



New Paradigm Quest

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Abstract

Global economic growth has undoubtedly produced enormous benefits for hundreds of millions of people in both developed and developing countries. But we are heading fast into a perfect storm of connected environmental, economic and social challenges. The issues confronting the world community today are more intense and threatening than those we have faced in the past. They are on an unprecedented scale, with truly global implications; they are evolving fast; they are essentially connected and systemic and they will behave, individually and together, in non-linear ways.

The world needs to stop looking backward. Since the 2008 financial crisis, we have wasted far too much energy trying to return to the days of rapid economic expansion. The flawed assumption that the post-crisis world's challenges were only temporary has underpinned policies that have yielded only lackluster recoveries, while failing to address core problems.

The post-crisis era is over, and the "post-post-crisis world" is upon us. It is time to adopt a new framework of systemic solutions that promote shared prosperity within the global world of today and tomorrow.

The world today is in the transit situation, in which the elements of a new postmodern world historically coexist with the realities of the modern epoch. Hence we face a radically new reality, individually as well as collectively. Change is no longer a mere theory, and it is no longer just an option: it is a reality, a "*conditio sine qua non*" of our survival. Due to on-going change and regardless of our acceptance, the world will differ so much in 10 years that we will be surprised with our current concerns:

- An integrated global economy functioning as a holistic entity will spur deep reframing of global governance;
- IT and communications revolution connecting billions of people to rapidly expanding volumes of data will evolve into a Meta web that will change social standards and human behaviour patterns;
- A completely new balance of political, economic, and military power will shift "centres of gravity" from West to East, from North to South, and from nation-states to private actors;

- A radically new relationship between the aggregate powers of human civilization and the Earth's ecological systems on which humankind depends will force us to develop new patterns of production, trade and consumer standards;
- A new revolutionary set of powerful biological, biochemical, genetic, and materials science technologies, synthetic biology and human enhancement will advance human capacities to and possibly beyond the limits of the traditional definitions of humanity.

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The international system is also changing literally in front of our eyes. Numerous changes are occurring in the models of social, economic, and political activity, in projections of power and authority. The cultural landscape and its relevant “content structures” (democracy, liberalism are examples) are changing simultaneously. Human behavioral patterns and their matching mechanisms are acquiring new systemic qualities.

Interestingly and importantly, our map of the world is also changing, giving us a deeper understanding of the nature of quantum shifts in a complex universe combining intertwined systems of nature, economics, politics, as well as social and cultural domains. However, despite this understanding, the world continues to be perceived and analyzed as a “fragmented integrality”. But application of fragmented or partial vision, considerations, concepts, knowledge, sciences, methodologies and policies inevitably end in “unintended consequences”. There are plenty of examples of this, in fact all environmental problems, from chemical pollution to global warming, are unintended consequences of technological progress.

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Crowning this, or perhaps symptomatic of these shifts, the international situation is becoming more and more complex and worrisome. As a result the challenges of the systemic change management have become more and more sidelined by the multiplying and seemingly separate economic, social and geopolitical problems. The crisis in Ukraine, the turmoil in the Middle East, the future of the European Union, the political and economic trajectory of China and the growing importance of Africa, and the recent Ebola epidemic have downgraded the sustainability agenda into an academic if not a science fiction discussion rather than a major global challenge locking the world to the agonizing development path.

To avoid this, the world requires transformational change capable of paving the way to the creation of a new developmental paradigm, which enhances access, health and security, creates jobs and safeguards the environment. Actualisation of this potential requires a different way of thinking about economics.

Rethinking economics means policy makers need to consider the economic system as a whole, linking areas previously considered unrelated – such as energy and jobs, water and sanitation and healthcare, rural development and security, governance and development. Herein lies the biggest change: adopting a truly holistic approach, which not only takes into account the interests of short-term growth, but provides the opportunity for sustainable and inclusive development.

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In searching for new models of economic development, two important issues must be distinguished and addressed. First, how to produce more in order to meet increasing demand while making less of an impact on resources (often referred to simply as “decoupling”).

Second – even more fundamental – how to limit the increase in overall demand. The challenge is immense as currently we are in a completely contradictory situation where the more successful we are at promoting growth of the existing model, the greater and quicker will be the environmental and social disaster. We need a total reversal of fortunes. Fortunately, many good and workable ideas that the technology is ready to deploy are already in the pipeline.

However what is needed to move ahead is nothing less than a revolution in the way we use natural resources. Our economy will require a fundamental transformation within a generation – in energy, industry, agriculture, fisheries and transport systems, and in producer and consumer behaviour.

And the clever euphemisms like ‘green economy’ or ‘shared sustainable growth’ would not help. If a system is fundamentally flawed, making it more efficient or accountable will not resolve the problem. This model locks the world in continuing crisis, social injustice and the danger of environmental disaster. What we need today is to decouple economic growth from the use of energy and materials; simply increasing resource efficiency will not take us where we want to be. I am not questioning the objective of increasing energy and resource efficiency; essentially, we have no choice. What has to be questioned, however, is how production and consumption are being organized today.

A lot will depend on the transformation of business models. It’s time to decouple the issue of business environmental and social responsibility from the political correctness myths. The business of a business is business and regardless of any “ethical mantras” it will not become a not-for-profit activity. But the world is changing and there is a growing business case for the private sector to become more resource efficient and to support green growth.

To achieve this the state should create incentives for social and environmental transformation of business models adopting legal frameworks that make sustainability as strategic for business as customers and profits and thus create incentives for social and environmental transformation of business models.

When I joined Green Cross, shortly after its founding in 1993, I knew we had a long battle ahead to influence a change in the values of people, business and government, to turn sustainability into a development pillar.

This is taking hold but is much slower than needed. A growing number of nations are committed to fighting climate change. Europe is championing green energy. China has *de-facto* recognized its development must be sustainable. The UN adopted the right to water as a human right. Oil multinationals, car manufacturers and chemical companies are parading their environmental credentials. Pollution, climate change and the depletion of natural resources have replaced nuclear weapons as the existential threats keeping voters awake.

There is awareness, and there are many examples of what is needed, thanks to initiatives being undertaken by companies, governments and individuals. But this has to be stepped up, and governments have to facilitate this expansion with incentives for circular economic and business models, green and smart energy technologies, while stopping to turn the clock back on out-dated approaches, like subsidizing fossil fuels.

In fact the modern energy development trends provide interesting opportunities to aggressively engage on this agenda. The primary focus of policy makers has been on the cost of delivered electricity. However, broader issues are starting to drive the debate, including local and global environmental impact and socio-economic benefits.

As policy choices across generation technologies address environmental impact, planning can take place in a more integrated manner – a much-needed recognition of the energy, water and food nexus, which governs the long-term sustainability of economies and quality of life.

Maximising the socio-economic benefits of renewable energy deployment, and job creation in particular, relies on a combination of policies that stimulate investment, promote education and training, support industrial development and encourage research and innovation. These policies can only be successful if they are stable over time, tailored to country and community specific conditions and supported by stakeholders.

Therefore, it is important to encourage adoption of public policies favouring and even accelerating renewable energy cost reductions. The technical and economic feasibility of renewable energy projects is highly dependent on the markets where they are being deployed. Renewable energy deployment can incur significant costs associated with policy, regulatory and deployment risks specific to local markets. The governments and local administrations must be encouraged to address these risks by ensuring stability and predictability in policies, streamlining permitting and grid-connection processes, promoting capacity building to meet skills needs and introducing financial risk mitigation tools.

In addition the grid integration and management of variable renewable energy require precision and accuracy. Adequate planning is necessary for the timely development of grid infrastructure, investment in smart infrastructure and storage technologies and the formulation of enabling regulatory frameworks. As ideas are easy but execution is hard there is a huge implementation gap that is blocking progress. Civil society organisations working in

the communities could contribute to closing this “knowing-doing” gap and provide “bankable” solutions at the local level, where large international programs often lack traction.

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Further, the nexus between energy, health, food, education and water presents important opportunities for renewable energy. Today over a billion people globally are served with un-electrified health facilities. In 2010, an estimated 287,000 women died of complications from pregnancy and childbirth, many of which could have been averted with minimal lighting and appliance operating services (SE4ALL). Modern energy access is also needed to refrigerate vaccines and other medicines in rural villages.

However, the UN Food and Agriculture Organisation estimates that by 2025, 1.8 billion people will be living in regions stricken with absolute water scarcity, while two-thirds of the world population could be under stress conditions. The United Nations Environment Programme (UNEP) assesses that, by 2025, water withdrawals will increase by 50 per cent in developing countries, and 18 per cent in developed countries. According to UNEP and UN-Habitat, about 80 per cent of wastewater from human settlements and industrial sources is discharged to the environment without treatment. Renewable and decentralized energy sources seem to be the only option available for the inevitable growth of energy demand in the future.

Similar potential exists in education. More than 50% of the children in developing countries go to primary schools without access to electricity. A more holistic approach to energy access is needed to look beyond households to community-based institutions, including healthcare and education. Here the integrated sustainability approach could add value to community-based renewable energy transition.

The development of new approaches to manage the imminent socio-economic transformations while respecting the realities of the natural world offers a myriad of positive opportunities to generate the new ideas, new policies and new partnerships that are needed to mitigate the present crisis by reorienting and restructuring our economies on to a more reasonable, sustainable, balanced and inclusive path. But, however important economics and technologies may be, achieving the required level of global, systemic change will require true political leadership, prophetic vision and courage, as well as a revitalized multilateral governance architecture adequate to meeting the interconnected challenges of the 21st century.

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