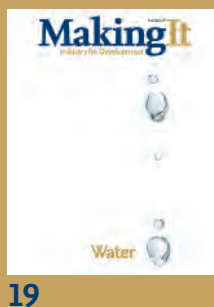
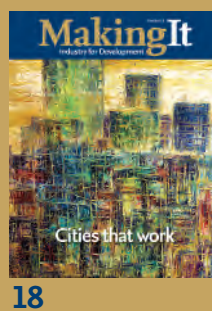


When industry meets the city: the Belt and Road Initiative





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



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Editorial

As UN-Habitat's Joan Clos says in his interview in this issue, "Urbanization and industrialization are two transformative processes for wealth generation."

For several centuries, industrialization has been a key driver of urban development. In turn, those cities with highly productive industrial centres have enjoyed higher increases in job growth and seen higher yearly increases in incomes.

The complementarity between urbanization and industrialization is set to take on a new dynamic with the unfolding of the Belt and Road Initiative (BRI). Launched in 2013, the BRI involves China underwriting billions of dollars of infrastructure investment in countries along the old Silk Road routes linking it with Europe and Africa.

The BRI stands to become one of the most ambitious modern-day international development projects ever conceived, and is likely to provide ample opportunities for industrial growth within the context of urban development.

How will cities along the Belt and Road forge an inclusive and sustainable urban-industrial development?

This issue of *Making It* looks at the challenges arising when industry meets the city in the era of the Belt and Road Initiative.



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GLOBAL FORUM

6 Letters

8 Our obsolescent economy –
Steven Gorelick on what is
behind our unsustainable
consumption and
production patterns

12 Business matters – news
and trends

FEATURES

14 Cities of the Silk Roads:
past, present and future Peter
Frankopan sees the Belt and
Road Initiative as the latest in
a long line of similar projects
across similar regions, and
looks for the lessons that
history can reveal



**17 The undeniable relationship
between urbanization and
industrialization –** interview
with Joan Clos (UN-Habitat)

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20 China aims to build a global infrastructure network
Belt and Road infrastructure projects, planned and completed (March 2017)

KEYNOTE FEATURE

22 The Belt and Road Initiative: A Platform for Sustainable Urban and Industrial Development
by UNIDO's Zou Ciyong

30 An enormous potential to spur increased trade –
Arancha González argues that small and medium enterprises must be able to take advantage of the new trade opportunities provided by the BRI

33 Leveraging urbanization for Africa's industrialization
Edlam Yemeru on how Africa's urban transition can become a motor for the continent's industrial revolution

38 "In the last analysis, investments always follow happiness" – interview with Erion Veliaj, the Mayor of Tirana in Albania

40 Good Business – Feed the Seed An enterprising recycling firm in Malaysia

POLICY BRIEFS

42 Pace of progress must accelerate to achieve the Sustainable Development Goals

44 A human economy for women and men

46 Endpiece Fairness and unfairness in climate negotiations – interview with IIED's Saleemul Huq





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 D1862, UNIDO, PO Box 300, 1400 Vienna, Austria. (Letters/emails may be edited for reasons of space).

LETTERS

Necessity: the mother of invention

I really like Kamau Gachigi's idea ("Changing gears for the 4IR", *Making It* 23) for makerspaces to help Africa's innovators and amateur engineers to take on the opportunity provided by the Fourth Industrial Revolution. He is so right to say that Africa can't and shouldn't wait for technology transfer via foreign direct investment. Trickle-down industrialization is just a sub-set of the con known as trickle-down economics.

● Jackie, website comment

Women's economic participation

"Making the economy work for women" (*Making It* 23) is correct to state that women need decent jobs with fair wages. If not, our empowerment is limited. An article by the Overseas Development Institute last year made the same point about women entering the labour market on unfavourable terms.

Getting women into the workforce is an important step but can we really talk about inclusive development if most of jobs being created



for women are in garment assembly? Typically this is a sector where young women workers are 'worked into the ground' for low pay (while having to put up with sexual harassment from supervisors).

For example, research by the confederation of Ethiopian Trade Unions (CETU) on the situation of working women for Ethiopian flower growers, textile and leather-hide processing companies indicates that women work long hours without having sufficient leave and with lower wages than men. Legal rights are not recognized in some instances. They are exposed to health hazards and often lack basic facilities like clean water.

So much for Ethiopia's "growth miracle"!

● Rosa Lee, by email

End product

Excellent to read the boss of the illy coffee company (Andrea Illy, "Wake up and smell the coffee", *Making It* 23)

showing it's possible to source coffee responsibly and sustainably especially to feed the enormous increased demand for coffee across the world.

Also good then to see an enterprising company making use of the tonnes of waste coffee grounds produced by cafes and workplaces – a resource currently under-utilised which is costing companies to get rid of it through waste disposal.

The London-based firm Bio-bean (www.bio-bean.com) discovered that oil could be extracted from spent coffee and turned into biodiesel, and the leftover grounds, instead of being thrown out, could be turned into biomass pellets for use in boilers.

Some of Bio-beans' customers supply their waste coffee and then use the fuel to heat their own premises.

They can also produce briquettes and barbecue coals. You might not be able to smell

coffee as they reach cooking temperature but this example of a 'closed loop' circular economy sounds a great idea.

● Jean Tresadern, by email

Drastic plastic

You have to be shocked by the huge damage done by plastic ("Let's get serious about plastics", *Making It* 22) with 13 million tonnes of it leaking into the world's oceans to be ingested by sea birds, fish and other organisms.

What's more, plastic production is set to double in the next 20 years and to quadruple by 2050. Fewer than half of the plastic bottles bought in 2016 were collected for recycling, with the rest ending up in landfill or burnt and only 7% of those collected were turned into new bottles. Half a trillion of plastic bottles will be sold every year by the end of this decade.

We're wreaking havoc on the environment, but we can do something about this. Most plastic bottles are for drinking water. Do we need to buy a bottle every time we need a drink that is free from the tap? Bottled water is often shipped from elsewhere and sold for up to five dollars a bottle. Cities and companies could provide water fountains so that bottles can be refilled. Subsidised, ethically-produced water containers could be made more widely available. If the drinks industry doesn't want to do it,



For further discussion of the issues raised in *Making It*, please visit the magazine website at www.makingitmagazine.net and our Twitter page, [@makingitmag](https://twitter.com/makingitmag). Readers are encouraged to surf on over to these sites to join in the online discussion and debate about industry for development.



then taxes or charges on water bottles would raise finance for governments to do so. Plastic bag use has been reduced in the UK by 80%, thanks to a 5p charge at supermarkets and large stores.

Major drinks brands that produce the greatest number of plastic bottles use just 6.6% of recycled polyethylene terephthalate (Pet) in their products. They could even be made out of 100% recycled plastic, known as as RPet, but the big companies don't want to do this because they want a shiny, clear plastic bottle.

The industry should invest in containers such as the Ooho (www.oohowater.com). It's a fully biodegradable water-filled orb made of two layers of seaweed-based packaging. The biodegradable outside layer can be recycled, while the inside is edible and can be eaten as you drink, or discarded if you wish. The orbs are made using a culinary process that shapes and holds liquids in to spheres and are able to hold up to a litre of water. Oohowater claim they could be cheaper to produce than plastic bottles.

● **Teri Dyson, website comment**

Competition questions

Not sure what evidence the academics Wim Naudé and Paula Nagler quoted (in

Making It 21) when they said 'there has never been a worse time to be competing with machines, but there has never been a better time to be a talented entrepreneur.'

Those of us in the information technology industry find it's not per se machines that are the difficulty – it's the corporate 'machines'. There's a highly concentrated monopoly of multinational companies dominating our industry through processes of exclusivity and buying-up of smaller competitors which squeezes out the small guys like us.

Software updates, for example, are increasingly designed deliberately to keep the consumer compulsorily dissatisfied, without choice as to whether or not the older versions should be discarded.

'Technological innovation' means that so-called 'talented entrepreneurs' have created: the largest taxi company which neither owns nor

drives taxis (clue: it begins with a 'U'); a holiday accommodation agency which owns no holiday accommodation (clue: ends in bnb); and a travel agency that arranges no holidays (guess...).

● **Nick Claesen, website comment**

Liquid asset

Enjoyed your issue on "Water" (*Making It 19*) which a colleague passed onto me. As you say in the editorial, "for industrialization to be sustainable, it must be a process that reduces water use and improves the quality of wastewater."

Water forms an important part of a development in Stockholm that readers may well have heard of. Hammarby Sjöstad, which is due to be completed in 2018, is a really good example of sustainable urban development. The neighbourhood itself is situated on the old industrial

and harbour area near the Lumafabrik – a former brownfield site.

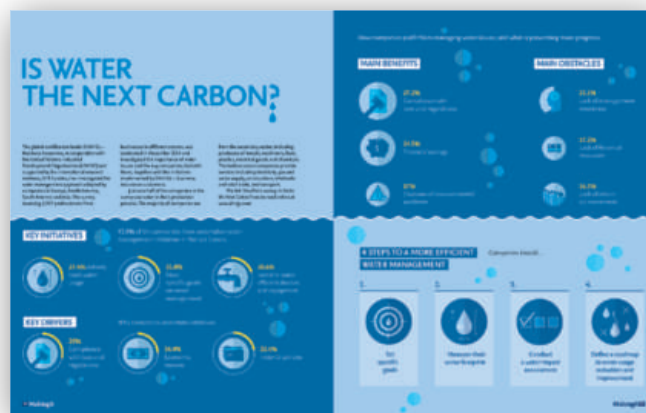
One of the primary goals of the development (including 11,000 apartments, based around a lake) is to reduce the water consumption of its residents from Stockholm's average of 200 litres a day per person to just 100 litres.

The water that will be used will be maximized to its full potential. For example, wastewater from Hammarby Sjöstad will be treated in two major wastewater treatment plants. One of these plants, the Sjöstadsverket, uses biological, physical, and chemical processes to collect and treat wastewater from residents. The heat from the wastewater is used to create heating, and the chilled water can also be used for cooling.

The share of renewable energy is also intended to be considerably higher than the Swedish average – using bioenergy and incineration of local waste to produce both locally generated heat and co-generated electricity. The stormwater devices should have a high aesthetical quality, which is an important factor in the liveability of the neighbourhood and it should provide plenty of green space and easy walking between transport connections.

It's a scheme that has much to teach us about industrial development generally.

● **Joan Sombre, by email**



Our obsolescent economy

STEVEN GORELICK on what is behind our unsustainable consumption and production patterns

A friend of mine from India tells a story about driving an old Volkswagen beetle from California to Virginia during his first year in the United States. In a freak ice storm in Texas he skidded off the road, leaving his car with a cracked windshield and badly dented doors and fenders. When he reached Virginia he took the car to a body shop for a repair estimate. The proprietor took one look at it and said, "It's totalled," meaning beyond repair. My Indian friend was bewildered, "How can it be totalled? I just drove it from Texas!"

My friend's confusion was understandable. While "totalled" sounds like a mechanical term, it's actually an economic one: if the cost of repairs is more than the car will be worth afterwards, the only economically 'rational' choice is to drive it to the junkyard and buy another one.

In the 'throwaway societies' of the industrialized world, this is an increasingly common scenario: the cost of repairing faulty stereos, appliances, power tools, and high-tech devices often exceeds the price of buying new. Among the long-term results are growing piles of e-waste, overflowing landfills, and the squandering of resources and energy. It's one reason that the average US American generates over 70% more solid waste today than in 1960. And e-waste – the most toxic component of household detritus – is growing almost seven times faster than other forms of waste. Despite recycling efforts, an estimated 140

Photo: www.flickr.com / Sascha Pohflepp



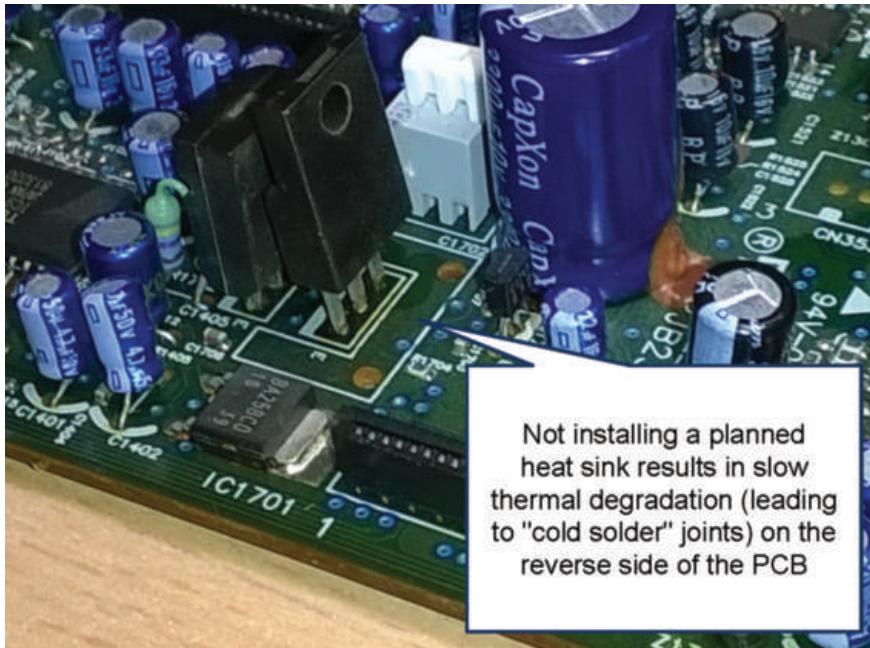
"The cost of repairing faulty stereos, appliances, power tools, and high-tech devices often exceeds the price of buying new."

million cell phones – containing US\$60 million worth of precious metals and a host of toxic materials – are dumped in US landfills annually.

Along with these environmental costs, there are also economic impacts. Not so long ago, most US towns had shoe repair businesses, jewellers who fixed watches and clocks, tailors who mended and altered clothes, and 'fixit' businesses that refurbished toasters, TVs, radios and dozens of other household appliances. Today, most of these businesses are gone. "It's a dying trade," said the owner of a New Hampshire appliance repair shop. "Lower-end appliances which you can buy for US\$200 to US\$300 are basically throwaway appliances." The story is similar for other repair trades: in the 1940s, for example, the US was home to about 60,000 shoe repair businesses, a number that has dwindled to less than one-tenth as many today.

One reason for this trend is globalization. Corporations have relocated their manufacturing operations to low-wage countries, making goods artificially cheap when sold in higher-wage countries. When those goods need to be repaired, they can't be sent back to China or Bangladesh – they have to be fixed where wages are higher, and repairs are therefore more expensive. My friend was confused about the status of his car because the opposite situation holds in India: labour is cheap and imported goods expensive, and no one would

Printed circuit boards (PCBs) are used in nearly all electronic products. Deliberate design flaws often mean that products stop functioning sooner than they could.



Not installing a planned heat sink results in slow thermal degradation (leading to "cold solder" joints) on the reverse side of the PCB

dream of junking a car that could be fixed.

It's tempting to write off the decline of repair in the West as collateral damage – just another unintended cost of globalization – but the evidence suggests that it's actually an intended consequence. To see why, it's helpful to look at the particular needs of capital in the global growth economy – needs that led to the creation of the consumer culture just over a century ago.

When the first Model T automobile rolled off Henry Ford's assembly line in 1910, industrialists understood that the technique could be applied not just to cars, but to almost any manufactured good, making mass production possible on a previously unimaginable scale. The profit potential was almost limitless, but there was a catch: there was no point producing millions of items – no matter how cheaply – if there weren't enough buyers for them. And in the early part of the 20th century, the majority of the

population – working class, rural, and diverse – had little disposable income, a wide range of tastes, and values that stressed frugality and self-reliance. The market for manufactured goods was largely limited to the middle and upper classes, groups too small to absorb the output of full throttle mass production.

Advertising was the first means by which industry sought to scale up consumption to match the tremendous leaps in production. Although simple advertisements had been around for generations, they were hardly more sophisticated than classified ads today. Borrowing from the insights of Freud, the new advertising focused less on the product itself than on the vanity and insecurities of potential customers. As historian Stuart Ewen points out, advertising helped to replace long-standing American values stressing thrift with new norms based on conspicuous consumption. Advertising, now national in scope, also helped to erase regional

and ethnic differences among America's diverse local populations, thereby imposing mass tastes suited to mass production. Through increasingly sophisticated and effective marketing techniques, Ewen says, "excessiveness replaced thrift as a social value", and entire populations were invested with "a psychic desire to consume."

In other words, the modern consumer culture was born – not as a response to innate human greed or customer demand, but to the needs of industrial capital.

During the Great Depression, consumption failed to keep pace with production. In a vicious circle, overproduction led to idled factories, workers lost their jobs, and demand for factory output fell further. In this crisis of capitalism, not even clever advertising could stimulate consumption sufficiently to break the cycle.

In 1932, a novel solution was advanced by a real estate broker named Bernard London. His pamphlet, "Ending the Depression through Planned Obsolescence" applauded the consumerist attitudes that advertising created during the 1920s, a time when "the American people did not wait until the last possible bit of use had been extracted from every commodity. They replaced old articles with new for reasons of fashion and up-to-dateness. They gave up old homes and old automobiles long before they were worn out." In order to circumvent the values of thrift and frugality that had resurfaced during the Depression, London argued that the government should "chart the obsolescence of capital and consumption goods at the time of their production... After the allotted time had expired, these things would be legally 'dead' and would be controlled by the duly appointed governmental agency and destroyed." ➤

► The need to replace these ‘dead’ products would ensure that demand would forever remain high, and that the public – no matter how thrifty or satisfied with their material lot – would continue to consume.

London’s ideas did not catch on immediately, and the Depression eventually ended when the idle factories were converted to munitions and armaments production for World War II. But the concept of planned obsolescence did not go away. After the War its biggest champion was industrial designer Brooks Stevens, who saw it not as a government programme but as an integral feature of design and marketing. “Unlike the European approach of the past where they tried to make the very best product and make it last forever,” he said, “the approach in America is one of making the American consumer unhappy with the product he has enjoyed the use of..., and [making him want to] obtain the newest product with the newest possible look.”

Brooks’ strategy was embraced throughout the corporate world, and is still in force today. Coupled with advertising aimed at making consumers feel inadequate and insecure if they don’t have the latest products or currently fashionable clothes, the riddle of matching consumption to ever-increasing production was solved.

The constant replacement of otherwise serviceable goods for no other reason than “up-to-dateness” is most clear at the apex of the garment industry, tellingly known as the “fashion” industry. Thanks to a constant barrage of media and advertising messages, even young children fear being ostracized if they wear clothes that aren’t “cool” enough. Women in particular have been made to feel that they will be undervalued if their clothes aren’t sufficiently trendy. It’s not just



STEVEN GORELICK is US Programme Director for the International Society for Ecology and Culture, and an adjunct professor at Sterling College in Vermont. He is the author of *Small is Beautiful, Big is Subsidized*.

advertising that transmits these messages. One of the storylines in an episode of the 1990s sit-com, “Seinfeld”, for example, involves a woman who commits the faux pas of wearing the same dress on several occasions, making her the object of much canned laughter.

Obsolescence has been a particularly powerful force in the high-tech world, where the limited lifespan of digital devices is more often the result of “innovation” than malfunction. With computing power doubling every 18 months for several decades (a phenomenon so reliable it is known as Moore’s Law) digital products quickly become obsolete: as one tech writer put it, “in two years your new smartphone could be little more than a paperweight”. With marketers bombarding the public with ads claiming that this generation of smartphone is the ultimate in speed and functionality, the typical cell phone user purchases a new phone every 21 months.

“Obsolescence has been a particularly powerful force in the high-tech world, where the limited lifespan of digital devices is more often the result of ‘innovation’ than malfunction.

Needless to say, this is great for the bottom line of high-tech businesses, but terrible for the environment.

Innovation may be the primary means by which high-tech goods are made obsolete, but manufacturers are not above using other methods. Apple, for example, intentionally makes its products difficult to repair, except by Apple itself, in part by refusing to provide repair information about its products. Since the cost of in-house repair often approaches the cost of a new product, Apple is assured of a healthy stream of revenue no matter what the customer decides to do.

Apple has gone even further. In a class-action lawsuit against the company, it was revealed that the company’s iPhone 6 devices were programmed to cease functioning – known as being “bricked” – when users have them repaired at unauthorized (and less expensive) repair shops. “They never disclosed that your phone could be bricked after basic repairs,” said a lawyer for the complainants. “Apple was going to ... force all its consumers to buy new products simply because they went to a repair shop.”

In response to this corporate skulduggery, a number of US states have tried to pass “fair repair” laws that would help independent repair shops get the parts and diagnostic tools they need, as well as schematics of how the devices are put together. One such law has already been passed in Massachusetts to facilitate independent car repair, and farmers in Nebraska are working to pass a similar law for farm equipment. But except for the Massachusetts law, heavy lobbying from manufacturers – from Apple and IBM to farm equipment giant John Deere – has so far stymied the passage of right-to-repair laws.

From the grassroots, another response has been the rise of non-profit “repair

The Repair Café in Amsterdam in the Netherlands aims to maintain and spread repair expertise and to promote social cohesion by bringing together neighbours from all walks of life.



Photo: <https://commons.wikimedia.org/wiki/File:Njikikijien>

Deregulatory 'free trade' treaties have given corporations the ability to locate their operations anywhere in the world, contributing to the skewed pricing that makes it cheaper to buy new products than to repair older ones. These treaties also make it easier for corporations to penetrate not just the economies of the global South, but the psyches of their populations – helping to turn billions of more self-reliant people into insecure consumers greedy for the standardized, mass-produced goods of corporate industry. The spread of the consumer culture may help global capital meet its need for endless growth, but it will surely destroy the biosphere: our planet cannot possibly sustain seven billion people consuming at the insane rate we do in the 'developed' world – and yet that goal is implicit in the logic of the global economy.

We also need to oppose – with words and deeds – the forces of consumerism in our own communities. The global consumer culture is not only the engine of climate change, species die-off, ocean dead zones, and many other assaults on the biosphere, it ultimately fails to meet real human needs. The price of the consumer culture is not measured in the cheap commodities that fill our homes and then, all too soon, the nearest landfill. Its real cost is measured in eating disorders, an epidemic of depression, heightened social conflict, and rising rates of addiction – not just to opioids, but to 'shopping', video games and the internet.

It's time to envision – and take steps to create – an economy that doesn't destroy people and the planet just to satisfy the growth imperatives of global capital.

● The above was first published by Local Futures www.localfutures.org – a pioneer of the new economy movement, dedicated to the renewal of community, ecological health and local economies worldwide.

cafés". The first was organized in Amsterdam in 2009, and today there are more than 1,300 worldwide, each with tools and materials to help people repair clothes, furniture, electrical appliances, bicycles, crockery, toys and more – along with skilled volunteers who can provide help if needed. These local initiatives not only strengthen the values of thrift and

self-reliance intentionally eroded by consumerism, they help connect people to their community, scale back the use of scarce resources and energy, and reduce the amount of toxic materials dumped in landfills.

At a more systemic level, there's an urgent need to rein in corporate power by re-regulating trade and finance.

trends



■ The 2020s will be a decade when electric vehicles (EVs) sales pick up the pace, with automakers increasing their offerings of full and hybrid electric cars, plug-in versions of hybrids and fuel cell vehicles. The improving economics of EVs have encouraged automakers to increasingly

embrace EV battery technology, especially among traditional carmakers wary of the rise of rival EV manufacturers such as Tesla. As a result some have decided to enter the EV market, given the sharp drop in manufacturing costs owing to innovation that is expected to make full-electric cars more

competitive with fuel vehicles by as early as 2022, according to Bloomberg New Energy Finance.

Tesla – a US company that has been a benchmark for the EV industry – has priced its upcoming mass-market electric sedan, Model 3, at US\$35,000, at least 60% cheaper than its sports utility EV, the Model X. EVs are

likely to emerge from the fringes of the car market to being a core business strategy for many automakers. Indeed, Volvo has committed to making only EVs from 2019 while Volkswagen is aiming to sell 1m pure electric cars annually by 2025. (EIU)

■ Latin America and the Caribbean has the potential to lead a revolution in the management of wastewater as a resource by reusing it in agricultural and industrial

BUSINESS MATTERS

Refugees: another side to the story

The six year-long war in Syria has forced five million Syrians to seek refuge in neighbouring countries, and more than one million to seek asylum in Europe.

Turkey, is now home to three million refugees and, just as in the rest of the region, Syrians in Turkey are starting businesses that are creating jobs, livelihoods, and independence for themselves and for other refugees.

A ground-breaking study by the Building Markets non-governmental organization indicates that there are over 10,000 Syrian-owned businesses in Turkey. Since 2011, Syrians have invested nearly US\$334m into 6,033 new companies. Another 2,000 companies are likely to be established by the end of 2017, with an additional US\$90m of Syrian capital.

Syrian entrepreneurs in Turkey are creating jobs in wholesale and retail, as well as in the manufacturing sector. On average, Syrian-owned firms



A Syrian refugee family in the Azraq camp, northern Jordan.

Photo: Russell Watkins/DFID

employ 9.4 people, drawing largely from the informal sector.

Many studies show the economic benefits of migration for countries around the world. These are realized through innovation and entrepreneurship or through freeing up natives for higher-value work.

In fact, while migrants make up just 3.4% of the world's population, research finds that they contribute nearly 10% of global GDP, according to a recent McKinsey report.

Entrepreneurship appears to be a good fit with immigrants' competencies. There are countless examples of immigrant entrepreneurs' success stories in developed economies. According to a recent article in the *Harvard Business Review*, in the US, immigrants are almost twice as likely to become entrepreneurs as native-born US citizens. Immigrants represent 27.5% of the country's entrepreneurs but only around 13% of the population.

Part of the explanation offered by economists for the higher rate of entrepreneurship among immigrants – a phenomenon observed not only in the United States but around the world – is self-selection: entrepreneurial individuals are more likely to migrate.

Another explanation is that difficulties in accessing labour markets as immigrants force them to start businesses. The same *Harvard Business Review* article adds that “cross-cultural

activities, and by promoting circular economy models while, at the same time, striving to meet Sustainable Development Goal 6 by the year 2030. This was the main message of the Latin America and the Caribbean Focus (coordinated by the Inter-American Development Bank) at the World Water Week in Stockholm in August 2017. The IDB sessions focused on the need to adopt wastewater reuse practices to meet the region's

present and future water needs. Today, 77% of the population in Latin America and the Caribbean lack access to safe sanitation. Only an estimated 28% of the wastewater collected by public sewers receives some kind of treatment before being discharged to the environment. (IDB)

■ With 8.3% of all deaths and 5.7% of the total burden of disease worldwide due to chemical exposure, it is no

surprise that the conversation around green chemistry is getting louder. Green chemistry is the utilization of a set of principles that reduces or eliminates the use or generation of hazardous substances in the design, manufacture and application of chemical products.

In an effort to spread the word about green chemistry, the United Nations Industrial Development Organization and partners have launched an initiative to increase global

awareness and to deploy green chemistry approaches and technologies. The initiative brings together a research consortium led by the Centre for Green Chemistry and Green Engineering at Yale University, the German Federal Environmental Foundation, and Braskem, the largest thermoplastic resins producer in the Americas, as well as several National Cleaner Production Centres. (Elsevier/UNIDO)

experiences may increase individuals' capabilities to identify promising business ideas "as well as boost creativity.

Additionally, qualities such as resilience and persistence which help immigrants thrive in a new country are also conducive to entrepreneurship.

Syrians around the world demonstrate these positive links between immigration and entrepreneurship.

A study conducted by the Center for American Progress found that, "Syrian immigrants (in the United States) have extremely high rates of business ownership...11% are business owners – more than double the rate of immigrants overall and more than triple the rate of US citizens by birth." Not only strong in numbers, these businesses tend to be successful, providing jobs and stimulus to local economies.

The success stories of Syrian refugee entrepreneurs in economies such as those of the United Kingdom, Germany, Canada and the United States demonstrate that, given the opportunity and an enabling environment, there is great potential for refugees to create value and contribute to their new countries. (Source: Building Markets)

Automation, women and the future of work

The eighth Sustainable Development Goal (SDG) calls for productive employment and decent work for all by 2030. But how will this Goal be achieved in a rapidly digitizing world, where the majority of jobs are likely to be lost to automation?

Recent research predicts that 47% of jobs in the United States, 85% of jobs in Ethiopia and 77% of jobs in China are at risk of automation in the coming years.

Research from the UK's Institute of Development Studies (IDS) for the 2017 Digital Development Summit found that governments, businesses and global institutions are not prepared for such large-scale, rapid change, and are failing to put in place anticipatory and adaptive measures to cope with its impact.

Research shows that men and women will not equally experience job losses due to automation. Overall, men stand to gain one job for every three jobs lost to technological advances, while women are expected to gain one job for every five or more jobs lost.

On the other hand, as social skills are particularly important



Image: Creative Commons/Adinbar18

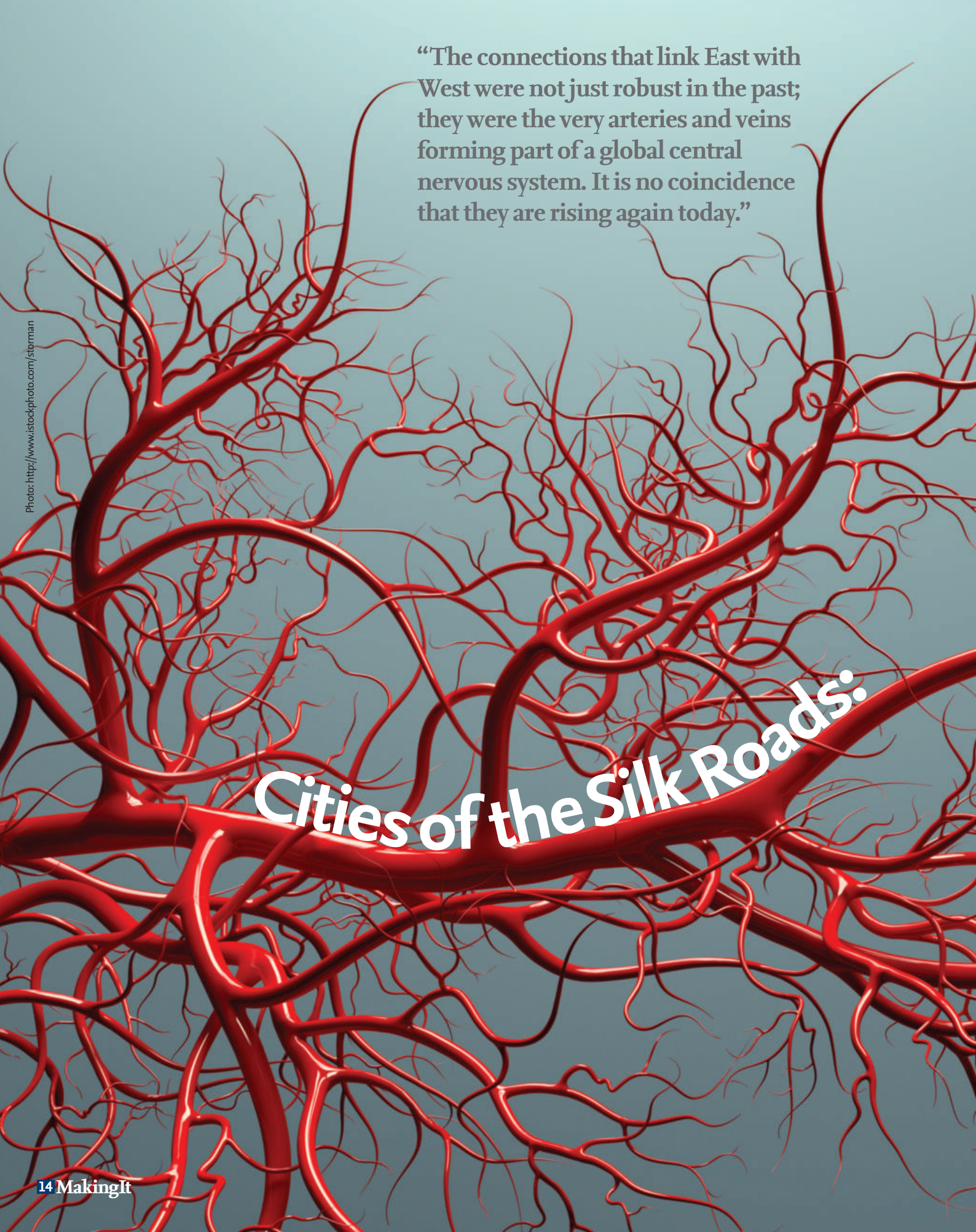
in high-paying jobs that are difficult to automate, the shift in women's employment towards social skill-intensive occupations may mean women actually benefit from automation. Research from the United States shows that the three occupations expected to grow the most between 2014 and 2024 are personal care aides, registered nurses and home health aides.

Much of the debate on the future of jobs has focused on the formal sector, with little attention paid to the impacts of automation on the two billion working-age adults classified as being outside of the workforce – many of whom are women.

It is clear that the

achievement of SDG 8 by 2030 will be impossible without considering the risks and benefits of digital technology and automation. But this in turn will be unachievable without paying attention to gender in line with SDG 5: 'achieve gender equality and empower all women and girls'.

The IDS briefing paper, *Automation, Women, and the Future of Work*, explores the impact of automation on three of the targets under SDG5, recommending how governments, businesses, civil society and others can ensure gender is properly considered in debates on the future of work. (Source: Institute of Development Studies)



“The connections that link East with West were not just robust in the past; they were the very arteries and veins forming part of a global central nervous system. It is no coincidence that they are rising again today.”

Cities of the Silk Roads:

Peter Frankopan sees the Belt and Road Initiative as the latest in a long line of similar projects across similar regions, and looks for the lessons that history can reveal.

past, present and future

The Silk Roads are rising again. In September 2013, President XI Jinping visited Kazakhstan. It was a foreign policy priority, he said in a speech at Nazarbayev University in Astana, “for China to develop friendly co-operative relations with the Central Asian countries”. The time had come, he continued, to make economic ties closer, improve communication, encourage trade and enhance monetary circulation. The time had come to create a ‘Silk Road Economic Belt’, straddling the spine of Asia.

The project of the century

Four years on, the Belt and Road Initiative (BRI) is galvanizing change not only across Asia but also in Africa and Europe too. The scale of Chinese-led investment is breathtaking, with nearly US\$1trn of commitments already given to infrastructure projects, ranging from the construction of train and road connections to the building of energy plants and pipelines, deep water ports and international airports. Little wonder, then that at the Belt and Road Initiative Forum ➤

► held in Beijing in May 2017, President Xi talked of ‘the project of the century.’ The initiative promises to change the lives not of millions or even hundreds of millions of people; but of billions: nearly two thirds of the world’s population fall within the broad and deliberately vague parameters of the BRI.

Like all major projects, the BRI presents many challenges and will need to overcome many obstacles, ranging from project finance, implementation and successful investment returns, to regional dissonance between countries anxious about the speed of possible change and about China’s roles both as a catalyst and as a nascent superpower. How to deal with rising levels of exchange and the impact this will have on the environment, on cities and rising urbanization, on the demand for energy, natural resources and food – but also on gender, healthcare and literacy? As we know, increasing trade has much more complex consequences than simply fuelling growing economies.

Valuable lessons

As such, it is worth remembering that the Belt and Road Initiative is the latest in a long line of similar projects – across similar regions. Looking to history not only reveals case studies that are interesting in themselves, but actually holds many valuable lessons. For example, when Alexander the Great conquered vast swathes of Western and Central Asia nearly two and a half thousand years ago, one of his priorities was founding new cities, many of which he modestly named after himself – such as Alexandria in Aria (modern-day Herat), Alexandria in Arachosia (modern-day Kandahar) and Alexandria ad Caucasm (modern-day Bagram) – and establishing an infrastructure that linked these and other towns together to enable the safe passage of goods, people and information.

It was the same story over the centuries and millennia that followed. Merchants and travellers like Pegolotti and Ibn Battuta noted not only the ease of being able to get from one location to the next but also the fact that undertaking journeys, including over long distance, was secure. “A man can travel for nine months alone with all great wealth”, wrote Ibn Battuta, “and has nothing to fear”. The prerequisite for close economic

Peter Frankopan is Professor of Global History at Oxford University and Director of the Oxford Centre for Byzantine Research. He is the author of *The Silk Roads: A New History of the World* (2015).



ties, improved communications and rising trade were the same in the past as they are today.

Infrastructure

The effectiveness of infrastructure in the past was the reason that, one thousand years ago, cities like Merv in modern Turkmenistan grew to be home to the largest urban population on Earth and was a place impressive and beautiful enough to be described by one writer at the time as a “delightful, fine, elegant, brilliant, extensive and pleasant city”, or Rayy, not far from modern Tehran, which around the same period was described by another author as being “the world’s most beautiful creation” and “the bridegroom of the Earth”.

Changes brought about by growing trade routes, by new connections and by the emergence of new power centres helped to seed cities like Delhi, Jaipur and Lahore, which flourished as new markets linked South to Central Asia under the Mughals. Investment spurred innovation in the past, just as it does today.

Irrigation helped develop and expand the amount of cultivatable land – which in turn helped cities grow in size. In the past, there were limits to how large a population could be sustained in a single metropolis: exhausting the water supply or having more mouths than it was possible to feed meant that our ancestors were natural environmentalists: sustainability was not just admirable, it was fundamental in the life (and death) of cities and of citizens.

And in fact, cities did fall along the Silk Roads, just as they rose. So, Merv and Rayy are no more, while cities along the New Silk Roads, like Astana or Dubai, Doha and Abu Dhabi, which were little more than pin-pricks a hundred years ago, have become new oases for finance, trade and culture thanks to the opening (or projected opening) of foreign university campuses and outposts of the Louvre and the Guggenheim, alongside the Museum of Islamic Art in Qatar.

Key differences

One major difference from the past, of course, comes from the speed at which exchange and travel is possible today. The ability to move goods, people and information at great speed accelerates connectivity. But it also magnifies risks and exposes fragilities, whether between states (such as the recent stand-off between Qatar and Saudi Arabia and the other members of the Gulf Cooperation Council), by enabling non-state actors like Islamic State to establish logistical and communications platforms, or by unnerving states so that they take uncompromising positions against minority groups in their own countries because of the threat – real or imagined – of instability in a changing world.

Another key difference is the advance of technology. Food and water can now be brought in from far and wide, which removes barriers to urban growth. So too does energy generation, clean and otherwise, that not only enables expansion but allows the natural environment to be tamed. Building cities in climatic zones where it can rise above 40C in the summer months is possible thanks to air-conditioning, refrigeration and cooling techniques in residential and commercial buildings.

Naturally, this presents opportunities but it also presents challenges. Industrial development is closely linked to changing dynamics of the city. Asia will be disproportionately represented by the megacities that are one of the definitive features of the modern world.

Understanding how to help them to enable the eradication of extreme poverty and hunger, rather than exacerbate both; how to use cities as beacons to ensure environmental sustainability rather than be part of the process of destruction; and how to use partnerships to reinforce best practices, to share the best ideas and to build networks that offer mutual benefits are the areas where the United Nations Industrial Development Organization can offer effective assistance.

The connections that link East with West were not just robust in the past; they were the very arteries and veins forming part of a global central nervous system. It is no coincidence that they are rising again today.

Interview with **Joan Clos**, Executive Director of the United Nations Human Settlements Programme (UN-Habitat). UN-Habitat is the United Nations programme working towards a better urban future. Its mission is to promote socially and environmentally sustainable human settlements development and the achievement of adequate shelter for all.

The undeniable relationship between urbanization and industrialization

What is the relationship between cities and industry?

Urbanization and industrialization are two transformative processes for wealth generation. In many periods of our history their complementarity has proved to be an important driver for development. The industrialization process of Europe of the 19th century happened in parallel to an important urbanization process. In the 20th century, the urbanization of China, considered one of the most impressive political and human transformations, occurred in accordance with unprecedented levels of industrialization, job creation and thus, poverty eradication.

In booming continents like Africa, with a very high pace of urbanization, major transformations are expected to happen

with a close interdependence with industrialization and the knowledge economy. The traditional nature of the economic growth of Africa has largely been based on the primary sectors of the economy, mainly agriculture and extractive industries. The next steps of substantive development are already moving towards more productive sectors of the economy, mainly industrial manufacturing (secondary sector) and services (tertiary sector). Therefore, the relationship between urbanization and industrialization is undeniable. ➤

infrastructure
economic zones
manufacturing

The undeniable relationship between urbanization and industrialization

services

► UN-Habitat signed a Memorandum of Understanding (MoU) with the Government of China to promote sustainable urban development within the framework of the Belt and Road Initiative during the Belt and Road Forum for International Cooperation in Beijing in May. How can industries facilitate the effective implementation of this MoU in cities along the Belt and Road?

Considering that China's BRI is facilitating the exchange and integration of goods, technology, capital and personnel through cooperation and mutual learning among countries along the Belt and Road, and combining this with the implementation of New Urban Agenda adopted at Habitat III in October 2016 and Sustainable Development Goal 11 on sustainable cities and communities, both parties agreed to cooperate to promote sustainable urbanization at large. This includes issues relating to national urban policies, land use and its administration, urban and territorial planning, the development of urban infrastructure and services, the spatial planning of special economic zones and of border towns, human settlements and housing development, as well as policies for human settlements and city migrants.

entrepreneurs

With respect to these cooperation areas, industries can play an important and positive role, for example as follows. For the formulation of national urban policies, urban and territorial planning in many developing countries, industrial development policies, industries layout and their distribution must be one of the important elements of policies and planning.

Industrialization will interact with urbanization in a positive way if both are harnessed in harmony, in a balanced and sustainable manner. Industries can provide sustainable urbanization with immense driving force. This is particularly critical for the spatial planning of special economic zones. In this respect, China has a lot of experience and has learnt lessons in past decades which can be shared with the countries along the Belt and Road.

For promoting the development of improved urban basic services and

partnerships

technologies

housing, it is hard to realize the effective delivery without applying the advanced technologies provide by industries. Innovation and the upgrading of relevant industrial products and technologies must drive the progress of applicable technologies in the field of basic urban services and housing which has been manifested in many countries in the process of urbanization. So, integrating advanced industrial development ideas, technologies and products into urban development is an effective and efficient way to promote sustainable urbanization. Sustainable industrialization can also provide strong support for financing of sustainable urbanization.

job
creation

towns

planning

How can different partnership mechanisms (municipal organizations, private sector, international organizations, etc.) within the overarching theme of the BRI further facilitate sustainable urban-industrial development in developing countries?

During Belt and Road Forum in May 2017, the Chinese government advocated for peace and cooperation, openness and inclusiveness, and committed itself to promote extensive cultural and academic exchanges, personnel exchanges and cooperation, media cooperation, exchanges between youth and women, and volunteer services. UH-Habitat has already set up several partnership mechanisms which are not only active but effective, such as the General Assembly of Partners for Habitat III, the World Urban Forum, the World Urban Campaign, etc. These partnership platforms have played an important and positive role in formulating the New Urban Agenda in the Habitat III conference, supporting the implementation of programmes, disseminating and exchanging knowledge and so on. I think that both parties share many common views for partnership mechanisms.

guisnoy added value

UN-Habitat is cooperating with other United Nations programmes and agencies and other relevant stakeholders to formulate evidence-based and practical guidance, to conduct cooperation projects and to facilitate capacity building for the implementation of the New Urban Agenda and the urban dimension of the Sustainable Development Goals which have many focus areas connected with the Belt and Road Initiative, all in close collaboration with Member States, local authorities and other relevant stakeholders, as well as through the mobilization of experts.

Within these partnership mechanisms, not only the private sector and enterprises, but also entrepreneurs, can apply their creativity and innovation to solve sustainable development challenges in urban area. Their business activity, investment and innovation are the most important drivers of productivity, inclusive growth and job creation with urban development.

sustainable exchanges

How can the New Urban Agenda further support the implementation of the Sustainable Development Goals in cities? How will industries and technological advancements, such as Industry 4.0, contribute to this process?

One of the major novelties of Agenda 2030 for Sustainable Development and Habitat III is the recognition of the contribution of urbanization to development. By its nature, urbanization is one of the few social and political phenomena which generate a lot of value. Urbanization generates value through economies of location and economies of agglomeration. The location of a plot, depending on its connectivity, can generate a lot of value, whereas the generation of value through agglomeration is due to factors of production which increase efficiency. Our cities today already generate 70% of the world's gross domestic product and nearly 70% of total employment.

The significance of the New Urban Agenda is that is an action-oriented guide for national, sub-national and local governments, composed of five pillars to address effectively the complex challenges of urbanization. Further advances are expected, given the fact that initiatives such as Industry 4.0 are related to the knowledge-based economy and the city is the most adequate place where this knowledge is generated because of the density of information inter-exchange in the urban hubs.

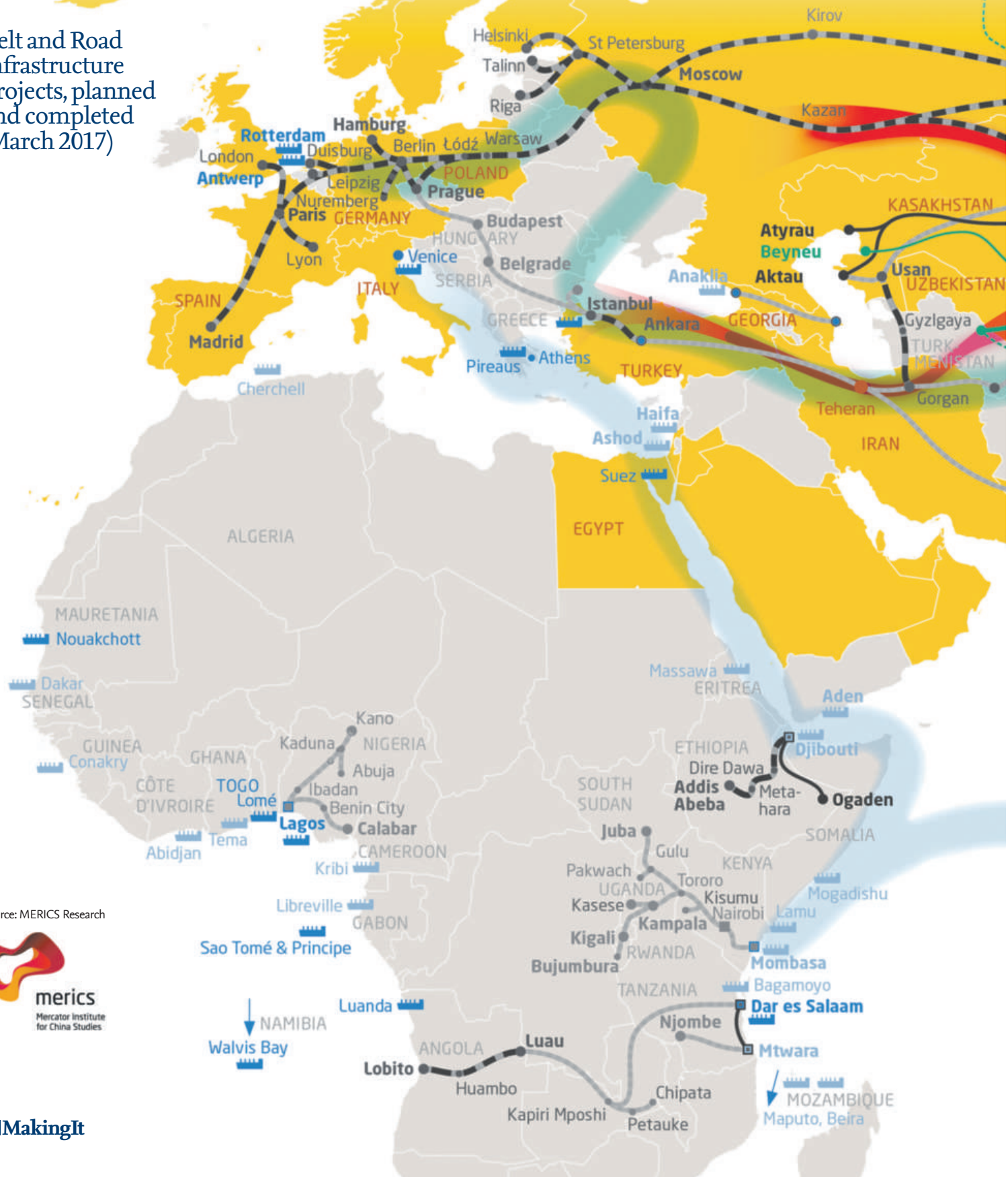
Geographic economies have demonstrated that there is a correlation between urban size and added value. Therefore, new attention will need to be given as the global economy is advancing towards Industry 4.0 modalities, given its high dependency on urban quality.



Dr. Joan Clos has been the Executive Director of the United Nations Human Settlements Programme (UN-Habitat) since October 2010. Born in Barcelona in 1949, he is a medical doctor with a distinguished career in public service and diplomacy. He was twice elected Mayor of Barcelona, serving two terms from 1997 until 2006. He was Minister of Industry, Tourism, and Trade of Spain between 2006 and 2008. He is widely credited with inspiring far-reaching investment programmes for Barcelona. One of the most ambitious was the Barcelona@22 programme, which gave the city's dilapidated industrial zones a facelift.

China aims to build a global infrastructure network

Belt and Road
infrastructure
projects, planned
and completed
(March 2017)



Source: MERICS Research





KEYNOTE

Photo: www.istockphoto.com/estherpoon

THE BELT AND ROAD INITIATIVE:

**A PLATFORM
FOR SUSTAINABLE
URBAN AND INDUSTRIAL
DEVELOPMENT**

by ZOU Ciyong

In today's ever-shifting geo- and sociopolitical environment, the future of sustainable urban and industrial development remains constantly in flux. Against this backdrop, the Belt and Road Initiative (BRI) has gained significant traction among world leaders following the first Belt and Road Forum for International Cooperation, held in Beijing from 14 to 15 May 2017.

According to the State Council of China, the forum attracted the attendance of 29 heads of state, as well as representatives from more than 130 nations and 70 international organizations. The forum resulted in a multitude of agreements, including a joint communiqué issued by all world leaders in which they affirmed their commitment to the creation of an open and inclusive economy. Moving forward with the implementation of the BRI in the months and years to come will require the transformation of these new agreements into tangible results.

“Today, the BRI is endeavouring to breathe new life into these ancient trade routes by reviving the Silk Road’s spirit of mutual cooperation.”

The Belt and Road Initiative in context

The BRI is intended to connect the vast continents of Asia, Africa and Europe and is designed to boost trade and economic growth in its participating countries. Officially referred to in China as the “Silk Road Economic Belt and the 21st Century Maritime Silk Road Initiative”, the initiative is clearly modelled on the historic Silk Road, an ancient network of land and sea trade routes stretching from the Mediterranean Sea to South-east Asia.

Although the Silk Road was renowned for its conveyance of highly coveted silks from China to various Western empires, silk was only one of many commodities regularly traversing the various Silk Road trade routes. Other precious goods, including spices, grains, vegetables and fruits, precious stones and metals, tools and artwork, were ferried from East to West and West to East.

Arguably even more important was the Silk Road’s influence on cultural development. Interactions between merchants along the route naturally improved cultural understanding and required the transfer of languages and ideas in the arts and sciences. Coastal cities and trading ports, which often grew into bustling metropolitan areas, became hotspots of artistic and intellectual exchange.

Today, the BRI is endeavouring to breathe new life into these ancient trade routes by reviving the Silk Road’s spirit of mutual cooperation. The BRI offers participating countries a vision for shared growth and prosperity in accordance with its five priority areas –

(i) policy coordination; (ii) enhanced connectivity; (iii) unimpeded trade; (iv) financial integration; and (v) cross-cultural exchange.

In terms of geographic scope, the BRI encompasses 64 primarily middle- to low-income countries, which comprise over 40% of the world’s population and

64
countries

40%
of world's
population

12
trillion US\$
combined GDP

boasted a combined GDP of US\$12trn as of 2016. Since the initiative's launch four years ago, cooperation agreements have been signed with 50 nations.

New opportunities for urban and industrial development

Without a doubt, if successful, the BRI stands to become one of the most ambitious modern-day international development projects ever conceived, with projected investments of nearly US\$1trn. And even as cities played an integral role in ancient times, as the connective tissue of the Silk Road route, so too can they play an indispensable role in the implementation of the BRI. Within each of the initiative's five pillars, one can find ample opportunities for industrial growth within the context of urban development.

Policy coordination: Where policy coordination is concerned, the establishment of a large-scale cooperative mechanism among cities along the Belt and Road can jumpstart the harmonization of industrial development strategies and policies at the city level. This will require well-designed plans for inter-city cooperation, as well as policy support for the implementation of practical cooperation projects.

Enhanced connectivity: Enhancing connectivity, in the sense of improving physical transit routes, both terrestrial and maritime, as well as communication networks, between countries along the Belt and Road must begin in cities. In this regard, standardization between various countries scattered across disparate regions will pose a significant challenge and will require the construction of interoperable technical standards.

Unimpeded trade: In recent years, the urban financing gap has widened significantly. The United Nations Human Settlement Programme estimates that the current infrastructure investment gap amounts to US\$1trn per year. Without proper financing, economic growth stagnates, living standards are impaired and cities are unable to combat the adverse effects of climate change. Improving urban investment climates and removing barriers to financing is therefore of paramount importance when it comes to the BRI's third pillar.

Financial integration: The potential benefits of financial integration are many – higher investments, improved growth and risk sharing, to name ➤

➤ merely a few. It is nevertheless imperative that the BRI foster the formation of a financial system that works for the benefit of all. Once again, progress on this front begins in cities. At the macro level, cities should promote urban-development strategies designed to attract foreign direct investment into infrastructure and other priority areas. Financial inclusion – this means access to credit and other financial instruments – in emerging economies can safeguard the development of small and medium-sized enterprises and embolden minority group and female entrepreneurs.

Cross-cultural exchange: Although the fifth pillar of the BRI – cultural exchange – may strike one at first glance as quite broad in scope, the exchange of knowledge and culture between cities can complement and reinforce the objectives of all four preceding pillars. Inter-city exchange will promote the dissemination of academic expertise in industrial areas of relevance, the transfer of best-available technologies and personnel highly trained in specific sectors, and the organization of vocational training programmes and workshops for entrepreneurs and the socially marginalized.

Interplay between urban and industrial development

Since the beginning of the Industrial Revolution in the 18th century, industrialization has become a key driver of urban development. On average, every job created in the manufacturing sector creates an additional 2.2 jobs in others sectors and promotes economic growth more generally by bolstering public-sector development in urban administration, infrastructure, public health and education.

If cities are able to properly leverage their comparative industrial advantages, it stands to reason that they can vastly increase their competitiveness. First, however, proper enabling policies and basic infrastructural amenities must be in place to support industrial and infrastructural development. Once in place, the establishment of strong production centres can raise average GDP per capita growth rates by up to 6.3%. By the same token, cities with highly productive industrial centres enjoy average increases in job growth of between 3.5% and 3.3% annually and see the highest yearly increase in incomes at 4.6%.

Cities themselves also have much to offer industries. It is incumbent on municipal governments in developing nations to avoid restrictive policies that would otherwise hinder industrial development. Governments should therefore set policy frameworks and develop tax incentives that encourage industrial and technological innovation, address potential market failures, and create a financially attractive enabling environment for industrial growth.

In developing countries, access to sufficient infrastructure is one of the most significant drivers of industrial success. Without access to the proper infrastructural services, such as electricity, the costs of industrial development rise considerably, and the potential for the

up to
6.3%
 average increase GDP
 per capita growth

“On average, every job created in the manufacturing sector creates an additional 2.2 jobs in other sectors and promotes economic growth more generally.”

successful adoption of environmentally sustainable production methods decreases, as do firms' efficiency overall.

In ideal cases, cities can offer seemingly unlimited access to an experienced and highly trained workforce and when properly positioned, may additionally attract highly skilled workers from the rural hinterlands or smaller neighbouring cities. Large-scale migration of this nature comes, of course, with many drawbacks. Nevertheless, without access to a highly skilled labour force, the smooth and efficient functioning of industries will be significantly hampered.

Ease of transport and connectivity with primary shipping hubs goes hand-in-hand with infrastructural development. In cities with limited connectivity, transport costs can rise astronomically. This, in turn, inhibits the smooth functioning of industries within the city. In addition, in cities with high levels of congestion, long shipping delays can be expected. For this reason, innovative measures to ameliorate these issues, such as transport-only lanes for trucks and other large vehicles, will be required.

So, the demand for educated and skilled workers rises as a city's industrial sector matures. New technologies replace the old, which increases productivity and efficiency. These positive externalities, occasioned due to changes in industrial patterns, have together improved the living conditions of those living in urban areas across the globe for decades.

Industries: the driving force behind the urban economy

If one considers the larger picture, most developing countries, particularly in Asia and Latin America, have experienced simultaneous urbanization and industrialization. On the other hand, resource-rich nations, particularly countries in sub-Saharan Africa or the Middle East and North Africa region, have successfully urbanized without industrialization by focusing on non-tradable services.

At most emerging economies' current stage of development, however, one cannot ignore the influence of industrial development. A recent economic report on urbanization in Africa, released by the United Nations Economic Commission for Africa, highlights industry's potential to speed up structural and economic transformation in some of the world's most resource-rich nations.

The city of Shanghai in China is a particularly prominent example of how industry can revolutionize the course of urban development. Shanghai's transformation into a national economic hub is the result of rapid industrial development, with the support of the municipal government. The Shanghai Municipal Government has focused on fostering the development of manufacturing industries, as well as marketing the city internationally as a burgeoning industrial base in order to attract major industrial projects.

As early as the early 1990s, the Shanghai Municipal Government designated six “pillar industries” as the city's industrial focus areas: automobiles, electronic and communication equipment, petrochemicals, steel products, equipment assembly and biomedicine. During this same decade, with funds already available, the Central Government of China opened up Shanghai's Pudong district in a bid to spur on the city's transformation into an internationally recognized financial and manufacturing powerhouse. ➤

➤ With this change in policy, the region developed rapidly, and property prices began to rise, bringing about tremendous improvements in infrastructure and the standard of living in Shanghai's 16 districts – a total area of 6340.5 km². As Shanghai's industrial sector has continued to develop and flourish, Shanghai has shifted away from its original focus on heavy industry and now places equal emphasis on the service and advanced-manufacturing industries, proving true the adage that continual exploration and innovation is indispensable to the construction of a modern and sustainable metropolis.

Industrial development has likewise prompted advancements in Shanghai's infrastructure and enhanced the city's investment promotion. As of 2016, the Shanghai Municipal Government had attracted significant business-sector involvement in public-sector projects, thanks in large part to the 573 multinational corporations headquartered within the city. Financial input from national and international business sector entities has consequently set the pace for Shanghai's industrial development in recent years.

Over the past three decades, Shanghai has adapted to and embraced the

inevitable economic shift that has accompanied globalization, taking advantage of advanced manufacturing techniques and the service industry, and accruing significant benefits from a mixed economic structure and innovative public-private partnership model. Shanghai's course of development reinforces the fact that developing nations should engage in economic globalization to promote the sustainable growth of the urban economy, the well-being of city residents, and the transfer and application of climate friendly technologies.

Partnership: the way forward

At a basic level, accelerating sustainable urban and industrial development comes down to partnerships forged between a variety of municipal-level and international actors, including international organizations and international financial institutions. Multi-stakeholder partnerships can effectively boost the development of many city-based industrial sectors, including power generation, water treatment and transportation. In this way, urban stakeholders engaged in multi-

Over the past three decades, Shanghai has adapted to and embraced the inevitable economic shift that has accompanied globalization.



stakeholder partnerships can encourage one another, with the support of the international community, to adopt sound urban and industrial development strategies.

This is where the BRI comes into play by promoting the creation of mutually favourable partnerships in many of the world's most populous regions. High-impact international development initiatives are therefore one important catalyst for the creation of urban partnerships. But alone, these are not enough. A coherent approach to implementation must accompany even the most impressive of development strategies.

Neutral brokers within the international development system – particularly those organizations within the United Nations system – ought therefore to take a leading role in the creation of innovative mechanisms for cooperation. These may include international forums and periodic summits, where municipal leaders can come together to learn from one another, to forge multi-stakeholder partnerships and to plan their way forward.

The “BRIDGE for Cities – Belt and Road Initiative: Developing Green Economies for Cities” event, organized annually by the United Nations Industrial Development Organization (UNIDO) and the Finance Centre for

South-South Cooperation, is one such example. The event offers municipal officials a platform through which to scale up their engagement in inclusive and sustainable urban and industrial development initiatives and to share their development successes and challenges. Ultimately, it recognizes the vital role industrial development can play when it comes to adding economic value, improving living conditions within cities along the Belt and Road, and promoting environmentally sound production methods.

By working together, the international community can better ensure that the BRI's strategic priorities are best adapted to the promotion of sustainable urban and industrial development for all. UNIDO can directly support cities in achieving this ambitious goal by drawing upon its five decades of international development experience, as well as the expertise of its various global networks and partner organizations. ■



ZOU Ciyong is Director of the Department of Partnerships and Results Monitoring at the United Nations Industrial Development Organization (UNIDO). Prior to joining UNIDO in 2013 he was Deputy Director General of the International Department in the Ministry of Finance of the People's Republic of China.

AN ENORMOUS POTENTIAL TO

Arancha González argues that small and medium enterprises must be able to take advantage of the new trade opportunities provided by the Belt and Road Initiative

Photo: <https://commons.wikimedia.org/Anthony Maw>



If the Marshall Plan rebuilt Western Europe's war-torn economy in the mid-twentieth century, China's ambitious Belt and Road Initiative is poised to remake the economic face of Asia and Africa in the twenty-first.

Eastern Asia has in recent decades emerged as the 'factory of the world', with China and Vietnam following Japan and Korea up the industrial ladder, giving rise to a dense network of region-wide value chains. The sheer scale of China's economic renaissance has created new opportunities everywhere, whether for soybean farmers in the United States and Brazil, African mineral exporters, or German manufacturers of factory equipment. It has also been reshaping physical trade routes – quite literally in the case of the Panama Canal, which was widened and deepened to accommodate the larger boats needed to carry the increased trade between Asia and the east coast of the Americas.

New physical infrastructure is connecting one end of the Eurasian landmass to the other. Since 2011, the 11,000-kilometre Yuxinou Railway has carried Chinese electronics to Europe, through Poland, Belarus, Russia, and Kazakhstan, carrying German auto parts in the opposite direction. The 20-day journey is twice as fast as by sea – an important consideration for international value chains in dynamic sectors – at one-third the cost of air freight.

SPUR



Photo: <https://commons.wikimedia.org/DavidAshby>

INCREASED TRADE

Chinese President XI Jinping's 2013 announcement of the 'One Belt, One Road' initiative gave a major boost to efforts to deepen trade, investment, and infrastructure ties. It envisions a land-based 'New Silk Road Economic Belt' through Central and Western Asia, coupled with a '21st Century Maritime Silk Road' from Southeast Asia through the Indian Ocean to the African coast. The former seeks to recreate the historic trade routes that once saw caravans of donkeys, camels, and horses carry goods and ideas between East and West; the latter traces the path of the fabled expeditionary voyages of the 14th century Chinese admiral, Zheng He.

Infrastructure is being rolled out to connect Chinese markets and producers to Southeast Asia, the Caspian and Black Seas, the Arab region, Africa and beyond. Oil pipelines, power lines, high-speed rail, roads, fibre optic cables and ports are being constructed along key transport routes, such as the China-Pakistan Economic Corridor. Trains already connect Chinese cities with places as far afield as Madrid, Warsaw and Tehran.

Much more than transport

The Belt and Road Initiative, just like its historic predecessor, is about much more than transportation. By building connections to international markets, it promises to spur growth in China's relatively poor interior. By lowering costs related to production and trade, better infrastructure can contribute to industrial development and value addition. This is particularly relevant in Central Asia, once renowned for prosperous trading hubs like Samarkand and Merv, but today relegated by geography and high trade costs to the margins of international value chains.

A highly networked Central Asia would encourage agglomeration around transport hubs, facilitating knowledge spillovers and productivity gains among businesses. Together with trade connections to markets in Europe, China, and elsewhere, this ➤



Arancha González is the Executive Director of the International Trade Centre (ITC), a joint agency of the World Trade Organization and the United Nations, which works towards creating 'trade impact for good'.



➤ would lay the groundwork for increased value addition and better jobs for people from Armenia to Tajikistan. Better ports, roads and trains would similarly lower the obstacles to increasing manufacturing and services value addition in eastern Africa, both in coastal countries and their landlocked neighbours.

“Soft’ infrastructure

The Belt and Road Initiative’s potential to spur increased trade is enormous: with tariffs having been cut to relatively low levels on most products in most markets, it is transportation costs and non-tariff measures that now constitute the principal barriers to trade. The initiative directly targets transportation costs. That said, if governments are to maximize its contribution to achieving the United Nations Sustainable Development Goals, they will need to accompany the ‘hard’ infrastructure being constructed with ‘soft’ infrastructure: policies and institutions to support entrepreneurs, businesses and trade.

To take one example: in principle, better transport infrastructure should facilitate urbanization and urban development, as well as domestic and cross-border trade. But governments at the municipal, sub-national, and national levels need to act in concert to ensure that the policy environment makes it as simple and affordable as possible to start up new businesses, shut down failing ones, and connect to market opportunities in countries both next door and further afield.

One critical factor in determining how the Belt and Road Initiative translates into broad-based growth will be whether small and medium enterprises (SMEs) are able to take advantage of the new trade opportunities. Because SMEs account for the vast majority of enterprises and jobs in any country, their ability to become more competitive and succeed in international markets helps ensure the gains from trade are broadly shared across society.

SMEs and production networks

Concrete action by governments, at home and in tandem with their trading partners, can better enable SMEs to tap into international production networks. Research by the International Trade Centre (ITC) across a wide range of countries reveals that access to market information is a major obstacle for SMEs seeking to trade. In addition, trade-related costs and paperwork frequently make it especially hard for smaller businesses to import and export. Governments could help by ensuring access to trade and market intelligence, and swiftly implementing the World Trade Organization’s agreement on trade facilitation.

Countries can work together to lower non-tariff barriers by simplifying, harmonizing or recognizing each other’s technical standards and regulations for goods and services. At home, they can reinforce the panoply of trade and investment support institutions, from chambers of commerce to export promotion organizations, which play an important role in helping smaller businesses to navigate international markets.

ITC’s SheTrades platform points to what governments, businesses and civil society can do – from collecting gender-disaggregated data about the economy to facilitating access to finance – to help women-owned businesses thrive. Places that do so will reap the disproportionate social and economic benefits that result when more women earn paid incomes.

At the same time, as with any expansion of trade, even as countries benefit overall, some businesses and sectors will lose in the face of increased international competition. Swift action is essential to help the people affected to take advantage of new opportunities – indeed a failure to adequately help people hurt by trade to retrain and transition into new lines of work is part of the reason for today’s backlash against economic globalization in many advanced economies.

ITC is committed to supporting countries to make the most of the Belt and Road Initiative. ITC and China’s Ministry of Commerce have signed an agreement to work together to strengthen the trade capacities of SMEs, to foster greater South-South cooperation and the achievement of the United Nations 2030 Agenda for Sustainable Development. The initiative will feature prominently on the agenda of ITC’s flagship annual event, the World Export Development Forum, in Budapest in October 2017. Competitive, internationally integrated SMEs can translate into inclusive growth across the new Silk Road.



Photo: <https://commons.wikimedia.org/siyang.xue>



Leveraging urbanization for Africa's industrialization

Edlam Yemeru on how Africa's urban transition can become a motor for the continent's industrial revolution

Africa's future is unquestionably urban. In less than 20 years, by 2035, more than half of the region's population will be living in cities. Within this timeline also, the number of urban dwellers will have doubled and, thereafter, it will have tripled by 2050, reaching 1.33 billion people. Africa is also set to overtake Asia by becoming the fastest urbanizing region. ➤

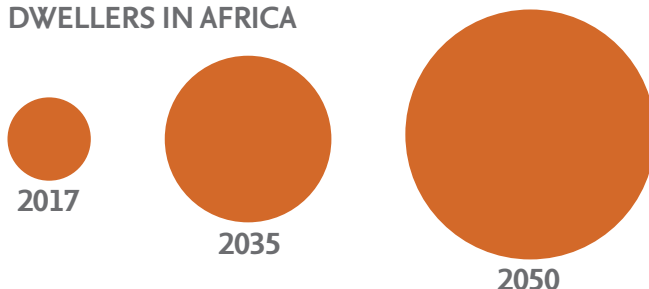
➤ This monumental shift is not simply a demographic one. It directly affects the extent to which Africa's economic growth will be inclusive and sustainable, generating shared prosperity for all. It presents considerable opportunities for accelerating economic growth while enhancing social and environmental outcomes, but also challenges. The urban advantage will not manifest automatically. It depends on the extent to which Africa's rapid urban growth is planned, managed and governed.

So far, relative to the magnitude of the urban wave sweeping across Africa, policy responses have been largely inadequate and reactive. Most African cities currently face a host of constraints including widespread and rising informality, unemployment, poverty and inequality, underpinned by severe service and infrastructure gaps. The fact that over 60% of Africa's urban population lives in slums clearly attests to the scale of the challenge. These conditions not only compromise the well-being of citizens, but also undercut the productivity and competitiveness of African cities. Consequently also, a largely negative narrative has dominated the urban agenda in Africa. This is no longer the case.

Urbanization at the core

Today, urbanization is recognized as a critical factor for inclusive economic growth. Through the African Union's Agenda 2063, the Common African Position the Third United Nations Conference on Housing and Sustainable Development (Habitat III), and the Common African Position on the Post-2015 Development

NUMBER OF URBAN DWELLERS IN AFRICA



Agenda, Africa's leaders have placed urbanization at the core of the region's long-term vision for transformation. This corresponds with the global prominence accorded to urbanization as an enabler of sustainable development through Sustainable Development Goal 11 dedicated to cities and human settlements, and the New Urban Agenda that emerged from Habitat III.

Africa's urban transition is of particular significance for structural transformation, a core policy priority for the region. Given the exclusive and unsustainable outcomes of



Africa's impressive rates of economic growth in recent years, economic diversification and value addition through a shift towards higher productivity manufacturing and modern services are imperative. Accelerating industrialization based on Africa's resource and agricultural endowments is a crucial vehicle for job-rich growth, especially in light of the region's youthful population. In this regard, history and experience clearly illustrate that urbanization and industrialization are inextricably linked.

Yet, Africa is urbanizing rapidly without

industrializing. While Africa's urban growth rate of 3.4% is the highest in the world, the region currently accounts for less than 2% of global manufacturing exports, with stagnant and even declining manufacturing in African countries. At the same time, the share of employment in services continues to rise in the region, absorbing the majority of urban dwellers, often within the informal sector. This is resulting in rapid urbanization without the required jobs in skill-intensive and higher-productivity sectors and, ultimately, extensive informality, poverty and inequality.

Reconnect

There is an urgent need to reconnect urban and industrial development in Africa through deliberate policy responses and related institutional and financing frameworks. This will generate considerable benefits in economic diversification and, more importantly, job creation for improved social outcomes. The 2017 Economic Report on Africa of the United Nations Economic Commission for Africa, entitled *Urbanization and Industrialization for Africa's Transformation*, clearly makes a case for leveraging

➤ urbanization for industrialization, and outlines the requirements for this to happen.

As a starting point, African countries need to define a strategic and cross-sectoral vision for urbanization in national development planning, linked to economic growth targets and sector priorities. So far, urbanization is often considered from a narrow and siloed perspective, despite its profound impact on re-ordering geographies of economic development. Related to this, industrial policies need to explicitly integrate the implications of urbanization and associated opportunities, while urban policies should encompass industrialization as an enabler of sustainable growth pathways. This is currently not the case in most African countries, with urban and industrial policies formulated, implemented and coordinated in a disjointed manner. For example, with urban growth and rising and changing patterns of consumption, the demand for manufactured and processed goods is soaring, which is an opportunity for industrialization, yet imports are increasing to meet this demand.

Supporting industrialization

In addressing existing policy disconnects, the emphasis should be on promoting cities and national urban systems that can better support industrialization, and an industrial trajectory that generates social and economic dividends for urbanization. For urbanization to support industrialization, African countries need well-functioning cities and national urban systems. Considerable barriers undercut the advantages that African cities could generate for industrial firms through agglomeration benefits. These include low density, constrained mobility, dysfunctional land and property markets, energy deficiencies, and gaps in housing and they all hinder industrial outcomes.

Unbalanced national urban systems often dominated by a single primary city also limit the options available to industrial firms based on their specific needs and requirements. Moreover, the connectivity of African cities to rural hinterlands and other cities at the national,

“The emphasis should be on promoting cities and national urban systems that can better support industrialization.”



regional and global scales is an important determinant of their competitiveness and economic performance. Infrastructure investments and priorities should thus seek to maximize the advantages offered by cities for productivity and job creation in manufacturing and modern services. In this sense, the planned maritime component of China's Belt and Road Initiative linking Africa's Indian Ocean coast to China and Europe promises opportunities for the integration of African cities into regional and global markets.

Photo: Arne Hoel / World Bank



Belt and Road

It becomes important for policymakers to proactively and critically consider how this initiative could influence urban and industrial performance. How will the enhanced trade integration of Africa's sub-regions with Asia and Europe impact industrial and urban development outcomes? What opportunities will the initiative generate for cities and industrial firms? Are there any associated risks entailed in opening up Africa's cities, industries and markets through the initiative?

Urban corridors in Africa already serve as hubs for trade, investment and infrastructure development, a role that may be further accentuated by the Belt and Road initiative spurring yet more growth and investments in and around cities. While the potential advantages are evident, priorities for economic diversification, productivity and competitiveness remain pivotal within the framework of Africa's continental agenda for structural transformation. Any infrastructure initiative at the continental scale should seek to enhance the functioning of cities and national urban

systems and their role in enabling industrialization. If so conceived, Africa's urban transition could well become a motor for Africa's industrial revolution.

● This article draws on the 2017 Economic Report on Africa: *Urbanization and Industrialization for Africa's Transformation*.

EDLAM YEMERU
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Nations Economic
Commission
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Tirana is experiencing a rapid rate of urbanization. How is the municipal government addressing the impact on infrastructure as well as on the environment?

In 1992, Tirana was a city of 250,000 residents and 17 cars (for Politburo officials). Nowadays, Tirana has a population of approximately 860,000 people and 170,000 cars, becoming a very tough challenge for the city's infrastructure and its environment.

The demographic influx into the capital meant that, in order to cope with the huge demand for housing, multi-storey buildings replaced playgrounds and parks. These occurrences have had an adverse impact on the quality of life in communities, ranging from the increased density of populations in neighbourhoods to a severe lack of space to conduct recreational activities.

Consequently, traffic, pollution, lack of public and green spaces, scarce education and healthcare facilities and failing public service delivery have emerged as Tirana's key challenges during the last two decades.

Therefore, since our first days in office, we were convinced that the only way to fight back and pave Tirana's path towards a sustainable future was by undertaking a 'green' approach to our future investments.

In November 2015 Tirana organized its first car-free day, joining forces with numerous cities across the globe fighting against the existing problem of urban air pollution. This initiative resulted in a dramatic drop in both air and noise pollution, encouraging the Municipality to implement a vehicle-free day every month. This approach had immediate results as the

PM10 in Tirana fell by 15% within a year (*editor's note: Particulate matter less than 10 microns in diameter – about 1/7th the thickness of a human hair – is known as PM10. It is a major component of the air pollution that threatens both health and the environment*).

The recently inaugurated Skanderbeg Square captures Tirana's new vision of giving the city back to its citizens. Previously a city centre roundabout for cars, the new 43,000-square metre Skanderbeg Square is now one of the biggest pedestrian squares in Eastern Europe, providing citizens and tourists with an exceptional state-of-the-art public space to conduct a variety of daily activities.

Also, the addition of green spaces is considered as pivotal in addressing Tirana's environmental challenges. While roadside trees are also a constant feature within Tirana, our biggest green space addition project is Tirana's Metropolitan Forest.

The 'Metrobosco' will be a green belt of two million planted trees which will

encircle the outskirts of the city and connect 14,671 hectares of parks, agricultural fields productive forests and other forms of vegetation. It will establish a green boundary of the city to block the consumption of soil and filter the dust and pollution in the capital.

Another significant project is to construct a fourth ring road totally dedicated to sustainable public transport, cycling and pedestrian access. The fourth ring of Tirana will become an arterial road in response to the heavy congestion in the city. It is held up as a sustainable and efficient means of public transport and a new public space within Tirana with very high green standards.

“In the last analysis, investments always follow happiness”



Interview with
Erion Veliaj who has
been the Mayor of
Tirana, Albania,
since June 2015



The industrial sector represents about a quarter of Tirana's economy. How have industries contributed to the Tirana's overall development in the past, and what role will industries play in the future?

During the communist era, Tirana's economy was based on industry and production even though to a lower degree compared to other regions rich in natural resources. With the fall of communism and the dissolution of its economic system, Tirana's economy started to change, depending less and less on industry. As we speak, the economy of our city depends heavily on services, while light industry and food processing compounds are just a small part of it.

As the capital, Tirana offers services for the entire country and our goal for

the future is to offer services for the entire region. We are a city with the youngest average age in Europe and our youth are well-educated and multilingual. I know this is challenge, but I believe we are better suited than the other capitals of the region to become a regional hub.

Cities around the world are competing with one another to attract the maximum inflow of information and finance. What measures are you taking to enhance Tirana's competitiveness?

Every city has its own comparative advantage. Some of them have as their advantage, established infrastructure and some others have historically invested capital. Tirana may have neither of these, but it has something that other European cities lack: its people.

I have seen a lot of beautiful cities with wide boulevards and amazing squares which are empty, because with ageing population people tend to use a city less and less. You come to Tirana and the first thing you note is that it is young and it lives. The streets are full with youngsters, the squares as well. The city cheers and is happy. I believe that this is our main asset and we need to advertise this. In the last analysis, investments always follow happiness.

When China's Vice Premier ZHANG Gaoli met Albania's President Bujar Nishani in Tirana in April this year, he hailed Albania's geographic advantage in South-east Europe, and said Albania is a major country along the Belt and Road. What role will the Belt and Road Initiative play in the development of Tirana?

Albania's strategic geographical position providing a link between East and West has been pivotal in attracting foreign investment and trade. Chinese investments in Albania and Tirana are continuously increasing Tirana. The recent purchase of the Mother Theresa International Airport in Tirana by the China Everbright Group is seen as one of the biggest among the many new Chinese investments in Albania.

Tirana is the engine of the Albanian economy, producing 40% of the country's GDP. Therefore, we expect that the increasing Chinese interest under the Belt and Road initiative will intensify our cooperation in connectivity projects such as the construction of new railroads, highways and public transport routes.





An enterprising firm in Malaysia is addressing a problem created unwittingly by farmers burning rice straw when they are preparing their soil. Free the Seed recycles it into biodegradable packaging.



Air pollution has been an ongoing problem in many countries in Southeast Asia, and Malaysia is one of the worst affected. Each year a smoky haze blankets the country for months on end.

Although most of the smoke is produced by 'slash and burn' during forest clearance in neighbouring Indonesia, one of the other main causes of the haze is the burning of rice straw in Malaysia itself.

There are over 300,000 hectares of land devoted to rice paddy production on the Malaysian Peninsula, mostly small farms in the northern states of Kedah, Kelantan and Perlis. After each harvest, farmers burn rice straw to help prepare the soil for the next crop. The practice releases nutrients back into the ground and helps with pest control.

But the burning of an estimated 2.5 million tonnes of paddy straw after the harvest creates clouds of smoke that contribute to a haze that plays havoc on roads and hampers commercial flight operations from regional airports. The air pollution index often reaches dangerous levels, forcing schools to close. Large numbers of people in nearby villages and towns suffer from respiratory problems, like asthma. Sometimes, the haze completely blocks out the sun.

A partial solution to Malaysia's haze problem is now being provided by Free the Seed, a company which is converting rice straw and husks into biodegradable packaging. The company uses its patented



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biotechnology process, utilizing protease serene enzymes, delignified cellulose fibers and enzymatic gratification methods, to produce packaging products that once used organically compost within six months.

A US\$4m production factory has been constructed on a 10-acre site in Gurun in Kedah state, and the first phase of the business began in 2015, when Free the Seed secured a 10-year supply agreement for rice straw biomass with the Kedah state farmers' associations.

Free the Seed CEO, Ramaness Parasuraman, told *Making It*, "With this initiative, the incidence of open burning is reduced and

there is no further addition of harmful waste material into the environment."

He said there has already been a direct impact on the lives of more than 1,300 farmers who each receive an average additional income of US\$300 per year by selling previously burnt waste rice straw to Free the Seed. The number of farmers taking part in the scheme is expected to grow to 30,000 as the project goes full stream during 2017, and around 32,000 hectares of rice fields are expected to achieve zero open burning.

Free the Seed's progress was given a big boost when, in 2014, the company was

selected as the national winner of the Global Cleantech Innovation Programme (GCIP) for SMEs, a programme that leverages the power of entrepreneurship to address challenging energy, environmental and economic problems. The Global Cleantech Innovation Programme for SMEs in Malaysia is implemented by the Malaysian Industry-Government Group for High Technology (MiGHT) and the United Nations Industrial Development Organization (UNIDO), and is funded by the Global Environment Facility (GEF). It aims to develop a platform to nurture and accelerate the next generation of Malaysian cleantech entrepreneurs.

The 2014 round of the GCIP-Malaysia Competition and Accelerator Programme attracted over 60 applicants and 26 semi-finalists were selected to take part in the four-month Accelerator Programme.

As the winner of the contest, Free the Seed's CEO, Ramanees Parasuraman, received US\$30,000 and an all-expenses-paid trip to San Francisco to attend the Cleantech Open Global Forum in Silicon Valley to receive the award and make connections with potential partners, customers and investors from around the world.

Parasuraman, told *Making It* that participating in GCIP was a game-changer for the company's business. "The GCIP platform provides a unique, result-oriented platform for start-ups and green tech entrepreneurs for funding access and market access. We also benefitted from participating in international conferences organized by UNIDO, GEF and MiGHT."

Judges at the GCIP-Malaysia 2014 said Free the Seed's solution was innovative and had the potential to improve the livelihood of ricefarmers.

"Instead of letting the paddy husks go to waste, they've come up with a solution where farmers can supplement their income selling the paddy husks as raw material. It's deriving wealth out of waste," said one of the judges, Sam Shafie, co-founder of Malaysian crowdfunding platform, PitchIN.

"The global applicability of Free the



Seed's entry is one of its winning qualities", said Kevin Braithwaite, global director of The Cleantech Open. "It has managed to attract and reach out to customers from all around the world, from healthcare providers to companies in the food and beverage industry."

Parasuraman's vision is to become one of the top 10 green packaging companies in the world by 2020. "In the next years, Free the Seed will expand to Europe and North America, delivering our product to customers, including Philips in Germany, Albert Heijn in the Netherlands, the Coop in the UK and Bunzl in Australia."

In a recent media interview, the deputy CEO of Free the Seed, Tan Sri Dr Salleh Mohd Nor, said the company had just secured a contract to export a container-load of its environmentally friendly packaging products to the Netherlands.

"We will be exporting 40 containers of biodegradable fruit tray products over a span of three years with a total contract value of RM25 million (US\$6m)," he said, adding, "We are confident that these non-toxic, soluble, biodegradable products will continue to grow as its usage will replace polystyrene and plastic containers."

Pace of progress must accelerate to achieve the Sustainable Development Goals

If the world is to eradicate poverty, address climate change and build peaceful, inclusive societies for all by 2030, greater efforts are needed to accelerate progress on the Sustainable Development Goals (SDGs), according to a United Nations report launched in July by Secretary-General, António Guterres.

“Implementation has begun, but the clock is ticking,” stated Guterres. “This report shows that the rate of progress in many areas is far slower than needed to meet the targets by 2030.”

Using the most recent data available, the annual SDGs report provides an overview of the world’s implementation efforts to date, highlighting areas of progress and areas where more action needs to be taken to ensure no one is left behind.

While nearly a billion people have escaped extreme poverty since 1999, about 767 million people remained destitute in 2013, most of whom live in fragile situations.

Despite major advances, an alarmingly high number of children under age five are still affected by malnutrition. In 2016, an estimated 155 million children under five years of age were stunted (low height for their age).

Between 2000 and 2015, the global maternal mortality ratio declined by 37% and the under-five mortality rate fell by 44%. However, 303,000 women died during pregnancy or childbirth and 5.9 million children under age five died worldwide in 2015.

In the area of sustainable energy, while access to clean fuels and technologies for cooking climbed to 57% in 2014, up from 50% in 2000, more than 3 billion people, lacked access to clean cooking

fuels and technologies, which led to an estimated 4.3 million deaths in 2012.

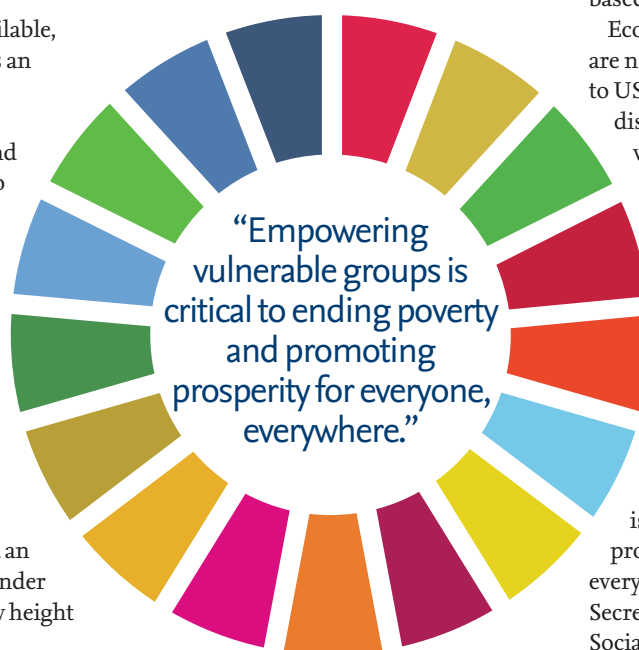
From 2015 to 2016, official development assistance rose by 8.9% in real terms to US\$142.6bn, reaching a new peak. But bilateral aid to the least developing countries fell by 3.9% in real terms.

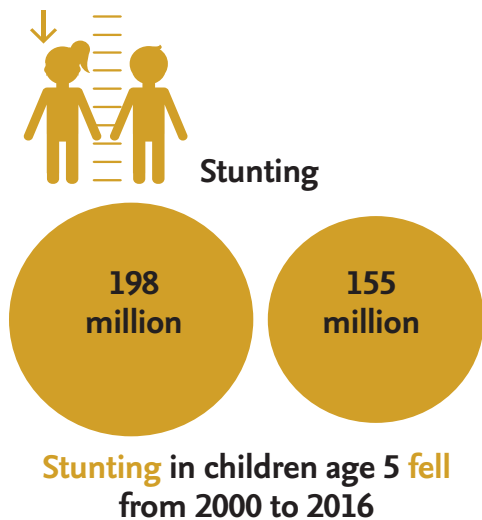
The benefits of development are not equally shared. On average, women spent almost triple the amount of time on unpaid domestic and care work as men, based on data from 2010 to 2016.

Economic losses from natural hazards are now reaching an average of US\$250bn to US\$300bn a year, with a disproportionate impact on small and vulnerable countries.

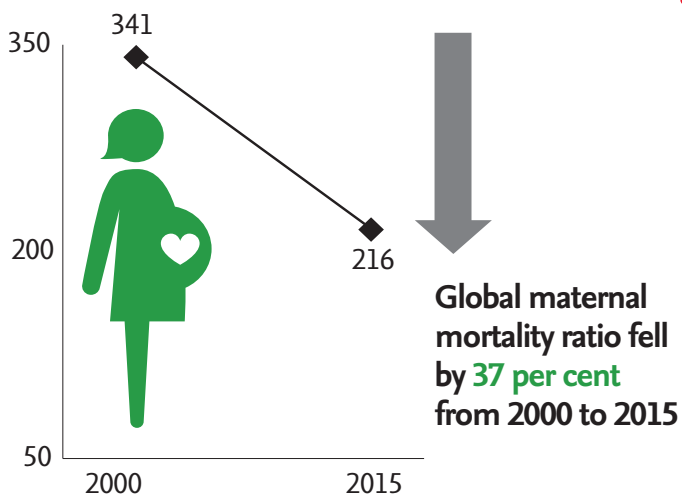
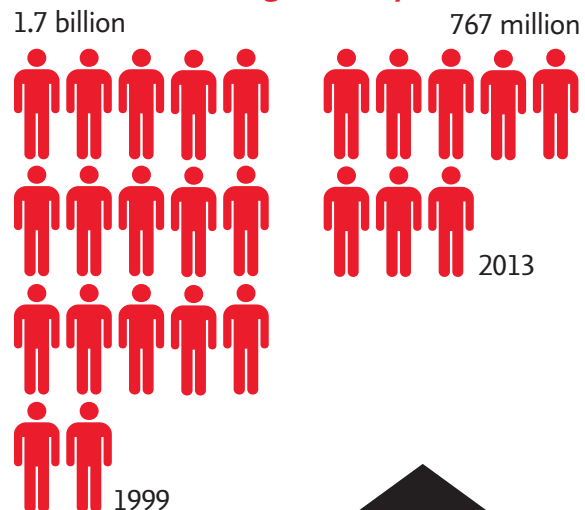
Despite the global unemployment rate falling from 6.1% in 2010 to 5.7% in 2016, youth were nearly three times more likely than adults to be without a job. In 2015, 85% of the urban population used safely managed drinking water services, compared to only 55% of rural population.

“Empowering vulnerable groups is critical to ending poverty and promoting prosperity for everyone, everywhere,” stated Wu Hongbo, Under-Secretary-General for Economic and Social Affairs.





Number of people living in extreme poverty fell significantly



Maternal deaths per 100,000 live births



More than 3 billion people still lack access to clean cooking fuels and technologies

Effectively tracking progress on the SDGs requires accessible, reliable, timely and disaggregated data at all levels, which poses a major challenge to national and international statistical systems.

While data availability and quality have steadily improved over the years, statistical capacity still needs

strengthening worldwide. The global statistical community is working to modernize and strengthen systems to address all aspects of production and use of data for the SDGs.

The Sustainable Development Goals Report 2017 is the annual assessment of global and regional progress towards the

Goals. The report is based on latest available data on selected indicators of the global SDG indicator framework, prepared by the UN Department of Economic and Social Affairs (DESA) with inputs from a large number of international and regional organizations.

● Source: UN News Service

A human economy for women and men

Fenella Porter, acting Gender Policy Adviser at Oxfam, explains why in order to conceptualize a truly 'human' economy we need to look at inequalities of gender as much as inequalities of wealth.

If the world turned upside down and we replaced all the women with men, and all the men with women, we still wouldn't have gender equality.

This is because although there are many examples of women and men who have crossed the gender division of labour, the 'lean in' focus of women's success in the mainstream economy is often more about reinforcing and reproducing gendered norms, than it is about challenging and changing them.

Gender equality is not about who does what in the existing economy; it is about the roles themselves, and how they are recognized, valued and rewarded. Understanding gender is about seeing the economy as a gendered structure, containing norms and assumptions about roles, responsibilities, and behaviours.

For example, the working day (roughly eight hours or more) is not possible to balance with reproducing a single individual (never mind reproducing more individuals). It is assumed that a 'worker' will have some kind of help to do this, in the form of a mother, wife, other relatives or staff hired to reproduce the worker, contribute to the community and transfer social and cultural beliefs and ideas (social reproduction).

Feminist economists have explained a lot about what it means to see the economy as a gendered structure. The idea of a human economy offers the opportunity to re-imagine the economy in a way that includes both the productive and the reproductive elements. It allows us to think about how a transformation of economic structures can challenge and change the gendered



norms and assumptions that underpin ideas of value, of worth, of impact, evidence, and achievement

So how do we go about imagining something different?

The work being done in Oxfam on unpaid care challenges underlying gendered structures and allows us to think about, what is work? Who are the workers? Where are they? And how are they valued/paid? Our research has shown that if we include the time spent by women in unpaid care, the contribution of women to the economy looks like something we should take far more seriously.

Because domestic and other unpaid work is not paid, it is uncounted and undervalued. But if we recognised the true value of unpaid work, might it make us re-think how we value investment – making public services look like a better investment than investment in business loans?

How would it look (for example) if in a human economy there were tax breaks, for companies or organizations which provided good quality childcare or elder care, rather than for companies producing wealth? This would shift the idea of what is valuable from purely financial to the value of (re)producing a good (human) society.

What if carers were not only paid adequately for the actual work of getting people out of bed and sorting out food, but also for the time they take to talk and get to know the individuals they are caring for? Would they be invited to contribute to care strategies for example? Their insight into the lives of others is hugely valuable, but rarely sought or recognized.

These examples help us to think through some of the 'economic norms,' to do with the value of work, which contribute to gender inequality. In

Photo: www.istockphoto.com/pixelfusion3d

Our research has shown that if we include the time spent by women on unpaid care, the contribution of women to the economy looks like something we should take far more seriously.



Photo: www.istockphoto.com/mammamaart

addition there are ‘gendered social norms’, which affect how ideas of gender contain and perpetuate disadvantage. These are the embedded social ideas about who does what. They are very ‘sticky’ – and so very difficult to change with economic policies and programmes.

A ‘human economy’ then needs to be about *how* to change things. We need to ask: whose voices are heard? And do we really understand what they are saying?

If we understand that value in the economy is about more than just wealth creation, our strategies must also reflect this. Oxfam programmes promote

women’s transformative leadership, and show the importance of making space for women to organize. If we are going to have any success at tackling these thorny gender norms NGOs need to take their place alongside others to reinforce the power of collectives, both within and

“Gender equality is not about who does what in the existing economy; it is about the roles themselves, and how they are recognized, valued and rewarded.”

outside the workplace. This will allow us to leverage power through communities of people. It also has knock on effects for how we understand women’s role in the economy, and how we access and give voice to women, pursuing strategies that genuinely support their interests.

It is the economy (and our responses to it) that is ‘gendered’, not just the people in it.

● The above – from <https://views-voices.oxfam.org.uk/inequality/2017/07/human-economy-women-men/> – is reproduced with the permission of Oxfam UK, www.oxfam.org.uk.

Fairness and unfairness in climate negotiations

In this interview, **SALEEMUL HUQ**, a co-author of one of the chapters in a new book, *Climate Justice in a Non-Ideal World*, explores the issue of climate justice in the light of the United States' withdrawal from the Paris climate agreement.

What is the book about?

Climate Justice in a Non-Ideal World features chapters from a group of academics working on the issue of climate justice, or climate equity. There are many different views on what would be a 'just' or 'equitable' way of solving the climate change problem, making this a contentious and politically sensitive area.

Reconciling these very different perspectives is what the United Nations' Framework Convention on Climate Change is all about. The book presents these different perspectives and suggests ways forward for reaching an outcome that each side feels is fair.

You've used two terms there – climate justice and climate equity. What's the difference?

The 'equity' argument is seeing the climate change problem in terms of the action needed to reduce greenhouse gas emissions. Rich countries perceive they have more to do than other countries and so argue their burden is greater. They don't see taking this action as their responsibility, having caused the lion's share of climate damage.

The 'justice' argument takes the view that the heaviest polluting countries

created the problem and poorer countries suffer as a result. In fact, a more accurate term would be 'climate injustice' because of the way climate change is manifesting itself: it is a problem continually created by rich countries that is continually harming poor countries.

The situation is simply not fair – it's fundamentally unjust.

Can you give some specific examples of the differing perspectives you mention?

The United States has withdrawn from the Paris Agreement on the basis that the deal imposes a disproportionate financial and economic burden on the country. But countries in the developing world – let's say China or India, who are also heavy emitters of greenhouse gases – would argue that the US has benefited enormously from being the world's biggest polluter.

“Climate change... is a problem continually created by rich countries that is continually harming poor countries. The situation is simply not fair – it's fundamentally unjust.”

Through the industrial revolution it made itself the wealthiest country in the world – but caused over 200 years of climate damage getting there. It therefore has much greater responsibility to act than countries that have been emitting for a very short time and still have a long way to go in terms of their development and reaching long-term prosperity.

As an aside, it's useful to put the scale of emissions into perspective. If you divide the emissions of China and India on a per capita basis, they are tiny compared to the US. China's emissions are a 10th of the US', while India's are about a 50th.

Why is this book timely?

President Trump articulated his intention to pull out of the Paris Agreement in exactly these terms, perceiving the deal as being unfair to the US. That's a perception – and it's not one shared by the rest of the world. No other countries, not even the developed countries, are willing to join him.

It's worth remembering that this isn't the first time the US has made this argument. President Clinton signed the Kyoto Protocol but President George W. Bush, when he took office, refused to abide by it. The issues of climate justice and climate equity have been at the heart of the climate negotiations from the very beginning.

What does your chapter discuss?

In our chapter, 'Climate Justice for LDCs Through Global Decisions', Achala Abeyasinghe and I explore a slightly different area, looking at fairness – or, more accurately, unfairness – in relation to the impact of climate change, and how the world's poorest countries position themselves in the global climate negotiations.

The Least Developed Countries (LDCs) argue that carbon emissions – whether

According to an African saying, “when two elephants fight, the grass gets trampled”. When it comes to climate justice, the Least Developed Countries are the grass.

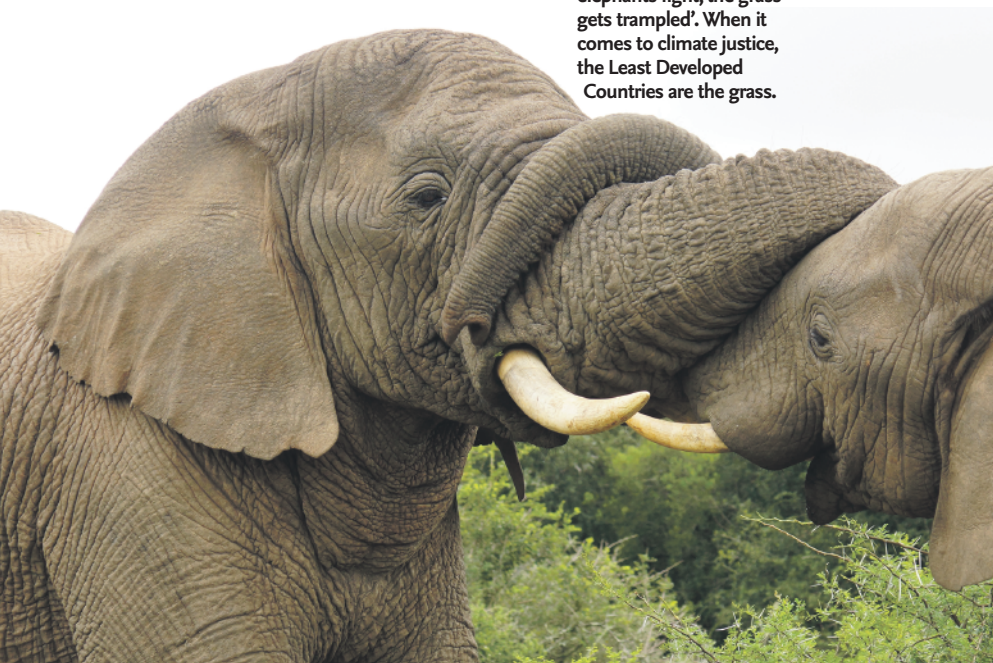


Photo: Stephen Baines, Creative Commons via Flickr

the irreparable harm they have suffered, and will suffer, as a result of climate change caused by the biggest polluters.

In Bonn, the LDCs will be pressing hard for implementation – they have got the agreement, they like the agreement. Now parties to the agreement have to deliver.

It's worth noting that while this year's Conference of the Parties (COP) will take place in Germany, Fiji will preside over the talks. And they've set out very clearly that they will use their presidency as a platform to push for climate justice, with the intention of lobbying the biggest polluters to allocate adequate funding to the countries that will suffer the most due to the shocks and stresses of climate change.

The Pacific Islands are among the most vulnerable on the planet. Fiji, along with islands such as Kiribati and Tuvalu, could disappear off the face of the earth if we don't take action.

Fiji negotiates as part of the Small Island Developing States (SIDS) bloc, which has pushed the issue of loss and damage from the very beginning – but without much success. It was when the SIDS and LDCs joined forces that we started to see some real progress. The Warsaw international mechanism for loss and damage was established at COP19 and this became legally binding when it was incorporated into the Paris Agreement at COP21.

So, looking ahead to COP23, the LDCs will be fully behind the Fiji presidency, doing everything possible to make the promises of Paris happen.

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they come from rich countries such as the US or big developing countries such as China and India – will hit them the hardest. The LDCs have not created the problem: if you add up all their emissions they count for less than 3% of the global total. They are suffering and will continue to suffer the most. The biggest polluters have caused the problem and the LDCs are the victims – and argue they should be duly compensated.

But getting their voices heard is an ongoing struggle.

At global climate summits, the richest countries negotiate together, which puts them in a very powerful position, while the bloc of developing countries – including China, India and Brazil – is rapidly growing in strength. As these rich countries and emerging economic powerhouses battle it out, the poorest countries get left behind.

There's an old African saying: “When two elephants fight, the grass gets trampled.” In this scenario, the LDCs are the grass.

Our chapter argues that the negotiating capacity of this group of poor countries

has greater leverage if they can work together. With collective leadership and by negotiating as a group rather than lots of small, individual countries, their position will get greater traction.

How would you hope the issues of climate justice and climate equity play out at the COP23 climate negotiations in Bonn later this year?

The Paris Agreement is a strong deal on two levels. From the equity point of view, the LDCs fought hard to keep the temperature rise at 1.5C above pre-industrial levels – far more ambitious than the 2C previously in place. Neither the developed nor the developing countries welcomed the 1.5C but in the end they accepted it. That was a big win for the LDCs.

In terms of climate justice, this term is politically sensitive and is not used in the negotiations, instead referred to as ‘loss and damage’. The LDCs fought against some stiff resistance here, but finally won: the agreement includes an article on loss and damage, recognizing that the poorest countries will need to be compensated for

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