Best **practice** examples, **initiatives** and **policy options**

GREEN GROWTH

From labour to resource productivity

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The starting point: a global, multiple crises

Our world is facing severe and multifaceted challenges brought about by our economic system and the pursuit of the idealised western lifestyle. The current economic and financial crisis is threatening the stability of the development paradigm the world has pursued in the past century. The crisis has thrown millions of people into poverty, especially the most vulnerable in the developing world, but also increasingly in developed countries.

Growth rates are declining, unemployment is rising

While economic growth rates are declining, unemployment is rising in particular in early industrialised regions such as Europe. Traditional remedies of growth policies are failing in the face of these unprecedented challenges. This in turn is contributing to widening social and economic inequalities both between and within countries.

At the same time, global crises, including food, water, energy and climate are placing additional stress on many societies already teetering on the brink. Our economic development over the past century was built on an ever increasing exploitation of cheap natural resources. It is glaringly apparent that if we continue with our current patterns of growth and consumption, we will face irreversible damage to the planet's natural environment upon which our very existence depends.

Innovation in the last decades focused mainly on increasing labour productivity, without at the same time promoting resource and capital productivity and reducing the environmental impacts of growth. A new economic paradigm must find a firm footing in future political, economic and social discourse and must be mainstreamed in all aspects of life. There is no other alternative.

Cheap natural resources led to high resource consumption

Green growth by means of resource productivity

From around 2007 onwards, several "green" initiatives have been introduced as a response to the global economic and financial crisis. "Green Economy", "Green Growth", and "Green Industry" are the most prominent of these new development concepts, which aim at improving human wellbeing and social equity and at increasing resource productivity to ensure more sustainable patterns of growth and industrial development.

From labour productivity to resource productivity

The world and its population is not just about its economies, it is an intricate web of communities, citizens, families and far more. The human dimension needs to have equal standing with the economic and environmental pillars of the green discourse. We need effective and new strategies and policies – a change in paradigm, which at its core, focuses on switching from efforts to increase labour productivity to substantially improve resource productivity.

Labour productivity has increased twentyfold in the last 200 years. Today, with ever increasing unemployment rates mirroring this fact, labour is far from being in short supply. On the contrary, natural resource scarcity is putting our societies at risk and the environmental effects of global resource use, such as climate change, desertification, or food shortages are threatening the security of mankind as well as undermining the stability of the world's economic and security systems. As a consequence, it is paramount that increased resource productivity becomes the central driver of technological progress in the future, with incentives for those who are more productive with scarce resources. This will stimulate our economies in many ways, e.g. in terms of higher economic multiplier effects as well as with the creation of (mostly local) green jobs.

Resource use has to decline globally: doing better with less

"Green Growth" must be understood as a goal for national, regional and global policies. This goes beyond sheer technical progress and involves structural change and transition towards less capital and resource

intensive activities, especially in the early industrialized and therefore highly resource consuming parts of the world. It will involve business as well as household engagement and requires new forms of public-private interaction.

If growth is to be understood as a means to enhance human wellbeing, it should not only be environmentally sustainable but also socially and economically viable. Guided by enabling policies and a strong ethical framework, such a development can help to ensure that everyone on the planet has enough to eat, work and live in decent conditions, is embedded in social networks and enjoys a good quality of education, health and community networks.

Where are we going: targets and indicators

In view of the above mentioned multiple crises, it is important to set ambitious targets for further economic development that reflects these multi-dimensional challenges. Such a vision should combine the environmental, social and economic dimensions of sustainability under the umbrella of macro-economic resource efficiency. Knowing exactly what kind of future growth we want will enable realising the future we aim to create.

In that spirit, the Rio+20 UN Conference on Sustainable Development in June 2012 highlighted the need for concrete targets, laying down a work plan for developing these objectives. It is argued that only if ambitious targets are defined, which embrace all dimensions of sustainability, and only if all stakeholders as well as whole supply chains are taken into account can measures to achieve a more resource-efficient world be developed and implemented. This is essential in order to unlock the current global predicament of unsustainable development and ensure inter-generational equity for the future generations to come.

From this, 3 key targets that should be reached by 2050 can be derived:

1. An inclusive and competitive economy
2. A high standard of living
3. A reduction of natural resource consumption within global environmental limits

Rigorous targets are not only needed to measure progress on improving resource efficiency, but also to reflect the overarching capacity of sustainable supply within the world's biocapacity.

There have been suggestions of several quantitative indicators to monitor the economic, environmental and social development in Europe and other world regions towards the attainment of these three key targets.

This is important in order to support political decision processes with more comprehensive information and tackle the challenge of creating inclusive and sustainable development in the long term.

Labour productivity: huge increases of the past cannot be sustained

One of the most fundamental principles of economics predicates that economic growth will generate jobs and reduce unemployment rates. However, even with our economies growing, unemployment rates did not diminish over the last couple of years.

Labour productivity increased faster than GDP

A simple explanation for this can be found in the fact that the growing GDP was not able to keep pace with growing labour productivity, which means that fewer people are required to produce the same economic output. Productivity growth depends on capital, innovation and structural change, and an increase in intensity of work per hour.

Balanced and inclusive economic development cannot be reached if economic policy exclusively focuses on an increase in labour productivity. Only by substantially increasing capital and resource productivity economic, social and environmental targets can be achieved. Capital and resource productivity facilitates an increase in employment, provides stronger incentives for investment and reduces the consumption of natural resources. Increasing resource productivity and energy efficiency can contribute to higher capital productivity.

Natural resources: global overconsumption and insufficient decoupling for consistency

The world's economy has an insatiable hunger for natural resources, such as raw materials, water and land. Today, humanity extracts and uses more than 70 billion tonnes of virgin materials each year; almost 80% more than 30 years ago. This is putting severe environmental pressures on the planet's ecosystems and several ecological boundaries have already been surpassed, most notably in the area of climate change. While industrialised countries keep consuming at high per-capita levels, consumption levels in emerging economies such as China and Brazil are rapidly on the rise, already reaching similar levels to those in European countries. At the same time, billions of people still live in material poverty, not able to satisfy even basic human needs.

The world's economy achieved a relative decoupling on the global level; today, we extract around 40% more economic value from each tonne of raw material. However, these efficiency gains have been undermined due to economic growth

Resource efficiency AND resource consumption increased

of 150 % in the same period, which lead to an actual increase in material consumption. Therefore, the required absolute reduction of resource use on the global level is still far from being achieved.

Resource productivity: an economic opportunity for companies

High costs and expected shortages of natural resources have been major drivers of companies to reduce their use of natural resources. There is increasing evidence that companies have improved resource productivity in their production processes. Increasing uptake of environmental management and certification has been registered in Asia and Europe. Yet there is much scope for material efficiency improvements in companies and the

Companies are reducing their resource use

development and implementation of more radical and systemic eco-innovations. This can be supported by sciences such as Life Cycle Assessment to provide information on more sustainable solutions for longer term investments.

Many business opportunities can be reaped in growing markets such as organic agriculture, renewable energy and eco-tourism. New opportunitie, especially in the environmental technologies, arise in areas such as waste management, green chemistry and bio-based products. The closing of material loops and the shift to product-service systems will be important steps towards a greener economy.

Access to technology and development of local capacities will be key to drive eco-innovation, together with external financing for business to choose and implement resource efficiency measures. Technical advisory services such as the UNIDO-UNEP National Cleaner Production Centers, available in 47 developing and emerging economies, will need to reach scale. Business and industry activity will, however, also need a strong policy framework to provide a level playing field for economic activity while safeguarding natural resources.

A strong policy framework to support eco-innovation in companies

International policy, possibly modelled on the success of the Montreal Protocol, can majorly support the phase out of unsustainable products and be a driver to open up new markets. Partnerships between business, governments and civil society, such as the one leading to the development of the LEED certification for buildings in North America, can provide inspiration for the development of more sustainable products.

A policy mix and especially the support of more sustainable consumption can drive companies to develop more sustainable and safer products.

Green growth and resource-efficiency for a better quality of life

A change of values and lifestyles for a better quality of life

Increasing resource productivity will not only create jobs, it will also directly and indirectly positively enhance peoples' quality of life. Current resource intensive western lifestyles are not environmentally sustainable. Ironically, those affluent lifestyles are not making people happy either – there is a high incidence of burn out, job dissatisfaction, depression and social isolation, yet this lifestyle paradigm is aspired to in many parts of the world. Current life-style habits thus need to be rigorously questioned. It is also essential that governments and institutions create the enabling framework for this essential shift to a green and socially just society.

In addition to this top down transformation of the general framework, a transition towards sustainable lifestyles requires bottom-up initiatives. Those initiatives are being developed all over the world and comprise activities such as transition town movements, food cooperatives, bicycle and car-sharing systems, co-housing projects and community currencies.

A policy mix supporting green growth

Positive environmental and economic effects: the double dividend of environmental tax reforms

Only if changing patterns of consumption are aligned with corresponding transformations in governance systems and companies, can a real green growth transition occur. Therefore green growth needs to combine business and household strategies towards a better life for all.

A well-coordinated portfolio of market-based, regulatory and information-based policy measures is essential to promote an effective and fair shift to a sustainable economy. Many examples illustrate the positive economic and environmental effects of environmental tax reforms in a broad sense, thus shifting the tax burden from labour to material, water and land use or greenhouse gas emissions. Currently environmental and resource taxes have only a minor role to play in many countries, but could potentially make an important contribution. At the same time, environmentally harmful subsidies, such as subsidies for fossil fuel use, need to be phased out. A green economy is likely to depend crucially on innovation (in particular eco-innovation) and investments in green technologies. In this respect, public finance has also a crucial role to play, e.g. in order to provide incentives for private investors.

As shown by numerous additional examples (e.g. green public procurement, emission trading, regulations to name only a few) there is evidence that existing green growth strategies and policies present a strong basis on which to build new approaches that balance economic, social and environmental considerations.

While policies can cause shifts in the composition of employment,

A fair and sustainable shift to a green economy is essential to tackle a number of current problems

evidence suggests that any negative effects on polluting products and processes are at least balanced by growth in less pollution-intensive ones. Nevertheless, the fear of diminished competitiveness and job losses remains one of the barriers to following a green development. A fair and sustainable shift to a green economy is therefore essential that also addresses problems such as, potential skills shortages, income security and social exclusion is therefore essential. Overall, the right policy mix has the potential to directly and indirectly stimulate economic growth, competitiveness, employment and environmental improvements.

Written by Sustainable Europe Research Institute (SERI), Vienne, Austria - December 2012