



EconoMag

The Show that demystifies Economics

Environmental Economics – Part 2

The Environment and the Economy: on which resources do we rely most heavily? ©

by Pierre Vercueil

Welcome back to another edition of Economag on EnglishWaves. We're currently focusing on the links between our natural environment and the global economy. Last time we took a look at how we can place a price tag on an ecosystem such as a marsh or floodplain. We'll develop this idea more in our next four episodes, but today we'll consider the resources the earth provides, and which of these we rely on most heavily.

What's the first thing that comes to mind when thinking about valuable natural resources? Silver? Gold? These certainly have significant monetary value, yet they're not crucial to modern-day life as we know it. If the entire world's gold supply were to disappear tomorrow, there'd certainly be a lot of unhappy individuals, but we'd surely find a replacement store of value – as we've done time and again throughout history. Consider that once salt and spices were considered a resource as precious as silver or gold! The natural resources humanity relies on are more commonplace, and our growing numbers are starting to challenge the economics underpinning their use.

Unsurprisingly, water ranks as the most essential of resources to human life and economic activity. Fresh, drinking water constitutes only 2,5% of the total volume of the world's water – that's 35 million cubic kilometres, roughly speaking. But that doesn't mean we have access to all of it, most of this is trapped in the polar ice caps or in the form of permanent snow cover. We currently have access to only about 200,000 cubic kilometres, meaning it should come as no surprise that demand for fresh water exceeds supply in the face of the world's growing population. The UN estimates that by 2025, 1,8 billion people will be living in countries that face an absolute water scarcity. Essentially this means that a lot of people won't have water to drink.

Next to water, we've built our industries and economies on the back of fossil fuels. In the absence of these, production, transportation and consumption in the world economy would not be possible in its current form. Based on 2010 proven global reserves, the world has only enough oil for the next 42 years should global consumption patterns not change. Similarly, natural gas reserves will last for another 55 years. Coal is the fossil fuel with the largest remaining reserves (188 years) – but it's also our dirtiest source of energy. However as China and India continue to industrialise, these reserves will continue to dwindle.

Phosphorus is an element that enables plants to grow. Essential for fertiliser, phosphate rock

is only found in a handful of countries. It's predicted that we could run out of phosphorus in 50 to 100 years. If we need to grow food for 7 billion people, it's clear how the price of this resource can potentially explode. Correspondingly, rare earth elements such as terbium are used in everything from magnets to wind turbines, and 97% of the world's supplies come from China alone, meaning restricted supply can lead to exorbitant market prices.

It's easy to put together the fact that our resources are finite, and demand is growing. It's in this way that correctly pricing our natural resources is crucial to encouraging sustainable consumption. Stay tuned to Economag on EnglishWaves.