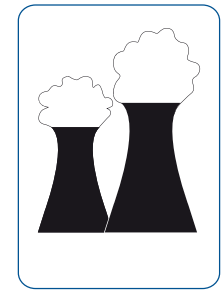
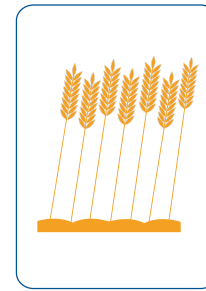
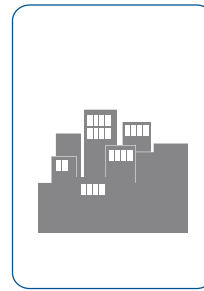
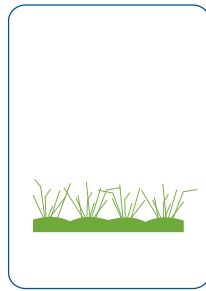
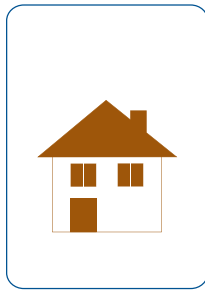
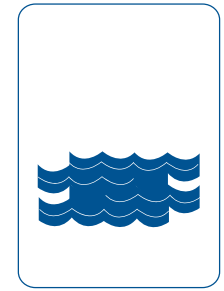
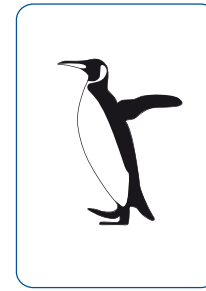
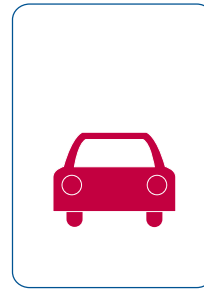
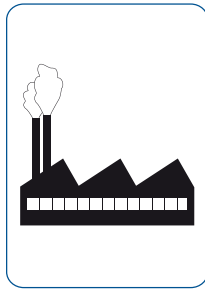


ECOLOGICAL FOOTPRINT ACCOUNTING:

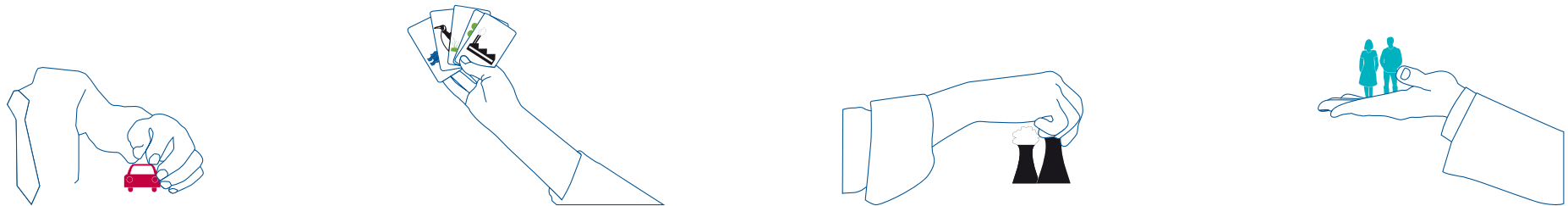


BUILDING A WINNING HAND

THE ECOLOGICAL FOOTPRINT - BUILDING A WINNING HAND



PREPARING FOR THE ULTIMATE RESOURCE GAME

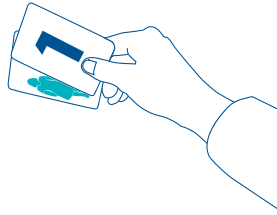


THIS GAME IS ABOUT OUR PLANET

The Earth provides all we need to live and thrive. Yet, as humanity pushes up against the Earth's limits, managing our ecological assets becomes essential for successful governance, for sustainable development, and for humanity's survival. Just as strong businesses keep detailed financial accounts to manage and protect their assets, we need robust ecological resource accounts to manage and protect our ecological assets – and

therefore our well-being. The Ecological Footprint is a resource accounting tool. It measures how much nature we have, how much we use, and who uses what. It provides important information for policymakers and decisionmakers as they develop their winning hands.

THE PLAYING FIELD IS GETTING SMALLER

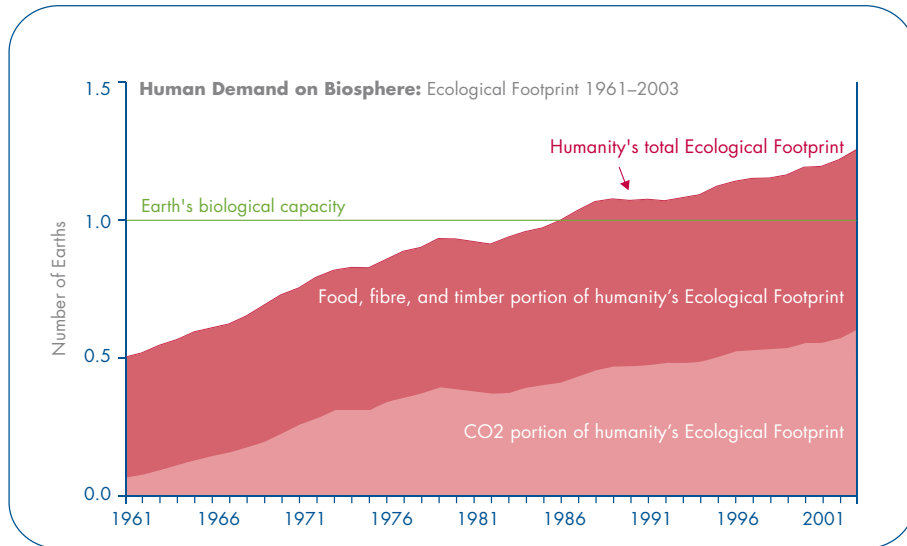


Humanity now demands the equivalent of 1.3 Earths to meet our needs. Moderate United Nations scenarios suggest that if current trends continue humanity will demand 2 Earths by 2050. We are in ecological overshoot, using more resources and emitting more wastes than the Earth can regenerate in a year. Yet the Earth cannot cope with our increasing resource demand for long, and every day our room to manoeuvre is shrinking and our decisions are determining the future.

THE RULES OF THE GAME HAVE CHANGED



In the past, the name of the game in our global economy has been quick profits – often at the planet's expense. But in today's world, where humanity is already exceeding planetary limits, ecological assets are becoming more critical. They are most valuable when they are managed well and therefore able to serve the human economy for years to come.



The Ecological Footprint compares the biologically productive land and water areas a human population requires to produce the resources it consumes and to absorb its wastes. The graph shows humanity's soaring Footprint: in 1961, we consumed 50 percent of

the Earth's available capacity. In 2007, we used 30 percent more than the Earth's available capacity. Yet a number of countries exceed this global average by as much as 500 percent.

OLD RULES:

ATTRACT THE MAXIMUM AMOUNT OF FINANCIAL CAPITAL POSSIBLE TO INVEST IN YOUR COUNTRY, REGARDLESS OF ENVIRONMENTAL AND SOCIAL CONSEQUENCES, AND HOPE FOR ECONOMIC GROWTH.

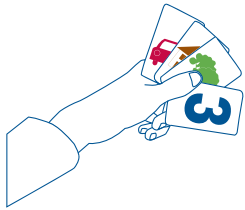
NEW RULES:

NATURE IS MORE POWERFUL THAN THE ECONOMY. ECOLOGICAL ASSETS ARE BECOMING THE DECISIVE COMPETITIVE FACTORS. KNOW YOUR ECOLOGICAL ASSETS, MANAGE THEM, PROTECT THEM, USE THEM WISELY, AND YOUR COUNTRY WILL BE BETTER OFF.

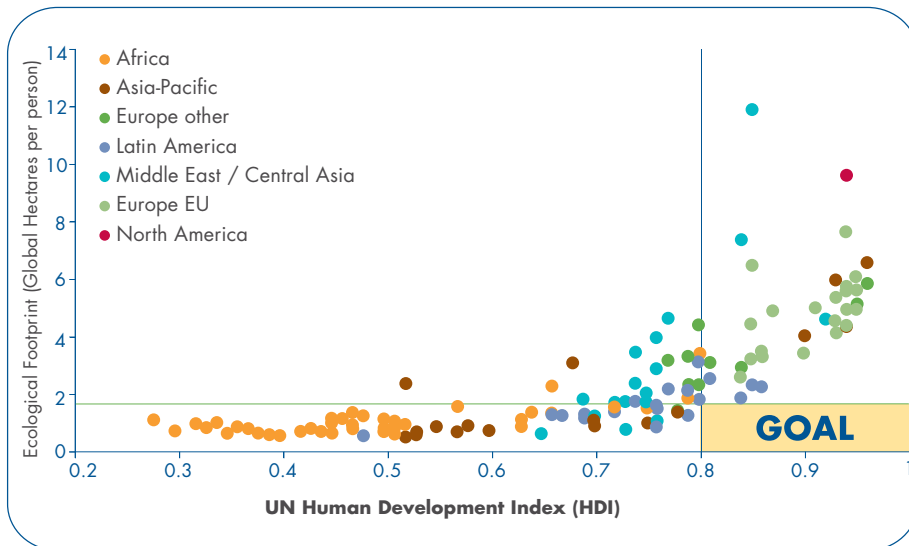
The effects of ecological overshoot are already visible: Jeffrey Sachs, renowned development economist from Columbia University, points to increased water shortages, desertification, land erosion, stalled progress on crop productivity, declining groundwater

tables, overgrazing, tropical deforestation, massive extinction of species, overfishing, and climate change. In the new game, survival and economic success will depend on knowing and working with the new rules.

THE GOAL OF THE GAME: THINKING INSIDE THE BOX



The goal of the game is for all of humanity to live satisfying lives within the means of the Earth. This objective will be achieved when, at least on average, all countries reach sustainable development, as it is defined in the bottom right hand box in the diagram below. But as global population grows and more countries surpass their own ecological limits, the strain on global resources increases, and the prospect of sustainable development shrinks. What is the alternative to sustainable development? Ecological scarcity and resource wars; increased political and economic instability; and human suffering.



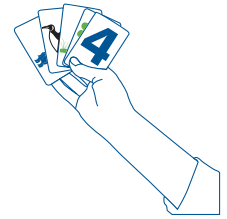
Threshold for high human development, according to UNDP

Global average available biocapacity per person (with no space set aside for wild species)

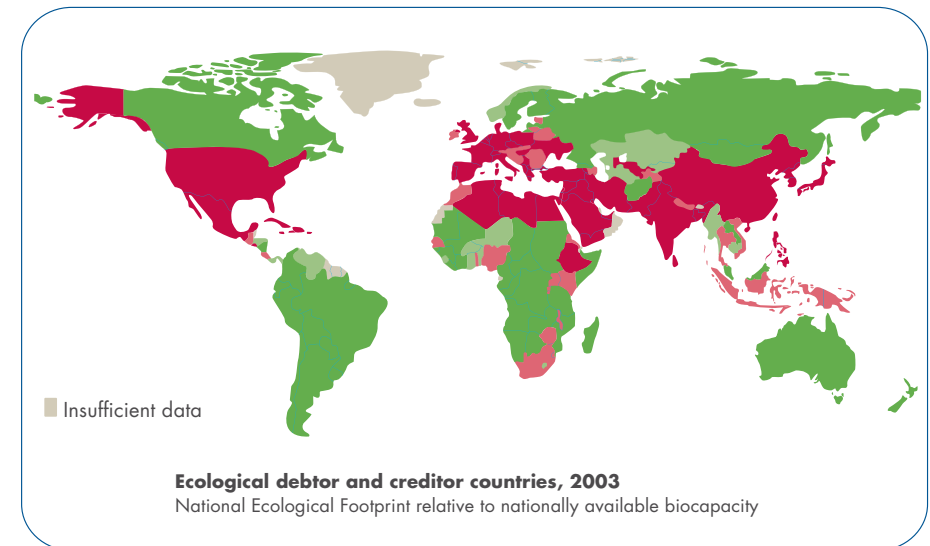
Can we move towards sustainable development? Sustainable development occurs when all humans can have fulfilling lives, without degrading our planet. In the diagram, the sustainable development box is defined by the Ecological Footprint and the Human Development Index (HDI), an indicator of socio-economic development. The United Nations con-

siders an HDI higher than 0.8 to be "high human development". Given current global population and available land area, Ecological Footprints above 1.8 global hectares per person are not replicable. Despite growing commitments to sustainable development, most countries do not meet both minimum requirements.

WHO HOLDS WHICH CARDS?



In the new game – of living within the means of one planet – GDP becomes a less valuable indicator of wealth and the distinctions between developing and developed countries are less meaningful. More significant is whether a country is an ecological debtor or an ecological creditor. Ecological debtors, those nations who use more resources than they have within their borders, will face more risks and will have to pay a higher price for their sustenance. Ecological creditors, those countries with biological capacity exceeding their own consumption, will have the stronger hand to play.



Ecological debtors:

- Footprint more than 50% larger than biocapacity
- Footprint 0–50% larger than biocapacity

Ecological creditors

- Biocapacity more than 50% larger than Footprint
- Biocapacity 0–50% larger than footprint

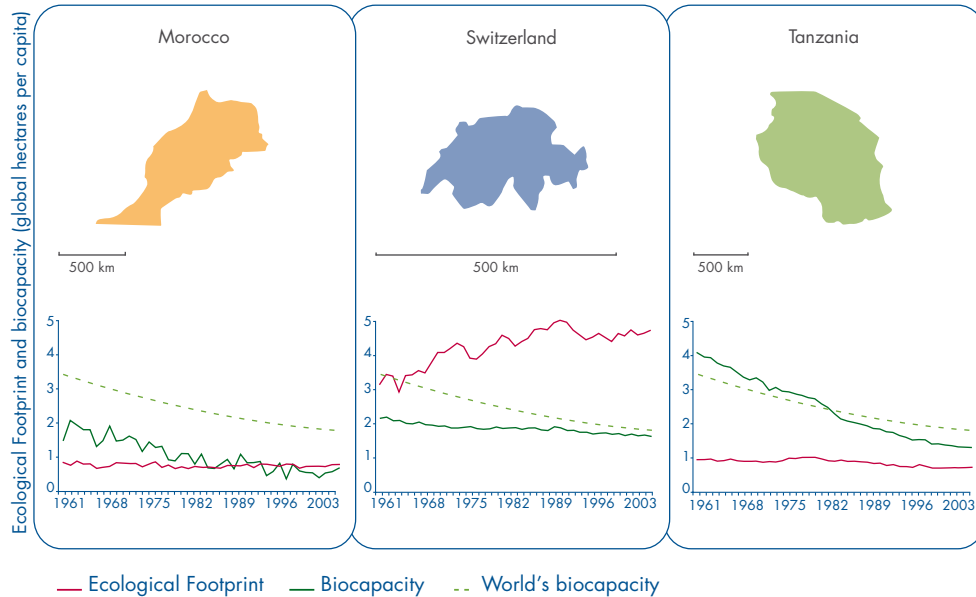
Creditor nations can use their natural assets for biodiversity protection, for increased consumption by their own residents, or for export. Ecological debtors suffer from an increasing need for imports and a decreasing base of domestic ecological assets.

Managing and strengthening ecological assets to benefit a nation's citizens, with increasing pressures for export from the global economy, is a challenge. It requires foresight, careful leadership, and robust resource accounting and planning tools.

IS MY COUNTRY AN ECOLOGICAL DEBTOR OR CREDITOR? WHAT SHOULD BE MY STRATEGY?



Each country has its own ecological risk profile and a unique path towards sustainable development. Three factors can help any country work toward living within its means: 1. Use sustainable production practices that allow for increased wealth without increased resource use. Resource efficient infrastructure is key. 2. Reduce and reverse population growth by giving women in your country full access to education and family planning support. 3. Maintain and increase biological capacity (the ability of an ecosystem to provide resources and absorb waste) through careful management, improved irrigation, re-forestation, topsoil maintenance, and conservation.



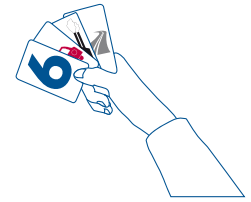
These cards show how resource trends are playing out in three countries. World-average biological capacity is shown as a common reference. If the country's Ecological Footprint is higher than biological capacity, the country is an ecological debtor.

Morocco: The Moroccan Footprint per capita is relatively stable over time. The biological capacity per person is far below world average. Due to drought conditions, the biological capacity fluctuates.

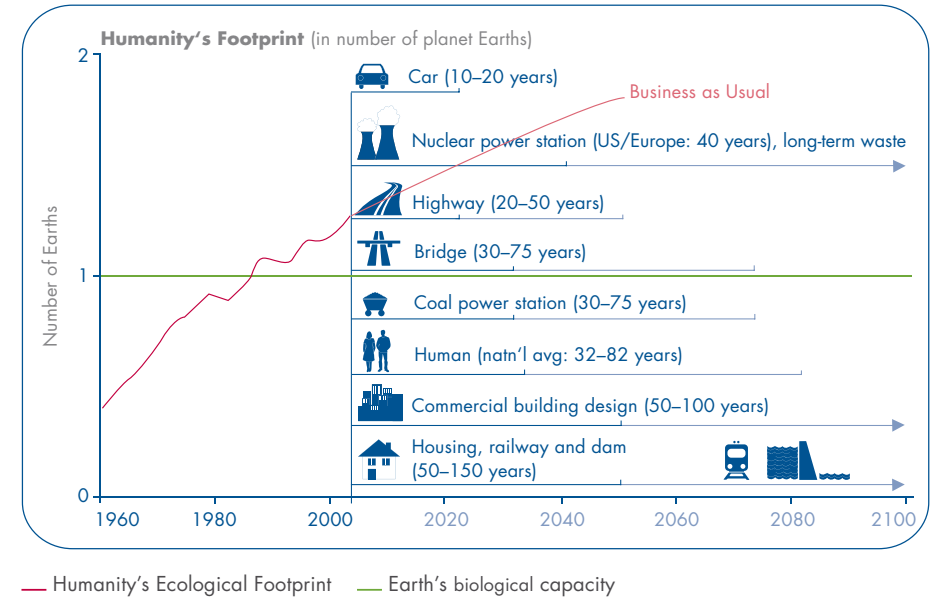
Switzerland: Due to efficiency increases, the Swiss per person Footprint has flattened, though at a high level. Switzerland's Footprint is far higher than Switzerland's biological capacity. The country is very dependent on other countries' ecological assets.

Tanzania: The Ecological Footprint per person is decreasing. But population growth pushed the biological capacity per capita below the world average.

STEP BY STEP PLAY EVERY CARD IN DUE TIME



Today's policy, investment, and infrastructure decisions will determine our resource use for decades to come. For example, is our future energy demand met by coal or wind? Is our mobility dependent on cars or public transportation? Will there be further population growth or will the numbers stabilize? Ecological Footprint accounting informs strategic decision-making, and for every large-scale decision you can influence, you have a choice: to support building resource traps, or to invest in opportunities that safeguard our future.

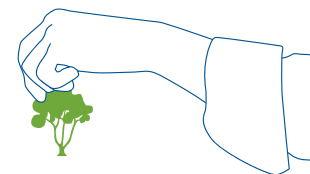
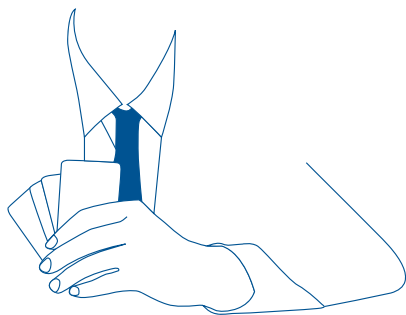


Are you investing in resource traps or opportunities? Is our new infrastructure leaving us a positive legacy that allows us to operate in a resource-constrained world or is it a trap that undermines a sustainable future? Moderate United Nations scenarios imply that if current trends continue by 2050 humanity's Footprint will be twice what the Earth can sustain (green line). Our accumulated ecological debt may

lead to ecosystem collapses around the world. We only have a few decades to bring society back into one planet living, but with the right information and human ingenuity we can win the ultimate resource game, if we all build a winning hand.

BUILDING A WINNING HAND REQUIRES GOOD INFORMATION

KEY QUESTIONS THE ECOLOGICAL FOOTPRINT ADDRESS



-  Is your country an ecological debtor or an ecological creditor?
-  Can technological advances compensate for your increased resource demand?
-  What are the risks and opportunities for your country in a resource-constrained world?
-  How can you help your citizens live better lives on fewer resources?
-  What natural assets does your country have? Are they healthy, or in decline? What is driving the change?
-  Are your infrastructure investments increasing the security of your country or are they making you more vulnerable?

For further information, please visit www.footprintnetwork.org. For more on Footprint applications specifically, see www.footprintnetwork.org/nations and www.footprintnetwork.org/africa.



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