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DEVELOPMENT FINANCE Why Beijing-based AIIB needs more stringent transparency rules POPULATION GROWTH How policymakers can ensure that Africa gets a demographic dividend

COVID-19 Vaccinations must become available everywhere



In German E+Z Entwicklung und Zusammenarbeit. Both language versions at www.DandC.eu

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FOCUS

Healthy diets

Acute hunger

Ever more Zimbabweans are not sure they will get anything to eat tomorrow, so they don't think much about balanced diets. Covid-19 and global heating are making the country's long-lasting economic crisis even worse. Journalist Jeffrey Moyo assesses the situation. **PAGE 14**

Enough maize is not enough

In Zambia, maize is the staple food. This important agricultural commodity is heavily subsidised. The government would like to promote greater diversity, but change is difficult to bring about where many people consider the words "meal" and "maize" to be largely synonymous. In neighbouring Malawi, the international NGO Slow Food is teaching local communities to cultivate traditional plants. Doing so makes sense in terms of health, economics and ecology. Two journalists report: Derrick Silimina from Zambia and Rabson Kondowe from Malawi. **PAGES 15, 17**

As in biblical times

East Africa has been suffering a locust plague since last winter, and another insect invasion is now looming. Mahwish Gul, a development consultant, filed her story from Nairobi. **PAGE 19**

It is all in the mix

To live a healthy and active life, people need healthy diets. However, some 3 billion people go without. Hunger is not the only reason, given that malnutrition is harmful too and can even affect people who are overweight. Simone Welte of Welthungerhilfe, a Bonn-based non-governmental organisation, explains what constitutes a healthy diet. **PAGE 20**

Irresponsible corporations

Food multinationals are systematically undermining health awareness. Aggressive marketing of soft drinks and ready-made meals is not the only problem. Sarah Schneider and Armin Paasch of Misereor, a Catholic non-governmental organisation, sound the alarm. **PAGE 22**

Worrisome trend

Ever more Brazilians are overweight. Better and more balanced diets would help, but behavioural change is not easy to bring about, writes Thuany Rodrigues, a journalist based in Rio de Janeiro.

Lack of awareness

Eating seems to be the simplest thing on earth. We can tell when we feel hungry, and we know what tastes good. Things are actually quite complex, however. For one thing, Germans are likely to prefer other dishes than Kenyans or Indians. Moreover, we are genetically programmed to appreciate sugar and fat, even though both are unhealthy in excessive amounts. For hunters and gatherers, that was an incentive to strive hard to get food like meat or fruits, which contain valuable proteins or vitamins respectively. Today, excessive consumption of sweets and meat is causing multiple problems.

Masses of people, nonetheless, still neither get what they like nor what they would need for a healthy lifestyle. The World Bank reckons that the Covid-19 crisis will plunge an additional 100 million people into extreme poverty in the course of this year alone. Global heating is another cause of growing need.

On the other hand, increasing prosperity does not solve all problems. Unhealthy food is very popular, including not only white bread or candy. Readymade meals have become easily available in the cities of low and middle-income countries. All too often, they contain too much sugar, too much salt, too much fat and various aromatic substances. Such food is unhealthy, but people like the taste. Vegetables, fruits and whole wheat products are more advisable.

Around the world, the share of overweight people is growing. Ironically, many of them suffer what is called "hidden hunger": they lack important micronutrients such as vitamins, minerals and some amino acids. Serious consequences include maternal and infant mortality as well as retarded mental and physical development. Unhealthy diets, moreover, contribute to chronic diseases like diabetes, hypertension and cancer.

More awareness raising is needed in all world regions. Even in rich countries, many people do not know that eating a lot does not necessarily prevent malnutrition. The food industry is aggressively marketing its products and spending billions on advertising. Many consumers are clueless about packaged meals not including all the nutrients they need, and multinational corporations such as Nestlé, Coca-Cola or Unilever do not want us to know that. They have a pattern of resisting obligations to indicate unhealthy ingredients, and they certainly don't want to have them taxed either.

At the same time, many low-income consumers consider healthy food – vegetables, fruits, whole-grain and dairy products – to be unaffordable. There are many reasons for high prices. Huge monoculture plantations tend to be more profitable than the cultivation of vegetables or fruits. Standardised commodities are easiest to export. Animal feed is produced on fields where healthy vegetarian food for people might otherwise grow. Commodity speculation and misguided agriculture subsidies are relevant too. Moreover, global heating is causing evermore draughts, storms and floods.

Excessive meat consumption is probably the greatest single challenge. It causes individual and collective harm. Intensive livestock farming requires exorbitant inputs of energy and other resources, and they are a driver of climate change. People around the world are copying the destructive consumption habits of Europe and North America. This is the road to disaster. The healthy alternative everywhere is more vegetarian, vitamin-rich and regionally produced food.

You'll find all contributions of our focus section plus related ones on our website – they'll be compiled in next month's briefing section.



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Debate



Too many loopholes

The AIIB's public-disclosure rules are vague and lack time-bound requirements. There is too much room for the top management to decide what the public gets to know about the environmental and social impacts of AIIB projects. Korinna Horta from the University of Lisbon and Wawa Wang from the Danish NGO VedvarendeEnergi assess matters. **PAGE 7**

Tribune



Putting Africa first

Lissac/GODONG/Li

Chen Yehua/picture-alliance/Xinhua; Philippe

Photos:

If things go well, Africa could benefit from a "demographic dividend" in future decades. Policymakers can make it happen, but that is no easy task. This argument is spelled out by Jakkie Cillier, the founder of the think tank ISS Africa, which has its head office in Pretoria. **PAGE 10**

More than crumbs for Africa

No vaccination against Covid-19 is available so far. The UN, the WHO and many top policymakers promise all countries have access once one becomes available. Jörg Schaaber of BUKO Pharma-Kampagne, a civil-society group based in Bielefeld, elaborates why those pledges may not come true. **PAGE 11** **BUSINESS SUPPORT**

"There is no shortage of ideas, just a shortage of money"

For years, development policymakers have wondered how the money that migrants transfer back to their countries of origin could be used to promote sustainable development. Now there is a new online platform that makes it attractive for the African diaspora in Germany to financially support small and micro-enterprises in Africa. Their contributions will be augmented by grants from the German state. The goal is for more money to flow into investments and for less to be spent on consumption.

By Sabine Balk

Germany's Federal Ministry for Economic Cooperation and Development (BMZ), together with the German Agency for International Cooperation (GIZ), developed the platform WIDU.africa with input from the diaspora from the very beginning, praises Hervé Tcheumeleu, the director of the Berlin cultural association "Afrika Medien Zentrum". He himself has already benefited from the platform, he says. "My aunt in Cameroon wanted to sell ice cream and needed about €1000 for a stand. But she didn't have that much money." He donated €250 and she had to contribute another €250. The rest was paid for by the German government.

Their experience illustrates the concept behind WIDU.africa. The African businesses that receive funding must contribute the same amount of money as their supporters in the diaspora. That aspect is important to the project leaders because it ensures that the partnership proceeds on equal footing. "Investing the same amount makes the partners equal," claims the WIDU platform. At the moment, only businesses in Ghana and Cameroon are receiving donations. The partner in the diaspora pays a fourth and the entrepreneur likewise. The German government then matches the sum of their contributions. The maximum funding amount is €5000, so state contributions are capped at €2500 per project.

The platform has been online since the end of 2019. According to the WIDU programme director, Wolfram Zunzer of GIZ, over 2,000 projects have since been registered, of which around 650 are already being implemented in Ghana and Cameroon. Three million euros of private and public funding have thus been mobilised. The pilot phase was concluded in May 2020, and the project is now being launched in other

Online diaspora

platform to create

new jobs in Africa.



African countries. Kenya, Togo and Ethiopia will be added this year, and further countries will be added in 2021.

What makes this platform unique is that it supports entrepreneurs in the informal sector, who constitute up to 90% of the labour market in most sub-Saharan African countries. Zunzer expects that by the end of the project's duration at the end of next year, over 6,000 jobs will have been created and over $\notin 8$ million will have been mobilised.

The entrepreneurs who receive funding from WIDU do not simply receive money from Germany, however; they also receive individual business coaching on site, provided by local coaching organisations.

Tcheumeleu believes in the concept behind WIDU.africa: his association, along with other diaspora organisations, also helped develop the platform. As a result, he says, the needs of the people in question were truly taken into account. He believes that WIDU.africa represents a new approach to development cooperation and creates sustainable businesses. These businesses are not being created by relatives and friends in the diaspora, he continues, but rather by the local entrepreneurs themselves. He thinks that is a good thing, "because in Africa, there is no shortage of ideas. just a shortage of money." That's where the diaspora can step in.

The digital approach makes it possible to react quickly. For example, shortly after the outbreak of the coronavirus pandemic in March 2020, WIDU started an additional funding programme. Its support targets the small businesses whose activities contribute to overcoming the crisis. The coaching process was adapted to also be able to function during times of lockdown and issue payments on time. There has been considerable demand for these services: 160 projects are currently underway.

Existing projects have received coronavirus aid as well: on top of the regular WIDU grants, each business was awarded an additional \in 250. The people affected can use that money to cover their costs of living or ongoing business expenses, to adhere to hygiene measures or to protect their livelihoods during the crisis.

LINK WIDU.africa: https://widu.africa/de

GLOBAL AFFAIRS

Painting the big picture

Samir Puri addresses important questions in his recently published book "The great imperial hangover". His core thesis is that today's world was shaped by the empires of the past, and as a result, how people perceive today's world, depends on the historic experience of their respective nations.

By Hans Dembowski

People from Europe and North America all too often believe that they understand the past. Unfortunately, many of us neither have an idea of how Africans and Asians experienced colonialism nor do we know much about non-European empires. It is safe to say that many of our leading policymakers are ignorant about these things too.

Puri's book is a good primer for anyone who wants to learn more. Its eight chapters assess how the past informs current worldviews in the USA, Britain, the European Union, Russia, China, India, the Middle East and Africa. The differences help to explain, for example, why approaches to trade or human rights diverge considerably.

Consider the opium wars of the 19th century, for example. The imperial western powers forced China to import opium they grew in their Asian colonies. Mass addiction in China guaranteed them huge profits. Britain and other western powers declared that this was "free" trade (also see my essay in Focus section of D+C/E+Z e-Paper 2018/12). The plantation workers who were forced to cultivate poppies stayed miserably poor of course, while the white owners prospered. There is a reason why "free trade" does not have a good reputation in China and India.

The opium wars also started what Chinese leaders now call their country's "century of humiliation". There still was a Chinese Emperor in Beijing, but his reach was limited. The country became fragmented, with competing power centres aligning with different imperialist powers. Violence and political instability compounded problems of poverty, and that experience confirmed age-old Chinese narratives, according to which only a strong central power can guarantee peace. In two millennia of Chinese history, the worst periods were marked by domestic strife. The lesson that authoritarian rule is preferable to anarchy and chaos makes sense to many people, and the Communist regime uses that message adeptly to claim legitimacy.

Knowing the history of past empires helps to understand other world regions, of course. Prophet Mohammed started the world religion of Islam in the 7th century, and Arabs fast conquered most of what is now the Middle East, North Africa and Spain. However, the new faith suffered traumatissivesly that while western interventions in North Africa from the late 18th century and the Middle East from the early 20th century on had serious impacts, assessing them does not suffice to understand the complex tensions that still mark this world region.

Puri has South Asian parents, worked for Britain's Foreign Office and is now an adjunct professor at the Johns Hopkins University in the USA. Of course, a short chapter of 30 pages or so cannot offer a detailed analysis of an entire world region's complex history. Puri's book is a good place to start, and readers will probably find those chapters the most useful that deal with the regions they are least familiar with.

The book's weakest chapter is the one about sub-Saharan Africa. Part of the problem is certainly that there is no precolonial written history for much of the continent. Adding to the complexity, postcolonial Af-



Monument commemorating the opium wars in Guangzhou agglomeration.

ing schism after the prophet's death. Sunnis and Shiites could not agree on who should be the prophet's successor. The Arab empire did not last, though cities like Tunis, Cairo, Damascus and Baghdad stayed important centres of power.

Puri elaborates how the Sunni-Shia distinction later marked relations between the Ottoman empire and the Shia Safavid empire, the precursors of modern Turkey and Iran. He sees the current rivalry between Shia Iran and Sunni Saudi Arabia in that tradition. The scholar argues conclurica is fragmented into very many sovereign states, many of which are very small, though all are multilingual and multicultural. Moreover, the states are marked by lasting ties to the former colonial powers, the language of which they still use. Another shortcoming of the book is that it does not contain the chapter on Latin America.

BOOK

Puri, S., 2020: The great imperial hangover – How empires have shaped the world. London, Atlantic books.

When the bee stings

Zambia is developing a sweet alternative to its reliance on the volatile copper trade: a thriving international market in organic honey produced in the country's north-western forests.

From modest beginnings, Zambia's honey sector has grown to producing approximately 2,500 tonnes per year and employing over 30,000 people. Most of this production is exported, bringing in vital foreign currencies.

But there is a sting in the tail of this success story. Under a honey export protocol reached between Zambia and China in 2018, Mpundu Wild Honey, a Chineseowned company based in central Zambia, was granted exclusive rights to export Zambian honey to China.

This exclusive deal has stung Zambian honey producers. Zambian beekeepers and honey traders say the deal bars them from accessing the lucrative Chinese market directly.

One of the affected local producers is Miombo Honey, which buys and processes raw organic honey and wax from bee farmers in the Miombo forests of the central Zambezian woodlands. The company sees rich market potential in the Far East. But founder Aaron Kantumoya says the exclusive rights for Mpundu tilt the scales in favour of the Chinese firm for



exports not only to China but to the entire Asian market.

"What is currently happening in this sector is not fair," Kantumoya says. "Some Chinese honey companies source our local product at below-market prices for export to China."

Benjamin Kalima, a bee farmer in the Solwezi district of north-western Zambia, says the growing Asian demand for organic honey could help build up Zambia's economy – if the honey trade were conducted on a freely competitive basis.

"These briefcase buyers, especially those from China, always exploit us," Kalima says. "They come here and offer us a very low market price of 70 Kwacha (about \in 3.3) per 2.5-litre container of honey, and we have no choice but to sell to them at this price because we need income for our families."

A 2.5 litre container of honey weighs 3.6 kilogrammes, so the price that Kalima cites translates into approximately \in 0.91 per kilogramme. In contrast, the wholesale price on the Zambian market ranges between 50 and 80 Kwacha (\notin 2.3- \notin 3.7) per kilogramme.

On international markets, honey trades at wholesale prices of about € 4.7 per kilogramme, according to the National Honey Board, a US-based industry group. The difference between the local Zambian and the international price shows how lucrative exports could be for Zambian honey producers.

The firm that has exclusive export rights to the Chinese market sees the market potential as well. Zhang Zhanping, director of Mpundu Wild Honey, says his company plans to increase production from the current annual level of 3.4 tonnes by adding new beekeepers to its supply network.

"The export of Zambian honey to China will improve the economies of both countries through employment creation and international trade," he says.



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PRICES (INCL. MAILING CHARGES): single issue: € 2.20 annual subscription, Germany: € 14.00 annual subscription, world: € 18.00 MULTILATERAL DEVELOPMENT BANKS

Too many loopholes

The AIIB's public-disclosure rules are vague and lack time-bound requirements. There is too much room for the top management to decide what the public gets to know about the environmental and social impacts of AIIB projects.

By Korinna Horta and Wawa Wang

The Asian Infrastructure Investment Bank (AIIB) has become an important global player in record time. It is based in Beijing, started operations in 2016 and aspires to become the world's leading financier of large-scale infrastructure by 2021.

The AIIB was established at China's initiative, its President Jin Liqun is Chinese and the People's Republic is its largest shareholder. European and other governments joined the AIIB against US President Barack Obama's wishes, stating they would ensure the adoption of the best international standards in regard to public transparency and accountability.

This has not been achieved. The AIIB's so-called "Accountability Framework" delegates increasing decisionmaking power to the Bank's president, sidelining the Board of Directors, who represent member countries.

Initially, the AIIB mostly co-financed projects with other international financial institutions (IFIs), but it is now increasingly developing its own lending pipeline. Its reach is not limited to Asia, but extends to Africa, Latin America and Europe.

Concerning transparency, the AIIB offers nice rhetoric, but lacks substance when it comes to specific requirements, including the time frames for publishing environmental studies. Loopholes in its Public Policy on Information (PPI) ultimately allow the AIIB president to decide what documents are disclosed. For example, the Bank, using exemptions, can delay publishing environmental and social information that is essential to mitigating harm.

Similarly, the rules on transparency in the AIIB's Environmental and Social Framework (ESF) are inadequate. They do not define precise time frames for when the Bank and/or its clients must release documents concerning environmental and social impacts. The pertinent ESF paragraphs only call for "timely" release or disclosure "as soon as" information becomes available. Moreover, the management may postpone disclosure to an undefined future date in cases of commercial sensitivity, for example when assets of a private-sector corporation are affected. Commercial and corporate concerns thus trump the public interest.

European shareholders have demanded clearer rules on these matters. Depressingly, the current draft for an ESF revision disappoints once more. It was published in September 2020 and is scheduled for approval early next year.

The draft does include relevant new clauses concerning public access to information in cases where the AIIB may apply a client's environmental and social systems instead of its own ESF or where it is lending to or investing in financial intermediaries, such as commercial banks and private equity funds. But once again, loopholes abound, and the transparency provisions are vague and open-ended.

Even when a financial intermediary finances high-risk activities with AIIB support, there is no requirement to publish specific information. The financial intermediary must only report annually about environmental and social documentation – and even that will not be necessary if the information is subject to regulatory constraints, or a project sponsor does not consent.

The climate emergency and the erosion of biodiversity are escalating fast. At the same time, the space for civil-society activism is shrinking or even disappearing in many countries. In China, for example, voices defending human rights and even public health have largely been silenced.

In this setting, multilateral development banks must be held accountable. Major infrastructure projects are by definition high risk. Unless the new ESF draft undergoes fundamental changes, shareholders will miss an opportunity to promote transparent governance, fairness and environmental sustainability. The broader risk is that the AIIB approach will weaken how other IFIs enforce their own environmental and social standards. After all, IFIs compete for investment opportunities.

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> AIIB President Jin Liqun.



CHILE

Unsubsidised transformation

Chile is converting its electricity supply to renewable energies, phasing out coal and betting on green hydrogen to deliver a carbon-neutral economy by 2050. In doing so, it can serve as an example to other newly industrialising countries.

By Rainer Schröer

Fifteen years ago, Chile's electricity generation depended largely on gas imports from Argentina. Those imports came to a halt in 2007 as a direct result of the energy crisis in Argentina. In order to secure its electricity supply – in particular that of the copper mining industry in northern Chile – the country installed first diesel power plants, which were then slowly replaced by less expensive coal-fired power plants.

The use of renewable energy was not a priority at the time. Nevertheless, Chile's Atacama Desert has the highest solar irradiation in the world, and the south of the country also has ideal locations for power generation by wind energy. Lack of information and mistrust of new technologies characterised the energy market, however. The situation changed thanks to continuous contributions by GIZ, which works as adviser for Chile's energy transformation on behalf of Germany's Federal Ministry for the Environment. A detailed analysis of Chile's renewable energy potential provided the necessary planning security to expand the industry. According to the analysis, Chile has a realistic potential of over 1,865 gigawatts (GW) capacity from wind, solar and small hydropower. That is about 75 times the current installed electricity generation capacity of around 25 GW.

Thanks to numerous discussions with experts and an intensive exchange with German electricity-grid operators, Chilean grid operators and other important actors in the energy sector overcame their initial scepticism and became enthusiastic advocates of renewables. As a result, and not least due to falling technology prices, Chile has recorded the world's largest percentage expansion of renewable energies in the electricity sector in the years 2015 to 2018 – without government subsidies. Currently around a fifth of the country's electricity comes from fluctuating renewable sources (solar, wind, small hydropower); if large hydropower is included, the total comes to 45%.

GREEN HYDROGEN

The next step was to make sectors other than electricity sustainable as well. Since 2015, there has been activity in the area of green hydrogen, which is created using electrolysis from renewable electricity. Today it is almost profitable in Chile. Therefore, hydrogen can contribute to reducing greenhousegas emissions in the energy sector, industry and transport, and help the country to become climate neutral by 2050. Furthermore, green hydrogen could become a new major export item for Chile, alongside copper. GIZ is currently supporting the Chilean government in creating a national hydrogen strategy, which should be completed by the end of 2020. Germany also presented a national hydrogen strategy this year and can consider Chile, along with African countries like Morocco, as a supplier of green hydrogen or its derivatives.

Another exciting development is Chile's incremental phase-out of electricity generation by coal, which is happening parallel to its expansion of renewables and in close cooperation with the industry. Almost two-thirds of coal-burning power plants with a total capacity of 5,529 megawatts have only been in operation for less than ten years. Nevertheless, the power-plant operators have, without state subsidies, voluntarily committed to ending coal-fired generation by 2040.

Together with the German Aerospace Centre (DLR) and two coal-fired power plant operators, GIZ is now analysing whether the coal plants that will be decommissioned can be converted to thermal energy storage for solar and wind energy. That way the majority of existing infrastructure could still be utilised and the shutdown of the power plants could be accelerated. Chile's experiences in phasing out coal could be useful for many other countries, and the energy transformation that has been carried out in the South American country with Germany's help is also a good example of successful international cooperation.



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Photovoltaic systems in the Atacama Desert.

Letters to the editor



"BEST ALLIES"

D+C/E+Z e-Paper 2020/09, Monitor section: Christiane Rudolph: "Indispensable private sector"

The UN were established 75 years ago and have since mostly focused on issues of peace and development cooperation. As Christiane Rudolph correctly points out, however, the Sustainable Development Goals (SDGs) can only be achieved with strong private-sector involvement. In a similar sense, António Guterres, the UN secretarygeneral, considers privatesector companies to be "the best allies" for implementing the Paris Agreement on climate change and achieving the SDGs.

In order to boost private-sector involvement, the UN could and should do two things:

• It would make sense to further develop the Global Compact. It is the world's largest and most important initiative for promoting corporate responsibility and was started in 1997 by Kofi Annan, who was UN secretary-general at the time. The four underlying principles are protection of human rights, enforcement for fair labour standards, application of eco-friendly technology and fighting corruption. Some 15,000 companies and organisations from 160 countries have joined the Compact.

• More public-private partnerships would be useful too. UN agencies should expand their partnerships with business. The Industry Cooperation Programme (ICP), which was created in the 1960s and 1970s, is a lasting model for how to involve the private sector in development affairs. Related joint ventures, by the way, were initiated by a German UN pioneer: Alexander Gunther Friedrich. He was the ICP's executive secretary. **Prof. Dr. Michael Bohnet, Bonn**

UNEXPECTED AND UNDESIRABLE RESULTS

D+C/E+Z e-Paper 2020/09, Focus section: Meanings of development

The implementation of any development project without the sustainability element is ultimately bound to become a meaningless and wasteful exercise. If there is a lack of foresight, environmental impact assessment (EIA) and SWAT analysis (strengths, weaknesses, opportunities and threats), costs and side effects can easily outweigh the merits. It is the prime duty of policy planners and decisionmakers to design and implement development projects in ways that ensure long-term sustainability. In view of escalating global environmental problems, "no development" may actually be a better option than inadequately planned and unsustainable development projects that lead to unexpected and undesirable results.

Dr. H. K. Sunil, former director of Sri Lanka's Sugarcane Research Institute



Former UN secretary-general Kofi Annan addressing a Global Compact conference in 2004.

POPULATION GROWTH

Putting Africa first

From around 2050, Africa could start to see a "demographic dividend" due to an increase in the ratio of working-age people to dependents in its growing population. But that is not guaranteed and would be just a first step towards sustainable improvement in incomes. Development policies, technology and infrastructure will matter very much.

By Jakkie Cilliers

At first glance, Africa can expect robust growth in the decades ahead, particularly in its poorest regions. After the impact of Covid-19, average annual rates of Gross Domestic Product (GDP) growth from 2021 to 2040 are forecast at 4.8% for Africa with its 23 low-income countries growing particularly rapidly (figure 1).

Economic growth would thus be considerably faster than in other world regions. But rapid GDP growth does not necessarily translate into higher living standards. For one thing, Africa's rapid population growth reduces the rate at which per-capita incomes improve, as the benefits are spread over more people. The age structure of the population matters as well: swelling ranks of those too young or too old to work are a drag on the economy. Sustainable improvement of living standards, moreover, depends on good policymaking regarding developmentrelated issues such as technology, infrastructure and other things.

The plain truth is that income gap between Africa and the rest of the world is widening. While conditions are improving in Africa, they are doing so more slowly than elsewhere.

The forecast data on extreme poverty provide a telling example. Extreme poverty (living on the purchasing power of \$1.90 or less per day) is expected to increase in Africa between now and 2040. The number of Africans in extreme poverty will increase from 510 million to 573 million in 2030 (figure 2).

While extreme poverty is disappearing from most parts of the world, it is likely to remain in Africa in the decades to come. By 2030, the final year for the elimination of extreme poverty as included in the Sustainable Development Goals, extreme poverty is expected to affect around a third of Africa's population. An implication is that, after 2030, discussions about extreme poverty will focus on sub-Saharan Africa and only very few other countries, such as Venezuela, North Korea and Afghanistan, for example. One reason for the dim outlook for African incomes is that the continent's GDP growth, while admirable, is too slow to accommodate the needs of a growing population. Africa's population is currently expanding at 2.6% per year; although, by 2040, that rate is expected to slow to 1.9%. The growth in economic output is not sufficient to keep up with the growth in the number of people. To keep up with forecast population growth, the average rate of GDP growth would have to be at least double that of the currently forecast rate.

Aside from its effect on per-capita GDP, population growth is generally a good thing for an economy, depending on the age structure of the population. In particular, when the ranks of workers expand relative to the ranks of dependents, a country experiences an income-accelerating "demographic dividend". The big challenge is to make this happen in Africa (see Hans Dembowski in Focus section of D+C/E+Z e-Paper 2020/04).

The continent's age structure has not been favourable in the past. In 1987 the ratio of working-age people to dependents in Africa bottomed out to 1.0 (one working-age person per dependent) – the lowest ratio for any region worldwide – compared to 1.6 worldwide.

Since 1987 the worker-to-dependent ratio in Africa has improved, but not by much: It is still below 1.3. The tipping point at which demographic dividends appear is around 1.7. Africa is expected to reach this



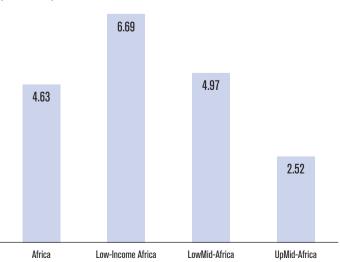
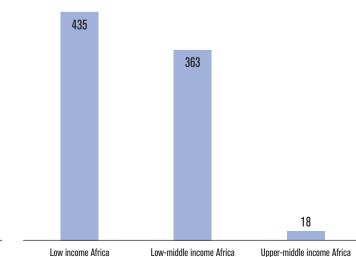


Figure 2: Population increase from 2020 to 2040 (Millions of people)



point only around 2050. After that, the ratio should steadily improve, reaching to 2.0 by 2070.

To judge merely by demographic trends, one might thus say that good economic times lie ahead – although some three decades into the future. However, demographic trends are only part of the picture when it comes to reducing poverty rates and boosting average incomes.

Africa's optimistic demographic scenario for 2050 and beyond is undermined by global trends in technology. Technologies such as machine-to-machine communication, which replace labour and reduce the cost-advantage of workers in low-income countries, can make demographic structures less significant as boosters of national income.

LESSONS FROM ASIA

The economies of the "Asian Tiger" countries (Hong Kong, Singapore, South Korea and Taiwan) and China boomed between the early 1960s and the 1990s, providing potential lessons for Africa. At the time of their booming expansion, these countries had a ratio of 2.8 working-age people per dependent. In contrast, Africa will reach a much lower peak ratio of 2.0 in 2070. Africa's demographic dividend will thus be smaller than those of the Asian Tigers and China.

There is a further difference between the Asian Tigers and Africa. In addition to enjoying more favourable population age structures, China and the Asian Tigers boosted productivity and incomes through a range of policies targeted at development. They had development-oriented governing elites that invested in agriculture and food security, ensured literacy and basic education, built export-oriented economies, and supported the productive elements of their economies, such as encouraging low-end manufacturing.

Too little of this has occurred in Africa. The continent needs transformations in agriculture, health, demographics, education, industrialisation, technology, trade policy, political stability, governance and external support. Adding to the challenges, Africa must adapt to the climate crisis (see my essay in Tribune section of D+C/E+Z e-Paper 2020/06). Taken together, policy changes in these areas would produce a powerful "Africa First" scenario, whose aim would be to reduce poverty and increase incomes over time. This scenario can provide a benchmark for evaluating measures to support Africa's development.



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COVID-19 IMMUNISATION

Just crumbs for Africa?

There is still no vaccine for Covid-19, but there is a great deal of public money flowing into research, and pharmaceutical companies are also active. But how accessible will the fruits of that research and development be? UN, WHO and many world leaders promise that everyone will have access to vaccines when they are licensed. That, however, is by no means guaranteed.

By Jörg Schaaber

On 19 May 2020, the World Health Assembly (WHA) adopted a resolution on the fight against Covid-19. In it, future immunisation is explicitly recognised as a "global public good", and high priority is given to "universal, timely and equitable access to [...] essential health technologies and products". The resolution makes explicit reference to the World Trade Organization's Agreement

on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), which permits compulsory licensing of drugs and vaccines if public health is threatened. The WHA also recommended the pooling of patents.

A platform for doing that was launched on 29 May 2020 by the World Health Organization (WHO). Christened the Covid-19 Technology Access Pool (C-TAP), it bundles patents and facilitates licensing. The establishment of C TAP was supported by 38 countries, including five EU member states. Germany was not one of them.

LACK OF INTEREST

Prior to the Covid-19 outbreak, there were hardly any commercial coronavirus-research projects, even though two coronavirus strains – SARS (2002) and MERS (2012) - were already circulating and causing serious illness. Investment has come almost exclusively from the public sector. The US National Institutes of Health, for example, have invested nearly \$700 million in coronavirus research since 2003, around \$100 million of which has gone directly to private enterprises. The Coalition for Epidemic Preparedness Innovations (CEPI) has also invested considerable sums of money.

Before the current outbreak, the pharmaceutical industry itself showed little interest in developing coronavirus vaccines, despite encouragement and funding being offered by the European Commission as early as 2017. In the present pandemic, however, they see the prospect of large government grants and a huge market. The pharmaceutical companies are now in gold-rush mood.

Since May 2020, the European Commission has collected considerable sums of money under the Access to Covid-19 Tools (ACT) Accelerator initiative for the Coronavirus Global Response. European Commission President Ursula von der Leyen stressed: "We need to develop a vaccine, we need to produce it and to deploy it in every single corner of the world and make it available at affordable prices. This vaccine will be our universal common good." But this promise is nowhere fixed in legal terms. The European Commission has emphasised that it would not expect manufacturers to relinquish their patent rights. The international pharmaceutical industry has further demands: the state should not only invest in the research but also pay for the vaccine factories that will be needed.

WHO CALLS THE SHOTS?

Lack of governance is a core problem. The reins should actually be in the hands of the WHO. However, unclear structures and fragmented responsibilities hinder the success of pandemic control.

The ACT Accelerator plays a central role in the collection of pledges and distribution of Covid-19 funds. The international campaign was launched in April by the WHO and other actors such as the Gates Foundation, the Global Fund and industry associations. The respective donors, such as governments and foundations, distribute their funds directly to the recipients. The EU merely keeps a record of whether the payments are actually made.

Another important actor in the distribution of Covid-19 research funds is CEPI, a public-private research initiative that has long been criticised for its unsatisfactory access policy.

Responsibility for the procurement and distribution of vaccines will reside with another public-private partnership, the GAVI Vaccine Alliance. Together with the WHO, GAVI coordinates the international vaccine platform COVAX, which aims to secure options on the widest possible range of promising vaccine candidates. Self-financing countries can secure options on vaccine doses by making down payments.

GAVI uses that money, together with development-aid funds, to make advance marketing commitments (AMCs) to manufacturers. This strategy is controversial, however, because GAVI's first AMC turned out to be a subsidy programme for the pharmaceutical industry. The funds were used for a pneumococcal vaccine already on the market, for which GAVI paid a price that was far in excess of the production costs.

With COVAX, the industry retains the patent rights for its vaccines and can offer



Vaccines are key to the global fight against dangerous infectious diseases like Covid-19.

them for sale at any price outside the quotas purchased by GAVI. However, there is no way to assess whether the agreed purchase price is fair; nor is there any guarantee that GAVI will be able to provide sufficient supplies to the poorest parts of the population in low- and middle-income countries.

Although German Chancellor Angela Merkel expressly declared before and during the World Health Assembly that Covid-19 vaccines are a global public good that must be accessible to everyone worldwide, her words are not backed up by political actions. Germany and other major EU member states have so far failed to pledge support for the WHO patent pool C-TAP.

Instead of working for equitable access worldwide, not only the USA but also Europe is evidently pushing its own interests and going easy on the pharmaceutical industry. This is corroborated by the agreements reached with manufacturers. Oxfam calculates that half of the total potential vaccine doses available within a year have already been secured by countries that account for only 13% of the world population.

Winnie Byanyima, head of UNAIDS and a strong supporter of fair access to medicines worldwide, is fiercely critical of this tactic: "First it was 'America first', now it is 'Europe first', and Africa is left with a few crumbs."

Selective negotiations with individual manufacturers, purchase guarantees at in-

flated prices or voluntary commitments by the industry will not ensure a fair global supply of medicines and vaccines. For that, a patent pool is the more sensible instrument. After all, in order to manufacture a drug in the greatest possible quantities and to be able to supply all regions of the world on a continuous basis, as many production facilities as possible need to be operating. That is only possible, however, if patent rights are bundled, technology is transferred, and licences are granted to large numbers of manufacturers on fair terms. This is precisely what the WHO patent pool can ensure.

By failing to support the patent pool, the German government is hindering important steps towards a fair global supply. As a major donor to GAVI, Germany could also ensure that the allocation of funds to commercial manufacturers is subject to clear commitments to fair pricing and that intellectual property rights are transferred to the WHO pool. On paper, the German government supports the WHO's leadership role. But more money alone is not enough – it must actively demand and specifically ensure fair access.



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Healthy diets

Welthungerhilfe, a German aid agency, reckons that the number of people suffering hunger may rise to 1 billion in the course of the Covid-19 pandemic. Poor people do not worry about what they will eat tomorrow, but whether they will eat at all. Malnutrition and unhealthy eating, which were serious problems even before the novel coronavirus began to spread, are being compounded by this health crisis. Awareness raising for healthy diets is needed in all world regions. Lack of micronutrients is causing so-called "hidden hunger" even in prosperous countries.

This focus section directly relates to the UN's second and third Sustainable Development Goals (SDGs): Zero hunger and health and well-being.



FOOD SECURITY

The ravages of acute hunger

In Zimbabwe, people increasingly worry not what, but whether they will eat tomorrow. Covid-19 and drought are exacerbating the long-lasting economic crisis.

By Jeffrey Moyo

In the past, food used to be abundant in Zimbabwe, but that has changed. Duduzile Nhari is a single mother with five children. They must cope with a single meal per day. Nhari works as a teacher in a government school, but years of inflation have drastically reduced her purchasing power (see my comment in Debate section of D+C/E+Z e-Paper 2019/09). After a recent pay raise,

money, she is doing laundry work for other families. "I have to swallow my pride," Nahri says.

Covid-19 has made things worse for her. Schools were closed because of the lockdown, and her side jobs had to sustain the family.

Late last year, the UN World Food Programme stated that Zimbabwe was suffering its worst hunger crisis in a decade. Bettina Lüscher, a WFP spokesperson, summed up the problems: "The crisis is being exacerbated by a dire shortage of currency, runaway inflation, mounting unemployment, lack of fuel, prolonged power outages and largescale livestock losses." At the time, half of



Zimbabwe is suffering the third year of drought in a row.

a Zimbabwean teacher earns an average of 6000 Zimbabwean dollars monthly. That is now only the equivalent of about 70 US dollars. The current inflation rate is about 800%.

The daily meal Nhari gives her children consists of maize. She prepares a thick porridge commonly known as sadza by ground maize with boiled water. "My salary does not cover the rent," she complains, "surely food comes first." To make extra the population - 7.7 million people - were said to lack secure access to the food they need. In urban areas, which are generally more prosperous, the share of people requiring food aid was 40%.

Things have gotten worse. In late July 2020, the WFP estimated that 8.6 million (60% of Zimbabweans) were in need, stating that the price of maize had doubled in the month of June alone. Lola Castro of the WFP said people were suffering "the ravages

of acute hunger". The UN agency called for donations worth an additional 250 million US dollars to increase its food aid to the country.

Precious Shumba, director of the Harare Residents Trust, says that inflation in particular is proving devastating. "Urban poverty is a reality now. Families are going for one meal instead of two or three per day". Though food is available in the shops, it is "priced beyond the majority's reach" the civil-society activists says. Things are particularly bad in densely populated informal settlements.

At the same time, businesses are shutting down due to recession. Owen Dhliwavo, a human-rights activist, points out that ever more people are losing their jobs. According to trade-union leaders, the unemployment rate is about 90%, which means that the vast majority of people depend on informal incomes

To some extent, urban people have begun to migrate back to the villages. Danisa Masuka, for example, sent his family to live in the countryside with relatives after losing his job as a bus driver in Harare. He is looking for a new job and wants his family to live where the cost of living is lower until he finds one.

Of course, life in rural areas is not easy either. Indeed, food insecurity tends to be worse. That is especially true as persistent drought is making farming ever more difficult. According to WFP, subsistence farmers make up three-quarters of Zimbabwe's population and produce most of its food.

In 2019, the rate of people suffering acute malnutrition rose from 2.5% to 3.6%, according to the WFP. About 90% of the country's children aged six to 24 months did not get the minimum diet needed. Many mothers have stopped breast-feeding in the lack of sufficient food for themselves. Things have been getting worse since then. The sad truth is that people increasingly worry whether they will eat at all tomorrow, and not whether their diet is healthy. The global challenges of Covid-19 and climate change are exacerbating the pain caused by the country's long-lasting economic crisis.



JEFFREY MOYO

AGRICULTURAL DIVERSIFICATION

Dethroning King Maize

Zambia is reconsidering the priority it gives to maize as both a cash crop and dietary staple. But in a culture where maize and food are nearly synonymous, diversifying crops and diets may be a tough sell.

By Derrick Silimina

In Zambia, maize is by far the most important dietary staple and a main beneficiary of agricultural subsidies. But in coming years, maize may have to make room for competing crops.

Inonge Wina, Zambia's vice-president, recently startled people by calling on them to vary their diets, eating less maize and more millet, sorghum, cassava, rice and sweet potatoes. "The switch to more nutritious foods is one of the low-cost and effective ways of addressing stunting and malnutrition in the country," Wina said.

Her proposal runs counter to Zambia's culture. Zambians typically eat maize-based meals two or three times per day. Many do not consider themselves to have eaten at all if they have not eaten maize or something made of maize. Particularly popular is a stiff maize-based porridge known as nshima. Maize is also used to brew beer.

The vice president's comments come at a time when maize farmers face a host of other problems. Many of them see their costs going up, while the governmentowned Food Reserve Agency (FRA), which buys their produce, continues to pay them a constant 110 kwacha (the equivalent of €4.6) per 50 kilogramme bag of white maize. The Zambia National Farmers' Union (ZNFU) says the price should be raised to 130 kwacha, in view of farmers' rising costs for fertilisers, seeds, chemicals, transport, electricity and labour.

At the same time, a subsidy programme on which many maize farmers depend is failing to deliver necessary inputs like fertiliser or pesticides on time. "We are nearing the planting season and land preparation is underway, but we still do not have the inputs we expected to get in July," says Veronica Tembo, a small-scale farmer from Lusaka's Chongwe district. "Farmers should only have to worry about when the rains will come, not about undelivered inputs."

The Zambia's Farmers Input Support Programme (FISP) was launched by the government in 2002 to provide subsidised seeds and fertiliser to maize farmers and to involve private traders in the supply of inputs. In recent years the programme has been plagued by mismanagement and corruption. At the same time, it has fostered dependency among farmers.

"Most small-scale farmers on FISP have been beneficiaries for over five years, even though they were meant to 'graduate' to self-sufficiency after two years, says Robert Tembo, a farmer in Chipata, eastern Zambia. He adds that some politicians use FISP to gain favour with voters and stay in power.

On the other hand, the ZNFU wants more farmers to benefit from FISP. "Of the

3.3 million metric tonnes of maize produced, 1.3 million are grown by small-scale farmers who do not benefit from FISP," says ZNFU spokesman Calvin Kaleyi. "With the FRA prices at 110 kwacha, maize farmers will be bankrupted and production will decline next year."

Producers of other cereals, vegetables and fruits, meanwhile, are vying for a piece of the FISP action. "We too need subsidised inputs, just as maize farmers do," says Monde Sitwala, a rice farmer from Mongu district. "The government should recognise rice as a profitable smallholder cash crop and a major contributor to national food security."

When this essay was finalised in mid-October, however, Zambia seemed to be close to a severe financial crisis because of high foreign indebtedness. How that crisis might play out, and how it would affect government capacities was anybody's guess.

IMPROVING DIETS

The debate over priority treatment for maize takes place against a backdrop of widespread malnutrition in Zambia. According to the International Institute for Environment and



Many farmers use very simple technology.

Development (IIED), an independent think tank based in London, the country's heavy emphasis on eating maize is the reason why Zambia has one of the world's highest rates of undernourishment. More than a third of children under five have stunted growth, and a quarter of adults are obese, the report says.

Similarly, the UN Development Programme's 2019 Human Development Index shows that 48% of Zambians cannot meet their minimum calorie requirements. The Index ranks Zambia 143rd out of 189 countries in terms of key indicators of human development.

According to IIED author William Chilufya, the large amount of land devoted to maize contributes to poverty, both because maize fetches low prices and because it does not lend itself to many value-added agro-processing, trading and input supply activities. That limits the cereal's economic multiplier effects.

In part, Zambia's over-reliance on maize leads to poverty because it produces maize inefficiently, using outdated farming techniques. Most small-scale farmers use traditional tools and depend on rain, making them vulnerable to natural disasters and increasingly erratic weather due to the climate crisis. Rising average temperatures have caused severe food shortages for 1.7 million Zambians, or 18% of the population, the IIED reckons.

The link between poverty and overreliance on maize can also be traced to the health effects of an unvaried diet. While Zambia is focused on producing and consuming maize, other cash crops – including soybeans, rice, cassava, beans plus vegetables and fruits – receive too little investment and too little attention from consumers. Cotton and tobacco are important cash crops too, though they have no impact on people's nutrition.

The government is trying to allocate more resources to building infrastructure and conducting research and development for a range of other crops. Of particular current policy interest is cassava, a starchy tuberous root vegetable and major source of carbohydrates.

"Cassava is a game changer in light of climate change," says Veronica Chimuku, a cassava producer from the Kaoma district of western Zambia. "It is more droughtresistant than other crops that depend on rain-fed agriculture."

REORDERING PRIORITIES

Convincing Zambians to substitute other foods for maize may be more difficult than changing national investment priorities, however. With over 60% of Zambians living below the poverty line, varying diets may simply be too expensive. The Jesuit Centre for Theological Reflection, an advocacy group for the poor, estimates that a varied basket of foods meeting nutrition requirements would cost 7,000 kwacha (€296) per month – putting it out of the reach of most households. For the government, this means that a public information campaign – plus perhaps more subsidies for other crops, aimed at reducing their market prices – is in order. The government has made a start in this direction, correctly targeting agriculture as a priority sector for investment. But a sharper focus on which specific commodities to single out for support may also be needed.

Two-thirds of Zambia's population live in rural areas and rely on agriculture for income, making investment in agriculture particularly necessary. Agriculture accounts for only 20% of Zambia's GDP but could be a major source of growth, given the country's abundant fertile land and good rainfall.

Throughout sub-Saharan Africa, growth in agriculture reduces poverty up to 11 times faster than growth in other sectors, according to the International Fund for Agricultural Development, a specialised UN agency.

Diversifying crops and investing in agricultural infrastructure may not be a miracle cure for Zambia's ailing economy and malnourished population. But they offer a promising way out of some of the country's most pressing current problems.

FURTHER READING

Chilufya, W., 2019: Beyond maize; exploring agricultural diversification in Zambia. London, IIED. https://www.iied.org/beyond-maizeexploring-agricultural-diversification-zambia



TRADITIONAL CROPS

Useful lessons

In Malawi, Slow Food campaigners are making local communities aware of the health benefits of indigenous food. The cultivation of traditional crops also makes sense in economic terms

By Rabson Kondowe

"We should know who produces our food and how it is produced," says Manvester Akson Khoza, the national coordinator of Slow Food in Malawi. The accountancy graduate has been working for this international non-governmental organisation (see box next page) since 2012. Back then, his first task was to start 12 school gardens for cultivating traditional crops. Today, he is coordinating 450 school and community gardens across the country.

As in many developing countries, the use of hybrid varieties has been crowding out traditional crops in Malawi (also see Lucien Silga in Focus section of D+C/E+Z e-Paper 2019/11). To a large extent, traditional cultivars are not only ignored, but actually shunned, Khoza says. The problem with the high-yielding varieties is that they require the application of expensive chemicals.

By contrast, Slow Food gardens use neither pesticides nor fertilisers. This approach protects the natural environment as well as people. The application of toxic chemicals, after all, is a health hazard in itself.

The gardens serve an educational purpose. "We want local communities to be able to grow these plants," the coordinator declares. At the same time, he insists that the gardens have proved to be more sustainable even in business terms than commercial farming. The cultivars are genetically adapted to the region where they are grown, and their diversity means that people get more nutrients than monoculture plantations offer

In 2010, Slow Food started a programme to launch "a thousand gardens in Africa". The activists have been reaching out to schools as well as community organisations in villages and on urban fringes in two dozen countries. The idea is to ensure that people have a consistent supply of fresh and healthy produce.

So far, the organisation claims to have set up more than 3,000 gardens in Africa. Slow Food is particularly keen on involving young people. "We want them to grow healthy through eating the right food," Khoza says. The activists want them to make use of at home what they learn in school.

The strategy is working out. Agness Chipamba is involved in a school gardening project in central Malawi. She reports that many students have now set their own backvard gardens at home and their families now have "vegetables throughout the year".

Previously, that kind of food would only be available in the rainy season, she says. The big difference is that people no longer depend on vegetables brought in from other places. "We are able to feed ourselves



















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with the food we grow here." Some gardeners sell produce on local markets, moreover.

Undernutrition is a serious problem in Malawi. Of the children under five, 37% are stunted, according to UN data. Things have been slowly improving, as that share was 53% in 2004, as Felix Pensulo of the Ministry of Health points out. Further progress is obviously needed. At the same time, overnutrition is increasingly worrisome too. The Participants listening to communitygarden instructor. To ensure that more people understand what a healthy diet is, the health ministry is working on a nutrition syllabus. It wants the subject to be taught in primary and secondary schools and to figure in tertiary education as well. Pensulo says that girls matter in particular. Studies show that those who go to school are unlikely to have malnourished children. "They will be able to take care of them," Pensulo says. Accordingly, the government does not want girls to drop out of school.

In this context too, the Slow Food gardens are proving valuable. A surprising side effect of the project was that some drop-outs have begun to attend classes again. Khoza reports that school enrolment has thus benefited from youngsters' enthusiasm for growing their own healthy food.



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their eyes, tinned food, exotic vegetables and **b** pre-processed meals are signs of affluence.

government reckons that 21% of the popu-

lation is overweight. In 1992, that was only

sity affecting cities more. Pensulo notes that

many urban people reject traditional food.

They think that indigenous vegetables, fruits

and tubers are food for the rural poor. In

There is a rural-urban divide, with obe-

true of nine percent.

Mother Earth's food diversity

Slow Food is a global grassroots organisation, which was founded in 1989 by Carlo Petrini in Italy. It is currently active in 160 countries.

Slow Food argues that we all should know where our food comes from, how it is produced and how our food choices affect the world around us. After all, food relates to many other aspects of life – including culture, politics, agriculture and the environment. The triple purpose of Slow Food is therefore to:

- stimulate people's interest in the food they eat,
- stem the disappearance of local food cultures and
- put a break on the acceleration of people's pace of life.

As the choice of name suggests, Slow Food opposes

the spread of fast food, especially as promoted by many international retail chains. Indeed, those products tend to include unhealthily high portions of sugar, fat and salt. The clever alternative, according to the international non-governmental organisation, is to preserve traditional and regional cuisine. Accordingly, it encourages the farming of plants, seeds and livestock characteristic of local ecosystems. This approach does not only support diversity in a biological sense, since a broad range of small businesses and farms benefit. The primary concern is food quality, not quantity. At the same



time, Slow Food opposes overproduction and food waste.

In 2004, Slow Food started a network called Terra Madre ("Mother Earth"), which links people interested in taking an alternative approach to gastronomy. The idea is to protect biodiversity and foster respect for local cultures. While local food cultures are very diverse, the threats they are exposed to are the same all over the world, the activists argue, and the solutions are surprisingly similar.

Slow Food's international headquarters is in Bra, a small town in northern Italy. The organisation claims to have 100,000 members around the world. rk

LINKS

Slow Food: https://www.slowfood.com/ Terra Madre: https://www.terramadre.info/en/ FOOD INSECURITY

As in biblical times

East Africa is living with the looming threat of a second invasion of desert locusts. These insects are the most dangerous migratory pest in the world. The region has been grappling with a locust plague since the winter of 2019/2020.

By Mahwish Gul

According to the UN Food and Agriculture Organization (FAO), the current locust plague is the worst to have hit in 25 years. The multilateral agency warned in mid-October that recent rains have again created breeding grounds for locust swarms in Ethiopia and Somalia as well as across the Red Sea in Yemen.

The desert locust is a kind of shorthorned grasshopper. It is the most destructive insect. In normal years, this species is found in deserts of Africa, the Middle East and Asia. However, heavy rainfalls make them thrive by causing the growth of atypically abundant vegetation in areas that are normally arid. When that happens, the insects stop living solitarily and form huge swarms. When several such swarms merge, experts speak of a plague.

In Kenya, no locust invasion was this devastating in 70 years. The largest swarm to hit the country this year covered 2,400 square kilometres and was made up of 200 billion locusts.

The pests destroy fields as well as wildgrowth vegetation. Farmers struggle to cope, as fields are ravaged and feed for livestock as well as wildlife is destroyed.

In May, the FAO warned that 20 million people in East African countries were facing severe and acute food insecurity. Acute food insecurity means an increasing likelihood of famine. Millions of people see their savings depleted and livelihoods endangered.

Two of the East African countries concerned – Somalia and South Sudan – already had high burden of malnutrition before the locust plague started. Other countries are hardly faring better. The entire region is marked by high morbidity, weak healthcare and insufficient infrastructure. Agriculture accounts for about half of the region's



Two men engulfed by locusts in Kenya's Samburu County.

economy and 70% of livelihoods. Masses of people depend on traditional, low-productivity farming. Regional conflicts exacerbate problems, and so does the coronavirus pandemic.

The UN sees a strong link between global heating and the current locust problems, which similarly haunt parts of the Arab Peninsula and the Middle East. Wet weather has become more frequent, including cyclones. Unusually warm sea surfaces in the Indian Ocean have recently made storms more likely. Experts warn that what seems like "freak weather" today may actually be normal soon.

Locust swarms have been terrorising humankind since biblical times. Science and modern technology so far are unable to prevent such plagues. The current scale of infestation in East Africa is unprecedented.

It is difficult to predict when, where and with what force the next locust swarm will strike. A great challenge is that, even when a locust invasion is brought under control in one area, new swarms may build up in neighbouring ones. Wind speed and direction matter. The wind may even blow a swarm across the Red Sea.

For now, the only way to protect an area is heavy use of pesticides. Vast areas have been sprayed – and are being sprayed – this year. These chemicals are poisonous by definition and their side-effects on human and environmental health must not be ignored, though getting a grip on the insect infestation is certainly the more urgent issue.

In the long run, a multi-pronged approach is needed. It must include better forecasting, surveillance and early detection. Such efforts need to be coordinated across borders and include strife-torn areas, including in Yemen and Somalia. Moreover, humankind must redefine its relationship with nature. Deforestation, intensive agricultural practices and overgrazing have all created open fields encouraging locust infestation. There is no silver bullet in the fight against locust outbreaks. It is clear, however, that some of the world's least developed countries must rise to huge challenges.



HEALTHY NUTRITION

It's all in the mix

To live healthy and active lives, people require good nutrition. Unfortunately, hunger and malnutrition remain widespread. Countermeasures are possible. Improving infants' nutrition is particularly important. Cross-sector approaches make sense.

By Simone Welte

The Caribbean island of Hispaniola was once home to abundant flora and fauna. In the 18th century, the western half of the island, which is now Haiti, was France's wealthiest colony. The colonisers brutally exploited both the people and natural resources, causing a considerable loss of biodiversity among other things. Colonial exploitation started long-lasting negative trends which ultimately made Haiti one of the world's poorest countries.

Due to deforestation and the resulting erosion, around half of the country's arable

land was lost. Vast areas are no longer suitable for agriculture. Numerous tropical cyclones and the catastrophic earthquake of 2010 left devastation in their wake. Haitian farmers' harvests, which are meagre in good times, were wiped out.

The reasons why people in Haiti and other countries suffer hunger include not only natural disasters, degraded soils and ruined infrastructure, but also dysfunctional markets, corruption, violent conflict and poor education. Inequalities – between cities and rural areas or between men and women, for example – exacerbate the problems. It is rather challenging to tackle the complex and interconnected causes.

THE RIGHT TO FOOD APPLIES TO EVERYONE WORLDWIDE

Fighting hunger and malnutrition is one of the global community's central goals. As

early as the 1960s, the UN enshrined the right to adequate food in the Charter of Human Rights. Global attempts to implement this right have met with considerable success, but some 690 million people suffer hunger today according to the UN Food and Agriculture Organization (FAO), and around 2 billion suffer micronutrient deficiencies (see box next page). There is reason to doubt that the second Sustainable Development Goal (SDG), to rid the world of hunger and all forms of malnutrition by 2030, will be achieved.

Healthy nutrition is the foundation of a healthy and active life. Humans need energy, fats, carbohydrates, protein, vitamins and minerals. Food ensures that we can grow, regenerate and maintain our bodily functions, including a strong immune system.

Healthy nutrition is of lifelong importance. Babies are born healthy if, in utero, they received all important nutrients. Accordingly, young women should maintain a high-quality diet. That amounts to the best possible care of themselves and their babies when pregnant or breastfeeding. During pregnancy, they need additional micronutrients like folate and iodine. To stay healthy



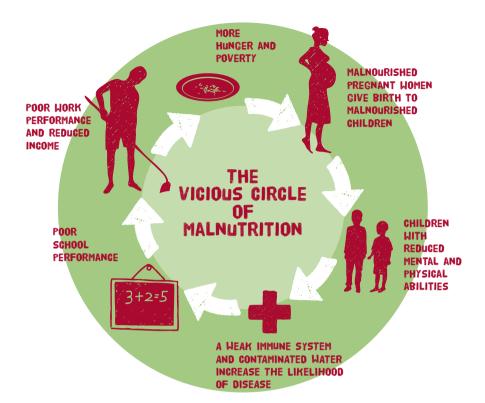
A group of women has bought the harvest of a farmer in Haiti. They harvest the carrots and sell them at the surrounding markets. and perform well, however, everyone needs healthy food – women, men, girls and boys.

The first 1,000 days of life – that is the span from conception until a child's second birthday – are decisive for the development of physical and intellectual abilities. Deficits in this period can lead to irreversible damage. Malnourished babies and children will never reach their full cognitive and physical potential. Instead, it is the starting point of a vicious circle of hunger, malnutrition and poor school performance which reduces labour-market opportunities, leading to poverty – a major cause of malnutrition (see figure).

HEALTHY NUTRITION IS MULTI-FACETED

Whether people's nutrition is healthy, depends on what kinds of food are available and what quantities of essential nutrients they contain. Combining different food appropriately ensures a balanced nutrient supply. Depending on regions, climate zones and cultural practices, such combinations can look very different. Food has to be free of contamination from cultivation, storage and processing, and it must be accessible and affordable even for poorer people.

Large inequalities between individual countries and within populations make it difficult to implement the recommendations. Undernutrition and overweight now exist simultaneously in most countries. The big difference is how many people are affected by which phenomenon. In Europe, Oceania and large swaths of America, the



problem is primarily overweight and obesity. In other countries, broad sections of the population are undernourished, while at the same time, many urban people are overweight. Deficiencies in important micronutrients like iodine and iron are common everywhere. All of these forms of malnutrition have significant impacts on people, economies and national health systems.

Long-term programmes geared to behavioural change through nutrition edu-

cation can contribute to better diets. Addressing the nutrition of infants and small children has proven successful, for example. In rural Haiti, few people know that the poor health of a very thin child is typically due to that child having been weaned off too early and only getting an inadequate and unbalanced diet. People believe that supranatural forces are to blame and hang traditional amulets around children's necks to protect them. Undernutrition is not

What is hunger?

Hunger is a subjective feeling people experience after not consuming food for some time. The Food and Agriculture Organization of the United Nations (FAO) defines undernourishment in numerical terms as the consumption of fewer than 1,800 kilocalories per person per day. That is the absolute minimum of nutritional energy that persons need on average – regardless of age, sex, stature or activity level – to lead a healthy life. At the moment around 690 million people worldwide suffer undernourishment.

Measurable symptoms of **undernutrition** either result from insufficient food intake or from a person's inability to make appropriate use of food consumed because of poor health and hygiene.

Malnutrition is an umbrella term that encompasses the various forms of a disturbed physiological state of undernourishment, overnourishment or micronutrient deficiency due to the inadequate, unbalanced or excessive intake of macro- or micronutrients.

Overnourishment occurs when the intake of nutritional energy regularly exceeds the body's needs. If the available food does not meet a person's need for important vitamins and minerals - like iodine and iron, for example - that person may suffer from a micronutrient deficiency, or "hidden hunger" (see review essay by Sabine Balk on p. 27 in this edition). Micronutrient deficiencies can impair people's growth, immune function, cognitive development, reproduction and ability to work. Micronutrient deficiencies also often occur in people with overweight or obesity. sw

caused by spirits, however, so what the children really need is better food and perhaps the attention of a health centre. Awareness raising can make families aware of these things.

Simply knowing what constitutes a healthy diet is not enough, however. Many factors have an impact on the variety of food people have on their plates. They include cultural preferences and taboos, personal tastes, the time constraints of those who prepare meals, cost considerations, cultivation and seasonal availability.

For many people in developing countries, the main concern in daily life is getting enough to eat. When the majority of a family's income is spent for food, the general incentive is to get as much food as possible for as little money as possible. Fresh fruit, vegetables and food of animal origin are often unaffordable for such families. Instead, they opt for high-carbohydrate staples or cheap convenience food. In the long run, the result is malnutrition.

DIETARY SUPPLEMENTS ARE NO PANACEA

In cases of acute or chronic deficiencies in vitamins or minerals, dietary supplements can certainly help. That is also true in specific situations like pregnancy and breastfeeding. But while enriched or fortified staples help to ensure that micronutrients are broadly distributed within a population, they are no substitute for a balanced diet. The reason is that food is more than the sum of its nutrients. Consuming a variety of phytochemicals has a positive impact on a person's metabolism and boosts the immune system. The relevant nutrients, however, are only contained in natural food, in which they are typically "packaged" in ways that allow the body to absorb them slowly. By contrast, incorrect doses of dietary supplements do not have any effect because consumers' bodies eliminate them fast.

Administering micronutrients, moreover, does not address the structural causes of malnutrition. To do that, effective policies are needed, and healthy diets must be the goal. Long-term education and awareness raising can help to change even deeply ingrained behaviours. On the other hand, costs determine how diverse a family's diet is. In this regard, governments and food producers bear a great responsibility. They must ensure that healthy diets are feasible, available and affordable – even in the most remote corners of the earth.

In Haiti, cross-sector approaches have proven successful. They link nutrition education to sustainable agriculture, better hygiene and safe drinking water. It is essential to involve local and regional authorities in the planning and implementation of measures. Lasting improvements will only be achieved, however, if both policymakers and the local communities concerned consider healthy nutrition to be important.



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FOOD INDUSTRY

Profit prioritised

According to the latest report on world hunger published by the Food and Agriculture Organization (FAO), 3 billion people around the world cannot afford a healthy, balanced diet. This flags up the need to overcome not just hunger in the narrow sense, but malnutrition as well. The depressing truth, however, is that food manufacturers are systematically undermining efforts to promote healthy eating.

By Sarah Schneider and Armin Paasch

Nutrition is a highly competitive policy area. Relevant players include UN agencies, governments, private-sector companies and civil-society organisations. They pursue diverging interests and offer a broad variety of solutions. Policy proposals range from piecemeal approaches like fortifying food with micronutrients to holistic strategies. The latter aim to overcome the structural causes of hunger and malnutrition by promoting healthy food systems. For example, land reforms and support for smallholder farmers can result in food products that allow for varied and healthy diet.

One in three people in the world suffer from some form of malnutrition: undernutrition, overnutrition and/or one or more of the micronutrient deficiencies collectively known as "hidden hunger" (see articles by Simone Welte on p. 20 and Sabine Balk on p. 27 in this e-Paper). Transnational corporations are playing a problematic role as they want to increase their market shares in low and middle-income countries.

In pursuit of their business interests, Nestlé, Coca-Cola and Unilever keep adjusting their products' prices so a large section of the world's less affluent can afford them. Many people still consume food that they produce themselves or buy in small, local markets. On the other hand, low-quality highly processed food products are increasingly becoming available in both urban and rural areas. Often, it really is just junk food. Consumers may think they are choosing from a variety of products, but the meals' content is largely confined to a few cheap ingredients such as saturated fats, oils, refined starches and sugar. Thanks to advertising and sophisticated marketing, such products are consumed even in villages.

MILK POWDER INSTEAD OF BREAST MILK

In the early 20th century, Nestlé developed a global market for products based on dried milk. They included breast milk substitutes. The consequences for the health of many children in countries of the global south were dire. In 2010, the World Health Organi-



Coca-Cola and other companies market their products aggressively in developing countries and emerging markets, as here in Nairobi, Kenya.

zation (WHO) pointed out that 1.5 million children's lives could be saved every year if women breastfed more and longer, provided that complementary feeding was improved as well. That is still not happening, and one reason, according to the WHO, is the inappropriate marketing and promotion of breast milk substitutes.

An investigation by Save the Children, an international non-governmental organisation, revealed that six companies market such substitutes and other baby foods very aggressively. They are Nestlé, Danone, RB, Abbott, FrieslandCampina and Kraft Heinz.

The sale of soft drinks is a similarly lucrative business. In 2019, the Coca-Cola Company generated worldwide revenues of around \$37 billion. Coca-Cola and PepsiCo are the market leaders – including in Mexico, the country with the highest carbonated soft drink consumption. Around 70% of the sugar that Mexicans consume is contained in soft drinks.

Since the 1990s, the Mexican food system has undergone major changes, resulting in a disproportionate increase in malnutrition, obesity and diabetes. Sales of industrially processed food – including bakery products, dairy products, snacks and junk food – have risen by five to 10% a year. Small traditional grocery stores have disappeared, while supermarkets and discount stores have mushroomed.

Seven out of ten adults in Mexico are overweight or obese. That is also true of 30% of children and adolescents. At the same time, one in eight children under five is chronically undernourished. Children in poor rural regions are particularly affected. According to estimates, more than 40,000 deaths a year are linked with the consumption of sugar-sweetened drinks. Diabetes and obesity make the Mexican population particularly vulnerable to Covid-19, for example. The National Institute of Public Health reports that a third of the pandemic fatalities were diabetic and 25% were obese.

In a bid to curb the consumption of soft drinks, Mexico became the first American country to pass a law taxing drinks containing added sugar. The law went into effect in January 2014, making a litre of sugary drinks one peso more expensive. That was equivalent to a 10% price increase. The WHO and other organisations had recommended a tax rate of at least 20%. The low rate set in Mexico was due to pressure from the industry (see Sonja Peteranderl in D+C/ E+Z e-Paper 2017/06, Tribune section, and interview with Alejandro Calvillo in D+C/ E+Z e-Paper 2018/03, Focus section).

Revenues from the tax are supposed to be used for preventive action. That includes, for example, installing 40,000 drinking fountains in schools. So far, however, only 11,000 fountains are in place. Following Mexico's example, 23 more countries and eight US cities have introduced taxes on sweetened drinks. Not all attempts have been successful, however. In Colombia, a proposed tax failed in the face of opposition from the beverage industry.

POLITICAL INFLUENCE

In recent years, agribusiness and food-industry groups have increasingly established themselves as cooperation partners in the "fight against hunger" and as crucial players in global food policy. Companies such as Bayer, Monsanto, Nestlé or PepsiCo have gone beyond just lobbying to influence governments and supranational organisations like the WHO or FAO. They are involved in the committees where food-policy decisions are taken. With governments and UN agencies increasingly strapped for cash, they are increasingly willing to cooperate with private-sector corporations that command ample funds. Possible conflicts of interests are largely neglected, though they obviously arise when public institutions cooperate with profit-maximising enterprises.

The Bill & Melinda Gates Foundation plays a role as a door-opener for big business. It initiates alliances, especially socalled multi-stakeholder platforms, which convene both policymakers and corporate managers. One example is the Global Alliance for Improved Nutrition (GAIN). It cooperates with 600 private enterprises worldwide, finances public-private partnerships and actively lobbies for the harmonisation of national policies on food fortification.

GAIN hails food fortification as the "most cost-effective means of combatting malnutrition". This claim goes along with demands for more public money to be spent on fortification programmes. In 2012, GAIN tried to stop a sensible initiative of Kenya's government. The idea was to introduce strong regulations on artificial baby food in the Breast Milk Substitutes (Regulation and Control) Act 2012. In a policy briefing, GAIN sought to weaken the bill, arguing that the legislation would present an obstacle to implementing Kenya's commitments as a member of the Scaling Up Nutrition (SUN) initiative.

SUN was launched in 2010. It pursues a similar agenda to GAIN, except that it does so on behalf of and with the authority of more than 50 governments plus UN organisations such as UNICEF, the World Food Programme (WFP) and the World Health Organization (WHO). The World Bank is involved too. In 2012, GAIN and WFP established the SUN Business Network to promote private sector involvement in SUN.

Trade agreements as door-openers

Bilateral trade agreements often act as door-openers for the manufactured products of multinational food companies. Milk powder with vegetable fat is an example. From 2008 to 2018, European exports of this good to West Africa rose by 234%. Corporations such as Lactalis (France), Nestlé (Switzerland) and Milcobel (Belgium) repackage the powder at West African facilities and sell it at dumping prices. Among other things, they benefit from the EU's agricultural subsidies.

This kind of substitute normally does not have the same nutritional value as whole milk. However, that is not indicated on the packaging. European milk powder is crowding out whole milk produced by local dairy farmers. Their businesses are at risk. Things may become worse if the projected Economic Partnership Agreement (EPA) requires the elimination of relevant import duties within five years. The EU wants to conclude the EPA with the Economic Community of West African States (ECOWAS). Ghana is an ECOWAS member, and has already signed a separate interim EPA committing to do this by 2021.

Trade agreements do not just eliminate agricultural tariffs. They also include service and investment provisions, which facilitate the expansion of European and US supermarket chains and thus increase sales opportunities for multinational food companies. In the negotiations for a trade agreement with India, which began in 2007, a top priority for the EU was to agree investment provisions to allow European supermarket chains such as Carrefour, Tesco or the German Metro Group to open stores in India. This provoked massive protests not only from Indian street traders but also from farmers, who feared exposure to ruinous competition from European manufactured products. The negotiations were suspended in 2013, although the EU has recently confirmed its intention to resume them.

In June last year, the EU reached an agreement in principle on a trade deal with four members of the regional association Mercosur. The members could make it easier for European supermarket chains to establish a presence in Paraguay and possibly Uruguay, whereas the Mercosur members would mainly export agricultural commodities, including biofuels. No account is taken of local food systems or the right



A retailer in Burkina Faso sells Dutch products, including milk powder, in his small store.

are Argentina, Brazil, Paraguay and Uruguay. However, the agreement is not likely to be ratified any time soon. It contains a chapter on services that to food – especially for vulnerable groups such as indigenous communities and landless victims of agribusiness expansion. ss, ap More than 400 companies are now active in the SUN Business Network. The declared goal is to reach a targeted 1.3 billion people between 2013 and 2020. BASF, the German multinational, is a member and has undertaken to supply 60 million people a year with fortified staple foods. Hexagon Nutrition, an Indian corporation, aims to distribute 100 million packets of micronutrient powder in Asia, Africa and Latin America.

A study by the human-rights organisation FIAN, which scrutinised SUN's work in three countries, concluded that SUN helps the private sector influence public policies concerning food and nutrition. Governments are encouraged, for example, to implement mostly short-term, technical interventions that benefit private enterprises. There is thus a risk of governments abandoning strategies that address the root causes of hunger and malnutrition, such as poverty, discrimination, low wages, exploitation, land grabbing and misleading marketing of food.



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LIFESTYLES

Facing a global challenge

A growing share of Brazil's people are obese. Healthier diets would help, but eating habits are not easy to change.

By Thuany Rodrigues

In 1996, 12.7% of Brazil's adult population was obese. In 2016, 20 years later, that share had almost doubled to 22.1%, according to statistics of the OECD (Organisation for Economic Co-operation and Development).

Obesity does not simply mean that someone is overweight. It means that a per-

son has so much body fat that it is likely to affect a person's health. Associated complications include hypertension, heart attacks, strokes, cancers, diabetes and joint problems. Depression and sleep problems are common too. The World Health Organization (WHO) considers persons to be obese if their body-mass index is 30 or more. A body-mass index of 25 means a person is overweight.

Brazil's Ministry of Health released a survey this year. Results included that 25.4% of adult women and 18.5% of men are currently obese. Moreover, more than half of the adult population is overweight. It is considered to be particularly worrisome that evermore young people are affected. In the age groups of 25 to 34 years and 35 to 44 years, the problems are increasing particularly fast. One in three Brazilian children was overweight in 2019, according to Sisvan, the national government's food and nutrition surveillance system.

The Ministry of Health runs a surveillance system called Vigital which monitors chronic diseases. The data show that 7.7% of the adult population has diabetes and 24.7% has hypertension. These chronic conditions are often linked to excessive weight. The National Health Survey (PNS) indicates that among adults with diabetes, 75.2% are overweight. The figure for adults with hypertension is 74.4%.



Ever more Brazilians are overweight: football fans in Porto Seguro in 2014. These health problems are linked to people's lifestyles. The wrong kind of diet and too little exercise make them more prevalent. Excessive consumption of sugar, carbohydrates and saturated fats is unhealthy. However, such consumption is promoted in advertising for pre-processed food or sweets, for example. Children and adolescents are targeted in particular.

Brazil's data reflect international trends. The WHO speaks of a "global obesity epidemic" and warns that "globasity' is taking over the world". International experts agree that it is not just a matter of individual choices. Political, economic, social and cultural factors are relevant because those factors influence people's decisions and form their habits. According to the WHO, the big policy challenge is to make healthy choices easier.

PLANSAN ASPIRATIONS

Brazilian authorities want to stop the trend towards ever worsening obesity. That was made explicit in the National Food and Nutrition Security Plan (Plansan) for the years 2016 to 2019. It was adopted by the centreleft government of President Dilma Rousseff. Among other things, the goals were:

• to halt the growth of obesity in the adult population;

• to reduce regular consumption of soda and artificial juice and

• to increase the percentage of adults who consume fruits and vegetables regularly.

The implementation report published in 2018 showed, however, that almost 90% of the government's efforts served promoting universal access to adequate and healthy food, with priority for families and people in situations of food and nutritional insecurity. Government action thus specifically targeted people in situations of poverty, including extremely poor families and the elderly. The health dimension was not paid much attention. The background is that Brazil suffered a severe recession in recent years, and poverty has grown worse. About 6.5% of the people were reckoned to be living in extreme poverty at the end of 2019.

There were administrative reforms, moreover, which ultimately meant that Plansan was discontinued under the current President Jair Bolsonaro. The government is not planning to launch a new plan for the years 2020 to 2023, even though civil-society organisations have shown interest.

The Covid-19 crisis is currently compounding problems. In normal times, about 40 million kids in public schools depend on school meals. Such meals were not available during the lockdown. The Bolsonaro government has, however, authorised exceptional food provisions to parents and guardians of students concerned, channelling revenues to food producers, including smallholder farmers, as a side effect. The politically important issue, in the eyes of the right-wing government, is to be seen as fighting hunger and promoting agriculture rather than tackling more complex health challenges.

The president's response to the pandemic has largely been downplaying (see my contribution in Covid-19 diary of D+C/ E+Z e-Paper 2020/06). Lockdowns were imposed by sub-national governments at state and municipal levels. By mid-October, the website Worldometer had counted almost 5.2 million infections and more than 150,000 dead in Brazil. Only the USA had seen more people die of this disease.

Brazil's economy too has been hit hard by Covid-19. By the end of this year, the World Bank expects the number of extremely poor people in our country to rise to almost 15 million, so their share would increase by more than half.

GROWING AWARENESS

On the upside, many Brazilians are paying attention to health matters. The interest in related information and lifestyles is growing. Not quite 40% of Brazilians exercise in their free time, for example. Many of them know that healthy nutrition contributes to physical fitness. Of course, balanced and diversified diets are good for people who are not amateur athletes too. Awareness of these things is growing, says Monyke Lopes, a health practitioner who specialises in nutrition, though some people still remain ignorant.

Food choices, moreover, are complex, she points out. The socio-economic status matters very much. As Lopes argues, people with low incomes often cannot afford to eat well. Healthy food items – organic vegetables and fruits, for example, – tend to be expensive. The same is true of protein-rich food such as lean meat or fish. To a large extent, poor people's diets consist mostly of carbohydrates plus some sweets that they consume as treats. On the other hand, working mothers tend to lack time for cooking and therefore provide their families with pre-prepared meals and fast food, both of which typically include much sugar, salt and fats.

Obesity in children and adolescents is particularly worrisome. They are likely to get stuck in habits that make them obese,



and the earlier a person becomes obese, the sooner they are likely to experience the negative health impacts.

There is reason to worry in all countries. According to research done by the WHO in cooperation with Imperial College London in 2017, the number of obese children and adolescents (aged five to 19) has increased tenfold in the past four decades. The study warned that, if current trends continue, there will be more children and adolescents with obesity than with moderate and severe malnutrition by 2022.

Lopes says that Brazilian children today live rather sedentary lives, watching a lot of TV and using their cell phones. Fast food is popular in this age group, but its members do not eat enough vegetables. In her eyes, it is no surprise, that half of her patients want to lose weight and/or need treatment for chronic disease. The nutrition expert regrets that children are not taught about health and good diets at school.



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In a Durban township in KwaZulu-Natal, South Africa, a woman collects a food parcel provided by a group fighting against hidden hunger.

NUTRIENT DEFICIENCY

Hunger without feeling hungry

Billions of people suffer from a kind of hunger that they do not feel. It is known as "hidden hunger" and is due to an inadequate intake of vital micronutrients. It is a problem in the rich world, but it is a bigger one for the poor. German nutritionist Hans K. Biesalski is one of the world's leading experts on hidden hunger and has written several standard works on the subject.

By Sabine Balk

First and foremost, Biesalski seeks to raise awareness: chronic undernutrition is often overlooked, he says, because it takes a long time for it to manifest itself as illness. But the effects can be devastating. Children suffer from impaired physical and mental development and face a mortality rate many times higher than children with a healthy diet. In adults, the immune system can be weakened, and in pregnant women specifically, deficiencies of micronutrients such as iron result in higher perinatal mortality.

When hidden hunger becomes "visible", it does so in severe deficiencies.

Vitamin C deficiency causes scurvy, vitamin D deficiency rickets and vitamin A deficiency night blindness. According to Biesalski, 90% of such cases are found in developing countries.

For many other micronutrients, however, the signs of deficiency are either unknown or non-specific. The number of people who are affected by hidden hunger without being aware of it can only be estimated. Biesalski reckons that around 2 billion people in the world suffer from iron deficiency and 1 billion from zinc deficiency.

One cause of hidden hunger is an unbalanced diet. According to Biesalski, one third of the world's people currently get around 80% of the calories they need from staples such as rice, corn and wheat alone. Those cereals contain important macronutrients (fat, protein and carbohydrates) but hardly any micronutrients (vitamins, minerals, trace elements and certain amino acids). Biesalski stresses that both nutrient groups are vital.

Macronutrients are the energy-yielding components of food, while micronutrients are essential for many metabolic processes and bodily functions without providing energy. The human body has a very effective signalling mechanism to prevent macronutrient deficiencies – it makes us feel hungry – but scientists are so far not aware of endogenous alarm signals for a lack of essential micronutrients.

Biesalski points out that malnutrition has particularly dire consequences for children. For every child that starves to death there are "at least ten more with nutritional deficiencies that go unnoticed until it is too late". For those children, hunger – either as chronic malnutrition or undernutrition – is not a short-term sensation but a permanent condition. Emergency food aid is no remedy.

According to Biesalski, there are three different phenotypes of malnutrition:

- low weight for height (wasting),
- low height for age (stunting),

•

low weight for age (underweight).

The nutritionist writes that the high infant and maternal mortality rates that many developing countries report directly "relate to poor food quality", including hidden hunger. An insufficient intake of vitamin A, iron and zinc weakens all the body's defences. The immune system suffers, and so do the mucous membranes of the respiratory and gastrointestinal tracts, which provide important protection. The result is frequent infections, which further weaken the body's defences. Respiratory diseases are among the most common serious illnesses in children with malnutrition. They are also associated with high mortality. Biesalski sums up: "If maternal and child nutrition was even moderately adequate, more than half of fatalities could be avoided."

The hunger expert highlights strategies that could be implemented to combat hidden hunger. First, of course, this problem must be perceived. He points out that hidden hunger has the most critical consequences for a person's life during the socalled thousand-day window. The first thousand days of a human life, he says, decide whether a child will be impaired in its development and will also suffer more frequently as an adult from so-called diseases of civilisation such as diabetes, hypertension or obesity. Biesalski divides the first thousand days into three decisive nutritional phases:

- nutrition during pregnancy
- breastfeeding

• post-breastfeeding through to a child's second birthday.

Biesalski believes it makes perfect sense to give supplementary vitamins or minerals during these nutritional phases, but he warns that there are risks. For example, the lack of other micronutrients can be overlooked. The expert argues that administering micronutrients is the best course of action for young girls who are malnourished and might become pregnant. However, he stresses that such measures must always go along with nutritional education. After all, the most sensible and sustainable way to improve a person's diet is to ensure that it includes as wide a variety of natural foods as possible (see also Silke Stöber's article in D+C/E+Z e-Paper 2020/01 Tribune section).

REFERENCE Biesalski, H. K., 2013: Hidden Hunger. Heidelberg, Springer.

Poverty is worsening

The World Bank expects extreme poverty to increase this year. The reasons are Covid-19, violent conflicts and climate change. That is the most important message in a recently published report.

The report's title is "Reversals of fortune". It is the 2020 edition of the series called Poverty and Shared Prosperity. The authors reckon that 100 million people will be pushed into extreme poverty because of Covid-19 in the course of this year alone. That is a dramatic increase. In 2017, the total number of extremely poor people worldwide was not quite 690 million, according to the report, and the number had been declining for a long time. That decline had been slowing down in recent years, and has now been reversed, so hunger is obviously becoming worse.

Global heating is compounding the problems. The World Bank estimates that the manifold impacts of climate change will plunge up to 132 million more people into extreme poverty in the course of this decade. Violent conflict is said to be devastating as well. The report warns that the pandemic, environmental problems and civil strife cause mutually reinforcing problems.

While the poor remain predominantly rural, young and uneducated, the authors point out that other groups are increasingly being affected too: "The new poor tend to be more urban than the chronically poor and to work outside of agriculture, in sectors including informal services, construction and manufacturing." Social mobility is being reduced while inequality is widening.

Assessing global statistics diligently, the authors sound the alarm unmistakably. They want action be taken to stop the downward trend. Unfortunately, their proposals are less convincing than their warnings. Suggestions such as "closing the gap between policy aspirations and attainment" are easier said than done. The statement that "success requires leadership that is fully committed to securing political accountability and financial support" is certainly correct. The big question, however, is what considerations lead to policymakers often being less than fully committed. For diplomatic reasons, the multilateral institution usually shies away from addressing such explicitly political issues.

A long-standing pattern of World Bank reasoning is to try to leave as much as possible to market forces. Accordingly, the new report proposes to make efforts to identify the needy and then provide targeted support. The problem with this approach is three-fold:

• it requires considerable administrative capacities,

• uses resources for excluding people not considered sufficiently needy, and

• tends to breed resentment among those who feel poor, but do not benefit.

Building rudimentary social-protection systems that serve all people to some extent typically costs more money, but it is far less controversial politically. Moreover, it contributes to nation building (see my contribution in Monitor section of D+C/E+Z e-Paper 2019/11).



The report is not easy to read. The World Bank is developing its own technical jargon, and the technocratic style means relevant political challenges are not clearly spelled out. To some extent, one must expect a multilateral institution to do both. On the other hand, clearer messages would help the global public to understand these issues, and the pressure on policymakers to improve governance might grow. dem

LINK

World Bank, 2020: Reversals of fortune. Poverty and Shared Prosperity Report 2020. https://www.worldbank.org/en/ publication/poverty-and-sharedprosperity

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Novel coronavirus

As D+C/E+Z is supposed to tackle issues of long-term relevance without responding much to breaking news, Covid-19 took us by surprise. To deal with this crisis, we started a Covid-19 diary on our website and are including some of the most recent entries here. The authors are from four different continents. Their articles do not necessarily reflect the fast changing state of affairs. The relevant date is the indicated day of publication on our website.

Our web diary: https://www.dandc.eu/node/4306





Putting on masks before going outside.

30 OCTOBER 2020

Safe so far

Though India is hit hard by the Covid-19 pandemic, our small cluster of two Adivasi villages in West Bengal has not suffered infections yet. We do feel the economic impacts of course.

By Boro Baski

The Santals are an Adivasi community with about 7.4 million people in Eastern India, Bangladesh and Nepal. There are several villages in our district in West Bengal. We are using masks, social distancing and washing our hands regularly – which is a challenge, as our village homes do not have running water.

The Hindu caste system has historically kept our community at a distance. Especially, but not only high-caste Hindus avoided coming near us. We were restricted from going to their homes and courtyards. These conventions have been weakening in recent decades, but they still exist. There are tube wells we are not supposed to use. Disrespectful body language or mild casteist slurs are still common. In the current health crisis, however, such discrimination has helped to keep our villages safe.

Santals traditionally lead communitarian lives and emphasise togetherness. Apart from cooking, meals and sleeping, Santals spend most of their time during the day on the Kulhi, the common dust road of the village. Field work is done collectively, and the women perform their daily activities, which include collecting firewood in the forest or small snails for water bodies, in groups. Keeping a distance feels uncomfortable, but people are getting used to doing so.

Wearing masks is uncomfortable too. In general, women, who assume responsibility for their families, observe the mask rules more obediently than men. As people fear infections, however, most accept masks. For some time, the police were strictly enforcing mask wearing in our district, but as they have relaxed their attention, some Santals have been becoming more negligent.

For a while, the State government handed out free food rations. That was a great relief for those below the poverty line. Some of our people had migrated to cities to work as daily labourers, but lost their jobs and incomes during the lockdown. Many returned home and desperately needed support. Our village communities made them stay in quarantine to ensure they did not spread the virus.

Farm work has continued quietly. To many Santals, one lesson of the pandemic has been that agriculture provides the safest livelihoods. It goes on even when other sectors close down.

Hunting is a traditional practice, moreover. According to media reports, wildlife hunting doubled during the lockdown. People from our villagers have been involved too. The prey includes birds, mice, wild pigs and other animals. As schools were closed, children often came along.

In our villages, our community-based organisation runs a non-formal primary school and coaching classes for high-school students. During the lockdown, the teachers supported our awareness programmes. Especially needy families were given not only food, but also masks made by village women. In October, teaching has gradually resumed, in line with government rules. Beyond the standard curriculum required by the state, we involve them in activities like bee keeping, vermicompost and duck breeding. Because of the lockdown, the students had not taken care of these things since March.



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23 OCTOBER 2020

Concepción in lockdown

Chile is suffering severely under coronavirus. Concepción, the third largest city in the country, has been under quarantine since 11 September, and curfews have also been enacted for many other cities, districts and localities. The situation raises the question of how, under these conditions, a constitutional referendum can be held.

By Javier A. Cisterna Figueroa

Concepción is about 500 kilometres away from Santiago, the capital, and is the most important city in the southern part of the country. It lies on the Biobío River, which forms the border to the indigenous territories of the Mapuche, and has both major strategic as well as symbolic significance. It is considered the antithesis of Santiago.

The differences, political and otherwise, between the two metropolises are likely the reason why the Ministry of Health has placed Concepción under quarantine, which means that people may only leave their homes for important reasons. At least that is what the residents believe, having completely lost faith in the responsible members of government.

In June, the mayor of Recoleta, who belongs to the opposition, took legal action against President Sebastián Piñera and the Minister of Health at the time, Jaime Mañalich, who was responsible for the pandemic response. In the course of the investigation, it has recently become known that the Min-



Independence Day celebrations in a Chilean nursing home.



istry of Health attempted to manipulate the official Covid-19 mortality figures.

Shortly before the Chilean Independence Day on 18 September, the new Minister of Health, Enrique Paris, decided to allow family gatherings. The mayor of Concepción, who is himself a government official, criticised the move publicly by pointing out that Paris' policy contradicted the general order to isolate. Following heated discussions in the media, Paris withdrew his permission. Relations broke down even more after that.

In Concepción, like in the rest of the country, it is difficult to follow the Covid-19 guidelines. Political squabbling, social tensions and a lack of clear communication have contributed to Chile's unsettling situation: the country of 19 million has registered around 17,500 deaths in connection with the pandemic.

The places where curfews are in place today experienced mass demonstrations one year ago. These began in October 2019 in Santiago as a protest against an increase in the price of metro tickets and ended as a popular uprising that swept the entire country and also resulted in violence and human-rights abuses (see Katie Cashman in D+C/E+Z e-Paper 2020/01, Debate section). This social uprising forced those in government to clear the way for a new constitution. The current constitution is a relic of the dictatorship of Augusto Pinochet. On 25 October, a referendum will be held to ask voters whether a new constitution should be drafted.

Polls indicate that the majority favours change. Questions remain, however, with regard to voter participation. While election authorities have put guidelines in place to protect voters, many people are wary of gatherings where they could be infected. In Concepción, they are also wondering whether the quarantine will be lifted before the referendum, or whether it will proceed under the current restrictions. The latter situation could call the legitimacy of the election into question.



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18 OCTOBER 2020

Old patterns, new content

In the Arab region, Covid-19 related fake news include that people who have been cured convert to Islam or that Muslims are immune to the disease. Long-established conspiracy theories have a bearing on the rumours. It also matters that people do not trust state authorities.

By Mona Naggar

A popular story on Facebook was that a Japanese family converted to Islam after being cured of Covid-19. The photo showed an Asian looking man with three children. However, Fatabyyano, a fact checking platform, revealed that the information was wrong. Though the man really did become a Muslim, that had happened more than 20 years ago, and the picture was taken five years ago.

A video with similar content proved even more popular in Arab speaking countries. It was about a Chinese woman converting to Islam because of the coronavirus. The clip shows her professing her faith in front of a Muslim cleric. The fact checkers have evidence of it having been filmed long before the start of the pandemic.

Examples like this show that Arab societies are dealing with Covid-19 in ways that fit long-established patterns, which include insisting on the supremacy of one's own religion and providing conversion stories as proof. In the pandemic's early days, fake news claimed that only non-Muslims contracted the novel virus or that its emergence served to punish China for repressing the Muslim Uighur minority.

After Italy's Prime Minister Giuseppe Conte admitted that his government had lost control of this health crisis, WhatsApp groups shared a video that supposedly provided evidence of many Italians converting to Islam. Similar narratives are prevalent in

Screenshot: Fatabyyano.ne

small communities too. Palestinian refugee camps in Lebanon are an example. Initially, the message was common that camp residents' moral superiority protected them from corona infections.

Sometimes fake news originates in Europe and then moves on into the Arab digital sphere. That rout was taken by misinformation concerning the relevance of the pharmaceutical, the role of Bill Gates or the harmful impacts of 5G mobile networks.

According to Moustafa Elsayed, who works as a fact checker for Fatabyyano, it is mostly private persons who generate and spread such messages. Many of them hope to become famous. They neither trust international organisations nor their governments, and they form their views inside digital bubbles. He says, that even healthcare professionals are involved. His assessment is that they do not understand scientific studies properly, fail to think critically or are led by the theory that the rich world is using corona as a weapon in its permanent war on the poor.

Many Arab people wonder why their world region is permanently in such a depressing state. Conspiracy theories offer simple explanations. The idea that the entire world is fighting Islam and the Arab region is quite popular, though claims about who exactly is the enemy vary.

Some conspiracy theories only focus on individual countries, faith-based groups or specific communities. In Lebanon, for example, Covid-19 infections initially predominated in areas where mostly Christians live as well as in a town in the country's marginalised east. Fake news soon emerged according to which members of other faiths had caused infections to hurt the Christians and, respectively, the town concerned.

Press freedom is restricted in the Arab region, and government information is quite often not trustworthy. Both issues make conspiracy theories and fake news more likely to resonate with masses. After decades of bitter disappointments, people do not trust their governments. Why should that suddenly change in the Covid-19 era?



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30 SEPTEMBER 2020

Clean water to fight Covid-19

Zimbabwe is facing a water crisis, due to poor infrastructure and the impacts of climate change. That makes it harder to prevent the spread of the novel coronavirus as people do not have enough clean water to wash their hands. Thanks to non-governmental activists, hand-washing stations are available in Mbare, a densely populated suburb of Zimbabwe's capital Harare.

By Farai Shawn Matiashe

There are about 60 such stations, and each has a 200 litre tank. The water is mixed with detergents. Fresh water is brought to the stations twice per day.

The hand-washing stations have been set up by the WASH Covid-19 Prevention and Response Project. The acronym WASH stands for "water, sanitation and hygiene". GOAL Zimbabwe, a non-governmental organisation, started the project in cooperation with others in June. Support comes from the UN Education Fund.

Patrick Mirirayi, a WASH project manager for GOAL Zimbabwe, says that about 30,000 people use the stations per week.



He sees a lot of enthusiasm. Relevant stakeholders including the soap providers, water suppliers and the handwashing station technicians appreciate the initiative.

Gabriella Prandini, GOAL Zimbabwe country director, says she wants to reach 360,000 of Mbare's population. Harare has the highest number of Covid-19 cases in the country, and water supply is particularly poor. Prandini says handwashing facilities are urgently needed.

Washing hands is critical in the fight against the Coronavirus pandemic. Most

Zimbabweans, however, cannot even afford to buy soap. The price of hand sanitizer also exceeds many families' budgets.

In Zimbabwe, Covid-19 is just one more crisis piling up on others. Incomes have been eroded by hyperinflation. The climate crisis has reduced water availability. The city of Harare is failing to provide water to its 2 million people, citing poor infrastructure and the impact of incessant droughts for years. The water level of Lake Chivero, the capital city's main source of water, is very low.

Most Harare residents fetch the precious liquid from open wells in the wetlands. Others rely on a small number of community boreholes, where they risk contracting the virus due to overcrowding. In some suburbs private companies are cashing in on residents when they make home deliveries with bulk water trucks. Filling up a 5,000 litre tank costs about \$40 in Zimbabwe. That is far beyond the reach of many citizens.

Harare Residents' Trust director Precious Shumba says the NGO intervention is welcome. He also insists that much more must happen. The city of Harare needs a long-term solution to the water crisis.



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