Choice

1. Which country is a top producer of rare earth metals?

    a) Saudi Arabia

    b) China

    c) Brazil

    d) Canada

2. The resource curse most often refers to:

    a) Environmental sustainability challenges and habitat loss

    b) High manufacturing costs

    c) Economic instability from overreliance on commodities

    d) Overinvestment in renewable energy

3. A sovereign wealth fund primarily aims to:

    a) Increase agricultural output

    b) Regulate freshwater usage

    c) Expand tertiary-sector employment

    d) Stabilize government revenues over time

Matching

Write the letter of the correct definition on the line next to each term.

Term	Definition
1. ___ Desalination	A) Stabilizes revenue using resource profits
2. ___ Sovereign wealth fund	B) Treaties for sharing water resources
3. ___ Resource curse	C) Turning seawater into potable water
4. ___ OPEC production quotas	D) Overdependence on resource exports causing instability
5. ___ Water-sharing agreements	E) Limits oil output to influence global prices

Fill-in-the-Blank

1. Nonrenewable resources include coal, oil, and _____.

2. Renewable resources such as forests, freshwater, and _____ energy can replenish naturally over time.

3. Countries with scarce water may build _____ plants to meet demand.

Short Answer

Answer each question in 2-4 complete sentences.

1. Explain one advantage and one disadvantage of relying on nonrenewable resource exports.

_____

_____

_____

2. Describe how transparent governance can prevent the "resource curse."

_____

_____

_____

3. Why might a country invest resource revenues in diversifying its economy?

_____

_____

_____