Number 4, 2010

Making It

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A quarterly magazine. Stimulating, critical and constructive. A forum for discussion and exchange about the intersection of industry and development.

Editorial

The theme of this – the fourth – issue of *Making It: Industry for Development* is the challenge facing the world's 49 Least Developed Countries (LDCs), and in particular the importance of strengthening productive capacity.

In the keynote article, the UN's High Representative for LDCs, Cheick Sidi Diarra, argues that by improving productive resources, entrepreneurial capabilities, and production linkages, these countries can strengthen their resilience to external shocks and lessen their dependence on external assistance. But they will only succeed if they implement new policies, devise new forms of development governance, and receive more effective multilateral support.

Ahead of the Fourth UN conference on LDCs that will take place in May next year, Debapriya Bhattacharya previews the issues to be discussed, and highlights the dilemma of how to marry economic growth with poverty reduction.

Our country feature looks at the Pacific Island nation of Kiribati, an LDC and a Small Island Developing State that faces a threat to its very existence in the form of rising sea levels and temperatures. Kiribati's president, Anote Tong, talks about his country's remarkable gesture to help save the Pacific Ocean's fish stocks and preserve global biodiversity.

There are also articles on community bank alternatives to microfinance, renewable energy trends in the developing world, the relevance of entrepreneurship for economic development, and much more.

Making It's website – www.makingitmagazine.net – contains not only all the content of the print versions but other original articles and features too. The website is also an interactive platform for exchange of views and ideas, and we invite you – our readers – to join in the debate about global industrial development issues.

MakingIt
Industry for Development

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GLOBAL FORUM

The Global Forum section of *Making It* is a space for interaction and discussion, and we welcome reactions and responses from readers about any of the issues raised in the magazine. Letters for publication in *Making It* should be marked 'For publication', and sent either by email to: editor@makingitmagazine.net or by post to: The Editor, *Making It*, Room D2138, UNIDO, PO Box 300, 1400 Wien, Austria. (Letters/emails may be edited for reasons of space).

LETTERS

On microfinance

"Does microfinance work?" (*Making It*, number 3) is to be commended for highlighting a number of the most pressing issues concerning microfinance today, especially since it is produced by a staff member of one of the international development agencies (UN-DESA) with a major interest in local economic development. With honourable exceptions, the main international development agencies seek to hugely underplay the very significant damage inflicted upon developing and transition economies thanks to microfinance, preferring instead to follow the lead set by the World Bank, the IMF, and USAID.

A wider and longer-term problem with microfinance that the article should really have flagged up much more than it did, especially since this is a key concern of UNIDO and some other UN agencies (UNCTAD in particular), is that microfinance clearly helps facilitate the further de-industrialisation and infantilization of the typical local economy in developing and transition countries. This occurs precisely because microfinance institutions overwhelmingly support only the very tiniest and very simplest of microenterprises – that is, street-vending, cross-border shuttle trading, petty services, and some simple production-based activities that add value very quickly. So, to the extent that local savings and remittance income are increasingly channelled into such simple activities via the rapid growth of microfinance institutions, and so channelled away from more sophisticated and scaled-up activities associated with small and medium enterprises, the more the economic structure of that country, region or locality is inevitably going to be undermined and destroyed.

Image: Damien Glez

One other aspect of microfinance beloved of its supporters and touched upon in this article is the empowerment of women angle. The author of this article goes along with this understanding. But this angle is far more bluff than reality. Most independent researchers report the reverse: women are actually disempowered as they get sucked more and more into the (under)world of microfinance and microdebt peonage. In fact, what microfinance advocates are aiming at is actually to get poor women to accept that the market is the sole avenue for improving their position; just forget the state, trade unions, collective organisations, pressure groups and so on coming to your assistance like in the past. Today, as intended, a women in poverty is increasingly permitted only one avenue to escape poverty – try to 'make a go' of a microenterprise. In other words, and this is hugely important in helping explain microfinance, it is markets that are being empowered here, not women.

● **Milford Bateman, author of *Why Doesn't Microfinance Work?* (See pages 22-23)**

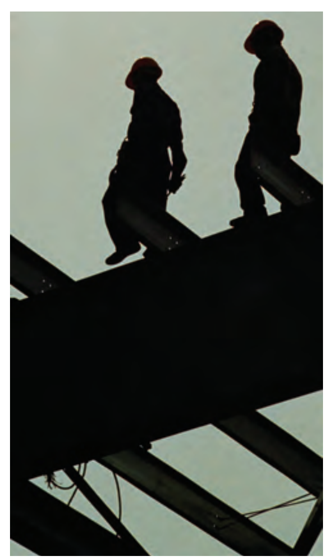
Should the poor have the same level access to credit as the middle-class and affluent do? Of course! This access allows people to achieve more than they could with their own resources: credit is a social service. And just as the middle-class and affluent should not be burdened by debts/mortgage foreclosures/credit card traps, the poor also should not be burdened by microdebt. Access to financial services must be paired with financial responsibility and fair/ethical lending practices.

● **Dan Lundmark, received by email**

Decoupling

I enjoyed reading the last edition of *Making It* which offered a number of concise articles on relevant topics of industrial development. While the articles were short and easy to read, they conveyed clear and differentiated messages. I especially liked the two articles on the renaissance of industrial policy written by Wilfried Lütkenhorst and Ha-Joon Chang, respectively. Both emphasize the need for a pragmatic industrial policy without underestimating the substantial risks of government failure.

Also, I would like to congratulate the editor for highlighting the need for *green* industrial policies, both in the contributions by Lütkenhorst and by Mexico's environment minister. Decoupling economic growth from resource consumption is likely to become the most important task of industrial policy over the next decades. Governments will have to set more effective incentives for the internalization of environmental costs and the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For further discussion of the issues raised in *Making It*, please visit the magazine website at www.makingitmagazine.net and the social networking *Facebook* site. Readers are encouraged to surf on over to these sites to join in the online discussion and debate about industry for development.

deployment of resource-efficient technologies. To do this in a way that is compatible with poverty reduction is one of the most pressing challenges ahead.

● **Dr. Tilman Altenburg, Head of the Competitiveness and Social Development department, German Development Institute, Bonn, Germany**

Wilfried Lütkenhorst's "A Changing Climate for Industrial Policy" (*Making It*, number 3) points out that markets are no help in stopping climate change. No surprise there: markets are a human invention, not natural law – but businessmen, economists, and politicians seem reluctant to acknowledge this. Given their full agendas, a brief summary of some home truths may be useful:

- Manufacturing industry creates material goods. Material goods require natural inputs. We have one planet. Material resource scarcity is therefore built into industrial growth, global trade or not.
- Industry is driven by private enterprise. Private enterprise has positive and negative public consequences; among the latter are pollution and unsustainable resource use.
- In addition to upsetting natural processes (e.g. through monocultures, large-scale logging, and badly controlled mining), the careless use of scarce resources pushes up their price. Those who suffer most from higher prices are those with the lowest incomes.
- A good analysis of the increasing number of "natural" disasters will show that they are at least in part man-made, and that industrial growth has often indirectly contributed to them. Those at the bottom of the social ladder suffer most.

Taking into account these simple points, industrial policies may become more realistic. For, if development, sustainability, and human security are not balanced, none of the three will be achieved.

● **Paul Hesp, Vienna, Austria**

Enlightening

"From steam engines to human consciousness" (*Making It*, number 3) is indeed a very enlightening piece of work. The human element has always been, by default, the culprit of the so-called "economic progress." Unless new approaches to economic development are developed, the human being will always be the culprit, despite our good intentions.

● **Anare Matakiviti, Energy Programme Coordinator, International Union for Conservation of Nature, Fiji**

Freetown calling

Thank you for sending the new issue of *Making It*. Established in 1989, Friends of the Earth Sierra Leone (FOESL) has been working to create environmental awareness and protection, as well as working to improve the living conditions of our society. Sierra Leone is now at the crossroads of sustainable development. Which way are we to go as a nation? As we venture along the path to environmental sustainability, we have come to realize the impoverishment of Sierra Leone. A major proportion of the population lives close to the land, and subsistence farming is the lifeblood of the country. Barely twenty years ago, Freetown was surrounded by green hills. Today, they lie barren and exposed. The alarming rate of tree-felling for wood, shelter, charcoal, and timber, has outstripped the forest's ability to regenerate.

Important natural resources are at risk. Other areas of concern are land degradation, overfishing, and the pollution of fresh water resources due to mining and municipal waste. The country's environmental wealth is threatened by poor natural resources management. While general awareness has increased among a number of environmental NGOs, there is still need to support advocacy, policy development, community empowerment, and greater involvement in natural reserves management and development action. FOESL is currently educating locals about the role of trees in soil conservation, and is upgrading its nurseries in the Sierra Leone Peninsula and mountain communities. The organization is using the popular medium of radio to raise awareness of its activities, as well as to create a forum for discussion of sustainable environment and development issues.

Presently there are several NGOs at work in Sierra Leone but few directly addressing the overriding concerns of the country – which are environmental education and sustainable development. FOESL would like to establish a strong North–South working relationship with environmental NGOs as a way to help the North understand Third World environmental problems and solutions.

● **Olatunde Johnson, Executive Director, Friends of the Earth Sierra Leone, Freetown, Sierra Leone**

Praise

Making It is getting better and better with each issue!!! Number 3 is particularly interesting and relevant, especially because of the lead story, "China's stunning economic rise" – a topic of great interest in India. I really believe that trade and industry, as well as policymakers and all other stakeholders here, will benefit a lot from the insights and analyses that *Making It* offers. My compliments to you for bringing out this wonderful and highly educational magazine.

● **Shipra Biswas, National Programme Officer, UNIDO, New Delhi, India**

Industry accounts for almost 40% of global CO_2 emissions, and CO_2 is one of the main contributors to the greenhouse effect. Pacific Islander **Krishneil Narayan** calls for action to save the region from looming disaster.

On the climate frontlines

Human-induced climate change and rising sea levels are negatively affecting Small Island Developing States (SIDS), and an uncertain future lies ahead for the millions of people who live in these island countries. In the Pacific Ocean, the sea level will rise to inundate whole islands, forcing local populations to leave their homelands forever. Island nations like Tuvalu and Kiribati are amongst those that face the most immediate threat.

Climate refugees are likely to be the largest and fastest-growing category of environmentally displaced people. Tuvalu is the first country that has been forced to evacuate residents because of rising sea levels. Many Tuvaluans have also migrated internally, from outer, low-lying islands to the larger atoll of Funafuti.

An elderly man from the Solomon Islands told me, "They talk about us moving. But we are tied to this land. Will we take our cemeteries with us? For, we are nothing without our land and our ancestors."

As a young Pacific Islander myself, spending my twenty-three years of life so far growing up in Fiji, I know how much the land means to us. Our lands are connected to our thousands-of-years-old culture, our identity, our traditions, and our sense of belonging. Now, across the Pacific region, many are helplessly seeing the effects of climate change tear away part of their lives.

In different places, people are considering relocation from low-lying islands after being affected by extreme weather events or climatic change that is damaging the food and water supply. Perhaps the best-known case is that of the Carteret Islands in Bougainville, Papua New Guinea, where Ursula Rakova and the local NGO, Tulele Peisa, are assisting families to resettle on church-donated land on the main island of Buka.

The rapidly changing climate science has highlighted the need for much more stringent greenhouse gas (GHG) reduction targets than set out in existing policies, if we are to avoid catastrophic consequences for low-lying atoll nations. Rather than a two degree target, the Alliance of Small Island States (AOSIS), which most of the Pacific Island countries are a part of, has called for "well below 1.5 degrees Celsius", and many developing nations are calling for greenhouse gases to be stabilized well below 350ppm. (A concentration of carbon dioxide in the atmosphere of 350 parts per million is currently regarded as the safe upper limit to avoid runaway climate change.)

KRISHNEIL NARAYAN is a Pacific youth leader against climate change, and is part of the Project Survival Pacific media team.

As politicians continue to debate the technicalities of emissions trading schemes, a global climate treaty, and how much compensation to provide the coal industry, it's important we come back to the human dimension. We must never lose sight of the fact that climate change in its essence is about people. Climate change is a matter of human security, as it undermines peoples' rights to life, security, food, water, health, shelter, and culture. By failing to tackle climate change with urgency, developed countries are effectively violating the human rights of millions of the world's poorest people, including people in the Pacific Islands.

While our leaders and governments are failing to act responsibly on this urgent threat, a group of young leaders from the Pacific Islands and Australia are responding to the calls of these poor Pacific Island people. Project Survival Pacific (PSP) is a solely youth-led initiative which believes that the world needs to listen to the voices of those on the climate frontlines. It is working to support these Pacific Islanders in adapting to climate change, providing leadership and life skills, as well as helping to amplify the voice of the Pacific region on climate change and to increase the capacity of Pacific country delegations to have their say at international negotiations, including the United

Nations climate change conferences (the Conference of the Parties – COP).

Last year, PSP supported a delegation of Pacific Island youths to the UN COP15 in Copenhagen. This year again, PSP will assist some Pacific Islanders to go to the UN COP16 in Cancún, Mexico, so that the voices of Pacific people are not drowned out by the greed of the bigger and powerful nations.

In June 2010, PSP, together with concerned youth leaders of the Pacific, initiated the region's first ever Pacific Climate Leadership Programme. Just about everyone who participated had stories to share of flooded villages, rising seas, disappearing coastlines, and immediate and visible degradation of natural surroundings of all kinds, not to mention increasing erosion of the region's cultural richness. But, they still had hope; hope that they will survive at the end of this fight, and hope for a better environment and life in the future.

They also have the following questions to ask the people of the powerful industrialized nations.

As GHG emissions increase, changing the global climate, triggering rises in sea levels, changes in rainfall patterns, bleaching corals, eroding shorelines, and reducing our fisheries, we, the Pacific Islanders, would like to know what you in the industrialized economies would do if the situation was reversed?

Would you want us to be concerned about your future survival and that of your children, or to merely consider you as collateral damage in order to maintain a comfortable lifestyle?

Sustainable technological systems that can provide the world's population with significantly more energy services than are currently provided by high GHG-emitting sources have been developed, but not deployed, due to perceived higher costs. For example, the world's oceans have many times the energy needed by the global population, and it can be harvested with limited GHG emissions.

How would you feel if you were a citizen of the Pacific Islands and you knew there were low carbon energy alternatives available that can provide the global population with productive and enjoyable lifestyles many times over, and thus spare us from destruction, but it's considered too much of an economic sacrifice to adopt them?

For thousands of years, the people living on small island states have generally been responsible stewards of their environment, and have acted as custodians of almost a quarter of the world's oceans, a responsibility that is taken very seriously. We have also played major roles in the evolution of the global maritime and tourism industries, with the tourism sector accounting for between 45% and 80% of gross domestic product in most small island states today.

We wish to continue welcoming visitors to our islands, and we also want to enjoy some of the luxurious lifestyle enjoyed by many in the developed countries – a lifestyle that can continue on the basis of alternative, sustainable energy sources that can help reduce the unprecedented rate of GHG emissions. ■

"They talk about us moving. But we are tied to this land. Will we take our cemeteries with us? For, we are nothing without our land and our ancestors."

HOT TOPIC

In what is a regular feature, distinguished contributors consider one of the controversial issues of the day. Is entrepreneurship important for developing countries, and, if so, what is the best way to support it?

Entrepreneurship and industrialization: tread carefully!

WIM NAUDÉ is Senior Research Fellow at the United Nations University – World Institute for Development Economics Research (UNU-WIDER), and directed its Promoting Entrepreneurial Capacity project. He is editor of *Entrepreneurship and Economic Development*, and co-editor of *Innovation, Entrepreneurship and Development.*

Entrepreneurs, called "heroes" by *The Economist* in March 2009, appear upon closer scrutiny to be rather irrelevant, and even impotent, in many developing countries. Three decades ago, Nathan Leff was of the opinion that "entrepreneurship is no longer a problem" nor a "relevant constraint on the pace of development" in developing countries. As development economists like to point out, the vast majority of entrepreneurs in developing countries are involved in micro and small enterprises (MSE), often informal, contributing little to poverty alleviation and growth. The enthusiasm for promoting entrepreneurship is even more perplexing in the light of weak and ambiguous statistical evidence on whether entrepreneurship causes economic growth. Results do not seem to be very robust with regard to definitions, time periods, quality of data, or estimation methods; reverse causality crops up. Some economists even report a negative relationship between entrepreneurial activity and economic growth.

Added to this is the danger that well-intentioned support policies for entrepreneurship may have unintended negative consequences. These include patronage, corruption, and rent-seeking, and the prolonging of the life of inefficient and low-productivity firms. Moreover, as Professor William Lazonick has noted, policies that "place too much stress on entrepreneurship as the key to economic development can undermine collective and cumulative processes of organizational learning required for innovation". Also, general policies to facilitate the entry of entrepreneurs may disproportionately encourage entrepreneurs with low "entrepreneurial ability", leading banks to reduce their overall extension of credit.

> "Well-intentioned support policies for entrepreneurship may have unintended negative consequences"

Given that entrepreneurs may be potentially irrelevant and/or impotent, and that entrepreneurship policies can be fraught with potential pitfalls, governments, donors, the UN-system, and development agencies need to tread carefully. A two-year WIDER research project has investigated how entrepreneurship can be promoted for development, and why entrepreneurship matters for development. This article shares some of the ideas emanating from the project.

Why entrepreneurship matters

Despite this rather pessimistic introduction, the project confirmed that entrepreneurship does matter. The reason that the relationship between entrepreneurship and economic development is so precarious in empirical studies is because these studies very often use either inadequate measures of entrepreneurship and development, or relatively small sample sizes. Most measure economic development in terms of economic growth, per capita income, or productivity. While these are important, economic development, and, more broadly, human development, are about more than just growth or monetary measures of performance. With data and measurements problems continuing to bedevil policy research in entrepreneurship, the small but steady recent trend towards randomized field experiments and studying entrepreneurship and human well-being is to be welcomed.

Although many economists are dismissive of entrepreneurship in developing countries, many others are not. Many consider MSEs, including informal and "survivalist"-type entrepreneurs, to be important for poverty alleviation.

Photo: istock

Employment growth in the MSE sector in developing countries is often substantial. With the majority of MSEs in developing countries owned by women, their contribution to female empowerment and to the health and welfare of households is potentially important.

The WIDER project studied entrepreneurship across a spectrum of circumstances that entrepreneurs could face: from high growth, innovative situations, to those marred by armed conflict and economic stagnation. The tenacity and dynamism of entrepreneurs was clear – from driving innovation in developing countries, to providing survival and resilience in conflict situations. High-growth entrepreneurship was found to be prevalent even in the least developed countries. Firms that survive persistent conflict do so because of entrepreneurs who are able to adjust their business models in the face of conflict, for instance, by reducing technological sophistication, relocating supply chains and production locations, or reducing long-term investment. These adjustments may reduce profitability or even the size of firms, but ultimately they contribute towards the firms' survival. And firm survival during conflict situations is important because entrepreneurial activity may quickly rebound once hostilities cease.

What role for policy?

The fact that entrepreneurship may matter for development does not automatically imply that government policies should support it. Designing policies for development through the promotion of entrepreneurship is complicated. To avoid a number of potential pitfalls, it may be helpful to underpin policies by answering at least two questions.

First, what is the rationale for wanting to support entrepreneurs? Many see the rationale to be market failures. Markets ➤

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➤ fail in many respects but particularly where there are externalities. Entrepreneurs' innovation may have more benefits to society as a whole than to the individual entrepreneur; entrepreneurs may furthermore create incentives for people to invest in their human capital because they demand skilled labour; entrepreneurs illustrate to followers the adoption of new technology, they provide information to external parties on what kind of business may be profitable in a particular location, and they may influence the general business environment for everybody by pressuring or lobbying government for regulatory changes. Understanding the main rationale is important in thinking about how the positive externalities associated with entrepreneurship can be maximized – and how the negative externalities of supporting entrepreneurs (such as that the quality of the pool of entrepreneurship may be lowered by too easy access) can be minimized.

Second, can entrepreneurs in a particular context be practically supported, even if there is a rationale? One view is that governments cannot raise the supply of entrepreneurs, but can merely influence the allocation thereof. Accordingly, all that a government should do is "get the institutions right", i.e. ensure the protection of property rights and a well-functioning legal system, and maintain macroeconomic and political stability and competitive tax rates. Others argue that governments' best course of action is to improve the environment for 'doing business'. The World Bank publishes a set of *Doing Business* indicators, and countries are encouraged to improve on these, *inter alia* for the sake of encouraging entrepreneurship.

Good institutions

Important as it no doubt is, building appropriate institutions in developing countries is notoriously difficult. Institutions are endogenous and relatively little is known about the co-evolution of institutions and entrepreneurial behaviour. Well-intended institutional reform itself may create uncertainties that can have unwanted outcomes, such as the entrenchment of former elites and rent-seeking behaviour.

Moreover, not everybody agrees that encouraging the building of 'good institutions' is all that should be done. The range of entrepreneurship rates across countries, even when controlled for variations in institutional quality, suggests that specific policies may have an influence on the supply and quality of entrepreneurs. And just restricting government's role to improving the environment for 'doing business' may not work. Entrepreneurship has been vital in the rise of such emerging economies as Brazil, China, and India. What all three of these countries have in common is a very low score and rank on the World Bank's *Doing Business* index. Brazil is ranked 122nd, China 83rd and India 120th, out of 178 countries in 2008. But their development success may be argued to be at least partly due to proactive government support for entrepreneurs.

In India, venture capital funding stands out; in China, the transformation and privatization of state-owned enterprises, learning from foreign firms through encouraging the inflow of FDI, the explicit encouragement of high-tech entrepreneurship, and huge investments in infrastructure, particularly trade and transport-related infrastructure, provided examples. The cases of India and China are illuminating, but by no means unique. Countries which are seen as 'entrepreneurial' today – particularly the USA, had important proactive state support for private sector development.

> "Good entrepreneurship policy gets people with low entrepreneurial ability out of entrepreneurship and into jobs"

'Industrial policy'

Such 'industrial policy' is, in this perspective, a form of entrepreneurship development. Selective industrial policies – whether explicitly termed as such, or referred to as 'competitiveness' policies – will increasingly take centre stage after the global economic and financial crisis, as governments grapple with the impacts of rising commodity prices, growing inequality, sluggish growth, murky protectionism, and the imperative to adopt low-carbon methods of industrialization. The dangers inherent in broader selective industrial policy are well-known, and in many cases are similar to what has been discussed here. Hence, extreme caution is required. A strong case emerges for a new debate on industrial policy, in particular supported by new research and a more nuanced understanding of how to support entrepreneurship as a central plank of industrial development.

A measure of the success of entrepreneurship development policies in developing countries is that one would see an initial *reduction* in the rate of entrepreneurship. This would reflect the fact that fewer people have to become entrepreneurs by necessity, and can instead choose to enter wage employment. Good entrepreneurship policy gets people with low entrepreneurial ability *out* of entrepreneurship and into jobs. It does this by creating the conditions where people with a strong ability for entrepreneurship will see it in their interest to start up new firms, to create jobs, to grow their firms in size, to raise the incentives for education and migration to urban agglomerations by demanding skilled labour, contribute towards diversifying an economy by uncovering its production possibilities, and demonstrate and facilitate the adoption of new technology.

Ultimately, such successful entrepreneurship would result in an economy whose structure is dominated by the service sector, populated by high-technology firms and highly educated workers. Entrepreneurial flourishing, and appropriate support for entrepreneurship, is at the heart of the process of structural development and industrialization. The failure of structural development and industrialization, and the failure of many countries to compete, is therefore ultimately a failure of entrepreneurship development policy. ■

Entrepreneurship, capital and capitalism

RANIL DISSANAYAKE was trained as an economist and historian. He now specializes in aid effectiveness, having advised the Government of Malawi in this field for almost four years, before taking a similar post in Zanzibar. He can also be found blogging at *AidThoughts*.

Recent debate on the role of entrepreneurship in the economic development of the world's poorest countries has been largely misconceived. While many have focused on the need to support entrepreneurs or to expand their opportunities, the historical and structural aspects that form the context in which entrepreneurship contributes to economic dynamism have been largely ignored.

Specifically, three crucial aspects of the debate have been underplayed:

- that entrepreneurship has long existed in a vibrant form throughout Africa and Asia, and in some cases for centuries;
- that those countries that transitioned into major industrial economies elsewhere were distinguished by changing economic systems, structures and laws rather than entrepreneurship; and
- entrepreneurship does not have the same benefits in all economic systems – it is under true capitalism that it has generated the returns we associate with it in the West.

To focus on entrepreneurs is to neglect the difficult but potentially far more dynamic aspects of economic development that developing countries lack. The question is not 'does entrepreneurship support economic development', but 'under what circumstances does it do so?'

Photo: istock

The entrepreneurial impulse

That entrepreneurship is in no short supply in the developing world is self-evident. If entrepreneurship is taken to be that characteristic that finds or creates economic opportunity and seeks to exploit it, it is difficult to think of a single place in Africa where it is not abundant. In rural Malawi today, if you express admiration for the pattern of a dress or design of a shirt, you will either be offered a roll of the same material or the item of clothing itself. This aim of transforming ➤

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➤ desires into profit is the essence of entrepreneurship, and the inventiveness with which it is achieved is staggering. At the port in Dar es Salaam, it is possible to charge a mobile phone at small stations where a car battery is used to power a range of phone chargers for a fee. Aggregated over the numbers of travellers embarking on ferries daily, this provides the basis of a sustainable company of sorts. The entrepreneurial impulse is powerful in Africa. It is, however, often unable to find expression or is limited to small enterprises.

This should be no surprise for scholars of the developing world. As far back as the 18th and 19th centuries, Chinese, Arab, Asian, and African merchants were taking opportunities provided by new trading relationships and routes to move their goods across the world in return for increased profits. While Europeans generated the lion's share of the value-added in these relationships, they were responding to an acute entrepreneurial impulse. A range of historians have shown that vivid successes were being made even in the pre-colonial period in Africa, Asia, and the Arab world.

Addressing the constraints

Entrepreneurship is therefore abundant, and has historically been so. Its absence is not the constraint to industrialization or dynamism in the economic path of the developing countries. The issue is that entrepreneurship struggles to find an appropriate outlet through which it can achieve the massive accumulation and growth that has characterized the European economies. It is addressing the constraints to this outlet that we should be devoting our energies. Again, a historical analysis can help us untangle what some of these issues were. In *The Birth of the Modern World*, the historian Chris Bayly looks at this very question: what was it about Europe and North America that transformed their entrepreneurship into massive trans-national economic entities, while other countries languished? He comes up with a range of characteristics, some of which are no longer relevant today. However, a number still are.

First among these was the importance of establishing transport links, both internally where an internal market exists, and externally where trading opportunities are available. This remains a massive drawback, particularly for Africa: the World Bank's *Doing Business* report suggests transport costs in Africa are significantly higher than elsewhere. Entrepreneurship requires access to sufficient markets to be fully realized.

Bayly also cites the move to modern forms of intensive, investment-heavy agriculture which produced the domestic surplus required to power the urbanization and industrialization of European and North American economies, without requiring too great an import burden. Yet, food security in much of Africa remains fragile, largely because landholding patterns rule out the move to more intensive, commercial farming.

Additionally, the stability (geographical and political) of dominant groups created an incentive to invest – the possibility of accumulation of the returns to entrepreneurship provided a powerful accelerant to its realization.

> "Crucially for Western development, the stability of elite groups allowed them to reap the benefits of investment and entrepreneurship"

The Mystery of Capital

The other two central areas that Bayly cites are the importance of the emergence of modern financial institutions to provide credit, and new legal structures to stabilize the legal status of risk and returns to ownership. These factors form the central concern of Hernando De Soto, whose book, *The Mystery of Capital*, is probably the most important contribution made in the last twenty years to the question of Third World entrepreneurship. De Soto's argument is essentially that entrepreneurship is limited by the availability of capital. What makes this argument so powerful is that he conceives capital in a far more complex way than it is commonly thought of.

De Soto shows that the value of assets held in the Third World is immense – several trillion dollars. Yet little of this can count as 'capital' since it is not bound by the central factor that creates capital: a functioning, efficient legal system that recognizes and regularizes the popular notions of property. Once assets are converted into legal property, they obtain a number of characteristics that convert them into capital. Their economic potential is fixed in the process of legally defining what they contain of value; they become part of a single network of information, which enables them to be traded, accumulated and acquired with ease; the owners are made accountable and legally liable for the asset, thus reducing risk associated with borrowing on them and so on. Combined with a strong borrowing and lending system, capital provides the fuel from which entrepreneurs can power their economic schemes.

For De Soto, therefore, our concern for

Photo: istock

entrepreneurs is misconceived. We should be far more exercised by the need to convert their assets into capital, subject currently to one major constraint. This constraint is the legal system. In far too many countries, there is currently either no recognition of what is socially accepted to be private capital or there are intolerable barriers of bureaucracy. To own legal property in Haiti, for example, takes up to 19 years.

The importance of stability

Yet, even if we resolve the outstanding issues concerning transport links, the need for commercialized agriculture, and the currently inadequate legal and financial systems, there may still be a fundamental constraint that entrepreneurs must overcome: the existence of stable capitalism. One of the issues that Bayly identified as crucial for Western development was that the stability of elite groups allowed them to reap the benefits of investment and entrepreneurship.

A similar argument is the root of Karl Marx's analysis of why capitalism as a system allows entrepreneurs the freedom to power economic progress. Marx demonstrated that capitalism was more than markets or entrepreneurs. These have existed since time immemorial: it is difficult to think of any society in recorded history where each did not exist. What distinguishes capitalism from earlier systems are the specific relations between those who have the means to accumulate, and those who must work for a wage. Essentially, under capitalism some entrepreneurs are able to accumulate capital, and can maintain this capital with some stability, in the sense that it is not arbitrarily seized from them; they then apply labour from a pool of property-less unemployed to their capital in order to generate profits. Because the capitalist does not use his own labour and takes the excess of revenue after wages are paid as his profit, his incentive is always to apply more capital to his property and to his labour force in order to increase the revenue generated from a constant labour force.

Incentives and potential

A smallholder, or a small self-employed entrepreneur, does not have the same incentives or potential. His horizons are limited on two dimensions: if he himself is his primary source of labour, his incentives as an entrepreneur, and as a labourer who values rest and recreation, are not in harmony; secondly, his limited asset holdings restrict the amount of capital he can access – the problem De Soto identified. As Lindsay Clinton noted in a recent article for *The Wall Street Journal,* a focus on entrepreneurs therefore gives no guarantee that the vast numbers of unemployed will see any benefits. We should instead be looking to allow a smaller pool of entrepreneurs to build the economic empires that can employ thousands, and form the basis of a competitive economy.

None of this is to suggest that entrepreneurship is unimportant. It is a necessary but insufficient condition for economic development, one that is already satisfied in almost all countries. Our focus should be on the supporting conditions that are necessary to give entrepreneurs the platform and capacity to catalyze economic growth and employment. ■

trends

The United Arab Emirates and Malaysia are the two highest-ranking developing countries in the *Global Innovation Index 2009/10*. The index looks at 132 countries and compares the enablers that stimulate innovation and the outputs that are the results of innovation activities. The five enablers are institutions; human capacity; general and ICT infrastructure; market sophistication; and business sophistication. The two outputs are scientific outputs, and creative outputs and well-being. The index, produced by the INSEAD business school, in collaboration with the Confederation of Indian Industry, uses a mixture of hard data collected by international organizations, and survey data from the executive opinion survey conducted annually by the World Economic Forum.

At the top of the list of the 132 countries included in the index are Iceland and Sweden. The top two in Africa are South Africa and Tunisia; in Asia: China, Hong Kong SAR and Singapore; and in Latin America: Costa Rica and Chile. Of the 15 Least Developed Countries covered, Mauritania and Lesotho head the list. (INSEAD)

The Economist Intelligence Unit reports that economic growth in the Middle East and North Africa has picked up in 2010, supported by higher oil prices and a stronger global economy. In 2011, higher oil output and persistently high government spending in oil-producing countries, particularly on infrastructure development projects, will fuel regional growth of an annual average rate of 4.6% in 2012-15.

Countries in North Africa, which are highly dependent on the European Union (EU) as an export market for both goods and services, and as a source of workers' remittances, will record more modest growth, given the subdued economic outlook for the EU and some appreciation in their currencies. Growth is unlikely to be sufficient to reduce currently high levels of unemployment among these countries' typically young populations. (Economist Intelligence Unit)

BUSINESS MATTERS

Manufacturing competitiveness

The recently published *2010 Global Manufacturing Competitiveness Index*, a collaboration between Deloitte and the US Council on Competitiveness, is based on the views of more than 400 senior manufacturing executives worldwide. By drawing directly on the experience of manufacturers, the index delivers a unique perspective on the global competitive landscape.

According to the senior manufacturing leaders who participated in the study, the most important drivers of global manufacturing competitiveness are the classic factors of production – labour, materials, and energy.

The next four drivers are "contributory" government forces: economic, trade, financial and tax systems; the quality of physical infrastructure; government investments in manufacturing and innovation; and the legal and regulatory system.

The final three drivers are more 'localized': the supplier network; the dynamics of the local business environment, including the size of the market opportunity and the intensity of local competition; and the quality and availability of healthcare.

The executives were asked to rate the overall manufacturing competitiveness of 26 countries, currently, and in five years time. The results reveal that a new world order for manufacturing competitiveness has emerged.

Manufacturing competitiveness in 2015 – top 10 countries

1 China
2 India
3 Republic of Korea
4 Brazil
5 United States of America
6 Mexico
7 Japan
8 Germany
9 Poland
10 Thailand

– 2010 Global Manufacturing Competitiveness Index

The rise of three countries in particular – China, India, and the Republic of Korea – appears to parallel the rapidly growing and important Asian market. The dominant manufacturing superpowers of the late 20th century – the United States, Japan, and Germany – are now lagging in comparison to these three Asian juggernauts.

A review of the remaining countries on the index indicates that several newcomer economies are soaring in importance as manufacturing hubs. In particular, executives expect Brazil, Mexico, Poland, and Thailand, to improve their manufacturing competitiveness in the next five years, either due to their natural resources or the attributes of their workforce. Also experiencing significant progress on the index are the economies of Eastern Europe and Russia, which are showing strong competitive potential.

The *2010 Ibrahim Index of African Governance* shows recent gains in many countries in human and economic development, but declines in political rights, personal safety, and the rule of law. In the Sustainable Economic Opportunity category, 41 of Africa's 53 states improved. Ten of these were cited as having seen notable improvements over the past five years: Angola, Burundi, Cape Verde, Egypt, Liberia, Malawi, Mauritius, Namibia, Sierra Leone, and Swaziland. (The Mo Ibrahim Foundation)

events

International Green Energy Conference
November 22-23,
Kuala Lumpur, Malaysia
www.greenenergyconference.org

UN Climate Change Conference – COP16
November 29 – December 10,
Cancún, Mexico
www.cc2010.mx/en

World Climate Summit
December 4-5, Cancún, Mexico
www.wclimate.com/World_Climate_Summit

The Water and Business Conference
December 8-9, London, UK
www.ethicalcorp.com/water2010

CCS World MENA 2010
December 13-15,
Doha, Qatar
www.terrapinn.com/2010/ccsmena

World Future Energy Summit
January 17-20, 2011,
Abu Dhabi, UAE
www.worldfutureenergysummit.com

Global Biofuels Summit
January 26-27, 2011,
Barcelona, Spain
www.flemingeurope.com/energy-conferences/europe/global-biofuels-summit-2011

Third annual event on the Women's Empowerment Principles
March 9-10, 2011,
New York, USA
www.unglobalcompact.org/Issues/human_rights/equality_means_business.html

The Economist's second annual *Ideas Economy: Innovation* event: Entrepreneurship in a disruptive world
March 23-24, 2011,
Haas School of Business,
University of California,
Berkeley, California, USA
http://ideas.economist.com

Photo: Theo Steemers/d.light design

Lighting up lives!

A company producing low-cost, high-quality, durable solar lanterns has won the prestigious Ashden Award for Sustainable Energy for 2010. The **d.light design** company makes solar-rechargeable LED lanterns that are lighting up the lives of people in developing countries who previously relied on kerosene lanterns and candles.

The solar lanterns are developed and tested at the company's headquarters in China, Hong Kong SAR, are manufactured and assembled in Shenzhen, China, and are then sold in over 32 countries across the world, with the main markets in India and East Africa. Founded in 2007, d.light recently announced that sales of its lanterns had brought bright, clean, and affordable lighting alternatives to a total of over one and a half million people.

Until now, people in developing countries who live without access to electricity have had to rely on kerosene and other fuel-based sources for lighting. These produce health-damaging fumes and smoke, provide poor light, and are a fire hazard. Kerosene is also expensive, eating up as much as a half of some household's monthly income. The d.light lanterns cost between US$10 and US$45, depending on the model.

For d.light, innovation in distribution channels is as important as innovation in product design and technology. The lanterns are marketed through the usual network of distributors and dealers, but also by 'rural entrepreneurs' (REs), people with some standing in their community who buy a few solar lanterns at a time from dealers and sell them at a profit in their own village. Some REs allow potential customers to try a lantern for a few days before committing to buying it.

Helping the world's Least Developed Countries

Debapriya Bhattacharya previews the issues to be discussed at the Fourth United Nations Conference on Least Developed Countries (LDCs) which will be held in Istanbul, Turkey, in May 2011. A central dilemma, he explains, is that economic growth in the LDCs has failed to lift enough poor people out of poverty.

DEBAPRIYA BHATTACHARYA is a special advisor to the Secretary-General of the United Nations Conference on Trade and Development, and is tasked with preparing the strategy documents which will feed into the preparatory process for the 2011 UN LDC conference.

How is it decided which country is an LDC and which isn't?

Within the United Nations system, and in general within the community which is dealing with the definition and the concept of the LDC group, there is a lot of debate about criteria which can really definitively distinguish these countries from the rest of the countries in the world. And these criteria have undergone various metamorphoses that have evolved over time. The current three major criteria which are used to identify LDCs are the following:

- A low-income criterion, based on a three-year average estimate of the gross national income (GNI) per capita (under US$905 for inclusion, above US$1,086 for graduation);
- A human capital status criterion, based on indicators of nutrition – the percentage of population undernourished; health – the mortality rate for children aged five years or under; education – the gross secondary school enrolment ratio; and the adult literacy rate;
- An economic vulnerability criterion, based on indicators of population size; remoteness; merchandise export concentration; share of agriculture, forestry and fisheries in gross domestic product; homelessness owing to natural disasters; instability of agricultural production; and instability of exports of goods and services.

So, income, human assets, and vulnerability – these are the three sets of criteria which essentially identify the list of LDCs. The UN has a mechanism where every three years this list is reviewed and new countries are included, and if we are lucky, some countries graduate from the list.

You said that the UN has its processes, its standards and its numbers, and assesses who is in and who is out. Why does it matter who has LDC status?

Among the developing countries, these least developed countries have been singled out to receive more focused public support and international support measures, and to give them more attention so that they can overcome their structural problems, their structural handicaps, or their impediments to development. So, it is basically for targeting those countries that need the most international support.

Are there enough benefits to being an LDC that if I was president of a country I would want that, or is there so much stigma attached that I wouldn't want it?

There is a stigma attached to it because you are somehow perceived as one of the ones amongst the poor. When this category was introduced, two countries really didn't want to be there. One of them was Ghana. The other was Zimbabwe. They were allowed to opt out because, if you don't want to be there, nobody can force you to be there. But on the other hand, you also exclude yourself from the benefits or the preferences which are associated with being included.

Although there is a bit of a stigma, the idea is that you are going to utilize this window of opportunity provided by the support measures and get off that list as soon as possible. So, the issue is rather that by being recognized as structurally handicapped, you use what is being made available to you in the way of support measures, and you make good use of this.

Unfortunately – and that is the whole issue now – notwithstanding the use of support measures over a period of 30 to 40 years, only ➤

Photo: Mikkel Ostergaard/Panos

➤ two countries have graduated from this group. Cape Verde recently, and before that, it was Botswana.

And now there are three countries in the pipeline which might graduate next year. One of them is the Maldives, again a small island country which is threatened by climate change and other things. Samoa is the second one, and the third is Equatorial Guinea. The latter has a lot of oil, and its current per capita income is in the world's highest income category.

How is this group of countries different or the same from Paul Collier's "bottom billion" description of the world's poorest people?

The issue is that this 'bottom billion' cuts across many countries. It is a set of populations who are the poorest of the poor. But we are not talking about poor people here. We are talking about poor countries. The most important thing here is that these countries are handicapped in certain ways which are not easy to overcome by relying solely on their domestic efforts. Some handicaps can never be overcome. For example, you have dozens of landlocked countries, like Bhutan, Nepal, and some in Africa – low income, but at the same time landlocked. This is a major problem for them. Similarly, you have island countries, with very small populations, which can get washed away by every tidal wave.

These are major handicaps which have to be taken into account. Haiti is a classic example of how vulnerable these economies are. A country can be hit, not only by man-made disasters, but also by natural shocks. The same thing happened with the tsunamis in the Pacific a couple of years back. So, even if you are developed, but you are very vulnerable, your achievements are very fragile and any one external shock can wipe them out, just like that. So, it is more than just a matter of national income.

So this class of countries, with these particular problems, will be the focus of the conference that you are responsible for preparing for in May 2011. How is this - the Fourth UN LDC conference - going to be different, and what are the things that you would hope that might be achieved there that would help these countries in ways they haven't been helped before?

In order to design new methods, new interventions, new support measures, or the new generation of public policies to accelerate the growth process of development in these countries, we need to understand how they have been performing during the last decade.

If we take a very close look at these countries, we see that during the last decade before 2006/07, before the food crisis, the fuel crisis, and the financial and the economic crises set in, they were doing pretty fine in terms of growth. They were expanding exports, and receiving relatively high levels of foreign direct investment (FDI). Official development assistance flows had also increased at a certain level. But what was very curious was that notwithstanding all the apparently improved performances of these countries, and the improved macroeconomic indicators as well, we saw that the role of the manufacturing sector, the processing industries which can provide good quality jobs and even incremental jobs, was not growing. So there was growth, but there was no modern sector growth.

Then, in terms of exports, there was no product diversification. It was one commodity which was dominating, either the manufacturing of textiles or extractive industries – fuel or other minerals, in the case of most of African countries. There was no diversification. In the case of FDI, most of the investment went into mining and the extractive industries.

So, the question we must address is how new support measures can change these circumstances in order to achieve inclusive, even broad-based, productive growth. Productive growth means manufacturing growth and agriculture sector growth because agriculture was very neglected during the last decade before the latest food crisis. And it also means services which can support the investment environment and all these other areas by creating jobs for people.

Is the enabling environment for the growth of these sectors largely in the control of the rich countries or the larger developed countries, or is this mostly about domestic policy decisions that would be made by the leadership within the LDCs themselves?

What we are talking about here is a compact, a development understanding between the developed countries and the LDCs. And now we have a third party, the emerging economies. So, you have the developed countries, the advanced developing countries, and the least developed countries. So, these three will come together with what we call 'shared but differentiated responsibility'. The objectives are shared, but in terms of how to deliver them, there is a differentiated responsibility, depending on the sector.

Domestic policy, good governance, anti-corruption measures, a good legal system, all these things are very important, and are in the control of the LDCs themselves. But in order to modernize them, they might need resources, and these resources and expertise are not always available internally. And given the competing nature of their investment demands or their public expenditures for health and education, in order to meet that gap they would need some kind of support. One way obviously is of course to get more foreign aid. The second way is to get into new markets where they can sell their products. And the third is to bring in investment into the areas which creates good jobs – sustainable development by way of investment in areas other than the extractive sectors.

All these issues will be coming together in

Least Developed Countries

1. Haiti *

Small Island Developing States are marginalized from the global economy by the combined adverse consequences of their small size, remoteness from large markets, and high economic vulnerability to economic and natural shocks beyond domestic control.

Landlocked Developing Countries face serious constraints on their overall socio-economic development in the form of lack of territorial access to the sea, remoteness and isolation from world markets, and high transit costs.

*** Also Small Island Developing States (SIDS)**
 # Also Landlocked Developing Countries (LLDCs)

terms of how to precipitate a structural change in these countries so that they can become better integrated into the globalized world, so that the benefits of development trickle down to the poorest of the poor, and to meet some of the Millennium Development Goals, too.

When we think of aid, trade, and investment, we usually focus on the policies of the high income countries, but of course, as you point out, we now have these big emerging market economies that are increasingly powerful, with markets that are sometimes larger than those of the rich countries. How do they factor into this discussion with the LDCs?
One of the major areas that has changed, the new context for the development challenges facing the LDCs that has changed since 2001 when the last conference took place, is the emergence of the global south, the new emerging economies. LDCs now sell more than 50% of their exports to the developing economies. But the problem is that most of these exports are minerals and fuels. The less than 50% of their exports that go to the developed countries are all manufactured goods, including textiles.

There is a question of quality versus quantity here. The issue now is how the LDCs can get access to these new emerging markets with better products, and whether this can help with diversification and also in terms of technology transfer. This is the new context, and this is where the shared responsibility issue comes back again.

● *The above is an edited and abridged version of an interview conducted by Lawrence MacDonald for the* **Centre for Global Development,** *and broadcast as part of the Centre's Global Prosperity Wonkcast series.*

1. Angola
2. Benin
3. Burkina Faso #
4. Burundi #
5. Central African Republic #
6. Chad #
7. Comoros *
8. Democratic Republic of the Congo
9. Djibouti
10. Equatorial Guinea
11. Eritrea
12. Ethiopia #
13. Gambia
14. Guinea
15. Guinea-Bissau *
16. Lesotho #
17. Liberia
18. Madagascar
19. Malawi #
20. Mali #
21. Mauritania
22. Mozambique
23. Niger #
24. Rwanda #
25. São Tomé and Príncipe *
26. Senegal
27. Sierra Leone
28. Somalia
29. Sudan
30. Togo
31. Uganda #
32. United Republic of Tanzania
33. Zambia #

1. Afghanistan #
2. Bangladesh
3. Bhutan #
4. Cambodia
5. Kiribati *
6. Lao People's Democratic Republic #
7. Maldives *
8. Myanmar
9. Nepal #
10. Samoa *
11. Solomon Islands *
12. Timor-Leste *
13. Tuvalu *
14. Vanuatu *
15. Yemen

The power of the community

Milford Bateman argues that it is community-driven financial institutions rather than microfinance that can help poor people in Least Developed Countries move out of poverty

Local communities in LDCs across the globe have been hit hard by the global financial crisis, with the already meagre economic and social gains made in recent years being abruptly put into reverse. Increasingly urgent calls are now being made for the international community to 'do something' to assist with job creation and income-generating initiatives to attempt to repair the situation, especially in the very poorest of communities. As in previous years, one of the most commonly-heard solutions being put forward is microfinance which, so the argument runs, is perfectly situated to help kick-start a 'bottom-up' recovery and a development trajectory animated by the poor themselves through self-employment and microenterprises.

In spite of much heady rhetoric and uplifting PR surrounding the microfinance model this past thirty years, even long-time microfinance supporters now accept that its track record is actually very weak indeed. For others, the evidence reveals that microfinance is more likely a part of the development problem, and not part of the solution: LDCs wanted sustainable development, but are largely ending up with microdebt peonage.

With the dominant, commercialized microfinance model increasingly seen as problematic, many international development agencies, and LDC governments too, are starting to examine what might be better forms of local financial institutions to assist the poor. And what they are finding is that there are many local financial models and community-based financial institutions that actually have a very impressive record of promoting sustainable development and poverty reduction.

The CLP example

Perhaps the most important requirement of a local financial system in the LDCs is that it should not simply ameliorate poverty and under-development, but should move to permanently eradicate these problems over time. Well-designed and managed community development banks can do this. The *Caja Laboral Popular* (CLP) in the Basque region of northern Spain is one such locally-owned and controlled institution that has succeeded in supporting enterprise development in a historically backward and conflict-affected region. The CLP is a development bank that supported cooperative enterprises as the lynchpin around which the community could begin to develop and rapidly reduce poverty in a socially optimal manner. For example, cooperatives were founded near to where the members lived so they could easily travel to and from work, a decision that gave members more free time to enjoy their family lives. Thanks to its deep roots in the community, and because of various democratic checks and balances, the CLP has managed to successfully steer clear of both corruption and mismanagement. All told, in a little over 30 years, a once poor region was turned into one of Europe's richest, most socially inclusive, and culturally vibrant regions.

Is the CLP experience a one-off? Not at all. Broadly similar results were achieved in northern Italy after 1945, when a network of cooperative banks and special credit institutions (SCIs) were decisive in reconstructing the physical and social infrastructure destroyed during the Second World War. By quickly mobilizing savings and then recycling these savings into long-term investment funds geared up to support potentially sustainable and/or fast-growth businesses, especially cooperative enterprises, these community-based financial institutions helped a conflict-ravaged region become perhaps Europe's most economically and socially advanced. Importantly, they were able to develop methodologies to identify the best business prospects and then to carefully support them down the years. In some cases, government financial support was needed (as in the case of the SCIs), but this expenditure could not be seen as anything other than a fantastic investment, given the economic development and poverty reduction outcome achieved.

Governance issues

Spurred on by such uplifting examples, a growing number of LDCs have begun to (re)explore the idea of local cooperative banks and other community-based financial institutions. Many accept that the cooperative banking concept is a sound one, but the paramount issue is how to get the governance issues right. Privately owned, profit-driven financial institutions in many LDCs very often undermine trust in the community and create

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The Ikidia Saving for Change group holds a weekly meeting in Domba, Mali.

Photo: Rebecca Blackwell / Oxfam America

economic chaos, as seen most recently in Nigeria, where the licenses of 224 small privately owned microfinance banks were terminally revoked by the Central Bank because of excessive risk-taking and bad corporate governance. Of course, the cooperative model has not escaped similar forms of abuse and corruption, as seen, for example, with the collapse of many financial cooperatives in Haiti in 2002. But experience shows that community-ownership and control can help to increase the chances of there being proper accountability to both its savers and to the wider community, as well as enhance efficiency as a financial institution.

Some LDCs have been inspired by successes with the development bank concept at the national level in emerging economies, as in the case of Brazil. But, at the community level too, there are many creative examples of what can be done. For example, Akwandze Agricultural Finance (AAF), in South Africa's Mpumalanga province, is a 50-50 joint venture between a farmer-owned cooperative (Liguguletfu Co-operative Ltd) and a sugar processor (Tsb Sugar). AAF has been able to help its poor farmer-members permanently escape poverty by turning subsistence farming operations into family farms, operating well above the minimum efficient scale. Involving more than 900 of the local sugar farmers who are members of Liguguletfu, in just a few years AAF has been able to help its farmer-members with access to affordable loans (16% interest rates), not just to underpin their normal operations, but also – crucially, in view of the need to scale-up in order to be successful into the longer term – to support their expansion plans. The farmers know that they need to grow beyond the minimum efficient scale if they are to really become secure and enjoy a decent return on their labour. Importantly, any profit in AAF is not channelled away to external shareholders, but recycled back into AAF to develop more services, as per the farmer-members' wishes.

But it is not just development-driven, local financial institutions that can help LDCs to develop. Many analysts argue that promoting savings within poor communities is often an equally beneficial way of dealing with poverty. For example, helping the poor to save up for important purchases, rather than pay high interest rates on simple consumer loans obtained from microfinance providers, would be a major help to them. And here, dedicated community-based, saver-owned and controlled institutions have very often proved to be just the ticket. The idea is an old one, of course, stretching back to the building society movement founded in the United Kingdom (UK) in the late 18th century. For more than 150 years, the UK's building societies worked extremely well for the local community, providing affordable loans for house purchases and small business development. They only floundered when they were demutualized and commercialized in the early 1990s. The positive experience of such community-based savings institutions can be replicated in many LDCs – given technical support and, perhaps, some initial capitalization too.

Real empowerment

Indeed, there are now many experiments underway using credit union-type community-owned organizations. For example, Oxfam America's 'Saving for Change' programme in Mali involves upwards of 300,000 women managing over US$4m in their group funds. The women are helped to avoid contact with the local loan sharks and commercial microfinance institutions, and instead begin saving with their own institution. They save for regular 'big-ticket' items of expenditure and also for unforeseen emergencies, but they can also quickly access sufficient, affordable funds to start or expand a real business, as opposed to just a simple trading operation. This is real empowerment, achieved via a community-owned financial institution, not gradual entrapment in microdebt.

The conclusion to be drawn from the experiences of developed countries, and elsewhere, is that local financial institutions are overwhelmingly best configured as community-owned and controlled bodies, especially to maximize the chances that they remain focused on local development. Financial cooperatives, community development banks, and credit unions, have been very successful local financial-sector innovations in many developed countries, and their experience is urgently needed as the LDCs design their own financial institutions in the wake of the global crash. Above all, the lesson seems to be that we need to take local financial systems out of the hands of would-be Wall Street-types and aggressive, commercialized microfinance institutions, and return them to their rightful owners: local communities and local people. ■

STRENGTHENING PRODUCTIVE

Photo: UN Photo/Jenny Rockett

CHEICK SIDI DIARRA was appointed the United Nations' Under-Secretary-General and High Representative for the Least Developed Countries, Landlocked Developing Countries, and Small Island Developing States, in 2007. At the time of this appointment, Mr Diarra was serving as the Permanent Representative of Mali to the United Nations in New York. During his long diplomatic career, Mr. Diarra has been actively involved in furthering African integration efforts and the African development agenda at the international level. He has served as one of the lead negotiators on these issues at the African Union summits since 1982.

Photo: istock

CAPACITY

As the world's Least Developed Countries (LDCs) increasingly feel the effects of the global economic crisis, the UN's **CHEICK SIDI DIARRA** argues that, in order to build up their resilience, these countries should – and can – increase their productive capacity. By strengthening three core elements, productive resources, entrepreneurial capabilities, and production linkages, the LDCs can produce more – and better quality – goods and services. But, for this process to succeed, they also need to implement new policies, devise new forms of development governance, and receive more effective multilateral support.

Before the global economic crisis in 2008/2009, the group of least developed countries (LDCs) registered impressive economic advances with real GDP growth averaging 6% per annum over the preceding five years. The recent financial crisis had its immediate reverberations in developing countries, which were closely linked to the global financial markets, as capital took refuge in safe havens and there was a rapid flight of capital from emerging markets to the advanced economies, and particularly the United States. The initial impact on the LDCs, however, was somewhat muted given that many, if not all, were not as integrated into the global financial market. However, with the deepening of the financial crisis, freezing of credit, and the sharp fall in the market value of private wealth, the LDCs were drawn into a global crisis of the real economy.

According to the United Nations Conference on Trade and Development (UNCTAD), the value of exports from the LDCs to major importing countries declined by over 43% in 2009, compared to the first half of 2008, whereas the global value of exports declined by only around 32% during the same period. This sharp decline in export earnings is largely due to a decline in commodity prices and is associated with declining government revenues and investment. According to the World Bank, remittances to developing countries were down by 6% in 2009, although a slight recovery is possible in 2010. Of particular concern is the long-term impact the crisis is likely to have on the LDCs, given their inherent economic vulnerability and susceptibility to external shocks.

Photo: istock

Productive capacity matters

In this context, it is generally agreed that a key strategy towards building the internal resilience of LDCs is the strengthening of productive capacity. Productive capacities, as defined by UNCTAD, are the productive resources, entrepreneurial capabilities, and productive linkages, which together determine the capacity of a country to produce goods and services, and enable it to grow and develop. In May 2001, the Third United Nations Conference of the Least Developed Countries adopted the Brussels Programme of Action for the decade 2001-2010, a comprehensive results-oriented poverty reduction strategy, tailored to the special needs of the LDCs. The Brussels Programme of Action identified the building of productive capacities, in order to ensure that LDCs benefit from globalization, as one of seven key commitments between LDCs and their development partners.

By developing their productive capacities, LDCs can rely increasingly on domestic resource mobilization to finance their economic growth, lessen their dependence on aid, and attract private capital inflows of a type that can support their development process. Enhanced productive capacities will also allow LDCs to compete in international markets for goods and services which go beyond primary commodities and which are not dependent on special market access preferences.

Productive capacity is also of great importance in the struggle to reduce poverty in the LDCs. There is a growing amount of evidence indicating that aid transfers to the LDCs are increasingly being used to alleviate human suffering, but substantial and sustained poverty reduction cannot be achieved with such expressions of international solidarity alone. This outcome will require wealth creation in the LDCs, and the development of domestic productive capacities in a way in which productive employment opportunities expand.

How LDCs can strengthen productive capacity

Given the magnitude of the challenges faced by LDCs in terms of capacity building, there is an urgent need for development partners to further their engagement in the form of private sector development, industrial upgrading, and the enhancing of an enabling environment, such as quality infrastructure and services. At the same time, LDCs must tackle the challenge of improving their physical infrastructure, especially energy, transport, and communications. Energy supply is critical, as, together with transport and communications, it facilitates the internal and international connectivity of economic agents.

Another major component in capacity building is social infrastructure, especially for health and education, which directly relates to the sufficiency of human resources supply, skills, and managerial capabilities. Moreover, establishing functional financial systems, and securing sufficient investment in research and development, technological learning, and innovation systems, are crucial to enable LDCs to confront the crisis and accelerate modernization.

For LDCs to expand production, they need to strengthen three core elements: productive resources, entrepreneurial capabilities, and production linkages.

- Firstly, LDCs need to effectively utilize and expand productive resources that include human, physical, financial, and natural capital. Investment in human development is a critical part of developing productive capacities.
- Secondly, a better utilization of the entrepreneurial capabilities and of enterprises' core competencies in skills, knowledge, and information, can facilitate the mobilization of productive resources in order to transform inputs into outputs, and to invest in, innovate, and upgrade products and improve their quality, and even to create markets.
- Thirdly, the successful mobilization of productive resources and better utilization of entrepreneurial capabilities should be married to diversified production linkages. These include linkages between enterprises of different and similar sizes, and can take the form of outsourcing and sub-contracting relations.

In the actual process of developing productivity capacity, the foremost stage is to accumulate capital. The accumulation of capital essentially relies on an elevated scale of foreign investment and private savings, both domestic and foreign. Therefore, LDCs need a set of incentives for savings and investment, as well as an effective financial system that can attract and mobilize financial resources and develop domestic enterprises.

Further measures are also required to promote technology transfers and increase the productivity of the labour resource. Enhanced ➤

support

➤ technological capabilities enable products from LDCs to compete in international markets, and they can also generate more productive employment and build linkages with the global economy.

The role of agriculture and industry

In addition, the strategies for developing productive capacities devised by the LDCs, especially those in Africa, which comprise 33 of the 49 LDCs, should encompass agriculture. Agriculture will have to receive new domestic and international policy attention for it requires increased investment and technological upgrading. The new generation of agricultural policies should not focus solely on agricultural production, but will have to be developed in the context of agribusiness and value chain development. A balance will have to be struck between staples and cash crops, in order to allow a strengthening of food security, while also permitting the growth of exports;

With a set of pre-conditions and enhanced adaptive capabilities to use modern technology and commercialize new knowledge, LDCs can leapfrog several stages of development and move into higher degree of industrialization. The challenge is to reach the threshold of competitiveness in the global market, and in this context much depends on the path that the LDCs take to benefit from regional integration.

How can aid be more effective?

During their industrial development process, the capacity of LDCs to incur financial obligations and mobilize adequate domestic public and private resources remains seriously handicapped by various structural constraints. These include the low diversification of the economic base and the ensuing high economic vulnerability, persistent poverty levels, the inadequacy of basic infrastructure, geographic disadvantages, and most importantly, the ominously high resource gap. Hence the international community has been providing aid and loans that have been playing a vital role in financing national investment in order to attain the Millennium Development Goals (MDGs) in those countries.

To attain a higher level of effective aid management and utilization of aid resources, all stakeholders should address the aid effectiveness issues. To make aid work for the MDGs, donors should indicate their long-term commitment to assist LDCs, and recognize that financial support is the most deliverable long-term strategy to assist these countries. To support the development of productive capacity, aid and other assistance should increase in volume, be more effectively delivered, and be more demand-driven, including taking into account the concerns of the private sector and civil society.

As each country has its own conditions, independent monitoring and evaluation of aid performance at the level of the recipient country is necessary. In addition, LDC-specific measures and a country-oriented approach are needed to promote country ownership, channel aid to sectors where its impact is greatest, and enhance the efficiency of utilization of such aid.

aid compet

Photo: istock

Furthermore, LDCs need to strengthen their productive capacities for planning and project implementation, improve monitoring and evaluation, and ensure better institutional coordination among various government agencies involved in negotiating and utilizing aid.

Additionally, the Aid for Trade initiative and the Enhanced Integrated Framework (EIF) should become effective vehicles for developing LDCs'productive capacities. LDCs should be granted duty-free and quota-free access for goods in major markets. Such measures must be complemented by favourable rules of origin and the elimination of non-tariff barriers. LDC governments also need to have policy flexibility to adopt agricultural, trade, and industrial policies which promote local value added and technological learning. LDCs should also be granted enhanced access conditions for the temporary movement of services providers.

Changing development policies

A sustainable reduction of poverty requires high and sustained rates of economic growth, which create productive employment opportunities for the poor and help to increase their household incomes. The only way to achieve these objectives is through the development of productive capacities. It should be a core concern of both policymakers and development partners in LDCs. The development of productive capacities, however, requires a considerable change in development policies. It requires a new strategic orientation of development and poverty reduction strategies that are LDC-specific, and it thus also requires a new strategic orientation of development assistance.

Firstly, there is even more reason now to refocus policy attention on developing productive capacities. This means that policies should be oriented towards stimulating productive investment, building technological capabilities, and strengthening linkages within and across sectors and between different enterprises. Strengthening domestic productive capacities should also be aimed at producing a wider range of more sophisticated products

Secondly, it is necessary to build a new developmental state. This is not a matter of going back to old-style development planning, but rather a question of finding new forms of development governance appropriate for the 21st century. Such development governance would be founded on a strategic collaboration between the State and the private sector that will encourage the structural transformation of LDCs from agrarian to post-agrarian economies.

Thirdly, it is necessary to ensure effective multilateral support to LDCs. This is not simply a question of more and better aid. The rules that govern international economic relationships with regard to trade, finance, investment and technology flows must be designed in ways that support development in LDCs. It is also critical that support for LDCs does not impose unnecessary limits on the measures that governments can take to promote development, structural transformation, and poverty reduction. ■

Renewables: the new global landscape

The growing importance of renewable energy relative to conventional energy sources is clear, but to what extent is the drive to invest in and develop clean energy services a preserve of the developed countries? Two recent reports provide an insight into the status of renewable energy in developing countries.

The Kutch wind farm in Gujurat, India

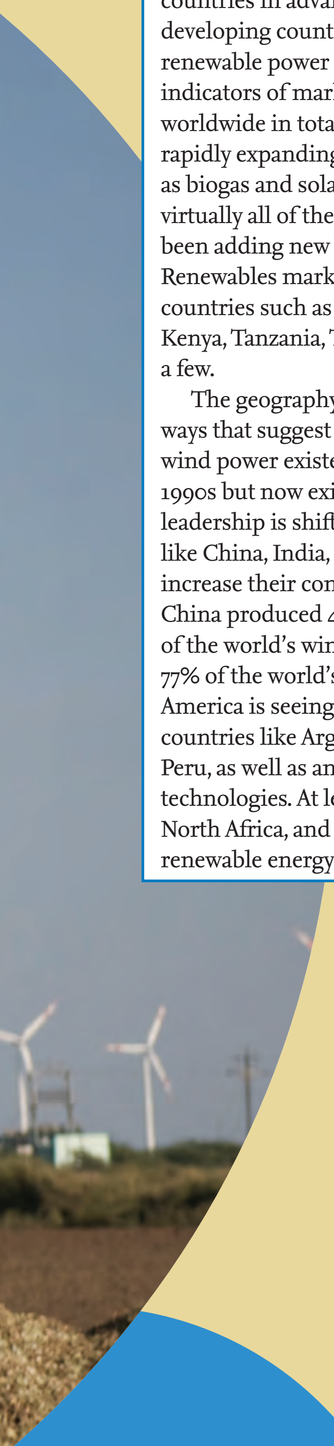
Photo: Global Wind Energy Council (GWEC)

Renewables 2010 Global Status Report

Published by the Renewable Energy Policy Network for the 21st Century (REN21)

The *Renewables 2010 Global Status Report* finds many recent trends reflecting the increasing significance of developing countries in advancing renewable energy. Collectively, developing countries now have more than half of global renewable power capacity. China leads in several indicators of market growth. India is ranked fifth worldwide in total existing wind power capacity, and is rapidly expanding many forms of rural renewables, such as biogas and solar photovoltaics (PV). Brazil produces virtually all of the world's sugar-derived ethanol, and has been adding new biomass and wind power plants. Renewables markets are growing at rapid rates in countries such as Argentina, Costa Rica, Egypt, Indonesia, Kenya, Tanzania, Thailand, Tunisia, and Uruguay, to name a few.

The geography of renewable energy is changing in ways that suggest the advent of a new era. For example, wind power existed in just a handful of countries in the 1990s but now exists in over 82 countries. Manufacturing leadership is shifting from Europe to Asia as countries like China, India, and the Republic of Korea continue to increase their commitments to renewable energy. In 2009, China produced 40% of the world's solar PV supply, 30% of the world's wind turbines (up from 10% in 2007), and 77% of the world's solar hot water collectors. Latin America is seeing many new biofuels producers in countries like Argentina, Brazil, Colombia, Ecuador, and Peru, as well as an expansion in many other renewable technologies. At least 20 countries in the Middle East, North Africa, and sub-Saharan Africa have active renewable energy markets.



Policy targets

Policies to promote renewable energy existed in a few countries in the 1980s and early 1990s, but have been put in place in many countries, states, provinces, and cities during the past 15 years and especially during the period 2005–2010. Developing countries now make up over half of all countries with policy targets (45 out of 85 countries).

China aims for 15% of final energy consumption from renewables by 2020, even as total energy demand continues to grow at nearly double-digit annual rates. (China already met its 2010 renewables target for 10% of primary energy two years early, in 2008.) The country's most recent draft development plan targets 300GW of hydro, 150GW of wind, 30GW of biomass, and 20GW of solar PV by 2020.

India's current five-year plan targets 12.5GW of added renewables by 2012 (including wind, small hydro, and biomass power), and in 2009 the country adopted targets for solar power of 1GW by 2013 and 20GW by 2022 (including 1GW of off-grid solar PV by 2017).

Brazil aims to maintain or increase its existing shares of total energy (48%) and electricity (85%) from renewables through 2030. Thailand increased its primary energy target to 20% by 2022. The Philippines national plan calls for 4.5GW of new renewables capacity during the period 2003–2013. Egypt targets 20% of electricity by 2020, including 12% from wind power. Kenya plans 4GW of geothermal by 2030. Other developing countries that added new national targets during 2009 include Ghana, Ethiopia, Jordan, Kuwait, Morocco, and Tuvalu.

Rural renewable energy

Renewable energy has an important role in providing modern energy access to the billions of people that continue to depend on more traditional sources of energy. Some 1.5 billion people worldwide still lack access to electricity, and approximately 2.6 billion are reliant on wood, straw, charcoal, or dung for cooking their daily meals. Many heat their food on open fires that are very inefficient in providing heat; more than one-third of the world's people are cooking almost as they were hundreds or even thousands of years ago. For lighting, households without electricity generally rely on kerosene lamps that are very poor in transforming energy into light. Communications is limited to radios powered by expensive dry cell batteries. In many rural areas of developing countries, connections to electric grids may take decades or may be economically prohibitive.

Today, there are good alternatives to grid electricity and carbon-based fuels that do not have to wait for the expansion of grid electricity systems. These include a wide array of new and renewable energy systems that can provide for both specific end uses and general rural energy services. Thus, there is a possibility to speed up the transition to modern energy services through the acceleration of off-grid renewable energy systems.

Rural transition

A rural transition from traditional to more modern forms of energy is clearly under way in households and small industries in many countries. "Traditional" and "modern" refer both to the type of fuel and the technologies that use it. Wood, for example, can be burned very inefficiently in a traditional open fire with high levels of pollutants, or wood ➤

Rural renewable energy (cont)

➤ chips can be gasified and burned as a high-quality "modern" cooking fuel, with high combustion efficiency and very little pollution. In the case of household lighting, kerosene is a traditional form of lighting, offering poor light and low efficiency, whereas electric lamps (for example powered by solar) give off 100 times more light compared to kerosene lamps or candles. Electric light enables households to read, socialize, and be more productive during the evening, and also has been associated with greater school attendance by children.

In even the remotest areas, many renewable energy sources such as PV household systems, micro-hydro-powered mini-grids, and solar pumps can provide some of the basic necessities of modern life, including quality lighting, communications, motive power, and heating and cooling. More recently, there have been encouraging developments with biofuels-based generating systems.

The number of rural households served by renewable energy is difficult to estimate, but runs into the tens of millions considering all forms of renewables. Micro-hydro configured into village-scale or county-scale mini-grids serves many of these. More than 30 million households get lighting and cooking from biogas made in household-scale digesters. An estimated 3 million households get power from small solar PV systems. Biomass cookstoves are used by 40% of the world's population, and a new generation of more-efficient "improved" biomass cook stoves has emerged over the years. These stoves are being manufactured in factories and workshops worldwide, and more than 160 million households now use them. ***(Renewables 2010 Global Status Report)***

Global Trends in Sustainable Energy Investment 2010
Published by the United Nations Environment Programme (UNEP) and Bloomberg New Energy Finance

Investment trends

Global Trends in Sustainable Energy Investment 2010 confirms that the rapidly industrializing economies of China, Brazil, and India have transformed the new energy investment landscape in recent years. China became the world's largest recipient of renewable investment in 2009, while Brazil and India are now ranked respectively fifth and eighth in global terms. Together, the three attracted a total representing 37% of global financial investment in clean energy in 2009. But what of the investment in developing countries outside the 'big three'?

New financial investment in the developing countries in Asia, Latin America, and Asia, excluding Brazil, China and India, was US$7.5bn in 2009, up from US$6bn in 2008, with the increase being provided mostly by Latin America. In contrast, Asia and Africa saw reduced investment in 2009 compared with 2008. These developing countries in these three regions account for 6.3% of total new global investment in clean energy.

Outside the 'big two' in Asia

New investment in Asia (excluding China and India) fell from US$3.1bn in 2008 to US$2.5bn in 2009. This equated to just 6% of overall new investment in Asia, reflecting the dominance of China in that total, as well as the more modest scale of capital commitments elsewhere. Of those developing countries outside the big two in Asia, Taiwan (Province of China) saw the largest investment at US$900m in 2009, up from US$300m the previous year. Pakistan, Indonesia, Thailand, Philippines and Vietnam ranked next by investment.

In **Thailand**, plans to set up a 73MW PV plant near Bangkok will require an investment of nearly US$270m. The project is expected to be completed in 2011. The incentives offered by the Thai government for renewable energy projects, including tax holidays and soft loans, will help make the project commercially viable. State-owned utility, Electricity Generating Authority of Thailand, said it will invest US$880m for renewable energy projects through to 2025. The investment is in response to the government's target for 20% of all energy to be derived from renewable sources by 2023. The country currently sources about 5% of its energy from renewables (excluding large hydro).

During 2009, **Pakistan**'s Alternative Energy Development Agency announced its aim to source a 14% share of the national energy mix from renewables by 2022. This implied a cumulative capacity addition of 17GW of renewable energy. The majority of this is likely to come from wind power.

The **Philippines** has an established geothermal sector, and is currently the second largest producer in the world after the United States. During 2009, geothermal firm Energy Development Corporation said it plans to develop 200MW of greenfield projects. The country is aiming to double its renewable energy capacity to 9GW by 2020, though this figure includes the contribution of large hydro. Geothermal power is expected to play a major part in this target, with the Department of Energy estimating that it will produce 4.5GW.

A large share of the investment in clean energy in **Indonesia** is channelled into exploiting the potential of geothermal energy. It is estimated that Indonesian volcanoes possess around 28GW of exploitable geothermal potential, though only 1.1GW of capacity is currently installed.

Vietnam plans to have 5% of its total electricity output coming from renewable sources by 2020. The country is estimated to have potential for 2GW of wind power, though access to finance is constraining project development.

Latin America leads

New clean energy financial investment in Latin American countries, excluding Brazil, was US$3.8bn in 2009, up from US$1.9bn in 2008. Mexico was the largest individual country recipient of new investment, recording US$2bn during the year. Chile was the next largest with US$700m, followed by Peru, with the latter seeing a jump in investment to US$500m from US$100m in 2008.

During 2009, **Mexico** released a plan featuring specific targets for installed capacity and electrical generation from wind, geothermal, biomass, and biogas by 2012. Even though the targets are non-binding, they represent a clear government commitment to develop renewable energy. The programme calls for increasing the nation's installed renewable energy capacity from approximately 3.3% of the total in 2008 to 7.6% by 2012, with wind power being the prime beneficiary.

The government of **Peru** concluded a tender process in November 2009 that was designed to add 500MW of new renewable generation capacity by 2012. The government's first formal renewables target, adopted in 2008, calls for a renewables share of generation capacity of 5% by 2013. Biomass projects accounted for 310MW of 412MW successfully tendered in the initial phase.

Chile enacted a law stipulating that 5% of total production in new energy contracts must be provided by non-conventional sources. By 2024 it must be 10% of total energy production, equivalent to a figure of 3,410MW.

In **Colombia**, the national government has issued a directive that all new vehicles must have E85 flex-fuel capability by 2012. Colombia is second behind Brazil in biofuels production in South America, expecting to produce 137 million gallons of ethanol in 2010. Meanwhile, in Argentina, the government launched a 1GW renewable energy tender as part of its new Renewable Energies Law that aims to achieve 8% of energy sourced from renewables by 2016.

Africa lags behind

Africa remains a relatively minor player on the global clean-energy landscape. Investment fell to US$900m in 2009, from US$1bn the previous year, and the continent accounted for less than 1% of the global total.

Egypt attracted the most investment, with the wind sector being the major recipient in that country. The largest investment in 2009 was in a US$490m, 200MW wind project in the Gulf of El Zayt. This project forms a further piece of Egypt's expanding wind ambitions in the Gulf of Suez region.

The Department of Energy in **South Africa** launched its first national Integrated Resource Plan in 2009, outlining measures for incentivizing energy efficiency, and the development and commercialization of renewable power. The plan outlines energy guidelines that public utility Eskom and the National Energy Regulator must follow. It stipulates that 1,145MW of power must come from renewable energy projects in the private sector by 2012. The plan focuses on saving energy, rather than building new power stations. It includes plans to install solar panels on government buildings, as well as to fit one million low cost, government-built homes with solar water geysers before 2014.

A funding deal for French institutions to invest US$283.4 million in **Ethiopia**'s 120MW Ashegoda wind farm was agreed in 2009. The total project cost of Ashegoda stands at US$315m, with 90% financed by banks and the balance from the project developer, Ethiopian Electric Power Corporation. The Ashegoda farm, located in the north of Ethiopia and deemed the first of its kind in the country, is in the initial stages of construction.

Small country, big sacrifice

Kiribati (pronounced "Kiribas"), lying midway between Hawaii and Fiji, is one of the most isolated countries in the world. Spread over about 3.5 million square kilometres in the central Pacific, the Republic of Kiribati consists of 33 low-lying atolls and coral islands giving a total land area of only 811 square kilometres. The country is divided into three island groups: the Gilbert Islands (from where the name Kiribati comes), the Phoenix Islands, and the Line Islands. The population, numbering around 100,000, is concentrated on the Gilbert Islands which include Tarawa, the capital. A former British colony, Kiribati attained independence in 1979.

The main economic activities are subsistence agriculture and fishing. The principal exports are seaweed, fish, and copra – the dried white flesh of the coconut from which coconut oil is extracted. The manufacturing sector is very small, consisting of a handful of state-owned enterprises processing copra, and manufacturing handicrafts. There is however potential for expansion of the food-processing sector. The government is currently negotiating a joint venture with a Chinese fishing company that could see the development, in Tarawa, of cold-storage and packing facilities for locally caught tuna fish.

Phosphate has been one of the only available natural resources, and in 1956 Kiribati established a sovereign wealth fund to act as a store of wealth for the country's earnings from phosphate mining. Commercially viable phosphate deposits were exhausted by the time of independence, but the fund continues to act as an important source of finances for government expenditure. The economy is largely dominated by the public sector which relies on foreign aid, and revenue from fishing license fees granted to distant nations and remittances sent back by seamen working abroad. A small tourism sector contributes around 25% of Gross Domestic Product.

According to the Asian Development Bank, Kiribati has some unique advantages over other Pacific countries – healthy foreign reserves, a history of sound fiscal management, and a strong culture that promotes social stability and family welfare. However, the recent global economic crisis has reduced the value of the sovereign wealth fund, and the government's large drawings on this fund in recent years are not sustainable. Rapid population growth and urban migration to South Tarawa are putting pressure on traditional family structures. More than 40% of the population is under the age of 15, ➤

Photo: Jocelyn Carlin/Panos

At a small village in Tarawa, Kiribati, trees are dying as a result of the rising sea level.

COUNTRY FEATURE

Kiribati

COUNTRY FEATURE

Kiribati

and the workforce is estimated to increase from 45,000 in 2002 to 68,000 in 2012.

Kiribati was added to the list of Least Developed Countries (LDC) in 1986. Since then, it has met two of the three thresholds that would qualify it for graduation from LDC status – those relating to improvements in income and human assets. However, graduation from the LDC classification has not been recommended to the UN General Assembly which is responsible for the final decision on the list of LDCs. The country remains far from meeting the third threshold, relating to reduced economic vulnerability. Both copra and seaweed production have fluctuated sharply in recent years, contributing to a high level of export instability.

Tourism has also undergone sharp fluctuations associated with international demand. There has been little progress in addressing major development constraints. Limited natural resources, especially land and freshwater, hamper development across widely scattered and sparsely populated islands, making access to international markets difficult and creating little potential for economies of scale.

Kiribati's vulnerability to natural shocks is also increasing as the impact of climate change grows. Rising sea levels and sea temperatures are likely to result in coastal erosion and flooding, and the loss of mangroves and coral reefs, with consequent negative impacts on freshwater supplies, agriculture, and fish stocks.

The World Bank reports that the people of Kiribati rely on healthy coral reef systems to

'We are talking about the fate of a people here'

Seaweed farming at Tabiteuea, Kiribati.

Interview with His Excellency **Anote Tong**, President of Kiribati

How do the people of Kiribati feel about the fact that their fate lies in the hands of people in far-away countries?

There is a sense of injustice, but also an understanding that, until recently, people weren't aware of the impact of their actions. However, knowing what we do today, carrying on as if it were business-as-usual is irresponsible and immoral. Failing to take action borders on an act of criminality. But we are not the only ones facing this future. Other island nations, as well as low-lying countries and coastal areas, are also at risk. We could all be victims – even the United States, with Hurricane Katrina and fires in California.

Kiribati is a highly Christian nation. For a long time people saw flooding and other damage as acts of God. But now some people are coming to the realization that sea levels are rising, and it's only going to get worse. People are mobilizing. They want help. Now there is a feeling that the people who contribute most to the problem should be part of the solution.

Is there a message you would like to convey to the broader public?

We must get away from the idea that one person, one action, cannot make a difference. One million is one plus one plus one, and so on. Every person and every action is important. The Pacific is one ocean. What you throw in the sea in California will end up on our shores. So, we need to work together.

We are asking the people of the world to make a sacrifice. The fate of our people, our culture, our memories, are at stake. I don't think anyone wants to drown a people, yet that is what will happen.

Climate change is a moral challenge, perhaps the greatest since slavery. The international community readily condemns terrorism, genocide, and nuclear proliferation, but why can't we see the injustice of our inaction on climate change? As a country on the frontline of climate change, we are going to be one of the first affected by the lack of action by others. So, we are asking people to run the extra mile on the weekend, to make sacrifices.

To this end, Kiribati has made a sacrifice. We have established the Phoenix Islands Protected Area which effectively closed much of our territorial waters to fishing. We had to fight our own internal political battles and opinion to arrive at this decision, but it is a very large statement on our part.

Fishing accounts for about 45% of government tax revenue, and is an important source of livelihoods. Our move is a contribution to protect the shorelines of their atolls and provide a habitat for fish that are integral not only to the food security of their own nation, but are also an important export. On his return from a recent trip to some of the outer islands, Aranteiti Tekiau, a research officer at the Ministry of Fisheries and Marine Resource Development, said, "Unfortunately we found serious coral bleaching at Tamana. The people on the outer islands may not notice it or see what it is, but it definitely has an impact on their lives and on getting what they need from the ocean. If coral health is declining, fish abundance will decline as well. This is our main source of food and where we get our protein from. In Kiribati, it is especially important that our coral is healthy."

Ribwanataake Awira, the secretary of the Ministry of Fisheries and Marine Resource Development, told the World Bank, "An increase in temperature is one of the major factors that will affect the coral as we know it. Even if there is only an increase by 1 degree, it will start to die off. That is what we are worried about now, especially in areas like Kiribati where we depend entirely on the growth and health of the reefs."

This reliance on fish cannot be overstated. Each inhabitant of Kiribati is estimated to eat somewhere between 72kg and 207kg of seafood every year. Kiribati also encompasses the largest exclusive economic zone in the Pacific with over 3.5 million square kilometers of ocean and fisheries that are estimated to be worth more than US$150 million annually to the international market.

The above makes Kiribati's decision to close off to fishing more than 11% of the total national territory (400,000 square kilometers) all the more remarkable. The Phoenix Islands Protected Area (PIPA) recently earned inscription by UNESCO as one of five new, natural World Heritage sites for its "pristine nature and importance as a migration route and reservoir". The PIPA is part of President Anote Tong's bigger, more ambitious initiative, the Pacific Oceanscape, which plans to set aside 38.5 million square kilometers of ocean as a contribution to improving management of fisheries, protecting and conserving biodiversity, furthering scientific understanding of the marine ecosystem, and reducing the negative impacts of human activities. ■

Photo: George Steinmetz/Corbis

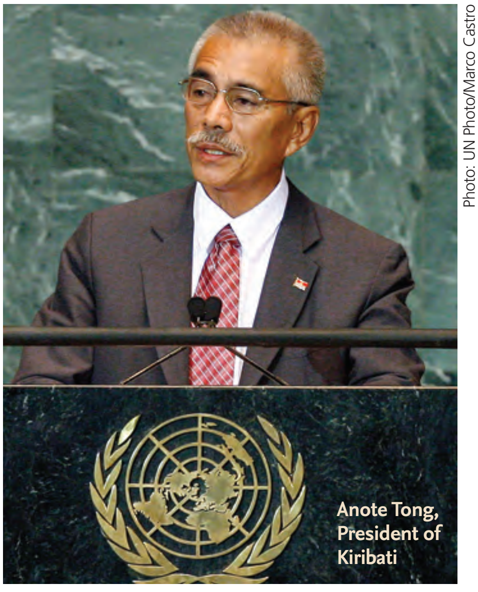


Photo: UN Photo/Marco Castro

Anote Tong, President of Kiribati

biodiversity, as well as to marine fish stocks. Conservation of our fisheries resources brings benefits to the rest of the ocean. 'No catch' zones boost fish populations in outside areas.

Through the Pacific Oceanscape framework, we have brought together 16 countries to take similar measures to protect ocean resources. The Pacific Oceanscape area is larger than the combined landmass of the United States, Canada, and Mexico. It is an idea that is so logical. Countries that share the Pacific should have been collaborating on issues a long time ago.

Will the establishment of the Phoenix Islands Protected Area (PIPA) attract tourists to Kiribati?

Our biggest problem with the development of tourism has been the lack of regular flight services, but we are working on this. We are just two hours from Hawaii. The PIPA has certainly created a lot of publicity, especially around the issue of climate change facing Kiribati, which is important, since how can you care about a country that you don't know?

> "Fishing accounts for about 45% of government tax revenue, and is an important source of livelihoods. Our move is a contribution to biodiversity, as well as to marine fish stocks."

There is much we can offer tourists – the attraction is definitely there. We have some of the best fishing in the world, and our reefs are some of the most pristine. There is very little habitation or disturbance, which makes the area a living laboratory for climate change research. It can serve as a baseline for studies.

Do you have difficulty policing your waters in order to protect them from illegal fishing fleets?

We have a huge exclusive economic zone – 3.5 million square kilometres (1.35 million square miles) of ocean – and only a single patrol boat! So, indeed it is a problem, but we have an agreement with the United States. We have observers aboard their ships. We also get assistance from other countries. We have a plan to increase surveillance through the use of over-flights by neighbouring countries.

What gives you hope for the future?

I refuse to believe that any individual with a conscience would deliberately continue on a business-as-usual path knowing that their actions would result in the demise of others.

It is important not to forget we are talking about the fate of a people here. We're not talking about polar bears. I think the polar bears are precious, and I do not wish to see them disappear. But nor would I want to see our people disappear.

● *Interview by Rhett Butler, mongabay.com – a website that seeks to raise interest in and appreciation of wild lands and wildlife, while examining the impact of emerging trends in climate, technology, economics, and finance on conservation and development.*

Industrial policy in Africa: what needs to be done

Mallam Sanusi Lamido Sanusi, Governor, Central Bank of Nigeria, identifies the essential ingredients for a policy mix that will help Africa realize its manufacturing potential.

Since the industrial revolution, manufacturing activity has been regarded as a major source of economic growth in any nation. The continuing drive to develop the sub-sector is a reflection of the universal benefits that it brings to an economy. For the countries of Africa, manufacturing provides a rational alternative as a way to jump-start development through the optimal exploitation of its rich human and natural resources on a long-term sustainable basis. However, despite these abundant resources, Africa remains the world's poorest and most underdeveloped continent.

Over 80% of its people are surviving on less than US$1 a day, and the average growth rate on the continent is below the 7% required to meet the Millennium Development Goals. Africa continues to play a marginal role in world trade – around 3% in 2009 according to the UN Economic Commission for Africa, and its meagre contribution to global Manufactured Value Added (MVA) is still on the decline.

MALLAM SANUSI LAMIDO SANUSI was appointed the 10th Governor of the Central Bank of Nigeria in June 2009. On taking office, he implemented a dramatic and far-ranging overhaul of Nigeria's banking and accounting regulation. A prolific writer, he has written and has had published numerous papers on banking, politics, religion, and society.

Clearly, the industrial policies of the constituent states of Africa have not focused on the growth driver in which the continent has comparative advantage – manufacturing. There is an urgent need for strategic diagnosis, at national and regional levels, in order to identify and assess the challenges facing the industrialization and diversification of Africa's economy.

The policy mix

Africa must find the appropriate policy mix that will address the continuing poor performance of the growth area – the manufacturing sub-sector. In this regard, essential conditions for economic growth include stable macroeconomic and political environments, a stable foreign exchange market, single digit inflation, and good corporate governance.

A major challenge is a lack of investable funds. In this context, there is a need to unlock the credit market with innovative interventions. Developing internal capacity will lessen the risk of lending to the manufacturing sub-sector. This is crucial in view of the

need for Africa to reduce its reliance on external sources to finance its development. Dwindling donor funds and donor fatigue have been amplified by the global economic downturn. Therefore, there must be increased efforts geared towards mobilizing local resources by increasing the national savings rate, expanding the revenue base, improving the efficiency of tax collection, and eradicating corruption. Central banks can support these efforts by targeted and focused interventions.

An additional stream of foreign exchange earnings for the state has developed now that many emerging economies are becoming major importers of natural resources. This increased demand for natural resources makes improved resource management even more vital.

Enabling environment

Attention must also be given to the enabling environment that will lead to improvements in total factor productivity (TFP), such as the removal of tariffs and barriers to intra-state trade, and the construction of efficient infrastructure. Monetary policies must focus, not only on price stability, but on the development of the real sector and economic activities that increase employment generation. Infrastructure deficiencies are still high compared to other parts of the world. According to one recent estimate, Africa needs to invest US$31bn annually in order to bridge the infrastructure gap.

Equally important is Africa's technology challenge. Business incubators and science parks, which are critical for growth, should be established in order to provide support for the information, communications, software, biotech, electronics, and precision machinery industries. Africa should take note of the Digital Hub, established in Ireland in 2003 as a knowledge-intensive innovation centre focused on digital content and technology research. This initiative made a significant contribution to Ireland's recent dramatic economic growth.

'New agriculture'

Agriculture offers tremendous hope for the continent as a core component of development strategy because it offers employment to over 70% of the one billion-strong population, and, if well-harnessed, could be a sustainable springboard for much awaited industrialization. Agriculture can provide raw materials for industries, as well as promote backward integration. But African agriculture needs to move away from the smallholder or sub-optimal commercial and segmented forms which operate in isolation, to a 'new agriculture' based on integrated systems, differentiated production, and risk management. For this to be achieved, the agricultural business strategy in Africa must change from the rudimentary methodology to the agricultural value chain (AVC) approach which in turn should be within the context of global value chain perspective. The AVC approach covers the full range of activities involved in moving agricultural products from the farmer's field to the consumer's table. It includes primary production and sourcing of inputs, financing, processing capacity, technology and market access, and trade. Large injections of funds will be required for value chain financing. Unlocking access to bank financing for agriculture, and developing risk-sharing approaches, are therefore critical for stimulating the innovations in agricultural lending that will, in turn, increase food production and eventually industrialize the continent.

Using the principles of competitiveness to motivate African farmers to consider the production and processing of agricultural materials as an industry would scale up agricultural production. Rural communities that produce agricultural crops with high commercial value in large quantities should be integrated and designated as AVC industrial centers. This approach offers opportunities for diversification of the product base, and will enhance intra-Africa trade.

Multiplier effects

Financing the development of indigenous technology in order to enhance its value addition, and minimizing post-harvest losses by processing agricultural produce into refined manufactured products are essential ingredients for Africa's industrialization. The result will be dramatic, as many food processing industries will be established, with concomitant multiplier effects on jobs and wealth creation, poverty reduction, and the promotion of indigenous technology in the manufacturing and food processing industry at large.

With over 70% of the population below the age of 30, Africa is one of the youngest continents in the world. This has implications for development. On the one hand, there is underutilized capacity that can be employed to increase output. On the other, this population of over 700 million young people represents a vibrant and dynamic market for manufactured goods. The need for a deliberate industrial policy framework to promote and engender economic growth and development in Africa is imperative. ■

The World Business Council for Sustainable Development's **Marcel Engel** and **Filippo Veglio** see a flourishing partnership for economic growth and environmental well-being.

The challenge on our doorstep: A business view of development

Poverty reduction efforts in developing countries used to be neatly divided into aid that was doled out to governments, and trade and commerce, deployed to boost these economies and create individual prosperity. That world no longer exists. These two sides are now converging, creating a new and ever-changing mosaic.

Increasingly, reducing poverty and spurring development are creating opportunities – and challenges – for business, too. Business cannot thrive in countries that fail. By better understanding socio-economic and environmental concerns in developing countries, companies can better manage the risks that underpin their license to operate. Further, companies can capitalize on significant market expansion opportunities by developing inclusive business models. These are commercially viable business ventures that enhance access to goods and services for the poor, as well as increase work prospects in low-income communities.

Even though global poverty has fallen by about one fifth since 1990, the task of continuing to whittle down the poverty rate is about to get much harder. That is because our planet's population is expected to grow by half, topping nine billion by 2050. Every week, about three million people are pouring into the cities of developing countries.

This challenge is already on our doorstep. The United Nations has warned that more people went hungry last year, in absolute terms, than at any point in human history, due in large measure to population growth, a spike in the price of wheat and other staples, and the global economic downturn.

Keeping up with the needs of a growing and ever more urbanized population in the developing countries, and the aspirations of these countries' middle classes, is increasing global demand for energy and natural resources. This is also putting greater stress and strain on the world's ecosystems.

Bettering livelihoods, while safeguarding the environment, will necessitate a transformation of our current system, to an economy that is more inclusive, lower in carbon, and more resource efficient. It will require massive investments in new green cities, energy, water, and transportation systems. This is the purview of business. Business is the leader in building efficient infrastructure. Unleashing business investment will be absolutely essential for these mega-building projects, given that business supplies 85% of all global flows of capital.

The companies that are best able to meet the rising demand for food, health care, and shelter, will be the winners of tomorrow. In a recent report by the World Business Council for Sustainable Development (WBCSD), a CEO-led grouping of 200 global companies, the organization makes a strong case for marshalling business action on all these fronts.

The WBCSD points out that by factoring in low-income populations to the supply, production, distribution, and marketing of goods and services, companies will access new markets, while generating new jobs and income, and building up the technical and skills base of the local workforce. What is more, poorer consumers will get affordable products and services attuned to their daily needs.

But we also need to move beyond single company efforts, and find wide-scale, market-based answers. For that, business needs governments at national, regional, and global levels to set the ground rules, so markets can flourish, especially in developing countries.

Notably, regulations must be geared towards upholding the rule of law, boosting entry to the

MARCEL ENGEL is Managing Director of the WBCSD's Development Focus Area and Regional Network, and FILIPPO VEGLIO is the Deputy Director of the WBCSD's Development Focus Area.

WBCSD members are drawn from over 35 countries and 22 major industrial sectors. The WBCSD provides a platform for companies to explore sustainable development, share knowledge, experiences, and best practices, and to advocate business positions on these issues in a variety of forums, working with governments, and non-governmental and intergovernmental organizations.

Photo: Jim Pickerell/World Bank

formal economy, and stamping out corruption; providing training and access to capital, especially for small and medium-sized companies; and for making core investments in roads, ports, energy and telecommunications systems – the life support system of daily commerce; and last, they must promote a fair and competitive market.

Governments, civil society, and business must be prepared to join forces in establishing the appropriate framework conditions for development that is rapid, widespread, and sustainable.

Good governance is also fundamental to manage the global environmental and security commons, and to restore worldwide financial stability.

The task of developing sustainably is simply too large and too complicated for business to handle alone. For that, partnerships must be struck, even with former adversaries.

Indeed, the formerly conflict-ridden relationship between business and non-governmental organizations (NGOs) is evolving into one of constructive dialogue. Partnerships and collaborations, assembling business, government, and civil society around the same table, are needed to find fresh answers to solve difficult problems, such as delivering clean water, sanitation, and other services to the poor in urban slums or remote villages.

To promote greater cooperation among these entities, the WBCSD has forged partnerships with a wide range of stakeholders, from multilateral development banks to environmental NGOs.

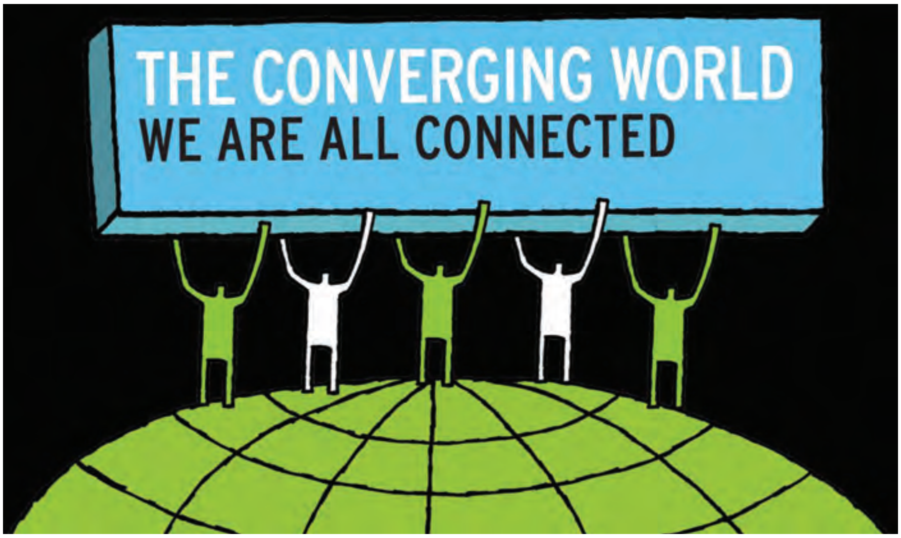
NGOs, development agencies, governments, and civil society alike, must change the way they view business. Business must no longer be seen as a purveyor of resources. It must be viewed as an enabler of social and economic progress, and a partner in a common effort to build a more inclusive and sustainable world.

For, the world must not be divided by making a false choice between either economic growth or environmental well-being. Economic growth and environmental well-being are interdependent. We must choose both. ■

Renewables investment in India

By **WENDY STEPHENSON**, CEO of The Converging World, a UK-based charity that makes mission-related investments.

"The beauty of The Converging World's model is that the reinvestment process will continually increase the green energy provision, carbon reduction, and social development funding for all beneficiary communities, even if no fresh funding is targeted at the region."



At The Converging World (TCW), we make mission-related investments in renewable energy. These investments are designed to generate a positive environmental impact, in addition to providing a financial return to support our sustainable development work with communities around the world. We face the same challenges as many other investors in the field, however, and need stable, sufficient, long-term incentives.

The much talked-about energy gap is moving closer. In India, where we have wind power investments, there is talk of 'peak coal'. They already have a 15% net deficit in supply, and not everyone has access to energy. By 2020, energy supply will need to double, but coal to the nation is no longer a certainty. So, renewable energy is not just about climate change, it can underpin stable economic and social development, and provide the security of energy supply that is crucial to peace and the avoidance of social unrest.

When we installed our first two wind turbines in India two years ago, the only incentive was carbon finance through applying for Clean Development Mechanism-regulated carbon credits. This approach, often through 'carbon offsetting', is critical to the financial viability of the project. However, it is not a perfect instrument, as it is slow and overcomplicated. We have been in the process for three years now; our project definitely needs carbon finance, it is evidenced time and again, but every day we lose more carbon credits which are essential. There isn't even an appeals process. Given this experience, we will definitely be looking for an alternative solution to help finance our wind turbines in the future.

"More investors, whether in businesses, foundations or government departments, need to consider mission-related investment."

What of other regulatory and fiscal incentives? In the United Kingdom (UK), the feed-in tariff immediately had a positive effect on solar PV, and suppliers are filling their books. We have to do everything we can, and this could be a success story for the UK, as it has been for many other countries, but how to fund such policies in developing countries? Sir Nicholas Stern is of the opinion that we need to reduce CO_2, however, and wherever, it is cheapest to do so.

Recent changes to regulatory and fiscal policy around renewable energy in India are making it possible to increase the returns on investment in renewable energy. Even so, to borrow in India is costly, with rates at 12% and loans treated as personal loans (not as infrastructure funding) to be paid back over seven years. There are also limits on how much overseas borrowing you can introduce into a project, and taxes are discouragingly high.

But there is hope; India has recently introduced more incentives, and taxation is currently under review. In addition to this, the recent visit to India by British Prime Minister David Cameron led to an agreement on an Indo-British CEO forum. This could be a way of working together to overcome some of the current trade barriers, and incentivize overseas investment for much-needed renewable energy.

We are trying to raise funds from the UK, but here we tend to fall between grant givers and investment committees. Investment committees of foundations and charities are often charged with seeking the highest possible market return. What we at TCW are offering is an investment with modest financial returns, but with very significant, even essential, social benefits.

More investors, whether in businesses, foundations or government departments, need to consider mission-related investment. In our case, the instrument (carbon credits) available to projects like ours is challenging, and at times dysfunctional. The fiscal and financial incentives are coming, but are all too often too slow, and the financial sector can sweep these away through the lack of infrastructure funding and high interest rates.

The easiest solution would be for investors to consider trading off a smaller financial return for a much larger social and environmental return. Mission-related investment is little-known or used, but it could make a significant difference to the crucial deployment of renewable energy. ■

Promoting industry's innovation capacities

By **LYNN K. MYTELKA,** a Professorial Fellow at the Maastricht Economic and Social Research and Training Centre (UNU-MERIT) in the Netherlands.

Innovation is a process of learning, adaptation and change in technology, organizational structures and institutional practices, in which the application of knowledge plays a central role. In industry, especially in developing countries, it consists of the process by which firms create and use knowledge to master and implement the design, development, and production of goods and services that are new to them – irrespective of whether they are new to their competitors, their countries, or the world. Access to knowledge and information, the capacity to reverse-engineer existing products, to absorb and adapt imported technologies, transfer knowledge from universities and research institutes to producers or end users, and networking to solve technological problems, are all parts of an innovation process.

Tomorrow's industrial processes will need to be energy and water-efficient, resilient, and sustainable. Strengthening the innovation capacity of industry is essential in meeting these objectives.

Many national and international organizations have promoted research with a view to enhancing the competitiveness and innovation capacities of industry. A review of case studies of a number of international institutions, active in Europe, Asia, and Africa, and of their role in strengthening national innovation systems, finds that the way to support and promote the industrial development of developing countries has changed considerably over the course of the last three or four decades.

In the present context, access to a wide range of knowledge inputs, an emphasis on continuous learning and innovation in both new and traditional industrial sectors, and networking and collaboration through knowledge exchanges, joint research and technology partnerships, have all emerged as critical elements in the contemporary portfolio of industrial innovation support programmes and policy instruments. So, too, has the importance of engaging in a continuous process of dialogue and evaluation that enables the overall programme to meet its objectives through adaptive changes in the centres themselves, as well as in their activities.

Some examples from three of the case studies:

- The International Institute for Software Technology (UNU-IIST), located in China, Macao SAR, is one of the research and training centres of the United Nations University. UNU-IIST's mission is to help developing countries strengthen their education and research in computer science and their ability to produce computer software. The UNU-IIST experience is a good example of how a centre that was not designed as a ➤

➤ network can integrate networking behaviour into its earlier organizational structures and institutional practices.

After initially focusing on China and neighbouring countries, in the mid-1990s UNU-IIST training activities spread to countries across Asia, and in 1995 it began two-week courses in Francophone Africa with funding from the World Bank. In 1996, UNU-IIST extended its activities to Latin America, and then gradually expanded its research agenda to include the design and development of university curriculum for formal software development, and later, with 11 university partners from industrial countries, began to train university lecturers from developing countries.

A determined networking approach has helped UNU-IIST to establish the Centre for Electronic Governance with funding from the Government of Macao SAR, the Microsoft Corporation, UNDP, the UN Asia Pacific Center for ICT Development, the UNU Joint Activities Fund, and the International Fund for Animal Welfare. The Centre has over 25 partners, including government ministries from eight developing countries and the Republic of Korea, and universities from all but three of these, as well as Universities in the Unites States, the United Kingdom, Canada, and Eygpt.

● The experience of the European Union's Enterprise Europe Network illustrates the importance of engaging in a continuous process of dialogue and evaluation that enables the overall programme to meet its objectives through adaptive changes in the centres themselves, as well as in their activities.

Since 2001 the network has adapted the original model to widen the service range for greater viability, create new financial incentives to stimulate transnational technology transfer, define targeted clientele and be visible to them, and develop better mechanisms for follow-through to ensure that services had the impact desired.

The Enterprise Europe Network has not only strengthened its role in supporting small and medium-sized enterprises (SMEs), but has further developed its impact assessment studies and strengthened its feedback mechanism, 'Listening to Enterprises', thus learning more about, and more quickly, how their services are impacting upon SMEs. Since 2007, the renewed network has intensified it business co-operation and technology transfer services, produced or disseminated 11,500 partnership proposals, held a variety of brokerage events in which 15,000 SMEs participated, and produced 1,525 signed partnership agreements.

Installing energy efficiency equipment at a hotel in Chavuma, Zambia. An AREED initiative.

Photo: Mackenzie/UNEP

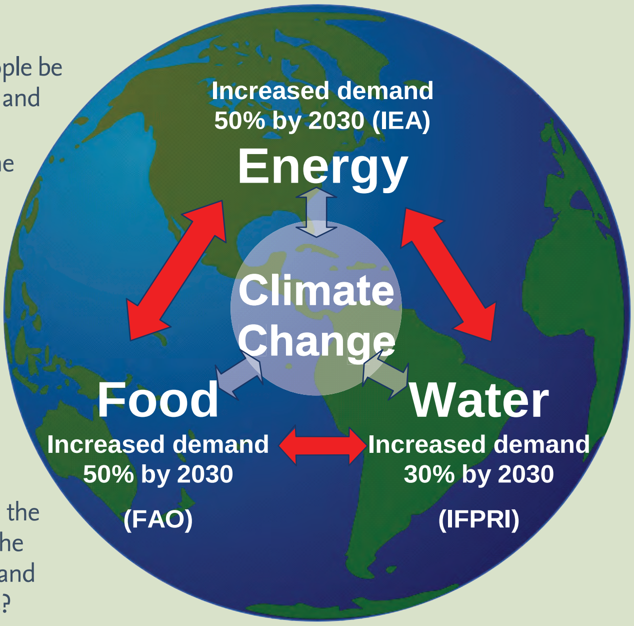
> "The way to support and promote the industrial development of developing countries has changed considerably over the course of the last three or four decades."

● The objective of the United Nations Environment Programme's Africa Rural Energy Enterprise Development Initiative (AREED) is to develop new sustainable energy enterprises that use clean, efficient, and renewable energy technologies. Through local partner organizations, many of which are African non-governmental organizations, AREED offers rural and peri-urban energy entrepreneurs in Mali, Ghana, Tanzania, Senegal, and Zambia, a combination of enterprise development and advisory services, and start-up financing. This integrated financial and technical support allows entrepreneurs to plan and structure their companies for growth. It also makes possible eventual investments by mainstream financial partners, with whom AREED works.

A central lesson from the AREED experience is that although the combination of enterprise development supports and seed financing can be effective at expanding energy access, it is often not enough to get entrepreneurs focused on rural markets. A significant proportion of potential users, who could not afford to pay upfront for the products and services offered by the AREED entrepreneurs, could not be reached. AREED addressed this problem by engaging more with microfinance institutions and local banks to facilitate flows of end-user financing to the existing and potential customers of clean energy enterprises. ■

Key questions

1. Can nine billion people be fed equitably, healthily and sustainably?
2. Can we cope with the future demands on water?
3. Can we provide enough energy to supply the growing population coming out of poverty?
4. Can we mitigate and adapt to climate change?
5. Can we do all this in the context of redressing the decline in biodiveristy and preserving ecosystems?



Biodiversity: policy challenges in a changing world

Biodiversity is the variety of all life and natural processes on Earth, including diversity within species, between species and of ecosystems. Biodiversity provides food and medicine, fresh air and clean water, protection from natural disasters and green spaces for humans. Studies show that biodiversity is in grave danger from habitat loss, invasive species, pollution, climate change, and overexploitation.

Sir John Beddington, the Chief Scientific Adviser to the Government of the United Kingdom, and Professor of Applied Population Biology at Imperial College, London, has recently delivered several lectures on the theme of 'Biodiversity and ecosystems in a changing world'.

According to Beddington, "The challenges we face in providing enough safe, clean and affordable energy, water, and food for our growing global population, which is moving into cities, are intimately linked to the challenge of mitigating and adapting to climate change. It is clear that any effective way to solve these challenges should continue to recognize the importance of maintaining our rich ecosystems. Scientists are increasing their understanding of the benefits that well-functioning ecosystems provide 'behind the scenes', for example, in sequestering our carbon, purifying our water, and pollinating our crops. It is vital that we continue to bring these issues to the attention of policymakers."

The graphic above shows the complex interrelation between food, energy, and water security in the context of climate change. Beddington asks if this is a 'perfect storm' that could lead to civil unrest and conflict. ■

Climate change and trade

As an appetizer for the next issue which will look at trade, *Making It* spoke to **PATRICIA FRANCIS**, Executive Director of the International Trade Centre (ITC), about the carbon footprint of trade and the implications for Least Developed Countries.

How do you see climate change having an impact on development, and what do you see as the role of trade?
Climate change is one of the gravest threats facing humanity, and thus the major development challenge this century. Least Developed Countries (LDCs) have done little to cause climate change, yet face its harshest impacts and have the weakest capacity to adapt to these impacts. Trade can help developing countries with adaptation, through generating export earnings and accessing technologies. Trade also has a role in mitigation of climate change, through disseminating low carbon technologies.

Keeping trade open and without discrimination is thus an effective climate change policy. ITC's mission – *Export Impact for Good* – very much encompasses that goal.

Should we be concerned about the carbon footprint of trade?
Trade is an increasingly important proportion of the world's GDP. It stimulates economic growth, and thus the emissions of greenhouse gases. As a result, trade, and particularly transport of goods around the world is associated with causing climate change. However, 90% of internationally traded goods are carried by sea. Maritime transport is an efficient mode of transport, with only 10-15 grams of CO_2 emissions per tonne kilometre.

The response of consumers in the northern hemisphere to "buy local" in order to reduce emissions from transport may, at first glance, seem an intuitive decision. However, studies show that food products imported from the southern hemisphere can often have a lower carbon footprint than products grown in the northern hemisphere. This is the case for counter-seasonal fruits and vegetables from some developing countries which benefit from more favourable growing conditions than in the northern hemisphere. Depending on specific cases, the low emissions from agricultural production in warmer climates can more than compensate for emissions from their transport to markets in the North.

Patricia Francis, Executive Director of the International Trade Centre (ITC).

The key driver of carbon-intensive growth is not trade, but the lack of regulation governing carbon use. Fundamental obstacles that we still face to reducing this level of dependence are the continued existence of fossil fuel subsidies, and the lack of a multilateral agreement to put a price on carbon.

What do you mean by carbon-intensive growth?
Economic growth is linked to the emissions of carbon dioxide and other greenhouse gases because the type of technology used to drive economic growth has a direct bearing on the level of emissions per unit of GDP. Developed countries that have more advanced technologies, thus produce at lower levels of carbon intensity.

However, they are also net importers of consumer goods from China, and other emerging economies, where the carbon intensity of production is higher. Although these products are consumed in Europe, the emissions from their production count in China's inventory of emissions. We know from the Carnegie Institute's research that Europe is thus effectively "outsourcing" over a third of its emissions to the developing world. Assigning responsibility for these emissions needs more debate. It has obvious implications for climate change negotiators, but also at the consumer level, where people increasingly want to know more about how much carbon is emitted in making a consumer item and in providing services.

Are barriers to trade emerging in response to climate change?
The fastest developments are taking place at the private sector level. Retailers are putting information about carbon on products, particularly food. This means they require their suppliers to provide information on emissions in the supply chain.

Leading corporations now report publicly on their emissions, and make investments to reduce them. This decision is driven both by the need to reduce costs, but also to demonstrate environmental responsibility, along with other ethical commitments. I think this trend will intensify, and become part of the mainstream of doing business.

What does this mean for exporters in LDCs?
The agri-food exporters with whom we work in Africa are concerned that carbon labelling standards are being developed without their involvement. There are many different schemes, usually employing their own methodologies. As they are not harmonized, and do not recognize each other as "equivalent", exporters are faced with the costs of multiple certifications, even in the same destination markets. The methodologies for certification are also complex, and require data that does not always exist in developing countries, which can lead to uncertain measurements.

Does that make the consumer 'king'?
The consumer and retailer are indeed setting some important "rules of the game" in trade. Consumers are bringing about positive change, but can also cause negative impacts and fail to address core issues.

Product carbon footprint labels may seem reassuring for the ethical consumer, but do not include emissions from driving to the supermarket or preparing the food, which are both carbon-intensive activities. Ethical consumers are also prone to "moral offsetting", whereby they make one 'green' shopping choice, but then feel licensed to make a more damaging one, like buying a plane ticket for a weekend city break.

How does this issue relate to poverty reduction and ITC's work?
The sustainability consumer market is growing. The organic food and certified timber markets for example, are worth around US$50bn, with developing countries having a 2% share of this. Farmers and their communities both benefit from these higher incomes and a cleaner environment. However, we must be careful that consumers and retailers do not damage these prospects through misplaced advocacy and standards that develop in discriminatory and non-transparent ways.

ITC, along with its development partners, is working hard through its environmental technical assistance programme to strengthen the capacity of developing countries to compete in this demanding new marketplace. ■

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Industry for Development

FURTHER READING

Bateman, Milford – Why Doesn't Microfinance Work?: The Destructive Rise Of Local Neoliberalism
Birdsall, Nancy and Savedoff, William – Cash On Delivery Aid: A New Approach to Foreign Aid
Chang, Ha-Joon – 23 Things They Don't Tell You About Capitalism
Daniels, Steve – Making Do: Innovation in Kenya's Informal Economy
Ellwood, Wayne – No-Nonsense Guide to Globalization
Fues, Thomas and Wolff, Peter (eds.) – G20 and Global Development: How can the new summit architecture promote pro-poor growth and sustainability?
Heinberg, Richard and Lerch, Daniel (eds.) – The Post Carbon Reader: Managing the 21st Century's Sustainability Crisis
Leonard, Annie – The Story of Stuff: How Our Obsession with Stuff Is Trashing the Planet, Our Communities, and Our Health – and a Vision for Change
Naudé, Wim (ed.) – Entrepreneurship and Economic Development
Organization of American States – Sustainable Development in the Caribbean: Contemporary Issues, Challenges and Opportunities
Oxfam Australia/Oxfam New Zealand – The Future is Here: Climate Change in the Pacific
Parkin, Sara – The Positive Deviant: Sustainability Leadership in a Perverse World
Sévérino, Jean-Michel and Ray, Olivier – Le Temps de l'Afrique
World Business Council for Sustainable Development – Business and Development: Challenges and Opportunities in a Rapidly Changing World

FURTHER SURFING

http://aidthoughts.org – Aid Thoughts – digesting the difficult decisions of development
http://blogs.cgdev.org/global_prosperity_wonkcast/ – Global Prosperity Wonkcast – Lawrence MacDonald interviews Centre for Global Development experts and others on innovative, practical policy responses to poverty and inequality in a globalizing world
http://youthprojectsurvival.org – Project Survival Pacific
www.climate.gov.ki/index.html – Climate change in Kiribati
www.theconvergingworld.org – UK-based charity that invests in renewable energy projects in the developing world
www.thedigitalhub.com – An Irish government initiative to create an international centre of excellence for knowledge, innovation, and creativity, focused on digital content and technology enterprises.
www.ldcwatch.org – LDC Watch is a global alliance of national, regional and international civil society organizations, networks, and movements based in the LDCs
www.sidsnet.org – Small Island Developing States Network
www.un.org/wcm/content/site/ldc/home – The 4th United Nations conference on the Least Developed Countries
www.unohrlls.org – United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries, and Small Island Developing States

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