WWF

BRIEFING

DECEMBER

2010

Sustainability

LIVING PLANET REPORT

Implications for international development

SUMMARY

We are currently using 50% more natural resources than the earth can sustain. Natural resources are being used at a rate far faster than they can be replenished.

While using these resources we are releasing locked up stores of carbon into the atmosphere, contributing to climate change.

People in high income countries use three times the level of natural resources of those in middle-income countries, and five times those of low-income countries.

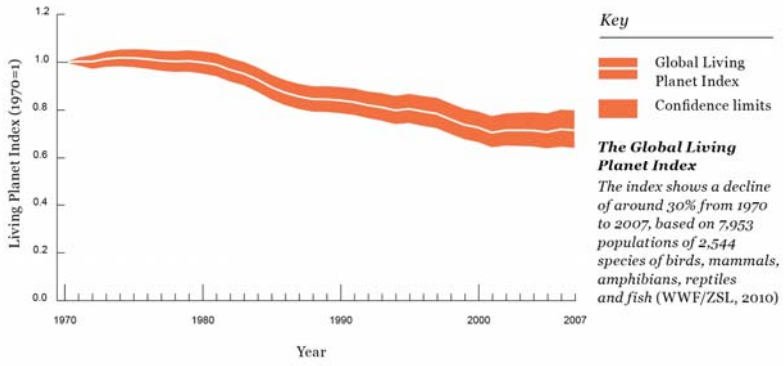
The highest biodiversity loss is in the poorest countries, in part driven by demands from richer nations.

Development is not dependent on increasing consumption. Human development is essential for everyone, but this does not need to be dependent on high levels of consumption.

The Living Planet Report is a biennial report produced in collaboration with the Zoological Society of London and the Global Footprint Network. It documents the changing state of biodiversity, ecosystems and humanity's consumption of natural resources, and explores the implications of these changes for future human health, wealth and well-being. The 2010 report examines the relationship between development and ecological footprint, and for the first time looks at trends in biodiversity by country income, showing some alarming trends.

DECLINING BIODIVERSITY AND INCREASING HUMAN FOOTPRINT

The Living Planet Index (LPI) is a measure of the health of almost 8,000 populations of more than 2,500 species. The global Index shows a decrease by 30 per cent since 1970, with the tropics hardest hit showing a 60 per cent decline in less than 40 years.



The Global Living Planet Index

The index shows a decline of around 30% from 1970 to 2007, based on 7,953 populations of 2,544 species of birds, mammals, amphibians, reptiles and fish (WWF/ZSL, 2010)

The five greatest direct pressures on biodiversity are: habitat loss, alteration and fragmentation; over-exploitation of wild species populations; pollution; climate change; and invasive species.

These threats largely stem from human demands for food, drink, energy and materials, as well as for space for towns, cities and infrastructure. Key sectors meeting these demands and forming the indirect drivers for biodiversity loss are: agriculture, forestry, fisheries, mining, industry, water and energy.

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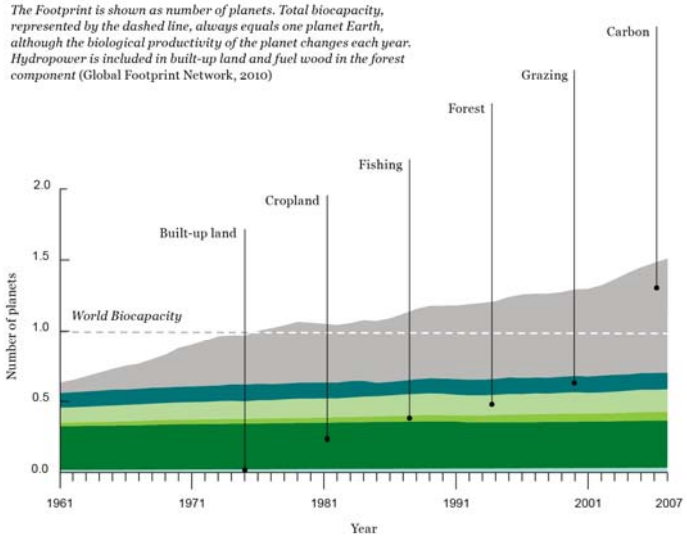
The ecological footprint tracks the area of land and water required to provide the renewable resources people use. Already the global ecological footprint has exceeded the Earth's biocapacity by 50% and the trend is continuing upwards (see figure below). If we continue at this rate we will require the equivalent of two planets' productive capacity to meet our annual demands by 2030.

Ecological Footprint by component, 1961–2007
The Footprint is shown as number of planets. Total biocapacity, represented by the dashed line, always equals one planet Earth, although the biological productivity of the planet changes each year. Hydropower is included in built-up land and fuel wood in the forest component (Global Footprint Network, 2010)



However, not everybody has an equal footprint, and there are huge differences and inequalities between countries.

Ecological footprint varies by economic level. The figure on page 3 shows Ecological footprint according to four global political groupings, which broadly represent different economic levels. It illustrates that higher income countries generally make greater demands on the Earth's ecosystems than poorer countries. In 2007 the 31 OECD countries – which include the world's richest economies – accounted for 37% of the global footprint. In contrast, the 10 ASEAN countries and 53 African Union countries – which include some of the poorest and least developed countries – together accounted for only 12% of the global footprint.

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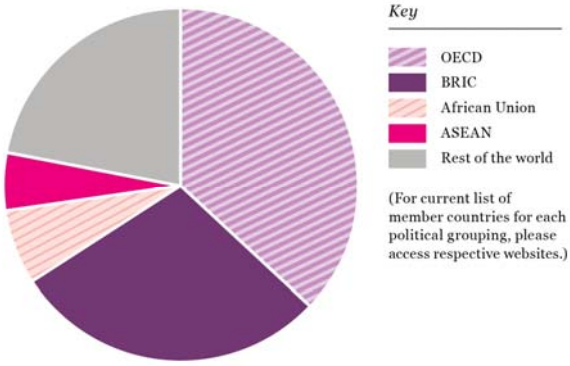
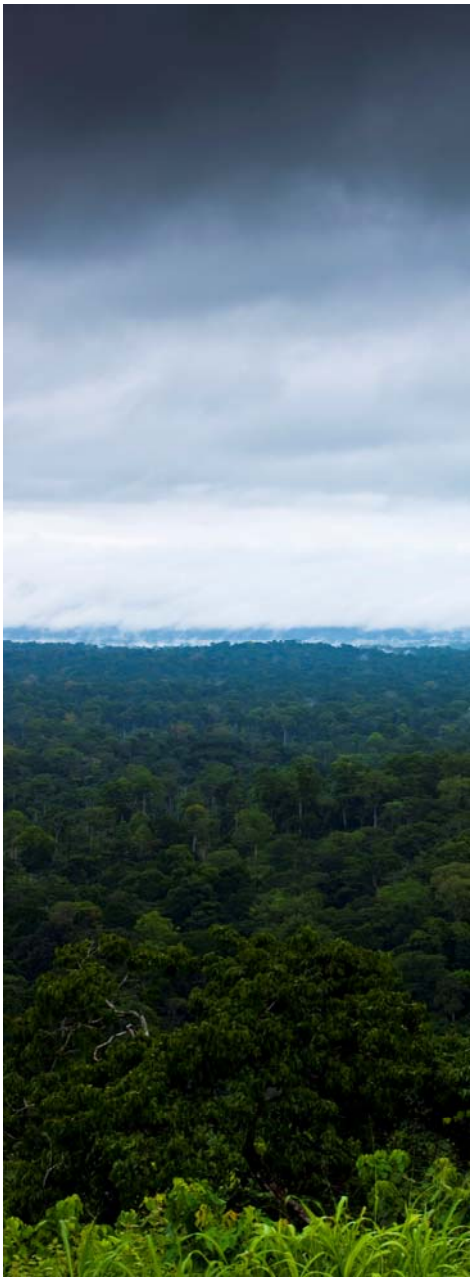
Ecological Footprint for OECD, ASEAN, BRIC and African Union countries in 2007, as a proportion of humanity's total Ecological Footprint (Global Footprint Network, 2010)





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Populations of different nations differ greatly in their impact on the Earth's ecosystems. The average per-person footprint is much smaller in the BRIC countries – Brazil, Russia, India and China – than in OECD countries. But there are twice as many people living in BRIC countries meaning their total footprint approaches that of the OECD.

On average, high-income countries have a per capita footprint five times that of low-income countries, which suggests unsustainable consumption in wealthier nations rests largely on depleting the natural resources of poorer, often still resource rich tropical countries.

The steepest decline in biodiversity occurs in low-income countries, with nearly a 60% decline in less than 40 years.

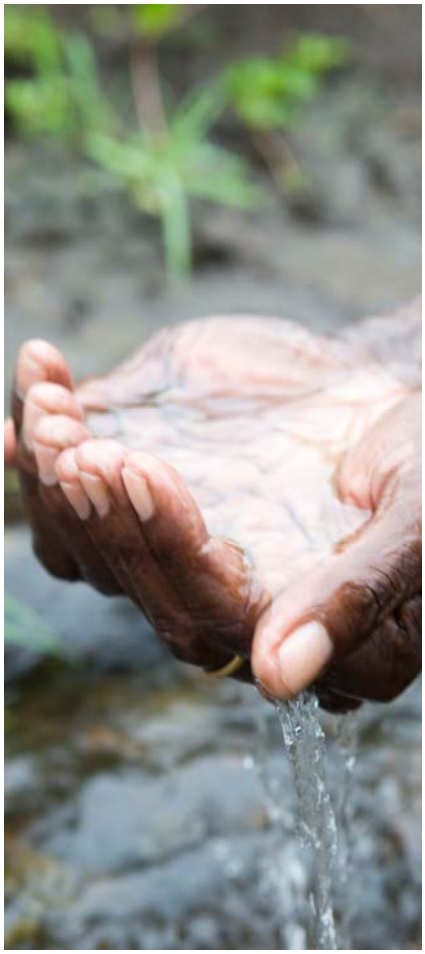
The rapid rate of biodiversity loss in low-income countries has serious implications for people living in those countries. Although all people depend on ecosystem services for their well-being, the impact of environmental degradation is felt most directly by the world's poorest and most vulnerable. Without access to clean water, land and adequate food, fuel and materials, vulnerable people cannot break out of poverty and prosper.

Many of the drivers of biodiversity loss stem from the production and consumption of food, fibre, materials and energy. Rapid economic growth has fuelled a demand for resources which can no longer be sourced from within national boundaries, and they are sought elsewhere in the world. This is reflected in the high biodiversity loss in low income countries.

Global markets and the trade of goods around the world allow countries to meet their demand for natural resources through imports from other countries. The increasing reliance of nations on each others natural resources and ecosystem services creates valuable trading opportunities which can enhance well-being and quality of life in the exporting nations.

However, without appropriate natural resource management and governance, the unsustainable use of resources and the degradation of the environment is often the result. When aggravated by lack of adequate governance, revenue transparency or equitable access to land and resources, development and prosperity will also be jeopardised.

One example of the links between consumption in rich countries and ecosystem damage elsewhere is in the export of 'virtual water', which is the volume of water used to produce water intensive products for export. Though the water use is real from the perspective of regions where the goods are produced, it is called 'virtual' from a consumer's perspective as the final product doesn't physically contain this water. 62% of the UK's water footprint is from imported 'virtual water', with potential implications for water resources in source countries. Brazil, Ghana, France, Ireland and India are the biggest sources of imported virtual water in the UK footprint.



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IS INCREASED CONSUMPTION NEEDED FOR DEVELOPMENT?

Human development is clearly essential for all individuals – but this does not depend necessarily on high levels of consumption. The 2010 Living Planet Report finds that the relationship between footprint and the UN Human Development Index (HDI - which combines income, life expectancy and educational attainment) is not linear. A high footprint and high level of consumption, which often comes at a cost to others, is not necessarily reflected in a higher level of development. It is possible for countries to have a high HDI and a moderate Ecological Footprint.

SUSTAINABLE DEVELOPMENT IS POSSIBLE

Sustainable development is defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). In the Living Planet Report minimum criteria for sustainability are defined, based on available biocapacity and the HDI. Peru is the only country that meets the minimum criteria for sustainability set out in the report, with Colombia, Ecuador and Cuba falling just outside.

Biocapacity available per person is not fixed, and shrinks as the population grows. For example the figure on page 5 shows that in 1961 when the global population was much smaller, biocapacity available per person was about double what it is today. Sustainability is therefore a moving target that becomes harder to reach with increased population.

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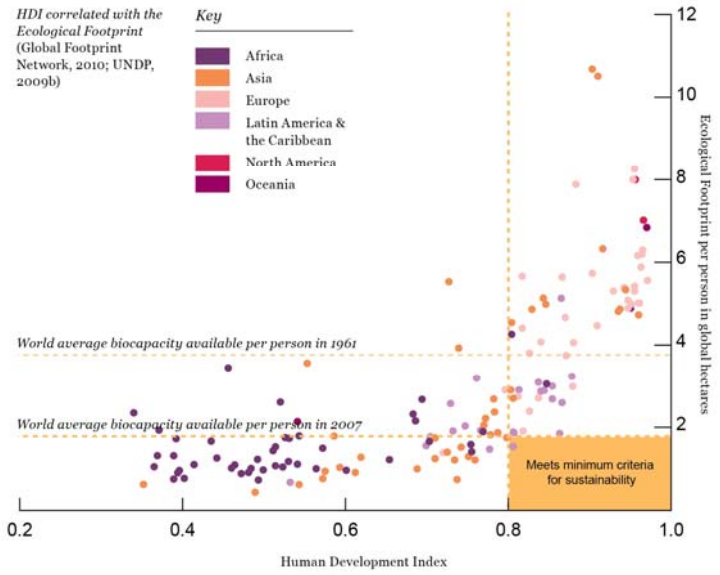

A GREEN ECONOMY?

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The analysis in the Living Planet Report shows the importance of decoupling development from growing demands on the Earth's natural resources. A 'Green Economy' is seen as one way to achieve this. Areas that the Living Planet Report identifies for further action include:

DEVELOPMENT PATHWAYS: our definition and measurement of prosperity and success needs to change. In the last 80 years GDP has been used as the main indicator of progress. However above a certain level increased consumption and income don't significantly increase individual well-being. GDP needs to be coupled with other indicators like the Human Development Index, the Gini Coefficent, the Living Planet Index, ecological footprint, ecosystem services indices or measures like the Gross National Happiness Index used in Bhutan.

VALUING BIODIVERSITY AND ECOSYSTEM SERVICES: measuring the economic value of biodiversity and ecosystem services is a means of ensuring that they are fully accounted for in decision making – See The Economics of Ecosystems and Biodiversity study (TEEB) www.teebweb.org/.

ENERGY AND FOOD: these are two key areas highlighted in the Report. WWF ascertains that clean renewable energy for all is possible; achieving this involves investing in energy efficient buildings and transport systems and shifting to electricity as the primary energy source. This is also linked to the creation of green jobs. In terms of food, tackling both malnutrition and over-consumption are challenges, as is ensuring equitable access to food and revising our aspirations regarding the food we eat.

LAND ALLOCATION AND LAND-USE PLANNING: biofuels and biomaterials are part of the response to reducing reliance on fossil fuels raising challenges around land use and land availability. Land tenure and rights, and water availability are some of the issues linked to expanding the land area for food, feed and fuel production. Biocapacity has already become a geo-political issue. The grab for land and water which is happening especially in Africa is a worrying response.

SHARING LIMITED RESOURCES: there is a legitimate desire by those on low incomes to consume more, especially in low income countries. Equitable access to and distribution of energy, water and food across nations and peoples has to be a key response to the challenges raised in this report. This requires a different mindset from the higher-income countries and for those across the world with high-consumption lifestyles.

INSTITUTIONS, DECISION MAKING AND GOVERNANCE: despite decades of international recognition of the need to conserve biodiversity and achieve sustainable development, both these goals remain elusive. This is a failure both of governance and of markets. Solutions will have to span local, national and international level, and businesses will have a key role to play.

The challenge posed by the Living Planet Report is clear. Conserving nature is in humanity's own interest. We need to find a way to meet the needs of a growing and increasingly prosperous population within the resource limits of this one planet. All of us have to find a way to make better choices in what we consume and how we produce and use energy.

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For more information

Please feel free to contact Ruth Fuller (rfuller@wwf.org.uk) or visit wwf.org.uk/poverty

Why we are here
To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.
www.panda.org