

Making It

4th quarter 2012

Industry for Development

- The water-food-energy nexus
- Fracking – yes or no?
- Fernando Pimentel – upbeat Brazil
- China's Broad Group

South-South solutions





NUMBER 1, DECEMBER 2009
 ● We must let nature inspire us – Gunter Pauli presents an alternative business model that is environmentally friendly and sustainable ● Hot Topic: Is it possible to have prosperity without growth? Is 'green growth' really possible?



NUMBER 2, APRIL 2010
 ● The International Energy Agency's Nobuo Tanaka looks at energy transitions for industry ● Energy for all – Kandeh Yumkella and Leena Srivastava on what needs to be done to improve energy access



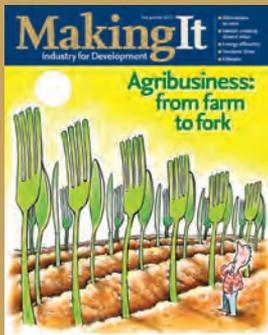
NUMBER 3, JULY 2010
 ● China's stunning economic rise: interview with minister of commerce, Chen Deming ● Towards a more productive debate – Ha-Joon Chang calls for an acceptance that industrial policy can work



NUMBER 4, NOVEMBER 2010
 ● Strengthening productive capacity – Cheick Sidi Diarra argues that the LDCs should – and can – produce more, and better quality, goods ● Patricia Francis on climate change and trade ● Hot topic: The relevance of entrepreneurship



NUMBER 5, FEBRUARY 2011
 ● A window of opportunity for world trade? – Peter Sutherland assesses the prospects for the conclusion of a multilateral trade agreement ● A path to mutual prosperity – Xiao Ye on trade between sub-Saharan Africa and China



NUMBER 6, APRIL 2011
 ● Feeding a crowded world – IFAD's Kanayo Nwanze argues that smallholder farmers must have opportunities to be entrepreneurs ● Nestlé CEO Paul Bulcke on 'Creating Shared Value' ● Hot Topic: Does energy efficiency lead to increased energy consumption?



NUMBER 7, JULY 2011
 ● The globalization paradox – Dani Rodrik ● Unfair share – Thomas Pogge on affluent countries' responsibility for increasing global poverty ● Hot topic: Is nuclear power necessary for a carbon-free future?



NUMBER 8, NOVEMBER 2011
 ● Closing the gender gaps – Michelle Bachelet on overcoming the barriers that prevent women from seizing economic opportunities ● Engineering eco-friendly solutions – Carolina Guerra on hazardous waste in Colombia ● Hot topic: Growth: the end of the world as we know it?



NUMBER 9, JANUARY 2012
 ● Jeremy Rifkin on the Third Industrial Revolution ● Morgan Bazilian and Kandeh Yumkella on the new economy: inclusive and sustainable ● Hot topic: Climate change, climate action



NUMBER 10, JUNE 2012
 ● Klaus M. Leisinger, chair of the Novartis Foundation for Sustainable Development, on the intersection between industry and health ● D-Rev's Krista Donaldson on designing health care equipment for the developing world ● Hot topic: gas flaring



NUMBER 11, AUGUST 2012
 ● Mei Yi, president of AIESEC, on the keys to effective youth engagement ● Perspectives on the Arab Spring ● Sustainia – the world of tomorrow ● Hot topic: The 'Girl Effect'

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

Editorial

South-South cooperation is a broad framework for collaboration and the exchange of resources, technology, skills and knowledge between countries of the Global South. South-South cooperation can achieve results on the ground, in ways that traditional development assistance may not, because of countries' geographical proximity, cultural and historical ties, or similar development paths. Countries that have paved the way for their own development in the last decade or two have much to share, especially in terms of expertise and experience, with those currently facing similar challenges.

When countries, multilateral agencies and other partners work together throughout the South to pool know-how, exchange ideas and coordinate policies, they unleash a creative force that advances the world's development efforts. Even in the midst of severe economic, social and political instability, South-South cooperation has continued to drive buoyant trade and financial flows.

The rapid spread of information technology has dramatically increased connectivity and networking throughout the South, and South-South cooperation holds great potential for even more sharing of expertise in areas such as education, health, energy, and climate change adaptation and mitigation. As Kandeh K. Yumkella, Director-General of the United Nations Industrial Development Organization, has recently noted, "Southern-grown technologies often have the benefit that they are tailor-made for the environment in which they are eventually deployed, and as such, many, often simple technologies, can have a widespread impact on development and poverty reduction. Globally, South-South interactions have had a proven and remarkable impact on development, with the expectation that by 2030, South-South cooperation will constitute one of the main driving forces in worldwide growth."



Editor: Charles Arthur
editor@makingitmagazine.net
Editorial committee:
Jean Haas-Makumbi, Kazuki Kitaoka,
Wilfried Lütkenhorst (chair),
Matilda Muweme, Cormac O'Reilly
and Jo Roetzer-Sweetland
Cover illustration: David Rooney
Design: Smith+Bell, UK –
www.smithplusbell.com
Thanks for assistance to
Donna Coleman
Printed by Druckerei
Wien, Vienna, Austria –
www.druckerei-wien.at
on FSC certified paper



To view this publication
online and to participate in
discussions about industry for
development, please visit
www.makingitmagazine.net
To subscribe and receive future issues
of *Making It*, please send an email
with your name and address to
subscriptions@makingitmagazine.net
Making It: Industry for Development
is published by the United Nations
Industrial Development Organization
(UNIDO),
Vienna International Centre,
P.O. Box 300, 1400 Vienna, Austria
Telephone: (+43-1) 26026-0,
Fax: (+43-1) 26926-69
E-mail: unido@unido.org
Copyright © 2012 The United
Nations Industrial Development
Organization
No part of this publication can be
used or reproduced without prior
permission from the editor
ISSN 2076-8508

The designations employed and the
presentation of the material in this magazine
do not imply the expression of any opinion
whatsoever on the part of the Secretariat of
the United Nations Industrial Development
Organization (UNIDO) concerning the legal
status of any country, territory, city or area or
of its authorities, or concerning the
delimitation of its frontiers or boundaries, or
its economic system or degree of
development. Designations such as
“developed”, “industrialized” and
“developing” are intended for statistical
convenience and do not necessarily express a
judgment about the stage reached by a
particular country or area in the development
process. Mention of firm names or
commercial products does not constitute an
endorsement by UNIDO.
The opinions, statistical data and estimates
contained in signed articles are the
responsibility of the author(s), including
those who are UNIDO members of staff, and
should not be considered as reflecting the
views or bearing the endorsement of UNIDO.
This document has been produced without
formal United Nations editing.

Contents



16

GLOBAL FORUM

6 Letters

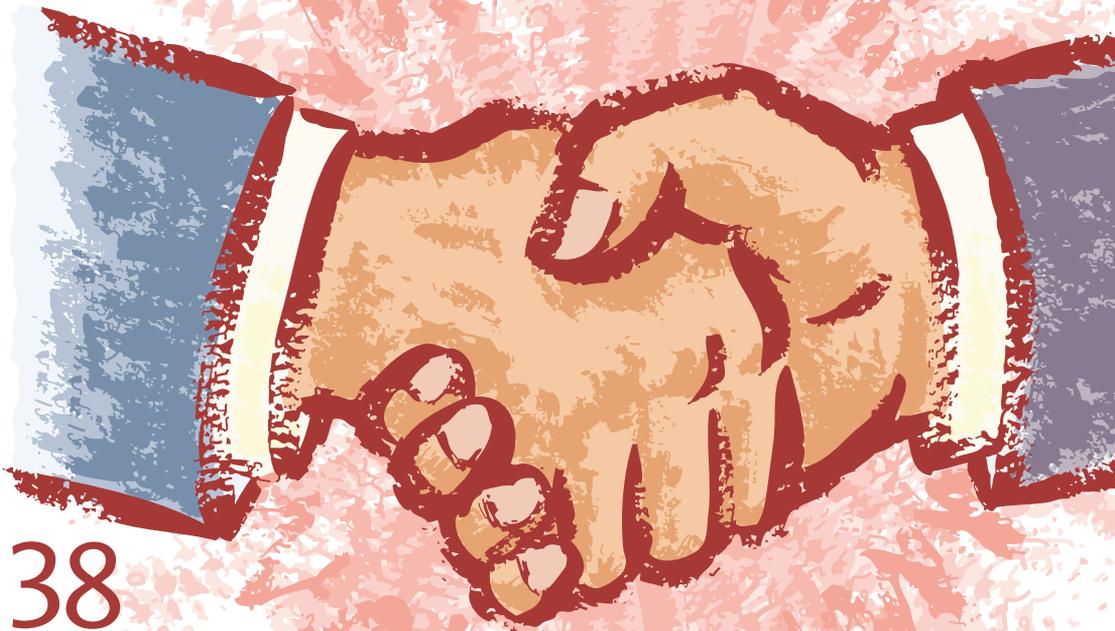
8 The water-food-energy nexus –
SABMiller's Andy Wales on how to
manage the inevitable trade-offs
between scarce resources

10 Hot Topic: Fracking – Just more fossil
fuel, or the answer to the climate crisis?
Doug Parr and Nick Grealy debate

14 Business matters – news and trends

FEATURES

**16 Pathways of South-South
cooperation –** Michelle Morais de Sá e
Silva outlines the ups and downs of
South-South cooperation, as well as the
factors that have contributed to its
powerful resurgence in recent years



38



20 The 'barefoot' solar engineers – How the Barefoot College in western India is training illiterate or semi-literate women from all over the world to be solar engineers

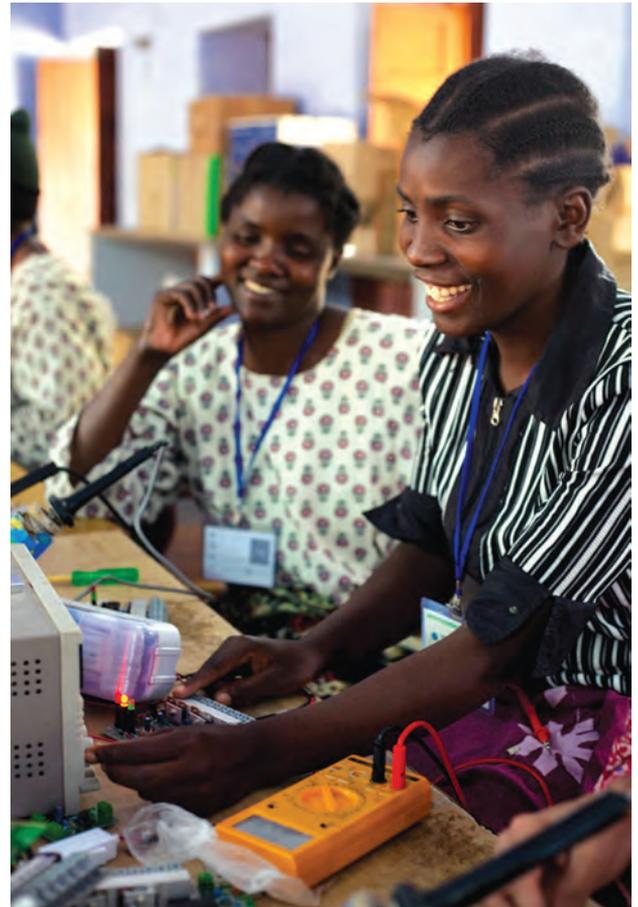
KEYNOTE FEATURE

22 We asked seven experts: What impact will the rise of the emerging economies in the South have on South-South cooperation, particularly in regard to the often made assumption that economic interactions between countries of the South are more beneficial than those between the North and the South?

30 A new force for transformational change – Yiping Zhou outlines United Nations initiatives to harness the resurgent global South's human, technological and financial resources for development

32 The first challengers – Devaki Jain on the feminists of the South and a new framework for reconstructing the very basis of economic reasoning

34 Country feature: Brazil – Interview with Fernando Pimentel, Minister of Development, Industry and Foreign Trade



38 Industrial diplomacy for sustainable prosperity – Christophe Yvetot argues in favour of innovative collaborative models

40 Good Business – Profile of China's trailblazing Broad Group

POLICY BRIEF

42 Networks for Prosperity: Connecting development knowledge beyond 2015

44 Cooperating with China in Africa

46 Endpiece – Where did Rio+20 leave us? Stephen Browne surveys the aftermath of the United Nations Conference on Sustainable Development in Rio de Janeiro



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 D2142, UNIDO, PO Box 300, 1400 Wien, Austria. (Letters/emails may be edited for reasons of space).

LETTERS

The 'Girl Effect'

I found the contrast between the two interviews surprisingly stark, and in the case of the first one, unfortunately a bit vague (The 'Girl Effect', *Making It* issue 11). I found it quite interesting that the Nike Foundation president, Maria Eitel, expressed such an idealistic point of view in regards to the effect of the Foundation's impact, which was appropriately disregarded as such in the interview with Hester Eisenstein. Hester's criticisms of the feminist interpretation within the capitalist model, as well as that of role of women's empowerment in export processing zones, are powerful.

It would be interesting to ask more in-depth questions concerning the Nike Foundation's involvement with these girls once they reach a mature age and are able to enter the workforce. Finally, what is Hester's solution to the issues she raises? How should women be empowered, and what development models would she suggest to best do it?

● **Emile Potolsky, by email**

Agribusiness in Africa

("Can UNIDO's agribusiness dream build peace in Africa?" *Making It* website) As usual, the

answer is processing – that is, transforming fresh food into food that is preserved in packaging or by adding man-made preservatives. In other words, plastic wrapping and E numbers. Bad for the environment and bad for the health. And this is the UN's great answer to the crisis of African agriculture!

How about shifting the emphasis from international trade and the need to ship food products over huge distances with enormous carbon footprints, to developing local markets for locally-produced food that can be transported and consumed fresh? This implies a focus on improving livelihoods and incomes in developing countries and obliging consumers in developed countries to eat locally produced rather than 'exotic' food...

● **Konto, website comment.**

Green Industry Platform

Since the launch of UNIDO's Green Industry Platform at Rio+20 in June, we have never heard anything more about it. What happened? ("Reasons to be both hugely disappointed and very excited", *Making It* website)

● **Anonymous, website comment**

Since the Rio launch, the initiative's co-convenors – UNIDO and UNEP – have been working closely together to put



Photo: Brent Stritton/Getty Images

'The Girl Effect': "contrast between the two interviews surprisingly stark."

in place the Green Industry Platform's operational framework. Additionally, deliberations have been under way regarding the composition of the Platform's Advisory Board, which will help steer the activities of the Platform. This selection process is now nearing completion and we expect to announce the Advisory Board in the next weeks.

The priority areas for projects on the ground have now also been determined and they include: resource efficiency, water optimization, industrial energy efficiency and chemicals management. These areas will be explored in greater detail and possibly expanded through a participative process involving the Platform's diverse and growing membership.

A new interactive website for the Green Industry Platform is currently being designed and will soon be accessible at www.greenindustryplatform.org.

All news regarding the Platform will of course be made available there as it breaks.

● **The Green Industry Platform Team, UNIDO, website comment**

Good business

More like this please ("Good business", *Making It* issue 11). Kenya's EcoPost company really is showing that green industry is not only relevant but essential to get us out of the mess we are in. Way to go!

● **Sean McNamara, by email**

Amazing to read about a company actually putting green industry technology into action ("Good business", *Making It* issue 10). Can't understand why more companies aren't doing the same. As Hasanat says, it saves money and it makes money...

● **Jonas Cebo, website comment**

I like the candid answers that the Viyellatex CEO provided ("Good business", *Making It* issue 10). He says other companies would implement the same green practices if only they knew how money it would save them. And he says the other main reason that he tries to make his company sustainable is the competitive advantage that it gives him when negotiating prices with the Western companies that he supplies – they want a green supplier because it impresses their shareholders and customers. Thing is though, why can't all the other garment assembly companies in



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.



countries, like Bangladesh, see what Viyellatex can see?

● **Ollie Barton, website comment**

Deadly denim

Thanks for this very important article (“Deadly denim”, *Making It* issue 10). Every time I see someone wearing sandblasted jeans I get so angry. I suffer from asthma so I know what it is like to be unable to breathe properly like the workers who suffer from silicosis. People are dying, just so others in richer countries can look ‘cool’. People have to get real and realize that we are all responsible for what is going down. What goes around,

comes around. What you sow, you will reap!

● **Jacquelin Ramirez, website comment**

Ethiopia

Ethiopia has suffered a great loss with the death of its greatest and most visionary leader ever! (“Ethiopia: Defining its own path”, *Making It* issue 6) But if you depend on some Ethiopian diaspora numbskulls around Washington DC and a few other places for your information about him, you will get a whole different picture. No surprise there, since they are basically those with connections to the former do-nothing Emperor, Haile Selassie, or the do-nothing-

right dictator, Mengistu Haile Mariam, who followed him, and who was forced to flee to Zimbabwe. Today’s Ethiopia has changed for the better, beyond recognition. The federal system of government that Meles Zenawi and his party have instituted is, luckily for Ethiopians, irreversible! If anyone doubts his popularity among Ethiopians, one only need witness the unprecedented degree of mourning the people are going through everywhere!

● **Tekle Haileselassie, website comment**

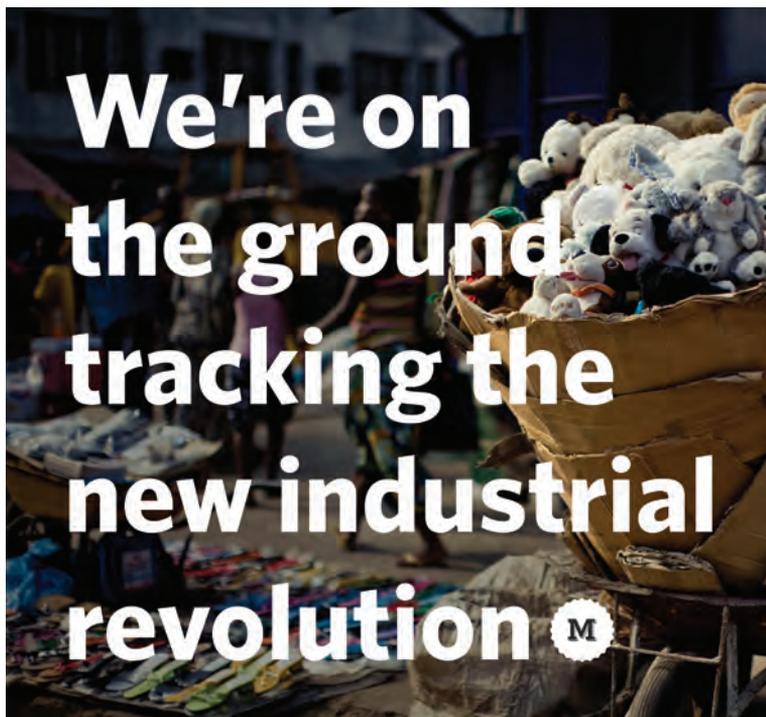
Zero waste

Your readers will be interested in *On the Road to Zero Waste:*

Successes and Lessons from Around the World, published by the Global Alliance for Incinerator Alternatives, an alliance of more than 650 grassroots groups, non-governmental organizations and individuals in over 90 countries. Zero waste is both a goal and a plan of action. The goal is to ensure resource recovery and protect natural resources by ending waste disposal in incinerators and landfills. The plan encompasses waste reduction, composting, recycling and reuse and changes in consumption habits and industrial redesign. But, just as importantly, zero waste is a revolution in the relationship between waste and people.

● **Hannah Mathur, by email**

ADVERTISEMENT



Makeshift

We’re the magazine of innovation in informal economies, from jugaad to DIY. Making It readers get **10% off subscriptions with code makingit.**

mkshft.org
@mkshftmag

SABMiller India has embarked on a natural recharge project in Rajasthan to protect the water supply for the Rochees Brewery and local farmers.

Photo: SABMiller plc/Jason Alden/OneRedEye



The water-food-energy nexus

Andy Wales on how to manage the inevitable trade-offs between scarce resources.

By 2050, demand for resources is set to increase significantly as the global population grows to nine billion and becomes more prosperous. Global economic growth is being driven largely by emerging markets. Over the medium

term, the World Bank estimates economic growth of 6% in developing countries, compared to 2.7% in higher-income countries.

This is good news: the leap forward in quality of life for so many millions is something to celebrate. But this growth could be jeopardized by the resource challenge being felt across the world. The expanding population will need 70% more food, and growing and processing this food will increase water stress. The

Water Resources Group, of which SABMiller is a member, estimates that there could be about 40% shortfall between water demand and available freshwater supply by 2030.

Water, food and energy are interconnected. Agriculture accounts for about 70% of global freshwater use and can pollute freshwater supplies if mismanaged. Water is also used to generate electricity: in the USA, power generation accounts for about 50% of all

By reducing the amount of water SABMiller uses in brewing and packaging beer, it is then able to cut the amount of energy required for heating and cooling that water.

freshwater withdrawals, and drought in countries that use hydropower – Ethiopia and Ghana, for example – can lead to black-outs. Energy, in turn, is needed to fertilize and transport crops, which can themselves be used as biofuel to create energy. Large amounts of energy are also required to pump water to drier regions and, as water scarcity increases, so will the energy needed for technologies such as desalination.

Given these trade-offs and interactions, successfully addressing the triple challenge of water stress, food security and energy supplies means taking a holistic view and balancing the many competing demands.

We call this interconnected issue the water-food-energy nexus and it is a buzzword which is growing in popularity. If you were to search the programme at World Water Week in Stockholm held in August 2012, you would find 17 sessions containing the word ‘nexus’ – more seminars that a single person could possibly attend.

It's a good sign that policymakers, companies and non-governmental organizations are aware of and debating the interconnectedness of resources. But it is critical that there should be substance behind jargon. A nexus approach must result in positive action that enhances water, food and energy security for real people; or, at the very least, manages the trade-offs to minimize harm.

Forward-looking companies must assess not only the risks of mismanaging this resource nexus, but also understand and grasp the opportunities created by integrating resource-saving initiatives into long-term business plans.

And it's already happening – companies across food and beverage, consumer goods, chemicals, engineering and many other sectors are making great efficiency gains and targeting even more. And

Photo: SABMiller plc/OneReefEye.com



through setting these targets and considering how we will meet them, companies often find hidden value they hadn't realized was there – operating cost savings they might otherwise not have found.

At SABMiller, by reducing the water we use in brewing and packaging our beer we are then able to cut the amount of energy required for heating and cooling that water. We are also increasingly generating renewable energy from by-products of the brewing process, such as spent grain biogas captured during wastewater treatment.

Of course just doing this within our own operations is not enough – global

companies are now pushing these targets down into their supply chains – and this will have a big impact.

To improve resource efficiency in our supply chains the private sector needs support, particularly from governments. Companies can engage with suppliers and farmers directly, but to make a bigger shift will require resource scarcity to be priced into the cost of raw materials. For example, in agriculture, farmers use water for which they often pay very little, if anything, meaning that there is little economic incentive to grow more ‘crop per drop’.

To reach a point where resources are priced to reflect their scarcity, governments themselves need to work more effectively. Government departments work in silos – often with water, food and energy policy set with no or little regard to each other. An agriculture department may say they will double land under irrigation to maintain food security, whilst the water department says there is no more water available for irrigation and the energy departments might be promoting a huge biofuel plantation which will need irrigation. And climate change will mean there is less water available overall. All of those things cannot happen at once.

Governments must, therefore, become more connected – to use nexus thinking in order to help manage the inevitable trade-offs between scarce resources, and to create a firm basis from which markets are better able to understand their true value.

The nexus presents us all with an intimidating challenge. But the potential upsides are there for those organizations – whether they are .org .gov or .com – which approach it in a joined up way, to manage the trade-offs and reap the efficiency rewards.

● **Andy Wales is Senior Vice President, Sustainable Development, SABMiller plc, one of the world's leading brewers.**

HOT TOPIC

Fracking – yes or no?

Hydraulic fracturing, or ‘fracking’, has provoked debate around the world. While opponents have expressed concern over its potential environmental impacts, supporters claim it could be the answer to the world’s energy crisis. **Dr Doug Parr**, Greenpeace UK’s chief scientist and policy advisor, and **Nick Grealy**, director of No Hot Air energy consultancy, take on this issue’s hot topic.

Doug Parr

Firstly, there are concerns about the impact of fracking on local groundwater. There is a lot of concern about the impact of methane in the water, about exploding taps and contaminated groundwater, but the existing cases are not clear-cut in relation to causation by shale gas development. On the other hand, if you are in a place where groundwater is important to your local environment, if you use it for drinking and washing, then any contamination is a big deal. These concerns are understandable, given what that would do to health, wealth, property prices, etc. It could disrupt peoples’ lives. However, clear evidence is missing, mainly because there were no base-level comparisons of levels of methane in

“The main point is that shale gas is just making more fossil fuel than we should burn. As the International Energy Agency wrote, replacing coal with shale gas still triggers catastrophic climate change.”
Doug Parr

groundwater made before fracking went ahead.

The issue is not whether local issues *can* be managed, but whether they *will be* in the real world. While it may be technically feasible to address concerns about fracking, in reality it is doubtful that regulators will be sufficiently resourced. The impact over the life-cycle (of shale gas development) and the impact of leakage are not clear. This needs to be established before large-scale development goes ahead, and in this context we believe that a moratorium is justified.

Then, there is concern about the greenhouse gas impact of shale gas. Here it is mostly a question of leakage. In one of the only available pieces of research on this, researchers at the National Oceanic and Atmospheric Administration (a US federal agency) and the University of Colorado in Boulder estimate that natural gas producers are losing about 4% of their gas into the atmosphere. As they conclude, “because methane is some 25 times more efficient than carbon dioxide at trapping heat in the atmosphere, releases of that magnitude could effectively offset the environmental edge that natural gas is said to enjoy over other fossil fuels.” If you just feed gas into a power station, then clearly there is a benefit in using gas over coal, but the point is leakage. What is the overall impact on greenhouse gases? The argument that gas is better than coal is not very convincing.

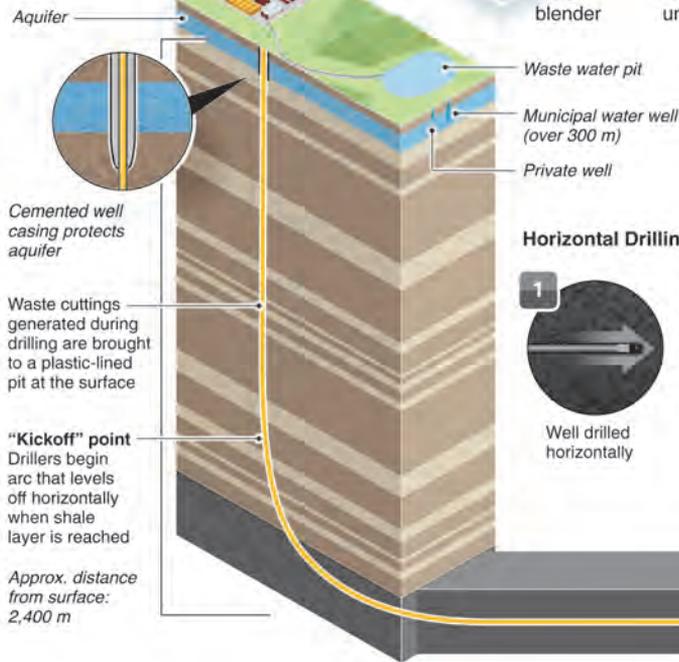
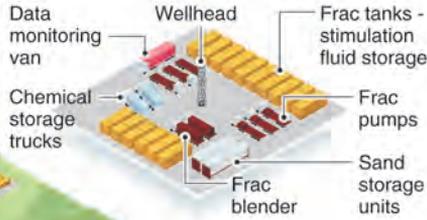
But the main point is that exploiting shale gas is just making more fossil fuel available, more than we should burn. As the International Energy Agency wrote in its recent report, *Golden Rules for a Golden Age of Gas*, replacing coal with shale gas still triggers catastrophic climate change. As another report concluded, “Conservation, wind, solar, nuclear power, and possibly carbon capture and storage appear to be able to achieve substantial

HYDRAULIC FRACTURING

THE PROCESS

Hydraulic fracturing, commonly known as fracking, is the creation of fractures in rock formations in the earth using pressurised fluid, generally for the purpose of extracting natural gas

Common Fracturing Equipment

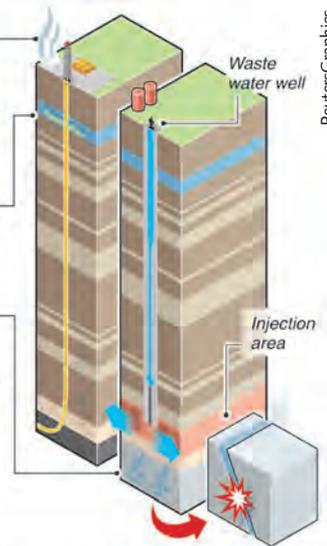


RISKS

Air emissions
Methane gas associated with natural gas extraction can leak into air

Drinking water
Chemicals used in fracking process have the potential to contaminate aquifers

Earthquakes
The disposal of waste fluid from the fracking process is cited as a cause of earthquakes. Disposed fluids migrate below the injection area, destabilising the natural fractures in the rock formation



ReutersGraphics

climate benefits in the second half of this century; however, natural gas cannot." Fracking and leakage are concerns but the broader picture is fossil fuels.

Gas is a transitional fuel, but there is a lot out there. The issue is what can the climate cope with? Shale gas makes the situation worse. Gas is useful in a decarbonization drive only in the presence of policy interventions to ensure it directly replaces coal. Unless there is a climate-friendly policy in force, shale gas will just add to the fossil fuel inventory.

Nick Grealy

There is no energy crisis. There is a climate crisis caused by coal. Solve coal and we solve the climate crisis. Natural gas is not perfect, but it is not perfectly evil either. It produces 50% less carbon than coal and 30% less carbon than oil. The estimated world reserves of shale gas are significant. The top reserve holders include China which has 36 trillion cubic metres, the United States with 24.4trn, Argentina with 22trn,

Mexico with 19trn and South Africa with 14trn.

Natural gas is part of the progression towards a carbon-free world. Renewables are an option, but not the option. In 2011, Germany produced more electricity from renewable sources than ever before – some 20% of the total, according to the chief executive of E.ON, the German electric utility company. So, how much less CO2 output? Answer: none! It was in fact 6 million tonnes more because more

HOT TOPIC

► coal was burned (following the decision to close six nuclear power plants after the Fukushima nuclear accidents – editor’s note).

As Lawrence Cathles, Cornell University professor of earth and atmospheric sciences, wrote, “From a greenhouse gas point of view, it would be better to replace coal electrical facilities with nuclear plants, wind farms and solar panels, but replacing them with natural gas stations will be faster, cheaper... Gas is a natural transition fuel that could represent the biggest stabilization wedge available to us.”

What we need is a sensible change away from dangerous, unhealthy, expensive and declining coal and oil. Analysis suggests that the emissions from shale gas generation are 2% to 10% lower than emissions from electricity generated from sources of conventional pipeline gas located outside of Europe (in Russia and Algeria), and 7% to 10% lower than that of electricity generated from liquefied natural gas imported into Europe.

Local, domestic shale gas is the low-carbon option!

Regarding fracking and its impact on water, extra water used for fracking is less than 0.20 of one percent (of the total), and that water does not have to be of drinking quality; the cost of water creates incentives to reduce consumption still further; and all water (for fracking) in Pennsylvania, for example, is recycled. As for methane leakage, well, of course the gas industry doesn’t want its product escaping into the atmosphere. It doesn’t want to lose its product.

As for the chemicals used in fracking,

“Natural gas is not perfect, but it is not perfectly evil either. It produces 50% less carbon than coal and 30% less carbon than oil.”

Nick Grealy

these can be and must be publicly revealed. The use of food grade chemicals will be the norm going forward.

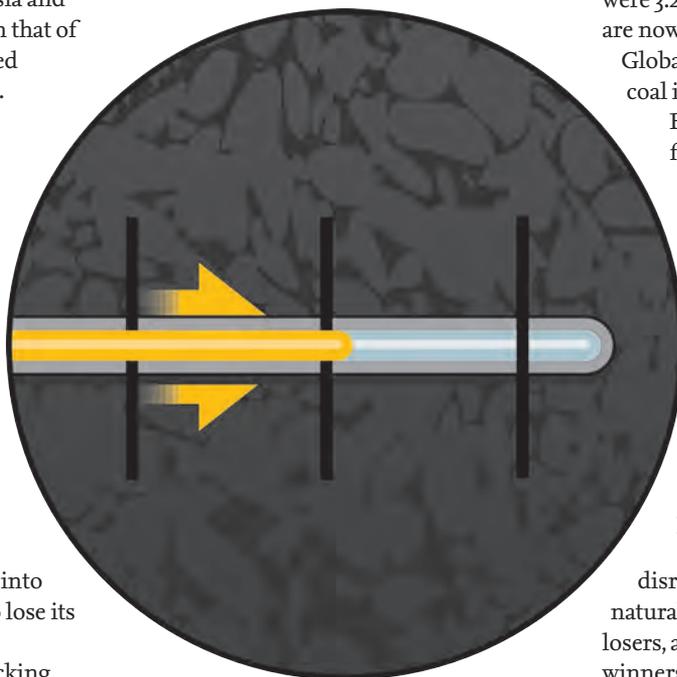
Regarding your concerns about the lack of effective regulation, in January 2012, the European Commission published a study on the licensing and permitting procedures for shale gas projects. Based on a sample of four member states – France, Germany, Poland and Sweden – the study concluded that there are no significant gaps in coverage in the current European Union legislative framework, at least for regulating the current level of shale gas activities.

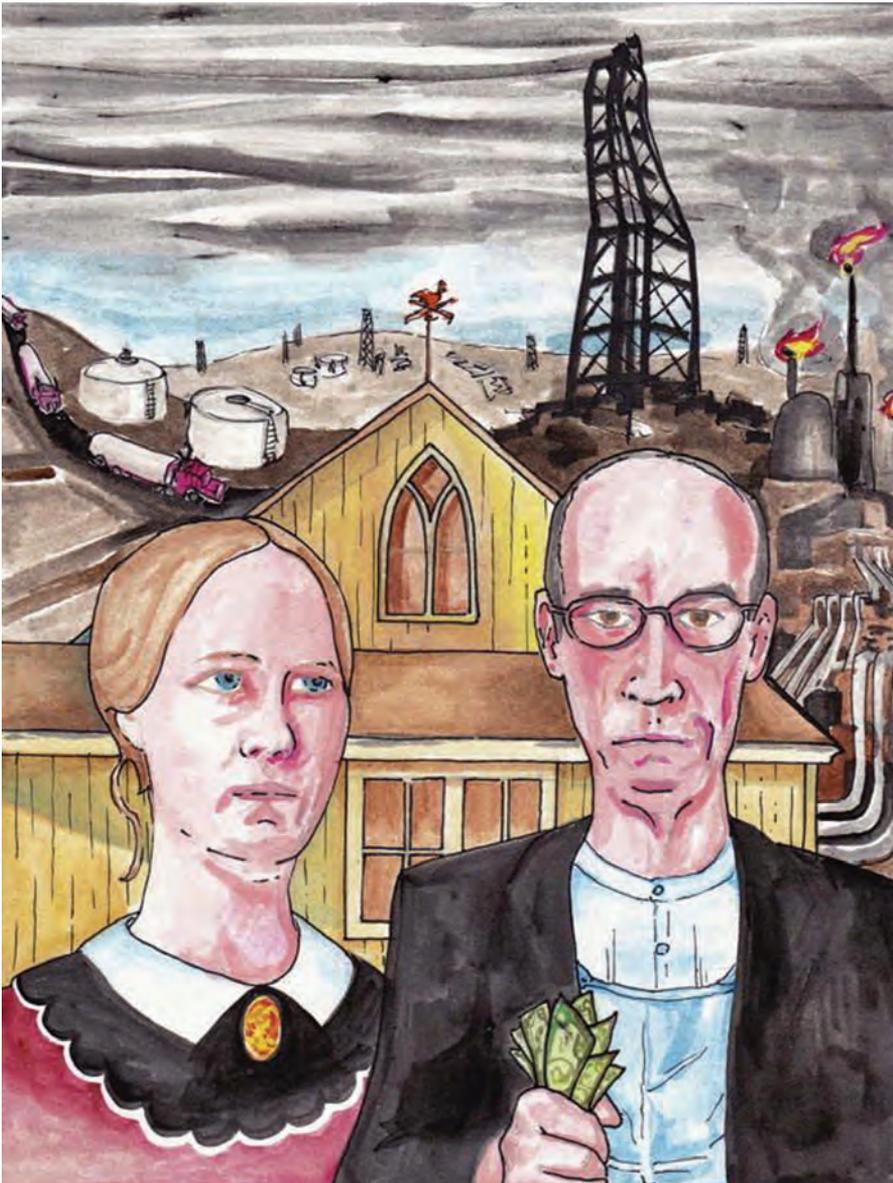
As the *New York Times* recently wrote, “Switching to natural gas is not going to solve climate change, but a gas-fired power plant emits only half as much carbon dioxide as a coal-fired plant, and this is no time to squander any advantage. Two weeks ago, the International Energy Agency announced that atmospheric concentrations of carbon dioxide in 2011 were 3.2% higher than the year before, and are now at record levels.”

Global substitution of natural gas for coal is the solution.

By opposing natural gas and fracking, the environmental movement risks marginalizing itself. Energy progress is also about progressive politics, a movement towards a saner, smarter and kinder world. Energy use is often a regressive tax on the poor, stealing resources from education, health, public transport and the rest of the progressive agenda. Natural gas provides a realistic path towards the future.

Natural gas is a revolutionary and disruptive technology that will naturally produce a small minority of losers, as well as the 99% who will be winners. The green movement needs to





“American Gasland”. Grant Wood’s original painting titled, “American Gothic”, depicted traditional rural USA in past times. “American Gasland” cautions that the future of rural USA is threatened by the gas industry’s “rush to frack”. Image made by River Side, courtesy of Marcellus Outreach Butler.

work through the current cycle of ignorance, denial and anger towards natural gas.

Doug Parr

It seems to me that you are saying we can live with a more than two degree temperature rise and that the revenues from shale gas are going to make that OK. I think the flaw with that is that you don’t address how the politics are going to work. If the poor and marginalized in developing countries are going to benefit from the revenues from shale gas, then you have got to establish a mechanism. You are advocating the short-term benefits of gas, but also advocating a set of political changes that are frankly unachievable in order to deliver the benefits.

Regarding coal, I completely agree that coal is the enemy but eliminating coal requires different approaches in different places.

Nick Grealy

This is a global situation, a global problem and natural gas will provide a global solution. Renewables and natural gas can and will exist together for a long time.

The savings that we can get from natural gas in the short-term can be used for research and development for the technologies that are going to work in the future. I am a great believer in enhanced solar but we have got to solve energy storage. Once we solve energy storage, then it is the end of carbon.

● The above is an abridged and edited transcript of the 2degrees debate/webinar, “Is fracking the answer to the energy crisis?” held on 27 September 2012. 2degrees is a business community for driving growth, efficiency and profit through sustainability.

trends



■ Although they expect tougher market conditions ahead, the managers of small and medium-sized enterprises (SMEs) in emerging markets are confident about the outlook for their firms. The Economist Intelligence Unit surveyed over 530 managers of SMEs across five emerging economies – Brazil, China, India, Mexico and Russia. The results, published in the article, *Emerging markets: SMEs capture growth in*

expanding markets, show that 60% of senior executives at SMEs in these emerging economies believe the overall business environment has become much more difficult over the past three years. Furthermore, about 65% expect the business environment to become much more difficult over the next three years. Despite widespread expectations that economic conditions will worsen,

managers in emerging markets appear confident about the prospects for their own firms in the next 12 months. Fully 78% of survey respondents say they expect their turnover to increase during that time. A further signal of confidence among managers is that 72% of executives expect to boost their company's workforce in the next 12 months.

When asked their top business priorities in the next 12 months,

55% of participants in the survey indicated that growing sales and earnings is a priority. For many SMEs, achieving growth appears to be a perennial business objective. One possible explanation is that, because small businesses are more likely to fail than large ones, managers continuously prioritize the pursuit of greater scale in order to safeguard the firm's survival. This may explain why SME managers are so confident of their firms' own growth prospects, even while they expect worsening economic conditions in general.

BUSINESS MATTERS

Green rankings

A comparison of the world's largest 500 companies conducted by *Newsweek* finds that finance and information technology companies are among the most environmentally friendly. *Newsweek's* fourth annual *Green Rankings*, published in October 2012, compares the largest publicly traded companies based on their performance in three areas: their total environmental footprint, their sustainability programmes and policies, and the efficacy of their reporting and transparency.

Companies are ranked by their overall green score, which is derived from three components: environmental impact score (45%), environmental management score (45%), and disclosure score (10%).

The environmental impact score factors in more than 700 metrics, including emissions of nine key greenhouse gases, water use, solid-waste disposal and emissions that contribute to acid rain and smog.

The environmental management score is derived from analysis of the quality of each company's environmental policies, programmes, targets and initiatives in relation to its operations, suppliers and contractors, as well as its products and services.

The disclosure score evaluates the adequacy, completeness, and quality of company sustainability reporting, including measurement and disclosure of environmental impacts and involvement in key transparency initiatives, such as the Global Reporting Initiative and the Carbon Disclosure Project.

Green Rankings notes that the top ranked company, Santander

Brasil, requires prospective clients to complete a questionnaire about their environmental practices. The bank guides those whose answers raise 'red flags' towards more sustainable practices before approving loans or lines of credit.

Wipro, the Indian IT services company ranked second in the list, plans to convert five of its campuses into "biodiversity zones" by 2015, and its flagship data centre in North Carolina, USA, has recently been awarded LEED Gold certification, the highest rating for the design, construction and operation of high-performance green buildings.



Small farmers, big business

Rural economies in developing countries need to be strengthened in order to meet the challenges of the population explosion, climate change, water scarcity and competition from non-food crops. Promoting value chains is an effective tool but this requires private sector investment and engagement. How to achieve this was the subject of a high-level panel discussion forming part of the 2012 European Development Days event, hosted by the European Commission, in Brussels, Belgium, in October.

Small Farmers, Big Business?
Engaging the Private Sector in

- 1 Santander Brasil (Brazil) – Financials
- 2 Wipro (India) – Information technology and services
- 3 Bradesco (Brazil) – Financials
- 4 IBM (United States) – Information technology and services
- 5 National Australia Bank (Australia) – Financials
- 6 BT Group (United Kingdom) – Telecommunications
- 7 Munich Re (Germany) – Financials
- 8 SAP (Germany) – Information technology and services
- 9 KPN (Netherlands) – Telecommunications
- 10 Marks & Spencer Group (United Kingdom) – Retailers

Besides growing sales and earnings, another top business priority for managers of SMEs is improving efficiency. Gains in efficiency can lead the way to earnings growth, of course, even in the best of times. But now, rising wage costs and relatively high commodities prices are among the factors making improved efficiency a particular priority. (Economist Intelligence Unit)

■ Drawing on a number of lists ranking both sustainability and innovation leaders, Deloitte Consulting LLP analyzed the

relationship between the two and came to the following conclusion: sustainability drives innovation, and it does so in a big way. When Deloitte averaged across multiple lists (to confirm the consistency of the results), the outcome was the same – sustainability leaders are more than 400% more likely to be considered innovation leaders.

The evidence supports the idea that sustainability leadership causes innovation leadership, but why are we seeing such a strong link from sustainability to innovation? Deloitte believes that

sustainability can provide a different ‘lens’ for thinking: it helps companies to think differently, either thinking about different subjects (e.g., emissions) or thinking differently about existing subjects (e.g., thinking about supply chain from the perspective of making suppliers more sustainable). (Deloitte Consulting LLP)

■ Despite a number of government-led and industry-specific initiatives to simplify the process, companies around the world are still struggling to get a grip on their supply chains,

according to a recent report. In the Business for Social Responsibility/Globescan *State of Sustainable Business Poll 2012* nearly 42% of the more than 550 professionals polled said ensuring their suppliers followed sustainable practices was the greatest obstacle to achieving their climate sustainability goals. The result indicates the challenge faced by companies as they attempt to bridge the gap between suppliers simply filling out disclosure forms and actively reducing their carbon footprint. (GreenBiz.com)



Photos: © European Union

Sustainable Agricultural Development, was jointly organized by the United Nations Industrial Development Organization (UNIDO), German International Cooperation (GIZ), the Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP/PIP) and SNV Netherlands Development Organization.

The panel discussion was the opportunity for an in-depth exchange of views and ideas between representatives of the public and private sectors, and development agencies involved in sustainable agriculture, value chains, and smallholder support programmes. Panellists considered what needs to be done to ensure poorer producers and workers benefit from participation in local, regional

Left to right: Hans-Jürgen Matern, Metro Group, Kristian Schmidt, European Commission and Apollo Owuor, Kenya Horticultural Exporters.

and global value chains, and identified key messages for donors, governments and companies.

One of the participants, Apollo Owuor, Director of Agriculture and Corporate Affairs at Kenya Horticultural Exporters, said, “Aligned partnership with some of our customers in Europe has given us the leverage to be able to give opportunities to most smallholders to participate in the supply chain, and that is pretty much why our business is becoming very successful.”

Hans-Jürgen Matern, Head of Sustainability and Regulatory Affairs at Metro Group, the

world’s fifth-largest retailer, which works with UNIDO in the framework of the Sustainable Supplier Development Programme, said, “As a retailer, we need hundreds of products but a lower volume than some of our competitors. So, we want to be close to the producer. Many of them have high-quality standards, but not all of them. So, we need to help them produce what the consumers want. And we also exclude the middle man, who does not care about quality.”

During the discussion, a representative of the European Commission declared that it is keen to promote equal power relations between smallholder farmers and the private sector in developing countries. Kristian Schmidt, Director of the European Commission’s Human

Development Department in the Directorate-General for Development and Cooperation, said, “We agree that the private sector needs to play a strong role here... We will make sure, with our support to African farmers’ associations, that there is an equal power relationship between the private sector and farmers.”

Summing up, Tanja Gönner, Chair of the Management Board of GIZ, said, “Supporting value chains between small farmers and big business requires networking between small farmers organizations and the private sector, governmental organizations and development partners; and it requires openness to mutual learning processes and applied research at national and local level.”



Pathways of South-South cooperation

Michelle Morais de Sá e Silva outlines the ups and downs of South-South cooperation, as well as the factors that have contributed to its powerful resurgence in recent years.

To use the expression coined by Arturo Escobar, it can be argued that it all started with the “making of the Third World”. US President, Harry Truman, in his 1949 speech about the “underdeveloped regions of the world” and the need to assist them (most likely against communism), formally created a construct that lumped together all countries that were neither industrialized nor socialist. If that made the “Third World” a very heterogeneous group of countries, it also gave them a common identity.

They were countries that were struggling to overcome their colonial heritage and were being pressed to take sides in the Cold War. The understanding of their common interests and of the mutual benefits of cooperation was the seed for the creation of institutional frameworks for South-South Cooperation, such as the Non-Aligned Movement and the Group of 77 (G77).

Non-Aligned Movement and the G77

As developing countries realized that they were better off acting together rather than being allies of either of the superpowers, South-South cooperation emerged as a practice in the international political arena. Both the Non-Aligned Movement and the G77 were instances of joint political mobilization and collective bargaining, wherein propositions such as a “new international economic order” were advanced.

Although this initial period lasted for more than 30 years, it did not yield the sort of economic self-reliance and political independence that developing countries had sought. As the two oil crises of the 1970s led to a sub-

stantial rise in international interest rates, most developing countries entered the 1980s swamped by foreign debt and suffering from high inflation.

The “debt crisis” significantly reduced mutual cooperation efforts between countries of the South and made them very inward-looking. That was a period of demobilization in the history of South-South cooperation, and it lasted for another 20 years.

Developing countries’ priorities became the fulfillment of a to-do list prescribed by the international financial institutions upon which they depended for external funding. Structural adjustment in the 1980s and early 1990s was followed by a central concern about how to deal with its consequences, such as increased poverty and inequality, the dismantling of social services and the increasingly uncontrollable movement of international financial flows. The latter factor contributed ➤

MICHELLE MORAIS DE SÁ E SILVA is the Coordinator-General of International Cooperation at Brazil’s Secretariat for Human Rights. A version of the above was first published by the International Policy Centre for Inclusive Growth.



Photo: istock

“As developing countries realized that they were better off acting together rather than being allies of either of the superpowers, South-South cooperation emerged.”

► to severe financial crises in Argentina, Brazil, Mexico, South-east Asia, and Russia in the late 1990s.

End of the Cold War

The precursors of a re-emergence from this period of gloom can be found in the revitalization of multilateralism that followed the end of the Cold War and the series of international conferences that were organized during the 1990s.

After decades of separation and antagonism between East and West, the 1990s saw the re-birth of global international cooperation. The provision and development of such cooperation, however, was still very much dominated by the North and basically involved assistance or “aid” from the North to the South. It was still a prescriptive kind of cooperation, based on the experiences of the North and the mainstream theories developed there.

Only in the new century was South-South

“The ‘debt crisis’ significantly reduced mutual cooperation efforts between countries of the South.”

cooperation to embark on a new and third phase in its development. It is now a “buzz word” in development. Several factors contributed to that circumstance.

First, the joint commitment to achieving the Millennium Development Goals (MDGs) by 2015 created a sense of urgency concerning the problems of the South.

Second, there was much disappointment with the mainstream models of development cooperation, which at the time mostly meant North-South cooperation. After decades of multilateral and bilateral aid and technical cooperation, development had still not materialized for an important share of the world’s population. Hence, there was, and still is, a desire for a new and more effective model.

IBSA and BRICS

Third, at the beginning of the 21st century some developing countries showed signs of economic recovery and of having made social gains, which made them potential role models for the rest of the developing world. Examples include Brazil, India, Mexico and South Africa, which became strong political leaders in their regions. The realization of their individual strength led those “emerging economies” to join forces, forming plurilateral blocs such as IBSA, composed of India, Brazil and South Africa, which is a formal trilateral initiative dating from 2003.

Informally, the expression “BRIC countries” (Brazil, Russia, India and China) also became widely known and was used to repre-

Yechang Wang, a Chinese electronic engineer who arrived in Nigeria 15 years ago, directs the production line of the Newbisco factory in Lagos, where 70 tons of biscuits are produced daily. The factory, built by the British in the 1960s, went bankrupt and was profitably re-launched by Chinese investors in 2001.



Photo: Paolo Woods/INSTITUTE

sent the group of fast-growing developing economies. (The BRIC grouping's first formal summit took place in June 2009, and in late 2010, South Africa joined, giving the group a new name: BRICS.)

At the multilateral level, the G20 bloc of developing countries (not to be confused with the other G20, which comprises the world's 19 largest economies plus the European Union) is an exemplary case. In the framework of the multilateral negotiations of the World Trade Organization, specifically the Doha Round, the G20 group of developing countries united to negotiate issues, such as the reduction of agricultural subsidies.

Interestingly, these groups were followed by more "alternative" South-South blocs, such as the Bolivarian Alliance for the Americas (ALBA) and, to some extent, the Union of South American Nations (UNASUR).

The third and current phase of South-South cooperation, therefore, has shown some inter-

esting features. On the one hand, it retains some attributes of the first phase, such as its role as a tool for the political strengthening of the South. On the other hand, the current phase has added new energy, new actors and new practices to South-South cooperation. It is no longer limited to the fields of trade and industrial development, but has expanded to sectors such as education, health and social protection.

Expanded agenda

This expansion has been strongly supported – and financed – by international organizations and bilateral agencies, which have served as important bridges for the exchange of experiences among countries of the South. Naturally, international organizations and bilateral development agencies have their own interests in this process. One such interest is to improve their own effectiveness in delivering development cooperation, since it is hoped that South-South cooperation will be

better placed to improve social indicators in various developing countries, especially as regards progress towards the MDGs. Second, South-South cooperation helps international organizations and bilateral development agencies redefine their role and mission in emerging economies, which are now less dependent on foreign funding and technical assistance.

There have been two important consequences of this expansion of the South-South cooperation agenda and the pool of practitioners. The first is an attempt to promote South-South learning with regard to social policies and programmes. Most of the existing experiences have centred on the transfer of "best-practice" programmes from one country of the South to another. A second important consequence has been the upsurge in enthusiasm for South-South cooperation, leading to its inclusion on many countries' foreign policy agendas, in the strategic planning of various organizations, and in the research agendas of some scholars.

In times of global economic crisis

For South-South cooperation, the current moment of global economic downturn is one of anxiety. As countries of the South start facing the domino effect of financial and economic crises in the North, **Michelle Morais de Sá e Silva** asks what will become of South-South cooperation.

One of the possible scenarios is that of doom. As economies shrink and costs have to be cut, it is very likely that developed countries will reduce their official development assistance (ODA). Why would South-South cooperation suffer from falls in ODA? Is the cooperation not between countries of the South? In theory, yes, but in practice South-South cooperation projects have been increasingly funded by so-called triangulation initiatives. Under triangulation, a developed country funds cooperation projects between two or more developing countries. Japan, for instance, has led the developed world in funding triangulation. Another example is the United Kingdom's support for a

cooperation programme on social development between African and Latin American countries.

The distribution of ODA among different sectors may also change. ODA will go to temper the damage done to economies as a result of reduced consumption in the North. Social sectors will most likely be at the end of the priority list. The resources allocated for triangulation by developed countries are also likely to be reduced.

Another possibility is that even those countries that have been hit by the crisis may engineer some creative solutions to share with their peers. For instance, in Brazil, creative social programmes, such as Bolsa Família (Family Fund) and the

national HIV/AIDS initiative, indicate the country's accumulated human capital and institutional capacity. The current crisis may pave the way for new solutions, which later could be shared with other countries of the South.

Regardless of which scenario prevails, the bottom line is that developing countries have learned that they can turn to each other for assistance and mutual learning. That cannot be erased by the current crisis. If anything, it will be reinforced, since industrialized nations will be too busy fixing their own problems and developing countries may be left on their own. If that holds true, South-South cooperation is here to stay.

Precious Molobane Mamogale, 42 years old and a mother of four children, is from a village around 500km from Johannesburg, South Africa. She was a member of one of a number of small groups of women from countries across Africa who travelled to India in September 2011 to receive training at the Barefoot College. Six months later, she emerged as full-fledged, trained solar technician, ready to return home to electrify her home village for the first time.

“I want to go back to my country and bring light to my province – and want to open a college like this there, so that I can train more women,” she explained as she reflected on her experience at the end of her training in Tilonia, a small town in the state of Rajasthan.

Another participant, Stella, a grandmother from a village in Malawi, said, “I never imagined that technical knowledge like this would be open to women who were illiterates, like us. But coming to Tilonia has given us this confidence that we can learn about new things and make our lives better.”

The Barefoot College in Tilonia was established in 1972, and since then has been providing basic services and solutions to problems in rural communities, with the objective of making them self-sufficient and sustainable.

As the school’s founder, Bunker Roy, explained in his 2011 TEDTalk, Learning from a barefoot movement, “The College teaches rural women and men – many of them illiterate – to become engineers, artisans and doctors. There are only two rules for enrolment – you must be poor to attend and you must take your learning home to your village.”

Roy says his low-cost, community-driven approach “capitalizes on the resources already present in the villages.” The college’s ‘barefoot solutions’ can be broadly categorized into water, education, health care, rural handicrafts, people’s action, communications, women’s empowerment, and wasteland development, but perhaps the most dramatic of all is the programme to empower marginalized women across the world and help them start to drive their local green economies.

The programme, running since 2004, teaches solar engineering skills to illiterate older women from rural communities – a particularly vulnerable group worldwide – before equipping them with solar lamp kits to assemble and install in their own and nearby villages.

Any woman over the age of 35 from a remote, inaccessible, non-electrified area can enrol for the international course, provided

The Barefoot College in western India is training illiterate or semi-literate women from all over the world to be solar engineers. *Making It* investigates how this form of South-South cooperation is making renewable energy technology and knowledge accessible, and at the same time, helping to reduce poverty.

The ‘barefoot’ solar engineers



Photo: UN Women/Gaganjit Singh



Photo: Barefoot Photographers of Tilonia

she is backed by her village. As Roy says: “It makes sense to choose women, especially older women, as they are more loyal to their roots and less impatient to try out new pastures, which men are wont to do as soon as they are given a certificate.”

Between 2004 and 2009, 141 women from 21 countries in Africa received six months of training at the Barefoot College, learning how to construct charge controllers and inverters, fabricate circuit boards, carry out testing and wiring, and install repair and maintain solar panels and solar lanterns. The women learn by listening and memorizing, using colour-coded charts that help them to remember the permutation and combination of the wires without needing to read or write.

Each woman participating in the training course is selected or nominated by their local community, and supported by a variety of local and international organizations, and in some cases, by their governments. The success of the scheme has led to support being provided to participants in the form of Indian Technical and Economic Cooperation grants from the Indian government’s min-

Photo: Barefoot Photographers of Tilonia



Photo: Barefoot Photographers of Tilonia



Photo: Barefoot Photographers of Tilonia



Photo: UN Women/Gaganjit Singh

istry of external affairs, as part of its South-South cooperation programme. In recent years, the programme has been extended to include dozens of women from Afghanistan, Bhutan, Bolivia, Colombia, Guatemala and Jordan.

UN Women is also now supporting the programme. Another 25 women from countries in Africa completed the training course in March 2012 and, in September, ten women from Fiji graduated.

On their return to their home countries, the women have the potential to light up their communities with solar energy, using equipment that is sent by the College even before they themselves leave Tilonia. Follow-up records maintained at the Barefoot College reveal several notable success stories. Fatuma Ababker Ibrahim, from Beyahile village in the Afar region of Ethiopia, returned to her village to install 90 fixed solar units, and also helped start a rural electronic workshop in her village. Gul Zaman, a 26-year old from Afghanistan, came to Tilonia with her husband. They returned to their community to provide solar electricity to around 50 houses.



Barefoot Photographers of Tilonia



Photo: UN Women/Gaganjit Singh

Those women who decide to use their training as a means of generating income are encouraged to develop the Barefoot College model, whereby local households pay a monthly fee, based on how much they would have spent on kerosene, batteries, wood and candles, and in return get solar energy set-ups installed and maintained. Some of the money goes towards the solar engineer's monthly stipend, while the rest pays for components and spare parts.

The impact of the programme is being amplified by bilateral programmes between India and the solar engineers' national governments. The idea is to establish vocational training centres where the returning solar engineers will impart their knowledge to local people, creating a snowball effect.

For example, the government of India is helping its counterpart in Liberia to set up five vocational training centres to take advantage of the skills acquired by the eight women who returned from the Barefoot College in March 2012.

In October 2012, Jiko Luveni, Fiji's minister of social welfare, women and poverty alleviation, announced a partnership with the Barefoot College and the Indian High Commission to establish a regional training centre in Fiji. Luveni said, "This initiative will see more women in Fiji and the Pacific being trained as solar engineers," adding that, once the centre is established, Fiji's 10 solar engineers will provide training not only in solar electrification, but also in building solar-powered desalination plants.

A similar scheme is already underway in the village of Konta Line in the Port Loko district of Sierra Leone, where the national government has invested in the establishment of college to provide four-month residential training courses in solar engineering for 50 students. Training is being provided by the 12 women who returned from India in 2011. Around 1,500 household solar units will be installed by the newly-trained engineers but Nancy Kanu, who was trained in India, is already thinking bigger. "Once these units are installed, I think we'll need an investor to manufacture solar units here to make them affordable for everyone. There's nothing we can't learn now to make our lives better. We have the power to change our villages."

The Barefoot College international training programme is a shining example of what can be achieved by South-South cooperation. The question must be why can't the Barefoot College approach be scaled up across the developing world?

We asked seven experts:

**WHAT
IMP
WILL THE RISE...**



ACT

...of the emerging economies in the South have on South-South cooperation, particularly in regard to the often made assumption that economic interactions between countries of the South are more beneficial than those between the North and the South





JAYATI GHOSH is professor of economics at Jawaharlal Nehru University, New Delhi, and the executive secretary of International Development Economics Associates. She is co-chair of the Triple Crisis blog: global perspectives on finance, development and environment.

As some emerging countries of the Global South grow rapidly and increase in significance, there are growing allegations – mostly to be found in the Northern media it is true, but not confined to them – that these countries are increasingly developing a neo-colonial

relationship with poorer and resource-rich developing countries. Thus, it is argued that the growing trade and investment links of (particularly) China and India with poorer developing countries seek to exploit the natural resource base of these countries, siphoning it off in ways that are ecologically damaging, inherently unequal and of little benefit to the local people. Moreover, cheaper exports from these semi-industrial countries undermine the competitiveness of local production in the poorer countries, thereby causing further shifts into primary commodity exporting and stunting their development process.

So, China is said to be dumping its products in economies across the world, and using the resulting foreign exchange surpluses to invest in and provide aid to authoritarian regimes that allow access to natural resources. Similarly, Indian corporate investors are said to be engaged in large-scale land-grab in countries of North Africa and predatory behaviour elsewhere.

The reality is obviously more complex. Even in the worst-case scenario, primary exporting countries are still better off with increased competition among importers, if this allows for better terms of trade. In any case the rise of these

two economies (along with Russia, Brazil, Malaysia and South Africa, for example) creates opportunities for the rest of the developing world, particularly by providing an important source of demand, even as developed countries are increasingly mired in financial crisis and economic stagnation.

Of course, it is true that much of the cross-border economic interaction has been driven by corporate interests rather than broader interests of the citizenry in general. This explains why so many recent South-South trade and investment agreements (and the resulting processes) have been similar in unfortunate ways to North-South ones, not just in terms of the protection they afford to corporate investors but even in guarding intellectual property rights! To the extent that companies everywhere have similar interests (the pursuit of their own profits), it is not surprising that older North-South patterns are replicated.

To change things in a progressive direction requires a shift in orientation of such South-South interaction. The focus should be to democratize the interaction itself, to work out the ways in which the patterns of trade and investment flows can be altered to emphasize the creation of decent employment in all these countries. There are also immense possibilities for technology sharing and even coordinating technology development in a world where intellectual property rights, still largely controlled by Northern multinational companies, have emerged as a major constraint on development.

The Euro-zone continues to struggle and has yet to find a way out of its financial woes, and growth across the industrialized countries remains slow. For many developing and emerging economies, this means that exports to their traditional markets are flat and, in some cases, even declining.

All is not grim, however, and there are bright spots – particularly in the trade between developing and emerging countries, so-called South-South trade.

But South-South trade is not without its drawbacks and risks. The trade is largely driven by a few countries – the so-called “Emerging 7” – and, for now, by a limited number of commodities. For South-South trade to become sustainable, it will require investments in new capabilities, trade facilitation measures, infrastructure and trade finance. But the expansion of these growth markets has the potential to revolutionize world markets in the same way that trade between developed nations revolutionized markets in the 1950s and 1960s.

A recently published International Trade Centre study, *Africa’s Trade Potential: Export Opportunities in Growth Markets*, finds that, based on current trends, a reorientation of sub-Saharan African (SSA) exports is already taking place: it forecast an annual increase of up to 14% of SSA to Asia for the next decade. But, while this sounds impressive, this growth is chiefly down to the increase of exports of commodities rather than value-added processed goods, which make up only 5% of exports to Asia.

To increase value-added exports to Asia and Latin America, though, African countries need to attract investment from these regions, not only in extractive industries, but also in manufacturing and services. The value addition in African exports will be a natural consequence of this change.

For South-South trade to truly flourish, more must be done to integrate small and medium-sized enterprises (SMEs) into regional trade. This requires an improvement in the business environment through harmonized rules and standards, improved logistics and connectivity. Only then can SMEs feed into the global supply chain of larger companies.

More must be gained from South-South trade than what has been the case for North-South trade. The South must become a real partner rather than a bystander in the process. Trade benefits everyone but there is a need for a new model, one that breaks the cycle of dependency, is inclusive of women and the poor, and creates real and long-lasting South-South partnerships.



PATRICIA FRANCIS is the Executive Director of the International Trade Centre, a subsidiary organization of the World Trade Organization and UNCTAD, helping developing and transition economies to promote their exports.



RICARDO MELÉNDEZ-ORTIZ is Chief Executive of the International Centre for Trade and Sustainable Development. Previously, he was General Director of the Fundación Futuro Latinoamericano.

The landscape and geography of the global economy and of international trade has dramatically changed and continues to do so as a consequence of new growth champions in the developing world, particularly China. Generally speaking, barriers to trade remain higher in non-OECD countries (commonly referred to as the South), and there’s much to gain from further integration of these economies into global markets.

The ongoing downturn and recession in the developed world is further inducing intensification of South-South trade and an ensuing diversification in the organization of production across multiple jurisdictions, investment flows and growth opportunities. The evolution of investment and of the geography of international value and supply

► chains offers a similar picture of the rapid expansion of South-South economic interdependence.

While this in itself is cause for celebration, caution must be applied in order to ensure that deepening South-South economic cooperation works for sustainable development. It's not necessarily guaranteed that these critical shifts will indeed lead to higher environmental and social progress. For starters, evidence already shows that the dynamism in demand growth, changes in consumption patterns, and the demographics of leading South economies, play a powerful transformative role in their economic partners that could – in some cases – actually be to the latter's detriment. These unintended negative consequences are likely to be of a larger scale if domestic and international policy frameworks are not nimbly adapted. To avoid such problems, active policies must be designed to ensure that those on the losing end of this adjustment are absorbed into the services and manufacturing sectors. In this, however, a challenging balance will need to be struck among the many Southern countries that are competing at similar levels of value chains. Innovation, technology development and transfer and productive outward investment would need to be further emphasized in South-South cooperation. South-South trade would be more beneficial if not lopsided with reliance on commodity exports from poorer countries and value-added exports from more advanced ones.

Beyond the obvious economic benefits, South-South cooperation will only make a difference if it not only inherently, but explicitly, involves sensitivities to development challenges, and is capable of generating the mechanisms, frameworks and policies to enable effective responses to them.



CANDICE MOORE is a lecturer in the Department of Politics at the University of Johannesburg, South Africa. Her research focuses on the foreign policies of emerging states, mainly South Africa and Brazil.

In order to gauge the extent of the qualitative and quantitative differences in South-South cooperation over North-South cooperation, both the direction and target of South-South cooperation must be analyzed. It is not enough to look at increased transactions; it is also necessary to examine whether those economies that start off worse off, end up better off, and whether investments and aid are channelled to productive sectors and not only social sectors of the economy. It should not be forgotten that South-South cooperation predates the rise of the emerging economies, and so the specific impact of the states in question will be based on the size of their involvement and its results. At present, the South's contribution of aid to Africa, for example, is still negligible, if hard to quantify. Yet the impacts in certain countries, such as Zimbabwe and Sudan, of aid and other assistance from China, for example, have been well-publicised. Similarly, in the trade sector, non-OECD countries' share of Africa's trade has ballooned over the last decade, growing from 26% in 2000 to 39% in 2009. This is substantial growth, but is still outpaced by trade with traditional (Northern) partners.

Forecasting the impact of the rise of dynamic economies in the Global South on fellow Southern economies is an imprecise task. While the rhetoric of solidarity and anti-imperialism may continue to accompany new South-South partnerships, this rhetoric is unlikely to affect the economic and business fundamentals of South-South transactions – the emerging economies seek markets and investment opportunities, and not merely altruistic ends. This said there are different forms of South-South cooperation, ranging from trade and investment to aid. Ultimately the impact of the emerging economies on South-South cooperation will heighten competition – for influence, contracts and resources - within the sector. This could be a positive outcome, but only if less-developed Southern states develop the institutions, whether nationally or regionally, to negotiate better outcomes.

The key differences between North-South cooperation and the cooperation between countries of the South lie in first, the approach to the relationship itself, and second, the distance between the state of development of countries in the North and the South.

The first point emphasizes the difference between a donor-recipient relationship and that between two collaborators that have a more equal and mutually dependent relationship – which translates into a relationship of greater understanding and therefore, maybe, is more respectful of the rights of both parties.

The second difference lies in the underlying understanding of the differing contexts – socio-economic, regulatory and technological – between developed and developing countries. Compared to their parents, the current generation of politicians and other stakeholders engaged in international cooperation activities is further removed from poverty and deprivation, and therefore finds it harder to empathize with what is, possibly rightly, perceived as dysfunctional systems in the countries of the South. As such, the provision or imposition of solutions designed for utterly different developed country contexts into developing country contexts would lead to frustration on both sides.

On the other hand, it is a fact that the emerging

economies of the South still have large parts of their countries and populace mimicking the Least Developed Countries. These populations/regions share a lot – culturally, economically and technologically – with the countries lower down on the development scale. As such, the development of solutions by the technically advanced groups in the emerging economies for the poorer regions, even within their own countries, through a much closer – spatially and dynamically – understanding and observation of implementation challenges, offers greater promise of adaptation and success.

Conversely, the more developed, or emerging, economies of the South have a limited experience with aligning their investment and development efforts with the needs of their poorer counterparts. Additionally, the lack of surplus public funds would severely constrain a response to the developmental challenges of other southern countries. Therefore, to realize the potential of South-South cooperation fully, it is extremely important to leverage the developmental commitments of the North – not only in terms of financial commitments but equally importantly in adapting “state-of-the-art” knowledge and institutional frameworks to the solving of challenges in the countries of the South. North-South-South cooperation is the way for the future.



LEENA SRIVASTAVA is the Executive Director of The Energy and Resources Institute (TERI), New Delhi, an independent, not-for-profit research institution, working in the areas of energy, environment and sustainable development.

WHAT IMPACT?

The proclamation, especially in some developed country circles and research institutes, of the “rise of the South” is premature. The per capita incomes of the leading developing countries are still only a quarter or less of those of industrialized countries. Much has been made of increased trade among the countries of the South, but much of it consists of intermediate components to be used in assembling goods destined for markets in the North. Only when the developing countries begin to trade with and invest in each other’s economies, in the way that developed countries do, will we know that a structural shift has occurred.

A positive development is developing countries’ growing recognition of the need to re-channel the increased trade and investment flows between them towards their own development requirements. Increases in North-South trade have not necessarily increased domestic value-added in developing countries. Can a different kind of pattern of trade and investment among economies in the South be more development-oriented?

Several studies suggest that preferential trade arrangements (PTAs) among the developing countries are more conducive to their industrial development than North-South PTAs. These studies indicate that greater similarity in production patterns facilitate appropriate technology transfer between Southern countries and that South-South commerce gives developing countries the option of sidestepping the acceptance of techniques from the North which

are capital-intensive and biased to serve high-income markets. Imports from other developing countries are more likely to embody technologies better suited to developing countries, facilitating domestic upgrading and eventually penetrating Northern markets with a different, more competitive, technology.

Developing countries can reconfigure their trade and investment relations differently from those that now dominate global economic rules. One suggestion is for developing countries to turn away from their dependence on exports as the engine of growth. Relying more on domestic demand will require developing countries to pay greater attention to increasing domestic demand, including through increasing domestic incomes. This may require a redistribution of income and greater equity so that the domestic incomes of their own citizens can create the markets for their own products. These markets could be augmented by regional and broader South-South trade.

The present global crisis may become a big opportunity for expanded South-South cooperation. Poor economic prospects in the North, combined with the recent impasse in North-South relations, can be surmounted through increased South-South trade, investment, technology transfer, and other forms of South-South cooperation. Thus the Chinese proverb that says that a crisis is also an opportunity could apply to the current situation. Developing countries should seize this opportunity. The moment for greater South-South cooperation and solidarity has come.



MARTIN KHOR is the Executive Director of the South Centre, an intergovernmental organization of developing countries based in Geneva, Switzerland. He is the former Director of the Third World Network, based in Penang, Malaysia.

The rise of emerging economies is not merely a phenomenon related to their high rates of economic growth or increased geopolitical importance. Many of these countries have also managed to realize unforeseen levels of technical innovation and knowledge creation. For example, we encounter novel ideas emanating from new centres of science, research and knowledge in Shanghai, Rio de Janeiro and Bangalore. A thriving private sector in emerging economies is shifting the global landscape of innovation. Research and development in India has grown threefold over the past decade. China has become a global hub for energy innovation and is now the world's number one investor in clean energy. And Brazil has developed the world's first sustainable biofuels economy from sugarcane-based ethanol. Many other emerging economies, such as Colombia, Indonesia, Malaysia, Mexico and South Africa, have also built cultures of innovation. These developments, and the technical innovations they have spurred, would not have been possible without the establishment of conducive economic environments in these countries that enabled local entrepreneurs to realize their ideas.

These entrepreneurs often react to the special needs and problems faced by people in developing economies. With their new ways of thinking, these innovators change the lives of the people in their home countries by creating solutions that are tailored to the realities of their local environments. And these solutions often have the potential to benefit people in countries facing similar challenges to development. For example, simple technologies that revolutionize the lives of rural farmers in China can be equally beneficial for farmers in Kenya. With the emergence of innovative technology-based enterprises in the Global South, knowledge can increasingly flow in a South-South direction.

To let innovative technologies and techniques benefit the lives of people around the world, it is necessary to forge new collaborations across countries and to intensify existing ones. The United Nations system, with its broad representation in most countries and regions of the world, is the ideal facilitator to foster inclusive partnerships and strengthen South-South knowledge exchange. One important way that the United Nations is fulfilling this role is the annual Global South-South Development Expo, showcasing successful Southern solutions to the complex challenges facing the South today.



KANDEH YUMKELLA is the Director-General of the United Nations Industrial Development Organization (UNIDO). Prior to working for UNIDO, he was the Minister for Trade, Industry and State Enterprises of the Republic of Sierra Leone.

Yiping Zhou outlines United Nations initiatives to harness the resurgent global South's human, technological and financial resources for development.

A new force for transformational change

The world has experienced dramatic changes over the past few decades, with tremendous gains realized by developing countries even within just these past ten years. The rise of economic powerhouses like China, Brazil, India and South Africa has highlighted the value of strong alliances and has driven the resurgence in international solidarity known as South-South cooperation.

Since the 1955 Bandung Conference, South-South cooperation has been an important rallying idea among developing countries but, for the most part, it was just that - an idea. Now, fast-growing economies of the South are turning the idea into a new reality of transformative change. We see this reality everywhere. In 2010 alone, developing and emerging economies grew on average by 7.3%, while the economies of least developed countries grew by 5.7%. That same year, the combined economic output of the South accounted for 45% of global GDP. South-South trade expanded from 12% to 22% of world trade between 2005 and 2009. Similarly, the flows of development finance under the auspices of South-South cooperation were estimated by the World Bank to be in the range

of US\$12bn-15bn in 2008. A study by the United Nations (UN) Department of Economic and Social Affairs suggested that these South-South financial flows had grown by 78% between 2006 and 2008. The OECD Development Assistance Committee put the figure in 2009 at US\$7bn.

These statistics highlight the growing economic might of Southern countries and, as a result, emerging economies are marshalling their resources to amplify their voices on the global landscape, as witnessed in the recent creation of the G20. What is at issue is the voice of all 193 UN member states that are affected by the multiple global regimes regulating trade, finance, investment, and many of the gears that drive development. Many poor countries lack an effective voice in these regimes of global governance and this ultimately has a bearing on the legitimacy of international norms and standards that the UN system is meant to establish and champion.

One way that developing countries seek to concertedly strengthen national capacities and their voice in the global governance arena is through their emphasis on the UN efforts to support and strengthen South-South cooper-

ation, both globally and within the UN family of agencies, funds and programmes. Since the 1978 Buenos Aires Conference on technical cooperation among developing countries, UN member states have voiced the need for the effective coordination of South-South cooperation in the UN. The current phenomenal rise of the South has contributed to a new sense of urgency placed upon the UN to harness Southern human, technological and financial resources with new tools, policies, strategies and capable institutional arrangements.

At this year's UN General Assembly High-level Committee on South-South Cooperation, member states decided to transform the Special Unit for South-South Cooperation into the United Nations Office for South-South Cooperation. Over its 30-plus year lifespan, the Unit has advocated for the global advance of South-South and triangular cooperation in its many roles: convening UN legislative bodies to discuss South-South cooperation policies and strategies, conducting research and analysis of trends in South-South cooperation, facilitating the documentation and dissemination of successful Southern development solutions, collaborating with partners to showcase and

Photo: Special Unit for South-South Cooperation





Yiping Zhou speaking at the opening of an exhibit on South-South and triangular cooperation, UN headquarters, New York, July 2012.

YIPING ZHOU is Director of the United Nations Development Programme (UNDP)'s Special Unit for South-South Cooperation and is responsible for the promotion and coordination of South-South cooperation in the global South and on a UN system-wide basis. Prior to joining the UN system in 1985, Zhou served as a distinguished diplomat in the Permanent Mission of People's Republic of China to the United Nations.

market these solutions, catalyzing the sharing of technologies and solutions to scale up development impact and managing funds for South-South, triangular and public-private partnership initiatives. Since 2008, the Unit has built on its long legacy of policy support to decision-makers on South-South and triangular cooperation to develop the three-in-one multilateral support architecture to document successful Southern development solutions through the virtual Global South-South Development Academy, showcase the most scalable solutions at the annual Global South-South Development Expo, and support the scaling-up of the most 'bankable' solutions

and technologies through the South-South Global Assets and Technology Exchange.

In its reincarnation, the new Office is intended to serve as one of the main institutional tools that the UN system can rely upon to coordinate action and ensure coherence and effectiveness to marshal the resources of the resurgent global South for development. What will ultimately boost the UN's effectiveness in supporting South-South initiatives is the extent to which member states actually equip the new Office with adequate funds and human resources to do the job that they want done. Equally important is to provide ample support to the other South-South mechanisms being created by various UN organizations, specialized agencies, funds and programmes, as well as regional commissions. The normative and substantive work of these organizations gives real meaning to South-South cooperation in such strategic areas of trade, industrial development, the environment and sustainable human development.

The need for proven development solutions cannot be overstated in a world beset by multiple crises. Driving the current surge of interest shown in South-South cooperation

are the success stories that have emerged from across the South as developing countries have successfully devised solutions to reduce poverty, create jobs and improve living conditions for millions of their citizens. The rapidly expanding middle class in the global South bears witness to the efficacy of these policies and practices. Experience has shown that poor countries stand a better chance of improving their development prospects when they adapt proven solutions that were used to bring about transformative change in countries with relatively similar socioeconomic conditions only a few years ago, rather than turning to countries that developed centuries ago. This is the logic behind the emphasis that we in the UN system place on South-South peer learning through knowledge and experience sharing. It also explains why the UNDP and other multilateral organizations are forming strategic partnerships with middle-income countries and establishing centres of excellence to enable more systematic South-South exchanges of policy options and development solutions.

To promote these numerous solutions to development challenges found across the globe, in 2008 we created the Global South-South Development Expo (GSSD Expo). A brief scan of the landscape showed that there were numerous conferences and forums discussing the world's problems, but few offering solutions. We decided to offer a different menu that consists of real, proven development solutions arrived at through the hard work and practical know-how of men and women who have transformed their firms, schools, hospitals, banks and entire societies. The GSSD Expo is a place to showcase these development solutions and to inspire others, following the dictum that success begets success.

The 2012 GSSD Expo, with its focus on investing in energy and climate change, builds on the recent Rio+20 conference and is a concrete response to the Secretary-General's Sustainable Energy for All vision and agenda. The Expo is a platform to continue to advocate for sustainable development, while also bringing together concrete, replicable solutions currently found throughout the South to further spur adaptation, replication and innovation. The emphasis that developing countries place on strengthening their productive capacities makes it all the more opportune that UNIDO graciously offered to host this year's GSSD Expo.

In the 1980s, while there was much critiquing and challenging of the development paradigm and what was called the ‘modernization project’, it was feminists of the South who first established an intellectual identity for the South, pinned on the understanding of women’s poverty and on its removal. They then challenged the development transfers, which were derived from the characterization of women of the South in the image of their northern sisters.

As the eminent development economist, Louis Emmerij, said back in 2002, “What is amazing when it comes to development thinking by and within the United Nations system is the dominance of Western ideas in

an organization that is now composed of almost 200 nations and even more cultures. Starting with modernization theory, all the development approaches are “Western” and are dominated by economists. This remains true, even with strategies conceived by thinkers from the South or the East.”

However, feminist scholars and advocates revealed how the “characterizations” of women’s economic roles were dramatically different from the roles being played by their sisters in the North. At the same time, there was great similarity across the continents of the South. For example, women vendors were a part of the market scenario in most of these continents – the higglers of the Caribbean is-

lands, the market women of Ghana and Liberia, and the street vendors of South and South-East Asia. In many parts of these regions, women were, and are, the principal wholesale and retail traders. They are also the informal banks. Home-based production was another critical economic characteristic of women in the continents of the South. Women in these continents were engaged in cultivation of food and cash crops, often owning land too – all very different from their Northern sisters.

Women for a new era

This characterization, apart from the identity it established, generated both an organized

The first challengers



voice and theoretical intrusions into the concept of development. For example, a feminist network of the South, Development Alternatives with Women for a New Era (DAWN), identified the “crises” in the regions – Africa’s food crisis, Latin America’s debt, South Asia’s poverty, and the militarization of the Pacific Islands – as the frameworks within which the efforts to enable women to move out of poverty needed to be located. Poor women in these regions were not only totally engaged in the economies of these countries but were suffering from, and also responding creatively to, these onslaughts. A new framework began to emerge.

DAWN’s analysis noted that only a few

countries that had pursued export-led strategies for growth had gained systematic results. In fact, countries that had experienced economic booms were the same ones that had a record of growing inequality. It located the structural roots of poverty not in insufficient economic growth but in “unequal access to resources, control over production, trade, finance, and money and across nations, genders, regions, and classes”.

The South Commission

The next challenge to what could be called the “given gospel” of macro-economic reasoning came from the South Commission (1987-90), initiated by the Non-Aligned Movement and chaired by the late Dr Julius Nyerere, former President of Tanzania. At the very first meeting, the members, all economists from the continents of the South, proposed that the very language, the whole package termed “progress”, as generated by Eurocentric thought, needed to be challenged. As the world economy ran into trouble with the crisis starting in 2007, feminists of the South, in partnership with scholars from the North, analyzed the sources and offered ideas for reconstructing the very basis of economic reasoning, as well as measures of progress.

In India, for example, the potential for generating sustainable growth of output along with jobs, livelihoods is tangible. Data from official sources on the output of the small and medium enterprises, as well as hand-driven sectors, reveals a steady contribution to the output of the industrial sector, even without the support of strong public policy initiatives. Women are the predominant labour force in these forms of production and exchange.

According to Arjun Sengupta’s National Commission for Enterprises in the Unorganized Sector report (published in 2009), of the total workers in the unorganized sector, 148 million (32.3%) are women. More than half of them, nearly 80 million women, do home-based work.

Even though household industry is undervalued (and not supported either), it is household savings that contribute to domestic

savings, and as YV Reddy, the former Governor of India’s central bank, has pointed out, it is “domestic savers who, in any case, finance over 90% of investments...”

Wage-led growth

The South then has the potential to redesign and relocate its engines of growth. By firing these engines, it is possible to generate what can be called wage-led growth, as distinct from capital-led growth as a paradigm, and shift from the current, so-called, market-led growth – a misnomer, as markets are a lifeline for the poor in developing countries.

One of the most inspiring economic programmes for building growth and progress that is spread out has come from Gandhi himself. I call his ideas for economic progress, the ‘bubbling-up theory of growth’, as a way of challenging the current ‘trickle-down’ theory of growth. The bubbling-up theory argues that the process of the removal of poverty can itself be an engine of growth, that the incomes and capabilities of those who are currently poor have the potential to generate demand. This demand, in turn, will drive production, but the production of goods that are immediately needed by the poor, who are currently peripheral in production. The ‘oiling’ of this engine will bubble up and fire the economy in a much more broad-based manner. Unlike export-led growth, it will not skew production and trade to serve the interests of the elite, a trap which is accentuating disparities and creating discontent.

Inclusive growth

Countries of the South, and women in them, are a fertile field right now for generating industrial growth that is inclusive, in other words, which generates employment, as opposed to industrial growth that is jobless, and tends to create corporate empires and gross inequality.

Feminists of the South have revealed that women are the principal actors, but are underpaid and unrecognized in the so-called emerging economies, where success is built on the provision of cheap, unprotected labour. This phenomenon, if converted into a value through recognition, as well as through building another theory of growth, such as the bubbling-up theory of growth, means that UNIDO can fly a flag for ‘industrial development for economic justice’.

● The author acknowledges the assistance provided by Deepshikha Batheja.

Devaki Jain on the feminists of the South and a new framework for reconstructing the very basis of economic reasoning.



Photo: Soma Mitra Mukherjee (CARE/WFS Media Fellowships)



DEVAKI JAIN is an Indian activist and a development economist, best known for her work on poverty, employment and the empowerment of women. She was one of the founders of a wide range of institutions, such as Development Alternatives for Women

for a New Era and the Institute of Social Studies Trust – a research centre in New Delhi where she was Director until 1994. She has served as a member of the South Commission, established in 1987, and various other committees, such as the Advisory Committee for

the UNDP Human Development Report on Poverty, 1997. She has been a member of many policy and programme-designing task forces and working groups set up, with special reference to women’s economic empowerment, by the Government of India.



Upbeat Brazil

Brazil is the largest country in area and population in Latin America and the Caribbean. Characterized by large and well-developed agricultural, mining, manufacturing and service sectors, its economy also outweighs that of all other South American countries, and is now ranked the sixth biggest economy in the world. Over the past two decades, Brazil has posted robust economic growth, stabilized inflation, reduced its debt and accumulated hefty reserves. Its middle class has expanded, poverty has dropped and Brazilian expatriates are returning home.

Beginning in 2004, the combination of progress on economic reform, extremely favourable global external conditions and social policies that raised real incomes, led to higher and sustained rates of growth. After strong growth in 2007 and 2008, the onset of the global financial crisis hit Brazil in 2008, and the economy experienced a recession as global demand for

commodity-based exports dwindled and external credit dried up. However, Brazil was one of the first emerging markets to begin a recovery, and in 2010, consumer and investor confidence revived. Since then, rising inflation has led the authorities to take measures to cool the economy, and these actions, together with the deteriorating international economic situation, slowed growth in 2011.

Reducing poverty

According to the World Bank, poverty (purchasing power parity of US\$2 per day) has fallen markedly, from 21% of the population in 2003 to 11% in 2009.

Income inequality (measured by the Gini index) reached a 50-year low in 2011. Key drivers have been low inflation, consistent economic growth, well-focused social programmes and a policy of real increases for the minimum wage. Despite these achievements, inequality remains at relatively high levels for a middle-income country, and there are still extreme regional differences, especially in social indicators, such as health, infant mortality and nutrition. The richer south and south-east regions enjoy much better indicators than the poorer north and north-east.

The government of President Dilma Rousseff has adopted a series of measures aiming to curb the economic slowdown. These include tax cuts, credit facilities, restrictions on imports and incentives for domestic consumption. Most recently, the government has focused on initiatives to



“In 2005 Brazil earmarked US\$158m for foreign aid. That rose to nearly US\$363m in 2009 and to an estimated US\$400m in 2010.”

boost production, especially in industry, the sector hardest hit by the current global crisis. A 28% cut in electricity rates for the producers of aluminium and cement came into effect in February 2012, and in August the government announced that other branches of industry would also be granted a reduction. (The cost of electricity in Brazil is among the highest in the world, even though most of the country's energy comes from hydroelectric power, the cheapest source – a situation explained by the large number of different taxes and other expenses that amount to 45% of the final cost.)

Enhancing competitiveness

There have been other indications of the government's new-found focus on enhancing industrial competitiveness. In August it also announced an ambitious plan of public-private partnerships in transportation and logistics, with ports and airports to follow. Further massive investments in areas such as urban and social development and transport infrastructure are expected as the country prepares to host the World Cup in 2014 and the Olympic Games in 2016.



And in October, new rules were finalized so that local carmakers can avoid a steep tax increase by making vehicles more fuel efficient, using more domestically-built parts and investing more in Brazilian research and engineering. The government measures are designed to pressure carmakers to boost employment and investment in Brazil if they want to tap its vaunted demand and are part of a concerted defence of an industry representing more than a fifth of the country's manufacturing base.

South-South cooperation

Under the government of Luiz Inácio Lula da Silva (2003-2010), Brazil achieved a hitherto unparalleled position of international leadership, and the Rousseff government is continuing the drive to improve the country's international clout by strengthening its status as a donor country. This new cooperation and development aid strategy has been taking shape since 2005, when Brazil earmarked US\$158m for foreign aid. That amount rose to nearly US\$363m in 2009 and to an estimated US\$400m in 2010, according to figures from the Brazilian Cooperation Agency.

Latin American countries receive 45% of Brazil's foreign aid, with the rest distributed among other areas of the developing South. The projects range from livestock and fisheries to horticulture and food production.



“Income inequality reached a 50-year low in 2011.”

Brazil is supporting the development of an experimental cotton station in Mali, a rice station in Senegal, a vocational training centre and food security programme in East Timor and soybean production in Cuba. Other examples include the provision of technical expertise and assistance in the development of agricultural technology in Haiti, the establishment of a vocational training centre in Paraguay, and the creation of the Institute of Agriculture and Livestock in Bolivia.



At a glance



Head of state: Dilma Rousseff of the Partido dos Trabalhadores is the first female elected President of Brazil and is also the first economist to hold the office. She took office on 1st January 2011

Population: 196.7 million

Urban population (% of total population): 87

Population under the age of 14 (% of total population): 25

Internet users (% of total population): 45

Electricity production from hydroelectric plants (% of total): 75

Ranking in the World Economic Forum's Global Competitiveness Index 2011-2012: 53 out of 142 countries

GDP – composition by sector (2011 est.): agriculture: 5.5%, industry: 27.5%, services: 67%

Main industries: textiles, shoes, chemicals, cement, lumber, iron ore, tin, steel, aircraft, motor vehicles and parts, other machinery and equipment

Main exports: transport equipment, iron ore, soybeans, footwear, coffee, motor vehicles



From 'years of lead' to sixth leading economy

Interview with **Fernando Pimentel**, Minister of Development, Industry and Foreign Trade

Before starting his political career, Fernando Pimentel was a professor at the Federal University of Minas Gerais, Vice-President of the Association of University Professors of Belo Horizonte, Chairman of the Regional Council of Economics in Minas Gerais, and Director of the Minas Gerais state Union of Economists. As a teenager he had been actively involved in the organized opposition to the military dictatorship, a period often referred to as "Brazil's years of lead", lasting from 1964 to 1985. In 1970, Pimentel was arrested and spent several years in military prisons.

In the 1990s, he worked in the municipal government of Belo Horizonte, the capital of Minas Gerais state, where he held the posts of Secretary of Finance, and then Secretary of Government, Planning and General Coordination. In 2000, he was elected Deputy Mayor, and, as of 2003, took over as Mayor after the early retirement of the incumbent for health reasons. In the 2004 elections, he was elected Mayor of Belo Horizonte as the candidate of the Workers' Party (Partido dos Trabalhadores, PT), winning 68.5% of the votes. Pimentel was the first ever mayor of Belo Horizonte to win in the first round of voting.

His tenure as mayor of the third largest metropolitan area in Brazil was marked by large investments in urban and social programmes. Among the highlights was the *Vila Viva*, the largest programme of urbanization of villages and shantytowns in the country, which built new sanitation and drainage infrastructure at a cost of US\$27m

and constructed over 1,000 new houses. In 2005, he was ranked the eighth best mayor in the world by the World Mayor Project (the only South American in the top ten), and he left office in 2008 with an approval rating above 90%.

At the end of his term as mayor, Pimentel set up his own consulting firm, P-21 Consultoria e Projetos Ltda. During 2010, he served as a close adviser to Dilma Rousseff, the PT candidate in the country's presidential election. Rousseff won the election and when she took office, on 1 January 2011, she appointed Pimentel as Minister of Development, Industry and Foreign Trade.

It has been a challenging portfolio, with the Brazilian economy stuttering following a growth spurt during 2004-10 (when GDP growth averaged 4.5% per year). Brazil's economy grew just 2.7% in 2011 as soaring

business costs and uncompetitive industries took the shine off of what had been one of the world's most dynamic emerging markets. The performance of the economy will be weaker in 2012, and annual GDP growth is estimated at just 1.5%.

The biggest drag on Brazil's economy is manufacturing, which has been contracting since early 2011, suffering in particular from structural competitiveness problems. But Pimentel is upbeat about the impact of the government's to increase industrial competitiveness at a global level.

"There are many initiatives by the federal government to stimulate global competitiveness, industrial development and economic growth, most of which are part of a national development plan called Plano Brasil Maior (the Bigger Brazil Plan), or PBM for short."

The PBM was unveiled in August 2011 with the objective of integrating government measures regarding industrial, technological and foreign trade politics over a three-year period. Pimentel outlines some of the actions planned, "There will be preferential price margins for government purchases, meaning that in order to stimulate local production and the market, the government may give preference to purchasing from local manufacturers with prices up to 25% higher than similar products of foreign origin. Other measures include new and improved lines of investment, especially for financing and innovation enterprises, which will be provided by the Banco Nacional de Desenvolvimento Econômico e Social; a reduction in labour costs, to be brought about by a fiscal rebate on payrolls; and improved trade defence efforts."

The latter is a measure in response to increasing pressure on the government from domestic industry to curb the entry of foreign products into the country. According to the World Trade Organization (WTO), the value of Brazilian imports leapt from US\$20bn in 2000 to US\$191bn in 2010, a 380% rise. At the launch of the PBM, Pimentel mentioned that the government would be focusing on better

Fernando Pimentel speaking during the World Economic Forum on Latin America in Rio de Janeiro, Brazil, 29 April, 2011.



control of Brazil's borders in order to catch counterfeit goods coming from China.

Another long-standing complaint from the private sector is the high cost of doing business in Brazil. What is known as the *custo Brasil* refers to the increased operational costs which make Brazilian goods more expensive compared to those from other countries. There are several factors that contribute to the extra cost, including high and complex taxes, poor infrastructure and high transport costs, high electricity costs and reams of red tape.

Asked what the government is doing to reduce the *custo Brasil*, Pimentel replies, "Besides the numerous actions in the PBM, the government is making unprecedented investments to further improve infrastructure in Brazil. Recently, President Rousseff launched a logistics investment programme, allocating R\$133bn (US\$65bn) in funds to build 10,000 km of roads and 7,500 km of railroads throughout the country. A federal agency of planning and logistics has been created to study and manage logistics investments."

Pimentel continues, "Another example is the recently announced reduction of energy costs, beginning in 2013. While residential consumers will be positively affected, industry will benefit the most, with an up to 28% reduction in energy costs."

Brazil remains a difficult place to do business from a regulatory point of view, despite the market reforms adopted over the past two decades or so. According to the World Bank's 2012 annual *Doing Business* study, which evaluates the ease of starting a business, dealing with construction permits, registering property and paying taxes, Brazil ranked 126th this year out of 183 countries. On average, it takes 13 procedures and 119 days of work to start a business.

Pimentel's response is bullish. "Starting a new enterprise is becoming easier in Brazil. The Ministry of Development, Industry and Foreign Trade is in the process of integrating databases from the chambers of commerce in each state and gradually simplifying the documentation necessary to formalize and legalize a business."

Asked which high-added-value industrial sectors will be promoted in order to create quality jobs, as well as increase industry's share of GDP, Pimentel rattles them off, "Automotive, chemical, oil and gas, naval, health care, defence, aeronautical and space, IT and electronics, for example," speaking with the authority of someone in charge of what last year overtook the United Kingdom to become the world's sixth largest economy.

Photo: World Economic Forum

Christophe Yvetot argues in favour of innovative collaborative models.



Illustration: istock

Industrial diplomacy for sustainable prosperity

CHRISTOPHE YVETOT is UNIDO Representative to the European Union and head of the UNIDO Brussels office.

As recognized by the UN Conference on Sustainable Development in June 2012, industry – and the many activities it drives and encompasses – will be central for the achievement of the two main objectives humanity will need to realize for a sustainable future: ensuring prosperity for all, while saving the planet, in the context of rapid demographic growth. In fact, two billion more people will be on earth by 2050, adding to the current seven billion, which will further increase the pressure on economic and social systems, as well as on natural resources.

The centrality of industry for sustainable development

Industrial activities can contribute to the creation of millions of jobs in developing countries through the processing of their natural resources and their participation in national, regional and global value chains. To create wealth for all, these countries need structural change, which means moving from the traditional exports of raw materials and commodities, to manufacturing activities and the diversification of their economies.

At the same time, we have reached our planet's boundaries. We will have to change our consumption and production patterns in one generation and develop a green economy supported by green industry. To operate this fundamental transformation, we will need to invent smart policies that can leverage massive private investments for large-scale transfer and utilization of best available technologies, as well as stimulate the effective implementation of resource efficiency and sustainable energy in industry.

From competition to cooperation and solidarity

One of the main obstacles to building a community of purpose concerning the role of industry in achieving sustainable prosperity is that current national and international strategies are too focused on competition, and not enough on cooperation and solidarity. We know the immediate consequences: de-industrialization in the North; rapid industrialization in emerging economies but accompanied by poverty and inequality; increasing marginalization of the poorest countries; and, finally, a collective threat to the environment. Despite this, there are immense possibilities for cooperation that could benefit everyone.

Emerging economies are doing well but they still need massive investments and technology transfer to create jobs and make their industries more resource and energy-efficient. At the same time, many industries, particularly small

and medium-sized enterprises, from the North and from other emerging economies, are looking for new partners and new markets abroad.

In the poorest countries, cooperation, particularly business-to-business industrial cooperation, rarely takes place. These countries, mainly Least Developed Countries, need massive solidarity to assist them in moving towards industrialization and building their productive capacity through modern infrastructure and technical skills, industrial modernization and quality production. Perhaps a new category of 'least developed manufacturing countries' could be created in the context of trade negotiations and development assistance. Such a category would mean that specific trade or development regimes could be tailored to consider the level of industrialization of the country, which would then be adapted over time as industrialization progressed.

UNIDO's industrial diplomacy

The potential for North-South and South-South industrial cooperation is huge. There are already many cooperation models that are implemented every day in the global economy: joint ventures, strategic alliances and other forms of business linkages. These types of cooperation have a great potential for creating decent jobs, while modernizing and upgrading local enterprises, but only if industrial policies are in place at country or regional levels. Without the right policies in place, industrial cooperation and investments cannot be developed on the scale necessary to have a massive impact on local manufacturing and employment.

There are already various industrial frameworks that UNIDO, in constant dialogue with its 174 member states, has developed through its industrial diplomacy:

- Sustainable Energy for All, the UN Secretary General's initiative led by UNIDO Director-General, Kandeh Yumkella, brought representatives from public sector and industry together to make huge commitments at the Rio+20 conference to support universal energy access, energy efficiency and renewable energy by 2030.

- The Green Industry Platform, which was launched at Rio+20, brings together representatives from the public sector, industry and civil society, to support the greening of existing industries and the creation of new green industries all over the world.

- The Strategy for the Accelerated Industrial Development of Africa, endorsed in 2008 by African heads of state and governments and by the Africa-European Union Summit in 2010, represents a strategic framework for Africa's industrial development approved at the highest

political level by all African countries and by industry.

- The Africa Agro-Industry and Agribusiness Initiative, adopted by the Abuja Conference in 2010, is a strategy to boost this sector for achieving an African green revolution and food security. It has facilitated dialogue between governments, industrials and civil society.

- The Manila Declaration represents a framework for greening Asia industries that was approved by ministers, industry and civil society from Asian countries in 2009.

- The Quito Strategic Proposal on resource and energy efficiency in industry is a framework that was approved by experts from the public and private sectors of Latin America and the Caribbean in 2012.

- Other regional industrial frameworks and programmes have been prepared by UNIDO in partnership with Regional Economic Communities all over the world, including in all regions of Africa, in Central America, in the Caribbean and in Asia.

Diplomacy of action

Diplomacy is generally described as a way to reach objectives through dialogue and negotiation. In this regard, industrial diplomacy can mobilize cities, governments, industries and citizens to discuss and agree on the contribution of industry to job creation and green growth. It can help governments and industries from the North and the South to negotiate the conditions of their mutually beneficial cooperation. One example of industrial diplomacy, Sustainable Energy for All (SE4ALL), has emerged as a new model. It has mobilized governments, industries, citizens and academia around clear objectives, and has developed an action agenda that provides a common roadmap for all players. After almost one year of inclusive dialogue, it has built a community of purpose among stakeholders who originally had different positions and interests. The result is the mobilization of more than 100 governments and industries, which have committed to invest more than US\$50 billion and to connect more than 1 billion people to modern energy.

At a time when trade negotiations are frozen and environment and climate negotiations are moving slowly, the success of the SE4ALL initiative is an obvious demonstration that innovative collaborative models can work for creating a community of purpose around public goods. To achieve wealth and green growth for all, we clearly need industrial diplomacy, diplomacy for the real economy, diplomacy of action.



In the third of a series focusing on remarkable companies that are making waves in the areas of green industry and sustainable development, *Making It* takes a look at China's Broad Group.

Broad Group

"Responsibility is more important than growth," is one of the mottos of Broad Group, a Chinese manufacturing company widely recognized for its green policies and commitment to countering climate change.

Broad was founded by Zhang Yue in 1988. The company started off developing industrial boilers but, as the Chinese economy expanded beyond the capacity of the country's electricity grid, power shortages became a serious problem, and, in 1992, Broad moved into the production of non-electric, industrial air-conditioning units. With the help of the incentives for non-electric chillers provided by the Chinese government, Broad experienced a phenomenal rise, rapidly becoming a global leader in manufacturing central air-conditioning absorption chillers powered by natural gas and waste heat.

Energy-efficient chillers

Instead of using electricity to compress a refrigerant from a gas to a liquid and back again, non-electric air conditioners use natural gas or another source of heat to turn a special liquid (typically a solution containing lithium bromide) into vapour; as the vapour condenses, it cools the air around it. These "chillers" are twice as efficient as conventional electric air conditioners, because they get energy directly from the fuel source, rather than through a middle step of producing electricity. They can achieve impressive savings in fuel use and emissions, and do even better when connected to a waste heat source, such as in a power plant or a factory, with almost zero CO₂ emission.

A privately held company, Broad had US\$600m in revenues in 2010 and provided the majority of energy-efficient air conditioners in China. On the back of its success with air-conditioning, Broad has branched out into indoor air-filter systems. Today, the company has units operating in more than 70 countries, cooling and purifying the air in some of the largest buildings and airports on the planet. These systems are all monitored from a central headquarters, known as Broad Town, in Changsha, in south China's Hunan province. When an air conditioner malfunctions in Brazil, for example, an alarm goes off in Broad Town.

Sustainable buildings

In 2008, a devastating earthquake in China's Sichuan province left more than 87,000 people dead or missing. Appalled by the widespread collapse of buildings, Broad's CEO, Zhang Yue, set out to design safer, environmentally sounder buildings, and in 2009, the company diversified into sustainable building technology.

The Broad Sustainable Building (BSB) innovation achieves high energy efficiency and carbon reduction primarily through thermal insulation, preventing cool air from leaving from inside and hot air from coming in from outside when the weather is hot, and vice-versa when the weather is cold. Pre-fabricated building floor slabs, with pipes and wires already installed, are made in factories and assembled onsite. Using this system, buildings can be constructed much quicker and with hardly any waste of materials. Broad has made something of a name for itself by using these methods to build skyscrapers. According to Broad, a traditional high-rise will produce about 3,000 tons of construction waste, while a Broad building will produce only 25 tons. Traditional buildings also require 5,000 tons of water onsite to build, while Broad buildings do not require any water at all.

At the 2010 United Nations Climate Change Conference, the then President of Mexico, Felipe Calderón, described the BSB technology as a "practical, imaginative, creative and bold endeavour" that constituted a "new revolution for the world's architectural and housing industry".

Green credentials

Broad prides itself on its green credentials and lists protecting the environment, energy conservation and reducing greenhouse gases among its key company goals. Broad Group has been a member of the United Nations Global Compact since 2001, and in 2008, it joined The Climate Group, working internationally with governments and business leaders to advance smart policies and technologies to cut global emissions and accelerate a clean revolution.

CEO, Zhang Yue, told Reuters, "Each era had an issue of its time; each era had a mission of its time. Our era's prob-



lem is not productivity and it's not wealth. It is not even politics or democracy. In society today – including China and all the countries of the world – we're facing the increasingly grave problem of environmental pollution."

In 2009, Broad Group was one of the ten companies to be recognized by the *Bloomberg Business Week's* Greener China Business Awards, and in May, 2011, Zhang Yue was awarded the Champions of the Earth Award (Entrepreneurial Vision Category) by the United Nations Environment Programme, in recognition of Broad's commitment to climate change. In 2012, the Boston Consulting Group named Broad Group one of its five "sustainability champions" in developing markets, for putting resource management at the core of its business.

Broad Group is being driven along its trailblazing path by Zhang Yue, a billionaire businessman with an iconoclastic approach. One of his oft-repeated quotes is "When I set up my business, I challenged myself to create wealth. Now, I have completely shifted the focus of this business towards the direction of reducing emissions."

For Zhang Yue, the future of the planet is more important than his business. As he told China Dialogue's Huo Weiya, "I love air-conditioning. But I dream that one day

humanity will stop using it. One of my major tasks now is to eliminate it – to eliminate my own business."

Broad's impact

The success of Broad Group potentially makes it an influential sustainability leader. As Richard Brubaker, founder of the Shanghai-based company, Collective Responsibility, and Professor of Sustainability and Responsible Leadership at the China Europe International Business School, notes, "Broad Group has moved from the traditional confines of "green" to develop a product line that has been regarded as one of the most efficient in the industry."

As for Broad Group's impact on the wider market, Brubaker believes it is too early to make an assessment. "However, with the Chinese business practice of looking to and emulating leaders, the potential for Broad to serve as an example is when they are able to show that being "green" does not require a sacrifice by those who are not aligned to the moral cause itself. This is something that I feel Broad will be able to do over time, and if successful, it could lead to more entrepreneurs recalibrating their business or industry in a manner that is in greater balance with social and environmental pressures."

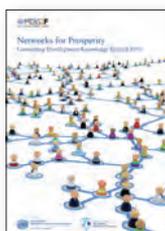
Broad Group is being driven by CEO Zhang Yue (pictured above). "When I set up my business, I challenged myself to create wealth" he says. "Now, I have completely shifted the focus of this business towards the direction of reducing emissions."

Networks for Prosperity: Connecting development knowledge beyond 2015

By **KAZUKI KITAOKA**, Programme Management Officer, United Nations Industrial Development Organization

Without doubt, knowledge networks and network governance will play a crucial role in the emerging post-2015 development agenda and the new post-Busan aid architecture. Networks not only constitute a distinct way of organizing transactions between actors but, more importantly, are emerging as a new paradigm for governance. A key component of this paradigm revolves around the exchange of information and the creation of knowledge. UNIDO's first *Networks for Prosperity* report in 2011 argued that networks play a key role in diffusing information and generating knowledge, and hence contribute directly to economic development. Moreover, the report illustrated that network governance is becoming increasingly important on a local, national, regional and global scale. Most importantly, the report clarified that networks differ in nature and that this difference is relevant in the context of knowledge management and information provision.

The second UNIDO report on this topic, titled *Networks for Prosperity: Connecting development knowledge beyond 2015*, published in November 2012, builds on the first edition, and



provides an updated global Connectedness Index. It also identifies knowledge networking as a key component in any post-2015 development agenda that may emerge.

The top 10 countries in the 2012 Connectedness Index are:

1. **Switzerland**
2. **Sweden**
3. **Denmark**
4. **Netherlands**
5. **Belgium**
6. **Finland**
7. **Singapore**
8. **Ireland**
9. **Canada**
10. **United States**

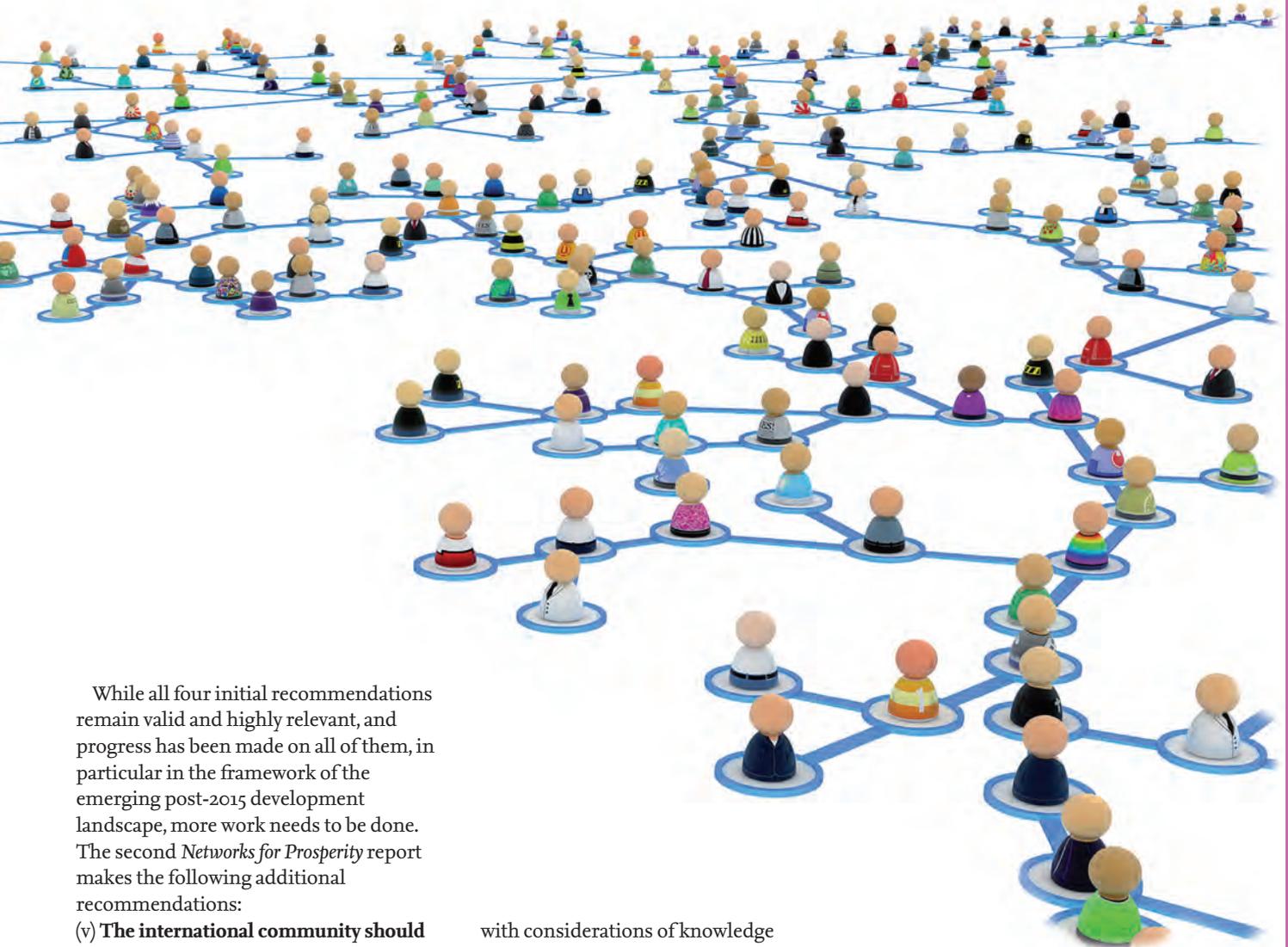
Among the top ranked countries, the most significant changes are in the United States and the Czech Republic's rankings. The United States' score on the international networks sub-index decreased, leading to the country's fall from 4th to 10th position. In contrast, the Czech Republic jumped six places, from 20th to 14th. Twenty-six countries changed more than 10 places from one year to the next. Mauritius and Latvia experience the greatest changes (dropping from 64th to 89th, and from 68th to 93rd, respectively), while Guyana, Mongolia and Russia significantly improved their ranking. As in



the 2011 edition, the 2012 Connectedness Index shows a strong correlation between connectedness and government effectiveness, regulatory quality, competitive industrial performance, and gross domestic product per capita based on purchasing power parity.

In 2011 the first report recommended that

- (i) The international community should actively promote knowledge networking and network governance structures for achieving local, regional and global development objectives;
- (ii) Member states should encourage and facilitate the international knowledge networking capacities of their own public and private institutions;
- (iii) International organizations should improve their inter-institutional information and knowledge exchange systems and facilitate better knowledge networking among their members; and
- (iv) An international and cross-sectoral consultation network should be established to further develop the initial findings.



While all four initial recommendations remain valid and highly relevant, and progress has been made on all of them, in particular in the framework of the emerging post-2015 development landscape, more work needs to be done. The second *Networks for Prosperity* report makes the following additional recommendations:

(v) **The international community should recognize that knowledge networks, multi-sector partnerships and network governance should be at the centre of any emerging post-2015 development agenda as these are crucial ways and means to tackle the complexities of development and globalization.** In particular, a bigger picture approach should be taken in the deliberations on the future of the eighth Millennium Development Goal on global partnerships for development, enriching it

with considerations of knowledge networking and network governance, and mainstreaming it to the centre of the development agenda. It should be recognized that without knowledge sharing and networking, including technology transfer, sustainable and inclusive patterns of global development cannot be achieved.

(vi) **Middle-income countries should enhance their role in global development cooperation through intensified**

knowledge networking, policy coordination and the establishment of network governance structures in fields of their shared interest. In particular, it is proposed to organize a conference of middle-income countries to allow for focused deliberations on such shared interests in the fields of inclusive



► economic growth, sustainable development and finance for development. It should be recognized that without the pro-active and constructive cooperation and collaboration of middle-income countries, no meaningful global development agenda, strategy or goal can be formulated or achieved.

(vii) **The international community should embrace South-South and triangular cooperation based on knowledge exchange and technology partnerships, as effective ways for achieving development goals, and anchor these in the post-2015 development agenda.** In particular traditional donors and international organizations should consider triangular cooperation modalities to sustainably support capacity-building efforts, especially in middle-income countries, and to ensure long-term results and impact of development activities beyond the immediately visible outputs. Also, middle-income countries and international organizations should actively support bilateral and multilateral South-South cooperation, both on regional and global levels.

(viii) **The international community should advance its analysis on the link between a country's connectedness and its population's prosperity as the ultimate goal of development.** In particular, international organizations, financial institutions and their academic partners should intensify their empirical research and policy analysis in this field, and collaborate with each other to leverage each other's knowledge. Member states should encourage their academic institutions and development agencies to actively engage in programmes that advance the understanding of the nexus between knowledge networking, economic network governance and prosperity, and support ongoing efforts in this regard. ■

Cooperating with China in Africa

By LUKE PATEY and DANIEL LARGE

During the past five years, Organization for Economic Co-operation and Development (OECD) donors, international organizations and NGOs have made progress on building development cooperation with China in Africa. China is playing an increasingly significant role in Africa through aid, trade, investment and political cooperation. Cooperating with China will facilitate the long-term ability of OECD donors in particular to manoeuvre in a changing landscape of international development. But such cooperation continues to be an organic, evolving process, with few precedents, rules and standards. Although often framed as trilateral cooperation, existing activities remain small-scale and largely bilateral, with little African ownership. As a result, how to cooperate with China effectively and how to ensure that this spurs sustainable economic and social development in Africa are pressing questions.

The Danish Institute for International Studies' policy brief, *Cooperating with China in Africa*, offers the following recommendations for policymakers on how to lay the groundwork for cooperation:

- **Cooperating with China in Africa requires concurrent action in Africa, China and at home.** Cooperation efforts cannot simply be managed out of the

Beijing or Africa offices of OECD donors. Rather, they require triangular action.

- **Recognize the diversity of China's engagement in Africa beyond aid.**

China's wider economic role beyond aid is increasingly important and needs to be factored into OECD donor development programmes. Trade and investment from China's state-owned and private corporations, as well as small-sized traders, has a much wider impact in many African countries than Chinese aid.

- **Approach African partners on both cooperation and coordination with China.**

The involvement of African partners is critical in fully realizing the benefits cooperation with China can provide for sustainable development. African partners should be involved early on, preferably from the inception. Build on and adapt previous and existing relations with Chinese institutions in China to establish cooperation efforts on development in Africa. The African embassies and offices of donors have not led initiatives to cooperate with China in Africa. Rather the policy initiative has come from OECD donor capitals and been steered forward by the embassies and offices in Beijing.

- **Cooperate with a variety of Chinese institutions.**

There may be tangible benefits to working with more technically-orientated line ministries, government administrations, independent confederations and

Advertisement at the China International Fair for Investment and Trade in Xiamen, Fujian, China.



Photo: When China Met Africa

Chinese embassies in Africa, rather than with China's Department of Foreign Aid.

● **Carefully consider comparative advantages in relation to Chinese interests.** Before exploring cooperation, OECD country donors and others should first thoroughly consider their own comparative advantages and investigate whether practices in these fields will offer benefits to China.

● **Start small and apolitical, but scale up.** 'Small is beautiful' when it comes to establishing cooperation with China in Africa. The idea of trilateral cooperation is still fairly new in China (as it also is in

“How to cooperate with China effectively and how to ensure that this spurs sustainable economic and social development in Africa are pressing questions.”

many African contexts). A step-by-step process beginning with small-scale activities in apolitical, technical areas can help to build mutual trust and understanding with Chinese institutions, while laying the groundwork for scaling up to larger, more politically challenging projects in the future.

■ The full report, *Cooperating with China in Africa: Exploring Western donor efforts to engage China on development in Africa*, can be read online at: www.diiis.dk/sw117266.asp

Where did Rio+20 leave us?

Ahead of the next issue – looking at the future of sustainable industrial development – **STEPHEN BROWNE** surveys the aftermath of the United Nations Conference on Sustainable Development in Rio de Janeiro.

In the 20 years since the first Rio conference, global emissions have risen by nearly 50% and 300 million additional hectares of forest have been destroyed. The population has increased 30% to over 7 billion; one-sixth of them still malnourished.

The urgency of another conference was clear enough but the verdict on the outcome was ambiguous. It depended on how high you had set the bar on your expectations. Greenpeace must have anticipated a sudden epiphany by world leaders when it dubbed the meeting a “failure of epic proportions”. Others – mainly UN insiders, including veterans of UN conferences – agreed that a “pathway for a sustainable future” had been laid down. But no one could conceal a measure of disappointment, compared with the urgency of facing up to the huge tasks of turning around a deteriorating global environment.

The private sector was strongly in evidence. That was a potentially good sign for the interests of sustainable industrial development, and perhaps one of the real strengths of Rio was that, like its predecessor, it succeeded in corralling a range of interested parties, all focussed on similar concerns. However, there was little for ‘business and industry’ to take away from the rather lame outcome document

which, in accordance with hallowed UN practice, only governments can be involved in.

Which brings us to the nub of the sustainable industry challenge: industry depends on the conditions that surround it, and whether an enterprise is state-owned or fully private, those conditions are strongly influenced by government policies. This is the most important meaning of public-private partnership: the nature of that nexus determines industrial fortunes. Or stated even more starkly: there is no successful industrial development without public enablement. Hence the two statements in the outcome document: from government to industry, “we support national regulatory and policy frameworks that enable business and industry to advance sustainable development initiatives.” And from industry to government, “we also invite business and industry as appropriate and in accordance with national legislation to contribute to sustainable development and to develop sustainability strategies that integrate, inter alia, green economy policies.”

In the interests of industrial sustainability, the most critical policy change which governments could have taken at Rio would have been to agree to phase out subsidies (and increase taxes) on the production and consumption of carbon fuels. The International Energy Agency (IEA) has estimated that, in the absence of reform, these subsidies could reach almost \$US600bn by 2015, equivalent to 0.6% of global GDP.

Subsidies are often developed in the interests of the poor as consumers. But they represent a huge burden on national exchequers, distort market signals and are ultimately unsustainable economically. Will reform come? The outcome document asks only that governments “reaffirm the commitments they have made” to phase out fossil fuel subsidies. But who is watching? Compared with the much stronger language on fisheries subsidies, this is tantamount to the policy status quo, which the IEA predicts will see fuel subsidies grow further, encouraging rather than inhibiting the use of carbon fuels in industry and electricity generation.

There was also an onus on business and industry to make commitments, but the World Resources Institute found few of any significance. The Natural Capital Leadership Compact committed several global corporations to account for natural capital as a business imperative – several others declined. The 45 CEOs who are part of the UN Global Compact’s Water Mandate committed to working with governments and other partners to “help solve the global water crisis”. More meaningful still would have been a universally binding commitment by global firms to report on the sustainability of their operations by measuring resource use, including in particular environmentally significant emissions and pollutants. The outcome document asked industry to “develop models for best practice and facilitate action for the integration of sustainability reporting....”

This almost meaningless formulation is scarcely a call for disclosure. In 2013, the UK will require publicly-listed companies to fully report their greenhouse gas emissions. But how many other countries will follow voluntarily?

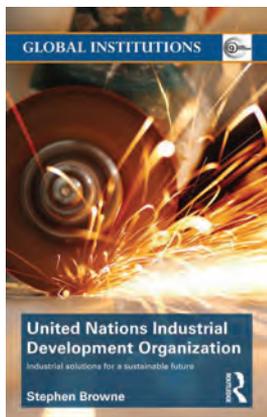
Rio+20 was another UN conference on an automatic decennial rota, and the timing was inauspicious. Green economics continues to be a genuine stumbling block for private companies, particularly in straitened financial times. Sustainability does not currently sell well on the stock market. Winning over shareholders will require leaders in the private sector who can make a convincing case for the advantages of sustainability over short-term gain. More positive activism by consumers, favouring greener producers, could also help.

Should we have expected more from this UN summit? Probably not. Timing was only one of the problems. The impuissance of successive climate change conferences-of-the-parties (17 and counting) is a good indicator of how poorly inter-governmental policymaking works in practice. The best that can be said about UN forums is

that they are universal. But, almost paradoxically, rather than forging agreements based on the world's best practices, or even making decisions by majority votes like every parliament in the world, the UN works by consensus, and thus effectively gives a veto to each of its 193 constituents.

The real outcomes of Rio will not reside in language of convolution and compromise. Even if the final document had had the status of a blueprint – or a roadmap for that “pathway”, the UN (secretariat) has a poor record of monitoring and ensuring compliance.

Any positive results of Rio will take time to show, and they will most likely come from a more organic “bottom-up” process of showcasing. The large presence of NGOs and private sector did not just raise awareness of the issues, it helped to advertize some of the ways that people are finding solutions to producing in a sustainable way. Ultimately, it will not be inter-governmental bodies but the ingenuity and innovation by individuals in supportive environments that will point to the future we want.



STEPHEN BROWNE is the director of the Future of the UN Development System project, and author of the recently published, *United Nations Industrial Development Organization: industrial solutions for a sustainable future* (Routledge).

FURTHER READING

- Akyüz, Yılmaz – Financial Crisis and Global Imbalances: A Development Perspective.
- Brautigam, Deborah – The Dragon's Gift: The Real Story of China in Africa.
- Bremner, Ian – Every Nation for Itself: Winners and Losers in a G-Zero World.
- Chaturvedi, Sachin, Fues, Thomas and Sidiropoulos, Elizabeth (eds.) – Development Cooperation and Emerging Powers: New Partners or Old Patterns?
- Chisholm, Linda and Steiner-Khamsi, Gita (eds.) – South-South Cooperation in Education and Development.
- Meléndez-Ortiz, Ricardo and Roffe, Pedro (eds.) – Intellectual Property and Sustainable Development: Development Agendas in a Changing World.
- Modi, Renu (ed.) – South-South Cooperation: Africa on the Centre Stage.
- Moore, Candice – BRICS partnership: A case of South-South Cooperation? Exploring the roles of South Africa and Africa.
- O'Neil, Jim – The Growth Map: Economic Opportunity in the BRICs and Beyond.
- Sharma, Ruchir – Breakout Nations: In Pursuit of the Next Economic Miracles.
- Suzuki, David and Hanington, Ian – Everything Under the Sun: Toward a Brighter Future on a Small Blue Planet.
- Tomsic, Vida, Klemen-Krek, Zofka, and Kovacic, Matjaz – South-South cooperation and the role of women in development.

FURTHER SURFING

- <http://ictsd.org/news/bridges> – Bridges Weekly provides global trade news from a sustainable development perspective.
- <http://whenchinametafrica.com> – ‘When China Met Africa’ is a documentary film telling the China-Africa story in microcosm from the perspective of three characters.
- www.brics.utoronto.ca – The BRICS Information Centre is a leading independent source of information and analysis on the BRICS interaction and institutions.
- www.chinaafricarealstory.com – China in Africa: digging into the myths and realities.
- www.devalt.org – Development Alternatives is a research and action organization, designing and delivering eco-solutions for the poor and the marginalized.
- www.emergingpowers.org – Knowing Emerging Powers is an independent, not-for-profit foundation that aims to increase the knowledge of civil society actors in Europe working on international development.
- www.ibsa-trilateral.org – The India-Brazil-South Africa Dialogue Forum.
- www.postwesternworld.com – Post-Western World. How are emerging powers changing the world?
- www.southcentre.org – An intergovernmental organization of developing countries meeting the need for analysis of development problems and experience, as well as providing intellectual and policy support required by developing countries for collective and individual action, particularly in the international arena.
- www.southgov.net – The Research Network on Global Governance and the Emerging Global South is a network of academics researching the emerging powers of the Global South, including the so-called ‘BRICS’ countries of Brazil, Russia, India, China and South Africa.
- www.southsouthexpo.org – The Global South-South Development Expo is the first ever expo solely from the South and for the South.
- www.southsouthnews.com – A digital platform for positive news on the Millennium Development Goals and the development of the Global South.

MakingIt

Industry for Development

A quarterly magazine to
stimulate debate about global
industrial development issues



partner for prosperity