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Waste management

Garbage is flooding the planet with harsh impacts on climate and biodiversity. Informal scavengers appreciate what waste is worth, but policymakers all too often stay ignorant. Around the world, we need regulations to enforce the "3R" imperatives: reduce, reuse and recycle. The goal is to build a circular economy which no longer needs to dispose of any waste. Part of the challenge is to formalise the informal sector in ways that ensure better livelihoods to the masses of people who depend on it.

Title: Scavengers on a landfill in North Sumatra.
Photo: picture-alliance/EPA/DEDI SINUHAJI





 **Our focus section on waste management starts on page 22. It pertains to the UN's 12th Sustainable Development Goal (SDG): Responsible Consumption and Production. It also has a bearing on other SDGs.**

The transition to circular economies will help to get a grip on the climate crisis and the dwindling of biodiversity. Industries would benefit by becoming more efficient and finding new business opportunities. In terms of waste avoidance, public and private sector agencies must develop sensible approaches, helping people to modify their behaviour. Options include refund systems, apps for preventing food wastage and schemes to lease packaging, for example.

“Responsible consumption and production” is the UN’s 12th Sustainable Development Goal (SDG). So far, however, there is a striking lack of effective regulations at municipal, national and international levels. Existing rules must be made more stringent and loopholes must be closed.

What is equally lacking is convincing strategies to promote the social inclusion of scavenger communities. The people concerned deserve opportunities in more appropriate forms of waste management, and it would certainly make sense to rely on their knowledge of resource usage in all efforts to formalise their sector.

Appreciating the value of waste

Acid smoke is drifting over piles of scrap metal, plastic items, rotting food, empty bottles and broken electronic devices. Birds with dirty feathers and people in colourful clothing are scavenging in this bleak scenario. Photos of this kind can be taken in many places, for example in Jakarta, Kolkata, Nairobi, Accra or Mexico City.

Berlin, London and Paris do not come to mind, but the reason is not that waste management is perfect in high-income countries. It is not. The full truth is that the garbage these countries export compounds environmental problems in less advantaged places. Indeed, some accuse the EU of “waste colonialism”. Litter from prosperous nations ends up on overburdened landfills in disadvantaged countries.

Those countries can hardly cope with the waste their own people generate. City governments tend to be overwhelmed by the needs of their huge and fast-growing populations. Typically, the local authorities are left to themselves when it comes to dealing with municipal waste.

Apparently chaotic landfills, however, are where a huge number of people earn their livelihoods. No one knows the exact number of waste pickers around the world. It is estimated that there must be at least 15 million.

They typically work informally, enjoying neither rights nor social protection. Organised crime often controls the sector, and the gangs show no mercy in their exploitation of helpless persons. The exposure to health risks and discrimination compounds the marginalisation of the families who depend on informal waste recycling.

The full truth, however, is that the scavengers are on to something. Garbage is a valuable resource. Policymakers should take note. Unless the worth of waste is appreciated, the urgently needed transition to fair circular economies around the world will fail. The guiding idea of the circular economy is that waste must either be avoided or made use of once more. Experts speak of the “3R” which stand for reducing, reusing and recycling.



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Suparna Banerjee lives in Frankfurt and grew up in the Kolkata agglomeration. She earned her PhD from the Center for Development Research in Bonn with a thesis on India’s Maoist insurgents. In this issue of D+C/E+Z, she writes about biodegradable single-use tableware which is made from sal leaves (p. 30). In last month’s edition,

she compared university life in Kolkata and Bonn, and also shared her view on the state of western governments’ relations with the one in New Delhi.

► All contributions to our focus section will also appear on our website www.dandc.eu, where you will find other related content as well.



South African health-care workers demonstrating in Johannesburg in March for better pay.

BRAIN DRAIN IN AFRICA

The curses – and blessings – of medical migration

The working conditions in Africa's health-care system are often catastrophic. Medical professionals are leaving the continent for Europe and North America. As a result, health care in Africa deteriorates further. On the other hand, recent developments show that the sector can also benefit from migration in the long run – for instance, when health professionals return home or invest in modern facilities.

By Samir Abi

Watch helplessly as people die in African hospitals, or save patients' lives abroad? That is the decision that doctors face in sub-Saharan countries. Health-care professionals from English-speaking countries are moving to London, Sydney or New York. Those who come from Francophone countries go to Paris or Montreal. The result is the same: in their home countries, the shortage of medical personnel worsens.

Decrying the decline of health care and their poor working conditions, doc-

tors from public hospitals in Africa repeatedly go on strike – for instance in Nigeria. On the other hand, there is unemployment among medical school graduates. Last December, 40 of the 3000 unemployed doctors in the Côte d'Ivoire were arrested while demanding employment in the public sector. A court issued them a suspended sentence of four months.

Poor working conditions and low pay reflect a lack of appreciation – all of which is depressing. Doctors can easily earn 25 times more money in North America than they do in West Africa (see box on next page). Accordingly, many leave their home countries – to the benefit of high-income countries.

According to official statistics, in France, about 10% of all physicians come from abroad. For Ireland and Canada, their share is approximately 35%. Of the 750,000 health-care professionals working in British hospitals in 2022, over 66,000 came from foreign countries as well. Ten years ago, an Ethiopian official stated that there were

more Ethiopian doctors in Chicago than in Ethiopia.

Large personnel gaps are common in rich countries' health systems. They fill positions through immigration. More and more international agencies in Africa are recruiting health-care workers for jobs in far-away places.

The migration of African health-care workers to Europe or North America is nothing new. The first waves of this kind of brain drain occurred in the 1960s and 1970s. At the time, many of those who had received international scholarships for their medical studies did not return to their (often authoritarian) countries after graduating.

Since then, medical education at African universities has been expanded. Now there are waves of migration of medical professionals with African degrees. Doctors who want to specialise in a certain area are particularly prone to move. In Europe or North America, they see opportunities to further develop their skills and receive international recognition.

Indeed, some brilliant African physicians who live abroad have been honoured for their contributions to science and innovations in clinical practice. There is reason to doubt that they could have achieved anything similar on their home continent.

The latest exodus of African medical professionals began in the 2000s. Nurses have now begun to migrate too. Like the doctors, they are motivated by attractive

salaries and opportunities for development.

RETURNING TO SAVE LIVES

Integrating African-trained health staff into the systems of wealthy nations is a multi-step process. It often includes professional demotion. Despite having graduated from med school, some doctors end up as care workers. Some decide to get yet another degree in order to find a suitable job. Another grievance is that they often earn less than their native-born colleagues.

Nonetheless, many professionals emigrate from Africa. They hope that their professional status will improve over the years. Some also want to gather enough financial capital and knowledge to eventually start private clinics in their home countries.

For a long time, people who chose to seek employment abroad were looked down on in Africa. They were seen as unpatriotic

and accused of prioritising their own well-being instead of using their knowledge and skills in support of their countries' development. Today, nurses working abroad are not spared this judgment either. Indeed, migration does cause enormous gaps in African health-care systems.

On the other hand, recent developments show that the labour migration of African professionals can contribute significantly to the modernisation of health care at home. The expats regularly transfer money to invest in the establishment of private hospitals and clinics in Africa. Moreover, some return from abroad in order to work in such facilities themselves.

As a result, first-rate institutions are emerging. They are reducing the "medical tourism" of wealthy elites to rich countries. The African diaspora also sometimes supports new health-care stations in rural areas. Training facilities which serve to pass on the knowledge they've gained abroad are important too.

Charitable missions are also conducted from the diaspora. In many cases, patients benefit who otherwise would not have access to medical services at all.

There are also initiatives to set up health-insurance schemes at the local level with funding from the diaspora. Thus, the success of African medical professionals in high-income countries is leading to new models of international cooperation and better knowledge transfer. Hopefully, the health of the people on the continent will also improve over the long term as a result. For the time being, however, it is mostly urban upper classes who benefit from good private hospitals.



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Women giving birth on the floor

Nigeria is an example of just how poor conditions in an African health-care system can be. Such conditions lead to the emigration of desperately needed medical professionals.

With around 216 million people, Nigeria is Africa's most populous country. Of the 81,000 medical doctors who graduated from the country's universities in the past decade, only about half are practising in Nigeria, according to the national medical association. On average they are responsible for 5000 people. Most work in the large metropolitan areas of Lagos, Kano and Ibadan.

In rural areas, like the state of Zamfara in the north-west, the shortage of health staff is severe. Zamfara has a population of about three million but was home to just 46 physicians in 2019. That is two

doctors for every 100,000 people. Today, Nigeria would need at least 300,000 additional doctors and nurses to achieve the health-related Sustainable Development Goals.

There is no lack of medical students at the country's

over 200 universities. However, Nigeria does not offer graduates good working conditions, so about half of them leave. The situation is similar in many other African countries (see main text).

After seven years of expensive education, a doctor who works in a state-run hospital in Nigeria earns about \$7200 per year. South

Africa beckons with \$50,000, and the US with as much as \$200,000.

Moreover, equipment and medication tend to be lacking – and even safe drinking water can often not be taken for granted. Hospitals experience frequent power outages. Nigeria only has five hospital beds per 10,000 inhabitants. Women give birth on hospital floors and the sick are packed into poorly ventilated rooms. Nigeria's oil wealth and the size of its economy have done nothing to change this.

Everywhere in Africa, the desire of medical personnel to improve the well-being of the local people clashes with the inaction of government agencies. The tension often leads to strikes. From August to October 2021, for example, the Nigerian Association of Resident Doctors (NARD) paralysed the health care system, demanding more public investments.

SA



In remote regions like Borno in northern Nigeria, provisional facilities created by NGOs like MSF are often the only medical stations.



The initiative GermanDream organises discussions about social values.

IMMIGRATION

“We don’t need saviours – we need dialogue on equal footing”

Düzen Tekkal grew up in Germany as the child of Kurdish-Yazidi immigrants. She worked as a television journalist and as a war reporter in Iraq before founding numerous political projects: the human-rights organisation Háwar, the education initiative GermanDream and the consulting firm Mut:Republik. She spoke with D+C/E+Z about the progress Germany has made on immigration, and what still needs to be done.

Düzen Tekkal interviewed by Jörg Döbereiner

Germany has long been a country of immigration, but it has struggled for years to see itself that way. Why is that?

We never had a culture of immigration. My parents came to Germany from Turkey in the 1970s as so-called guest workers. Correspondingly they were treated as “guests”,

not as “citizens”. That caused a great deal of pain among migrants, and a lot of potential was wasted. It’s also no coincidence that my generation, born in Germany, looked for role models in America’s anti-racist civil rights movement, because we didn’t have any here.

You grew up in the 1980s in Hannover as one of eleven children of a Kurdish-Yazidi family from Turkey. Your father worked as a floor tiler. How do you look back on this time regarding social belonging?

I can remember, when I was growing up, that my family and I felt like people were telling us “You can be thankful that we saved you.” It took a long time to have exchanges on equal footing. We’re still working on that today. My current work also has to do with the pain of that period. It is a very personal matter when you have the feeling that you always have to fight to belong.

Do you have a specific example?

It started with the fact that my siblings and I were denied German citizenship for a long time, even though we were born here. My father had to fight for it. I didn’t become a citizen until I was nine years old. You have to realise what it means, emotionally, to tell people with roots in another country that they don’t belong or are unwelcome. What worked well, though, was the community of solidarity. At that time, it was much more progressive than the German government.

Please say more about that.

In the beginning, there were many obstacles to my positive development. My mother was illiterate and couldn’t speak German. I had no books at home, and we only spoke Kurdish. However, in our part of the city, Hannover Linden, people looked after each other. My siblings and I were put in kindergarten early – that’s what saved us. We received support in early childhood, and German teachers took us under their wings. We had a community of neighbours that read books with us and took us to free-time activities that my parents couldn’t afford. There was a library we could access for free. We went to the same school as the children of directors and politicians. There was no segregation, no ghettoisation. This Germany that existed

at that time in Hannover made me the person I am today.

In 2019, you founded the education initiative GermanDream. What does it do?

We are a network that now has over 500 volunteer value ambassadors operating nationwide. Our members include famous people like the Federal Minister of Agriculture, Cem Özdemir, as well as volunteers, retired people and students. Schools can contact us regarding various topics that need to be discussed, like the Russia-Ukraine conflict, antisemitism, racism, health care or identity. We then send a person to lead a discussion with pupils. The unique thing about us is that our value ambassadors have an immigrant background, though not exclusively. Anybody can work for us. I am proud that we now have a conversation about values at a German school every day.

What values are you concerned with?

The basic consensus underlying the values we communicate is a firm commitment to the free democratic order, which includes values like equal rights, self-determination, freedom of religion and of the press, as well as family. Our goal is to involve pupils, expand their ways of thinking and address fears and challenges. For example, we talk about what personal freedom means in the context of society, and to what extent it is constrained. Mut:Republik, the values-based organisational consultancy I founded, also combines values with social participation. Our work there is based on the conviction that individuals can make a difference when they get involved and courageously stand up for their principles.

What is your opinion on Germany's discourse about immigration?

To some extent it is stuck in the 1980s, and it often reflects prejudices that are latent in many people. If someone named Ahmed causes trouble, then ultimately, he doesn't actually belong. But the idea is for people to be part of society even if they aren't high achievers. A friend of mine once hit the nail on the head: "I want to be able to make mistakes and still belong." Germany can't let itself scare people away, if only because of the demographic change and the lack of skilled labour.

In order to make immigration easier for foreign workers, Germany's federal govern-

ment is planning a new Skilled Immigration Act, with a point system like Canada's to evaluate professional qualifications and language skills, for example. In addition, immigrants could receive citizenship after only five years of residence in Germany, instead of the current eight years. Are these steps in the right direction?

Social acceptance is already much higher than we're often led to believe. But there are still legal shortcomings. It's high time for more to be done to improve equality. We



Düzen Tekkal in the late 1970s on the arm of her father Seyhmus Tekkal, her sister Muhterem on the left.

do need workers from other countries, but at the same time we must not remain blind to the potential at home. How can it be that Germany is looking for skilled workers in India, while at home bureaucracy is stopping people from getting better jobs? Take the example of a woman from Syria. She was a teacher there for 30 years before she fled to Germany because of the war. Here, she can't train to be a child-care worker because she can only present a school certificate for the twelfth form, but not the ninth or tenth, like the authorities are demanding. That can't be.

People with migrant backgrounds are still discriminated against in Germany, for instance when it comes to accessing housing, work and education. With regards to society

as a whole, what do you think are the largest deficits at the moment?

I see structural deficits above all; other countries are more advanced. When it comes to racist violence, we in Germany still too often look the other way, dismiss it as an isolated incident or blame the victim. That's wrong. We are all responsible.

How can we live up to our responsibility?

By paying better attention and talking about racism in Germany, even when it's painful. These debates are too important to be held only in Twitter echo chambers. We must overcome the dynamics of division. In many areas, people from certain backgrounds or classes still have a very hard time. But institutions and corporations also become more innovative and competitive if they free themselves from prejudices and include people.

In your book #GermanDream, you warn against the collective attribution of victimhood to migrants. What do you mean by that?

Migrants are not better or worse people; we are just like everyone else. No one can take away your own efforts. It's important to make clear that we are not victims, but rather agents of change. We don't need saviours – we need dialogue on equal footing. In a diversified society it should also be possible to talk about racism within migrant communities, for example. The dividing lines don't run between nationalities and religions, but rather between values. All in all, the goal is to not see immigration as a deficit, but rather as wealth, as a treasure. We have a lot of work to do in the coming decades. I see a lot of challenges, but also a great deal of potential.

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Janet Yellen, US treasury secretary, at a meeting of G20 finance ministers in India in February.

FISCAL SPACE

Economies in limbo

In our era of multiple crises, we cannot afford to lose time. In spite of occasional breakthroughs like the Ghana agreement in May, progress on resolving sovereign-debt crises remains too slow. Hopefully, the new Global Sovereign Debt Roundtable will make a difference, preparing the ground for effective country-by-country negotiations.

By José Siaba Serrate

The G20 Common Framework on Debt Treatment (CF) has so far not delivered convincing results. This is dangerous, given that many low and middle-income countries are stuck in debt crises, so they cannot adequately rise to daunting challenges, from worsening poverty to climate adaptation.

To improve matters, the CF must be enhanced, as I argued in D+C's January issue. Crucial issues include that debt restructuring must:

- happen faster,
- be more generous and
- apply not only to countries with low-income status, but to middle-income countries in stress as well.

As will be elaborated below, it was very good news that a debt restructuring agreement could be achieved for Ghana in May after long and difficult negotiations. More must happen – and fast.

While countries with comparatively poor capacities struggle for years with unresolved financial issues, high-income countries act fast and in unorthodox ways to resolve credit-related problems of their

own (see box on page 9). The USA and Switzerland managed to prevent serious banking crises in March. The assets in play far exceeded what would be needed to forgive, for example, Zambia's outstanding debt.

Zambia has been in default since 2020. The country's debt amounts to \$31 billion. This figure pales relative to the asset position of the failed banks in the USA. Together, Silicon Valley Bank, Signature Bank and First Republic had some \$500 billion on their books. US authorities' direct spending to get a grip on the problem amounted to about \$32 billion. Government institutions did well to stomp out the fires before they spread. In the same sense, Swiss authorities did a good job of managing the failure of Credit Suisse (with assets worth more than \$600 billion).

It is, of course, comparatively easy for a government with ample fiscal space to administer a national policy with determination. It is much more difficult to achieve and implement multilateral consensus on sovereign debt issues.

What makes things particularly difficult is that China is now the most important bilateral creditor country. It disagrees with the approach taken by the Paris Club, the informal umbrella organisation of western creditor nations (see box on page 10).

Quite obviously, however, international policymakers do not consider the sovereign-debt crisis of low-income and middle-income countries to be as dangerous as the failures of the above-mentioned banks. Top leaders do not see a systemic risk that might upend the global financial system.

HUMANKIND'S COMMON FUTURE IN PERIL

They miss an important point. The various sovereign-debt crises may not cause immediate global disruption, but they do undermine humankind's common future. The longer a debt-crisis lingers on, the longer it will take the government concerned to tackle urgent challenges.

An economy hobbled by debt issues can neither address domestic problems effectively, nor contribute to tackling global challenges sustainably. Those challenges include global heating and the dwindling of biodiversity as well as worsening poverty and intensifying inequality. Moreover, sovereign debt crises can undermine a country's political stability and result in security problems with international implications.

The longer heavily indebted economies stay in limbo, the worse their problems become. Indisputably necessary action would therefore be cheaper today than it will prove in the future.

According to the International Monetary Fund (IMF), Congo, Grenada, Malawi, Mozambique, São Tomé and Príncipe, Somalia, Sudan, Zimbabwe and Zambia were in debt distress at the end of February. Another 27 countries were at high risk of debt insolvency, 26 countries at moderate risk and seven countries at low risk.

Kristalina Georgieva, the managing director of the IMF, has called for urgent action. Instead, we are observing further procrastination.

David Malpass, the retiring president of the World Bank, similarly acknowledged that, in the cases of Zambia, Ghana and

Ethiopia, negotiations stalled entirely or were moving far too slowly. Indeed, from 2020 to April 2023, the CF only delivered a single debt restructuring, for Chad.

For some countries, liquidity support is enough. Those with oversized debt burdens, however, need actual restructuring, which means that a share of the debt is forgiven. If creditors focus only on liquidity solutions, they are likely to see a succession of debt crises, with indebted governments using fresh bail-out money to service existing loans. As the bail-out money must be repaid too, the debt burden keeps growing.

INSUFFICIENT, BUT USEFUL

Though the CF remains insufficient, it is a useful foundation to build on. It is the only multilateral mechanism for tackling

serious sovereign-debt issues. To regain sovereign-debt stability, the CF might offer instruments such as liquidity support, debt-service suspension, debt restructuring and, in theory, total debt relief.

While only the G20 governments and multilateral institutions have made a commitment to the CF, its great potential is to bring all types of creditors to the table, whether they are public or private-sector institutions, whether they are from established economic powers or large emerging markets. In close cooperation, these highly diverse parties should provide credit facilities and debt relief to nations in trouble.

They should do so according to a set of pre-established principles (regarding solidarity, consensus, information sharing, case-by-case decision-making, conditionality and comparability of treatment). So far,

Averted global banking crisis

In the USA, two regional banks failed in California (Silicon Valley Bank and First Republic), and so did one in New York (Signature Bank). By asset size, they ranked 14th, 15th and 16th nationally. Their problem was that so many depositors lost faith in them and withdrew assets, that they became unable to pay. In the course of a few days, Silicon Valley Bank and Signature were shut down and put under the control of the Federal Deposit Insurance Corporation (FDIC). In early May, First Republic was shut down too.

The FDIC normally guarantees assets worth \$250,000 per depositor. This time, however, the Federal Government made the informal decision to cover all assets, providing protection even to super-rich clients of the failed banks. The government wanted to prevent further bank runs by making clients of other banks confi-

dent that there was no reason to worry.

The guiding idea was to take determined and timely action to avoid contagion. The central bank (Federal Reserve), moreover, immediately rose to its role as lender of last resort, providing limitless fresh liquidity to any bank able to offer collateral. Shareholders lost their investments, but depositors were fully protected. So far, a full-blown banking crisis was avoided.

In Switzerland, Credit Suisse – a systemically important financial institution of global relevance – was on the brink in March. National authorities organised a swift ad-hoc merger with giant rival UBS. In the process, bank bonds were wiped out, even though, according to the international norms, shareholders were supposed to suffer first.

The Swiss authorities preferred to reassure them to the

detriment of other stakeholders. Bondholders are challenging the decision in court.

The good news is that, in Switzerland too, the crisis was not allowed to spread. The collapse of Credit Suisse might easily have triggered a global meltdown of the financial sector.

Both in the USA and Switzerland, timely intervention, plentiful resources and crisis management expertise were crucial. International cooperation helped. Central banks were prepared to facilitate currency swaps in case of need – but that need did not arise. Swift and flexible action limited the dam-

age, so the failure of individual banks did not become a macro-economic issue (see main story).

Further problems cannot be ruled out. The bank failures were linked to poor management decisions in the low-interest rate era.

Nonetheless, both the Federal Reserve and the Swiss National Bank have raised interest rates in recent weeks. They thus stayed focused on fighting inflation. Having prevented a full-blown crisis of the financial system in March, both the Fed and the Swiss National Bank apparently feel they are in full control. JSS



Swiss authorities made UBS take control of Credit Suisse – bank logos on different buildings in Zurich.

the international community lacks both a bankruptcy mechanism for sovereign debt and a supranational authority for enforcing debt restructuring even if some creditors object to it. Accordingly, sovereign-debt restructuring was not only very difficult in the past, it also remained ad-hoc and piecemeal. Examples were the Brady Plan in 1989, the Heavily Indebted Poor Countries Initiative (HIPC) in 1996 and the Multilateral Debt Relief Initiative (MDRI) in 2006.

Quite clearly, the CF must be enhanced. It must pave the way to a bankrupt-

cy mechanism and its enforcement. Several lessons from the recent banking turmoil in high-income countries should be heeded:

- It makes sense to act fast and determinedly, which, of course, will require international political will.
- Debt relief should be substantial or might not be enough to fix the problem.
- Re-achieving debt-sustainability for currently overburdened countries will require additional fresh money as well as the design and execution of bold policies to reform economies and foster growth.

- It will also require broad creditor participation and coordination.

- A case-by-case solution is imperative. Failure cannot be an option because the social and economic costs are plainly too high.

A new financial architecture can well arise from individual interventions. Good practice, at this point, matters more than elaborate theories.

The good news is that an innovative Global Sovereign Debt Roundtable can make a difference this year. It is chaired by the IMF, the World Bank and the G20 presi-

China and the Paris Club

China is the world's largest official bilateral creditor. It does not get along well with the Paris Club, which coordinates the approach of western creditor governments. That both sides agreed to a Ghana deal in May (see main story), is thus very good news.

The Paris Club is reluctant to restructure a country's debt without the cooperation of China. Its members do not want China to free ride, which would be the case if it benefited from continued debt services while western institutions renounced some payments.

As a recent World Bank study (Horn et al. 2023) shows, however, China has not been free riding so far. It has undertaken 128 rescue loan operations for 22 debtor countries in recent years. So far, its bail-out money amounts to \$240 billion. The funding was channelled to countries with dwindling foreign-exchange reserves and poor credit ratings.

Nearly 80% of China's emergency rescue lending was issued between 2016 and 2021. These operations include many so-called "rollovers",

in which loans are extended again and again. On the other hand, China has radically reduced its lending for infrastructure and other development projects.

China's crisis support for heavily indebted countries is not altruistic. Beijing is ultimately trying to rescue its own financial institutions, as Carmen Reinhart, one of the co-authors of the World Bank paper, has argued.

Various state-owned banks are involved in China's international lending, and their capacity to absorb losses is unknown. Reinhart believes that China's extreme reluctance to grant debt relief is linked to worries about its own banks becoming over-burdened.

China is obviously aware of the debt nightmare and even responding to it. However, no national government can solve these problems on its own because many other parties are involved too. International cooperation is therefore indispensable.

While western governments like to criticise China for its comparatively rigid stance on forgiving debt, they were in

the same position in the past. They too were always hesitant to grant debt relief. Moreover, they showed very little interest in establishing a fully functional, pre-defined sovereign-bank-



Poster praising Chinese-Sri Lankan relations in Colombo in 2022.

ruptcy mechanism, though Germany's new Federal Government has expressed itself in favour of establishing one.

In the current setting, Beijing wants multilateral de-

velopment banks (MDBs), including the World Bank, to accept losses (called "haircuts") on their loans. That would obviously reduce the pain of bilateral and private creditors. The approach, however, would hurt the interests of the developing countries that depend on MDB lending for developmental purposes such as building infrastructure and implementing policies.

The point is that the MDBs would lose the preferred creditor status that allows them to refinance their operations at comparatively low costs on international financial markets.

The implication would be that their development-oriented loans would become more expensive. That, however, would make debt sustainability more precarious and further limit developing countries' ability to tackle issues such as poverty or environmental hazards. JSS

LINK:

Horn, S., et al., 2023: China as an international lender of last resort. Washington: World Bank Group. <http://documents.worldbank.org/curated/en/099450403272313885/IDU046bbbd8d06c-c0045a708397004cbf4d2118e>

gency (currently India). It is expected to push all parties involved. It should contribute to speeding up discussions and building consensus.

Breakthroughs are required for many issues, from technical definitions to timelines and transparency requirements. Clear rules must be defined for how debt stress is assessed and how the burdens of restructuring are shared.

THE CASE OF GHANA

Even in very difficult scenarios, progress is possible. After long and excruciating talks, China and western Paris-Club member governments agreed on a debt-restructuring deal for Ghana in mid-May. Ghana's government had become unable to service the debt in December.

The comprise is that the World Bank will keep on handing out additional grants and concessional lending at subsidised interest rates to Ghana, but not forgive debt, while China will forgive some debt. China

had earlier insisted that it would only forgive debt if multilateral banks did so too (see box on page 10).

The Economist, a London-based magazine, calls this compromise a "fudge", but appreciates the possibility that debt-restructuring negotiations for other countries may be resolved in similar ways. It warns, however, that the Ghanaian case was comparatively simple because Chinese loans only make up a rather small share of the country's debt.

According to the Financial Times, Chinese loans amount to only about \$ 1.9 billion, while Ghana's total debt burden is some \$ 63 billion. Other lender nations account for \$ 3,5 billion, with private-sector credit being far more important (at about \$ 15 billion). Restructuring talks for that debt are still going on, and Ghana's domestic debt is also substantial.

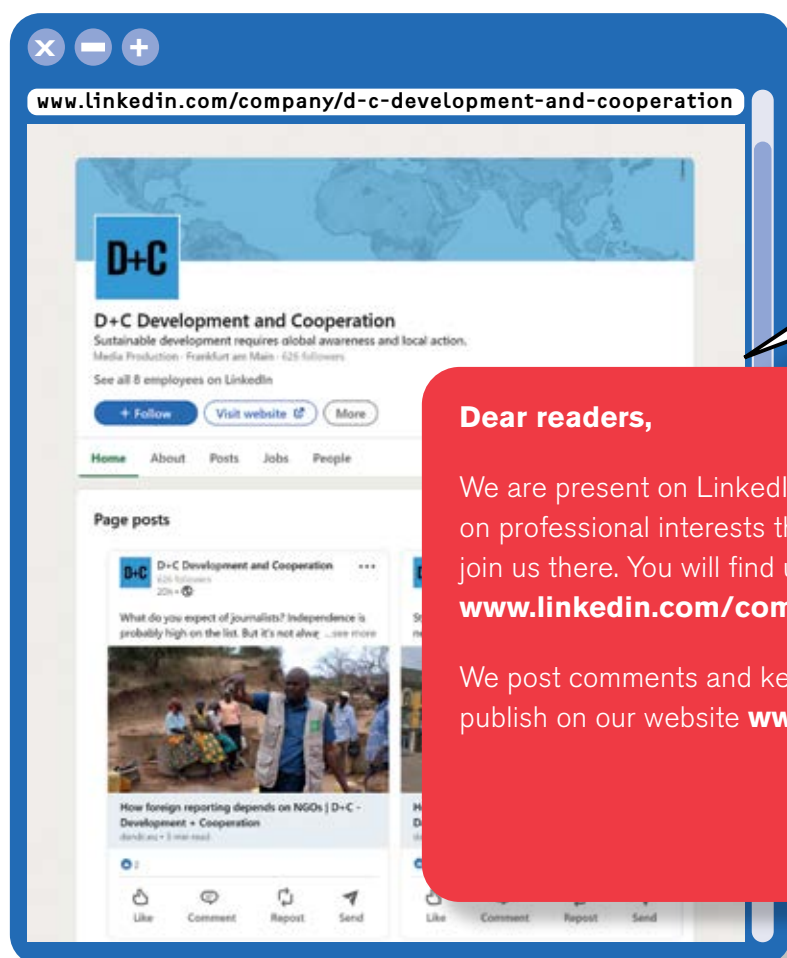
Nonetheless, the agreement of the Paris Club and China is of crucial relevance, as an IMF bailout hinged on it. The first tranche – \$ 600 million of \$ 3 billion spread

out over three years – can now be disbursed immediately. The deal shows, moreover, that the Paris Club and China can reach agreement in principle. It is also encouraging that they did so in the case of a lower-middle income country even though the CF only applies to low-income countries. Steps like this one obviously help to further develop the CF – and that is most welcome.

Substantial CF success sends a promising message to the world: debt stress is being taken seriously, and it is not intractable. Similar deals for Zambia and Ethiopia would now be most welcome as they would reinforce that message.



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A residential area in Wuhan in early 2020. No country was prepared for the Covid-19 pandemic.

PANDEMICS

On the way to global pandemic preparedness

A new pandemic fund aims to protect the global community from another catastrophe like the Covid-19 pandemic. It faces many challenges, but it has the potential to manage prevention as well as preparedness.

By Wolfram Morgenroth-Klein

Outbreaks like SARS in southern China in 2002, MERS in the Middle East in 2012 and Ebola in West Africa in 2014 should have sounded the alarm. But it took the Covid-19 pandemic, with over 6.7 million people dead and over \$12.5 trillion in economic losses, to demonstrate to the global community how poorly prepared health-care systems were and how important it is, wherever possible, to avoid, prepare better for outbreaks of dangerous diseases and fight them more efficiently.

We face the task of confronting multiple infection and pandemic risks in a world

that has already been rocked by crisis. These risks persist unabated. In fact, they are rising, given our increasingly interconnected, mobile world, the climate crisis and the destruction of the biosphere. So, while Covid-19 still needs to be tackled, the global community must at the same time also contain new outbreaks and prepare for future pandemics.

Against this backdrop, in 2021, the G20 states convened the G20 High Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response (GHLIP). At the end of 2021, the US government acted on a central recommendation of this panel with its proposal to create a new multilateral fund for pandemic prevention, preparedness and response (PPR). Like other health funds established in the past, the new fund will be hosted by the World Bank as a Financial Intermediary Fund (FIF). FIFs are characterised as follows:

- They are decidedly multilateral instruments. At least three donors must provide a total of at least \$200 million in financing.
- They are administered by the World Bank, which contributes its expertise in financing and implementation in developing countries.
- The administration is lean. A FIF allocates funds to competent international implementing agencies. Thus, no new implementation structures are created, but existing ones are used in a targeted manner.
- The political control of FIFs does not lie with the World Bank, but with a board whose composition and rules are decided politically.

The new fund was founded in June 2022, following a summit convened by the US government in May 2022, at which the US and the EU each pledged \$450 million in financing. At the same summit, Germany pledged €50 million, followed by an additional €19 million in September. The first meeting of the governing board took place in September 2022. By December 2022, 25 donors had committed approximately \$1.6 billion to the fund, which was named the “Pandemic Fund” (PF) in November. In that month, it was also officially launched at the G20 summit in Bali. It was one of the most visible results of the G20 and G7 processes of 2022.

The unique features of the new Pandemic Fund are:

- Its catalytic role. It will set targeted incentives to promote the global public good of health/freedom from infectious diseases in a way that supplements the efforts of national health-care systems. The PF must aim to strengthen connections, both nationally and internationally, between instruments and institutions in the health-care sector that in the past have often operated in parallel.
- Its governance. The PF governing board is made up of nine donor countries, nine recipient countries and two representatives of civil society. There is also a seat for philanthropic foundations, which so far have pledged just under \$40 million. The governing board includes representatives from Indonesia, China, South Africa, India, the United Arab Emirates and Saudi Arabia. Thus, for the first time in a fund of this size, countries are acting as donors that are not members of the Organisation for Economic Co-operation and Development

(OECD). The co-chair of the donor countries is Indonesia's former Minister of Finance, Muhamad Chatib Basri. Nevertheless, it remains a challenge to involve countries with lower incomes ("co-investor countries") to a greater extent. They are still not present or involved enough.

- The integration of the World Health Organization (WHO). As a central technical expert and policymaker in the health-care sector, its role is enshrined in the founding documents of the PF. With Mike Ryan, the executive director of the WHO's Health Emergencies Programme, the PF named a high-level WHO representative the chair of its Technical Advisory Panel, which will play an important role in reviewing applications and processing foundational concepts.

- Its speed. In January 2023, only seven months after its foundation, the PF announced the first call for bids – a process that often takes years for other funds. This development is both positive and politically necessary, because the fund's success depends on proving its ability to act. At the same time, it must ensure that the best and most effective proposals are accepted. Procedures also must be adapted and optimised.

CLOSING FINANCING GAPS

The PF now has to prove itself in practice. It is facing several challenges. The most pressing goal of 2023 is getting the fund under-

way. The first call for bids for laboratories, surveillance and capacity building will lead to the first financing decisions as early as July, and the proposals will then be implemented immediately.

Permanently closing the existing gaps in PPR financing and correctly balancing measures are particularly difficult tasks. Among other things, the following must be done:

- these gaps and (pandemic) risks must be better identified and prioritised.
- the measures have to create true incentives, while also preventing deadweight effects. Success will depend on the capacities of the respective partners. Poorer countries with weak structures may need significantly more support than has been envisaged – for instance in form of consulting on drafting and implementing preparedness measures.
- approaches must be pursued and financed that are carried out on the national, regional and occasionally global level. Global efforts, in particular, will also depend on the progress made by the international framework with regard to existing international health regulations and the future pandemic agreement.

Moreover, the fund also has to be financially secured, because it is severely under-financed. That applies to its total financial resources – considering the financing gap of \$10.5 billion per year identified in a joint study by the WHO and the World Bank, \$1.6 billion is just a beginning. Furthermore, as of March 2023, only a third of

the pledged funds had actually been deposited.

The PF will have spent all its available means by 2024 if it does not receive the pledges that have already been made, and no substantial new commitments are forthcoming. Germany is leading by example. At the end of April 2023, Germany's Federal Ministry for Economic Cooperation and Development (BMZ) pledged an additional €50 million, which will be paid out by October. In the medium term (2025 or 2026), however, the PF, like other funds, will need to be replenished according to the clearest possible scales of contribution.

The most difficult task, however, is setting priorities with limited funds. Some influential voices are calling for the fund to only concentrate on pandemic preparedness for the time being. They argue that prevention and the immediate control of a large outbreak of infection (response) can neither be financed nor operationalised.

This point of view makes sense but is nevertheless too short-sighted. Removing prevention and One Health issues from pandemic policy is comparable to a climate policy that forgoes emission reduction and instead only finances adaptation measures. A pandemic policy that improves general preparedness but cannot respond quickly and decisively to a massive outbreak, ignores, on the other end of the scale, the bitter experiences of the recent past.

Covax and Act A, the central programmes guiding the global pandemic response, will expire in 2023. We will need an institution and mechanisms that take into account the lessons learned and quickly react in the event of a crisis. At the very least, the interface between preparedness and initial response measures must be planned and built. In principle, the Pandemic Fund could take on this task – its general strategic orientation, but also its (not yet fully formulated) tasks and goals would certainly allow it.



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Covid-19 vaccination campaign in South Africa.

INDIGENOUS PEOPLE

The Yanomami are dying, and so is their home

Brazil's biggest ethnic group, the Yanomami, are being wiped out by hunger and disease. The Bolsonaro government is to blame for this humanitarian disaster. What is happening to this people has far-reaching consequences, not least for biodiversity and the world's largest rainforest.

By André de Mello e Souza

After democratisation, Brazil's indigenous peoples succeeded after long struggles to have their land protected by the constitution. That laws are not enough to protect these groups became clear under the government of President Jair Bolsonaro. He never made a secret of his intentions to provide access to indigenous lands for exploitative and unsustainable economic activities, especially gold mining, but also agriculture and cattle herding.

Actually, this should not have come as a surprise: 30 years ago, Bolsonaro, then a congressman, had introduced a bill in the House of Representatives aimed at overturning a 1991 ordinance that marked off Yanomami indigenous lands. He failed at the time, but made further attempts after being elected president.

While he was in office, Bolsonaro severely hampered institutions set up to protect indigenous groups and the Amazon forest. Because Norwegian and German donors would not allow his government to fully control the Amazon Fund, which supports successful projects to protect the rainforest, those projects did not receive any funding during most of his term.

Bolsonaro moreover underfunded critical federal environmental-protection agencies such as the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA) and the Chico Mendes Institute for the Conservation of Biodiversity (ICMbio) and took away their authority to destroy equipment used for illegal deforestation and mining. Bolsonaro even went

so far as to prosecute officials of these agencies who were only trying to do their job.

He weakened the laws and regulations protecting the Amazon forest and its first inhabitants as much as he could without the support of Congress. Basically, he left the

states of Roraima and Amazonas. It would always be invaded by illegal gold miners and other groups. Even before Bolsonaro was elected, there were frequent conflicts that often ended in deadly shootings.

However, as of 2019, the situation has worsened considerably. According to a study published by the Hutukara Yanomami Association (HAY), illegal gold mining increased by 54% in 2022, destroying more than 2000 hectares of Yanomami land. The study also shows an exponential increase in deforestation due to mining since 2018, when the association began monitoring these activities. Their illegal mining monitoring system is based on imagery from



A sick Yanomami baby held by its mother was transported by plane from the Yanomami territory to receive medical treatment in Boa Vista, the capital of Roraima state, after the new Brazilian government declared a health emergency for the Yanomami people.

federal government incapable of enforcing the laws protecting the environment and the constitutional rights of Brazil's indigenous groups.

The Yanomami are the largest of these groups and comprise an estimated 28,000 to 35,000 people. Their land covers 96,000 square kilometres – larger than Portugal – and is located in the northernmost Brazilian

Constellation Planet, satellites with high spatial resolution.

It is estimated that about 20,000 gold miners are operating in Yanomami land. They are reportedly linked to organised crime and particularly to drug trafficking gangs of São Paulo and Rio de Janeiro. In addition to deforestation, illegal gold mining is causing enormous damage to Ama-

zonian rivers and depriving the Yanomami and other indigenous groups of their livelihoods, which depend mainly on fishing and hunting.

The miners use highly toxic mercury to separate gold from other sediments. A report by the Brazilian police shows that four rivers in Yanomami land are heavily contaminated with the metal. It enters the body not only through the consumption of contaminated fish or water, but also through body tissue or its vapours in the air.

The miners also spread Covid-19 and other diseases. Children and older people are particularly affected. According to the Indigenous Peoples' Association of Brazil (APIB), about 100 Yanomami children died of diseases in 2022 alone and about 570 during Bolsonaro's entire term. The Ministry of Health moreover has data showing that between 2019 and 2022, the years of Bolsonaro's government, significantly more Yanomami died of malnutrition than in the previous four years.

Dinamam Tuxá, executive coordinator of the APIB, says that the Yanomami had more difficulties accessing health services during these years. The only health post the federal government maintained near Yanomami land was closed and there were reports of miners forking out medicines and other medical equipment.

CRIES FOR HELP ARE IGNORED

This humanitarian catastrophe did not come as a surprise. The Public Prosecutor's Office has been warning since last year that the government has not taken the necessary measures to evict the miners from Yanomami land. In 2020, the Supreme Court ordered a number of measures to protect indigenous communities, in particular an action plan to evict invaders from Yanomami land and six other indigenous territories. The Court also ordered the implementation of a plan to combat Covid-19 and promote food security, adopt health-care measures and establish sanitary barriers in indigenous areas. Indigenous representatives themselves claim to have made at least 21 calls for help to the government, the Public Prosecutor's Office, the National Foundation for Indigenous Peoples (Funai) and the Brazilian army since November 2020 regarding the dramatic situation of their communities. All were ignored.



Illegal mining camp on Yanomami territory.

Under Bolsonaro, however, the federal government continued to tolerate – if not promote – illegal mining and deforestation. In fact, a plan had already been developed by IBAMA to eradicate illegal mining in Yanomami land within six months through air and river controls at sites mapped by environmental inspectors. But the plan was never implemented. The Supreme Court is now looking at evidence that Bolsonaro gave false information about the situation of the Yanomami in the face of an unfolding tragedy.

At the end of January 2023, the newly elected federal government under Luiz Inácio Lula da Silva began to transfer indigenous people in poor health to hospitals in Boa Vista, the capital of Roraima. There are currently about 700 Yanomami hospitalised. Lula also called on the military to provide airlifted food and medicine to the Yanomami. However, their territory is vast, remote and lacks basic infrastructure, including airstrips.

In addition, the new government launched an operation to expel the illegal gold miners from Yanomami land. Troops of the armed forces, representatives of IBAMA and the federal police are involved in the operation. However, the fate of the large number of extremely poor people living from illegal gold mining is itself another indication of the huge social challenges Brazil is facing.

The new justice minister Flávio Dino has now ordered Brazil's police to launch

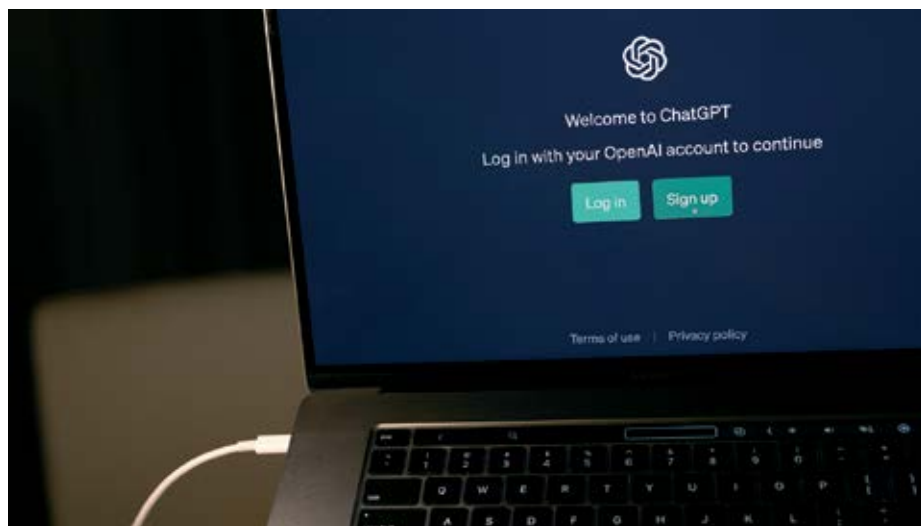
an investigation to determine whether Bolsonaro and his government committed genocide, and the Public Prosecutor's Office is also investigating possible crimes committed against the Yanomami by the previous government. Moreover, in an unprecedented initiative by an indigenous organisation, ABIP has filed a lawsuit with the International Criminal Court (ICC) in The Hague to charge the Bolsonaro government with genocide. However, Bolsonaro can only be prosecuted at the ICC if the Brazilian judiciary fails to conduct a fair trial.

What happened to the Yanomami clearly shows that the fate of the rainforest is inextricably linked to that of its first inhabitants. Satellite images published by Brazil's National Institute for Space Research (INPE) show that the best-preserved parts of the Amazon forest are precisely the areas designated as indigenous peoples' lands. If governments continue to act in the interest of high and immediate profits at the expense of environmental sustainability and biodiversity, the Yanomami will only be the first of many to die.



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The introduction of ChatGPT has made alarm bells ring louder.

CORPORATE POWER

AI sector worries about AI

A growing number of experts warn that artificial intelligence may be very dangerous. Whether the call for a six-month development pause makes sense, is another question.

By Roli Mahajan

In early May, Geoffrey Hinton quit working for Google. Aged 75, he is a pioneer of neural network programming, on which current AI systems are based. He says he left the multinational corporation in order to be free to discuss the risks of technology. Sometimes called the “godfather of AI”, he now states that chatbots are “quite scary” and could be used by “bad actors”.

Hinton is not the only worried expert. In late April, Norway’s powerful sovereign wealth fund declared that governments should speed up the regulation of AI in order to control risks. It also promised to set guidelines for responsible AI practices for the 9000 companies it invests in. These companies include tech giants like Apple, Google parent Alphabet and Microsoft.

Even tech enthusiasts see risks at three distinct levels:

- False information may spread faster and more effectively due to AI applications.

- AI can cause serious economic and political disruption, for example by making some professions redundant and causing serious social hardship.
- Powerful AI might cause the extinction or displacement of humankind. According to a survey done in 2022 among AI experts, the median estimated likelihood of such an event was 10%.

A programmatic paper published in late 2021 by Harvard University warned that AI, as currently practiced, is misdirected towards centralised decision making (see box). According to the authors, the AI community misunderstands what human intelligence is really about, neglecting debate, pluralism and cooperative action.

This year, the most prominent expert warning probably came in March. It was an open letter that was published by the Future of Life Institute. By 9 May, almost 28,000 persons, including persons from the tech sector, had signed it. The letter calls for an immediate pause on the development of AI systems which compete with human-level intelligence. In view of the risks posed by such systems, a six-month moratorium is proposed.

The letter argues that AI development must be refocused so “today’s powerful, state-of-the-art systems” can be made “more

accurate, safe, interpretable, transparent, robust, aligned, trustworthy and loyal.” It also suggests that “AI labs and independent experts should use this pause to jointly develop and implement a set of shared safety protocols.” These protocols, moreover, should then be rigorously audited and overseen by independent experts.

FUNDAMENTAL QUESTIONS

The letter expresses fears that were previously only raised in the silos of expert communities. It asks: “Should we automate away all the jobs, including the fulfilling ones? Should we develop nonhuman minds that might eventually outnumber, outsmart, obsolete and replace us? Should we risk loss of control of our civilisation?”

Distracting attention from the main argument, Elon Musk, the controversial entrepreneur who runs Tesla, SpaceX and Twitter, was an early signatory. Adding to the confusion, he soon announced he was starting a new AI company. He was actually an early investor in OpenAI, which is now one of the sector’s major forces. He later withdrew from the company, and OpenAI is now close to Microsoft.

Late last year, OpenAI rose to prominence with the release of ChatGPT. The open letter was timed with the release of GPT4 in March, which is even more powerful. It is able to hold human-like conversations, summarise lengthy documents, write poems and even pass law exams. It is not entirely reliable, so information must be checked.

Other companies have launched chatbots too. Their potential to disrupt education is obvious. For example, this technology is likely to displace various kinds of routine clerical work in the not so distant future. Call-centre workers, accountancy assistants or low-level bureaucrats might be affected.

The proposal of a six-month moratorium, however, is not entirely convincing. As Marietje Schaake of Stanford University has pointed out, parliaments and governments need much more time to pass complex laws. Adding to the difficulties, regulation must be both flexible and firmly enforceable because AI keeps evolving. Schaake agrees that the issues must be tackled fast, however, not least because only a handful of super-equipped companies have the data volumes and computing power needed to develop

the most advanced AI systems, and they do not have a track record of openly discussing what they are doing. Even her own university, she admits, cannot compete with the leading AI labs.

The debate is still going on – including in general interest media. Various high-profile persons have explained why they

did or did not sign the open letter. The big question, however, is open: How will AI be regulated in ways that serve – and protect – humankind?

LINK

<https://futureoflife.org/open-letter/pause-giant-ai-experiments/>



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How AI fails us

According to a group of technology experts, the current paradigm among AI engineers misunderstands what human intelligence is really about. The implications are dangerous.

The authors argue that the currently dominant vision of AI is misdirecting resources towards unproductive and dangerous goals. Their paper “How AI fails us” was published in December 2021 by Harvard University’s Carr Center for Human Rights Policy. It spells out that AI development is currently based on the vision of “intelligence as a single, distinct, autonomous quality.” More simply put, engineers are trying to create a machine with cognitive capacities not only superior to human beings, but independent of human beings too. The authors call this approach “actually existing artificial intelligence” or AEAI for short.

The expert team states that real human intelligence differs very much from what a tiny, but well-endowed engineering community is striving for. They stress that human intelligence is interactive, collective and cooperative, so it is wrong to think that humankind’s problems could be easily resolved if only the top leaders were intelligent enough. In human societies, healthy solutions are brought about by meticu-

lous debate, not central planning. The expert team therefore wants engineers to develop digital tools that enhance – rather than replace – human exchange and cooperative decision making. They call their alternative approach AEDP – actually existing digital plurality.

The expert team points out that the cutting-edge AI community is indeed very small. According to the paper, only three US companies really matter, and each of them is closely affiliated to one of the three multinational giants Microsoft, Google and Facebook. Other institutions simply do not command the required resources. Competition among the AI labs is fierce, and all three companies also fear that Chinese developers may get ahead of them. The implication is that they prioritise progress over diligent risk assessment and risk management. Speed, in other words, beats safety. The focus on achieving a singular and autonomous ‘general intelligence’ involves a drive towards concentrating resources, data and investment into an ever-shrinking set of organisations and people.

The leading AI companies want to bring about a final invention to replace human intelligence with more powerful AI, which would be autonomous

and centralised. Such machine intelligence, the authors warn, would necessarily:

- disregard pluralism,
- systematically opt for technocratic impositions and
- centralise decision making.

History, however, is filled with failed, often disastrous examples of this extreme concentration of productive resources, the authors warn.

The experts teach at various US universities or work for Microsoft, as lead author Divya Siddarth does. The team rejects the idea that humans and machines must compete with each other – and that, where possible, machines should replace humans. Such thinking ultimately means that workers are displaced, human capacities are made redundant and social costs keep rising. Instead, the authors want engineers to grasp opportunities for improv-

ing human productivity. They point out that such productivity gains have been small in recent decades in spite of fast digital change.

The message is that humanity should not provide vast resources for research and development to small, centralised groups in the pursuit of extremely narrow goals. The expert team demands digital plurality, which – in their eyes – is both the ethical and the effective approach to human progress.

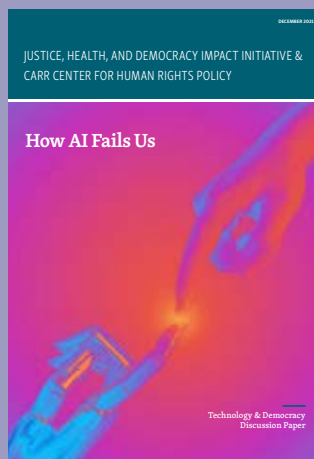
The paper provides several examples of digital plurality in practice. Examples include citizen science initiatives like eBird, which allows bird watchers around the world to contribute their observations to the science of ornithology. Wikipedia and crypto currencies are considered good practice too.

Moreover, the paper praises Taiwan’s Digital Democracy project. It is designed to enable citizens to see how the state operates and involve them in public affairs. The minister in charge is Audrey Tang who became famous as a civil-society activist whose organisation used digital technology to demand that the government become more transparent and responsive. **RM**

LINK

Siddarth, D., et al, 2021: How AI fails us.

<https://carrcenter.hks.harvard.edu/files/cchr/files/howaifailsus.pdf>



Influencing teachers

As Zimbabwe's 2023 presidential election polls draw nearer, the government has been criticised for carrying out a targeted indoctrination campaign to turn the country's teachers into political agents for the ruling party.

Teachers play a critical role in Zimbabwe and yet they are one of the least paid civil servants in the country. Most of them are poor. Moreover, the Covid-19 pandemic which occasioned the closing of schools for some time, made the situation worse.

The country's ruling party, Zimbabwe Africa National Union Patriotic Front (Zanu-PF) has prioritised the training of teachers in its party ideology. According to critics, the government has also undertaken the revision of the primary school curriculum to include and be aligned with the Zanu-PF propaganda. In this way, teachers can influence the perception of their learners to favourably view the party and its leaders.

"Zanu-PF knows that if they capture a teacher, they have captured a whole community, a whole village and that is why they have taken them for indoctrination," says 66-year-old Femedzai Muyeni, a retired head teacher in Masvingo province.

A 37-year-old teacher, nick named Ninja Mambara, is one of the many who have been sent to Herbert Chitepo School of Ideology in Mashonaland Central province for "patriotism" classes. "People see us as Zanu-PF spies planted at their community school and even learners are now

afraid of us. They call us maZanu, street lingo meaning supporters of the ruling Zanu-PF party," Mambara laments.

Even as he secretly criticises the indoctrination program, Mambara says that he has also joined a ruling party-linked trade union known as Teachers for Economic Development (Teachers4ED) out of fear. Teachers4ED members are labelled as supporters of the country's president Emerson Mnangagwa. Many teachers have been enticed to its membership with promises of economic opportunities after they graduate from the party's school of ideology.

36-year-old Ratidzo, a teacher in Harare who attended the school as well, refutes this. "That is not true. We remain teachers with poor pay at the end of every month," she says. Ratidzo says that at the school, they used to sing war-time songs, repeatedly learned about the liberation war fighters and attended lectures on speaking positively about their country and the ruling party.

Some teachers openly speak against this program. Many of these belong to the traditional teacher's union, the Amalgamated Rural Teachers Union of Zimbabwe (ARTUZ). Obert Masaraure, the national president of ARTUZ, says that "the ruling party is trying to control the thoughts of the teachers and convince them to vote for the ruling party and even rig the elections in their favour."



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GERMAN POLICY

Shaping the future together

The director general in charge of African affairs at Germany's Federal Ministry for Economic Cooperation and Development (BMZ) responds to the criticism of James Shikwati. Germany values respect, reciprocity and alliances. Accordingly, policy priorities are not set unilaterally, but in close exchange with partners.

By Birgit Pickel

Europe needs Africa to be a close partner. That is James Shikwati's conclusion (see D+C/E+Z Digital Monthly 2023/05). It is also the starting point of the BMZ's new Africa strategy. We too are aware of Europe no longer being Africa's only partner.

The BMZ's approach to cooperation is therefore first and foremost based on respect and reciprocity. We believe in alliances, not unilateral action. While we respect the worldview, values and interests of our African partners, we will not renounce our own values and interests. We thus support the rule of law and democratic institutions, strong administrations and broad-based political participation. We consider carefully with whom we seek cooperation.

Led by Federal Minister Svenja Schulze, the BMZ is doing more than previously to support African goals (which are spelt out, for example, in the African Union's Agenda 2063). As cooperation must build on African institutions and initiatives, we are investing more in interaction, exchange of knowledge, ideas and mutual understanding. Germany also strongly supports efforts to make the voices of African states and the AU heard appropriately in multilateral fora. Federal Chancellor Olaf Scholz, for example, recently expressed himself in favour of the African Union joining the G20.

For the sake of a common future, we need awareness of the past. As the Federal Government spelt out in its coalition agreement, we want to overcome continuities from the colonial era. This applies both to legacies in Germany and to international dynamics that affect, for example, world trade or agriculture. One implication is that mi-

gration both *within* and *from* Africa must be managed in a fair way. The benefits must be shared, so they accrue to the migrants themselves, to the countries they move to as well



Svenja Schulze, Germany's minister for economic cooperation and development, visiting Kandia Camara, Côte d'Ivoire's foreign minister, in early 2023.

as to the countries they leave. African partner governments worry about brain drain, but they also keep telling us that they need knowledge transfer and that they struggle to employ all their young people. These issues must all be tackled in responses to the challenges that Africa faces and that James Shikwati has listed adeptly.

Not by coincidence, the first major topic of our Africa strategy is "sustainable economic development, employment and prosperity". Germany was one of the first and still is one of the biggest supporters of the African Continental Free-Trade Area, which will be a game changer in terms of more value creation and trade in Africa. In cooperation with the private sector, BMZ promotes investments – in renewable energies, in pilot facilities for green hydrogen as well as in vaccine production. The overarching goal is a just transition to environmental sustainability and social justice. BMZ action, moreover, is aligned with the EU's Global Gateway Initiative, the respective Africa investment plan of which amounts to €150 billion.

The BMZ strategy stresses alliances, not unilateralism. That shows in our focus on cooperating with African institutions and initiatives. It is equally evident in our contributions to the joint initiatives of Team Europe and our efforts to link bilateral action to multilateral initiatives prudently. Consider, for example, recent bilateral and multilateral Climate and Development Partnerships.

The scope of our new Africa strategy exceeds what I have stated so far. It includes resilient food systems and local value generation. We are keen on improved supply-chain standards, including in the food sector. We support social protection, access to basic healthcare and pandemic prevention. We want structural disparities in societies, particularly for women and girls, to be overcome. Moreover, we support the preconditions for development: peace and security. The BMZ's strategy is quite clear: when priorities must be set, we will not do so on our own, but involve our African and European partners.

LINK

BMZ, 2023: Shaping the future with Africa. The Africa strategy of the BMZ (also available in French)

<https://www.bmz.de/resource/blob/137602/bmz-afrika-strategie-en.pdf>



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Gotabaya Rajapaksa, then Sri Lanka's president, with China's Foreign Minister Wang Yi in Colombo in early 2022.

GLOBAL GOVERNANCE

China is different

Chinese leaders like to pretend their country is just one of many in the so-called “global south”. It is not. It belongs in a category of its own. No country exports as many goods as China. Its per-capita income is now only \$600 below the threshold of \$13,200 per year, above which it becomes a high-income country.

By Hans Dembowski

The regime in Beijing claims to be setting an example for good multilateral partnership. Its track record does not always confirm that message. Had China been more forthcoming with Covid-19 information in late 2019, the World Health Organization would have had a better chance to prevent the global pandemic. In 2016, according to Worldometer, China's annual per-capita carbon footprint is 7.4 tons – smaller than Germany's (9.4 tons), but bigger than those of G7 members Italy (5.9), Britain (5.6) and France (5.1). China's military capacity is astounding. South-East Asian governments are uncomfortable with Beijing's sabre rattling concerning the South China Sea. Worries about Taiwan are shared globally. Whether Beijing provides

Russia with weapons or not, may yet prove decisive in the Ukraine war.

China has huge foreign-exchange reserves, while many low and middle-income countries are struggling with excessive debt. Chinese institutions handed out many of the relevant loans. One reason multilateral progress on debt restructuring is so slow, however, is that China's approach to problems differs from western governments' approach. Beijing is generally unwilling to forgive loans, but generous when it comes to extending them over longer time spans. It neither insists on measures to improve the macroeconomic situation, nor coordinates its steps with other creditors. China has thus been unwilling to learn from the experience of western creditor governments in past debt crises. That matters because China has become an important creditor nation too. Its policies determine the fate of people in far-away countries.

According to the regime in Beijing, every sovereign government legitimately represents its nation, and there must not be any interference in internal affairs. Things are not that simple, however. Consider the case of over-indebted Sri Lanka. To what ex-

tent did the Rajapaksa clan that accumulated the nation's debt serve that nation? Why did a popular uprising force them out? Who is responsible for cleaning up the mess? Western leaders' focus on governance in international development affairs is not simply a symptom of arrogance. It results from the experience that sovereign governments are often dysfunctional and self-serving.

In this regard, the dictatorship of the Communist party has differed from typical authoritarian rule, which makes leaders rich while the people stay poor. China is not corruption-free, and its leaders did get rich, but the nation prospered too. Its development in recent decades has been spectacular – and more successful than what other countries that were once exploited by colonial powers achieved. For many decades, China's dictatorship was a developmental regime. Hundreds of millions of people no longer live in desperate need. Education and employment opportunities have improved, and the country's infrastructure is excellent in some fields – just consider the vast high-speed train network. Things would be even better if people enjoyed fundamental political freedoms as well.

China clearly belongs in a category of its own. We should stop using the term “global south”, because this term makes China's special role, which is very important, invisible. While the People's Republic is definitely challenging western hegemony, it is not doing so on behalf of each and every former colony. The regime is pursuing what it considers to be the national interest – which, obviously, coincides with its very own interests.

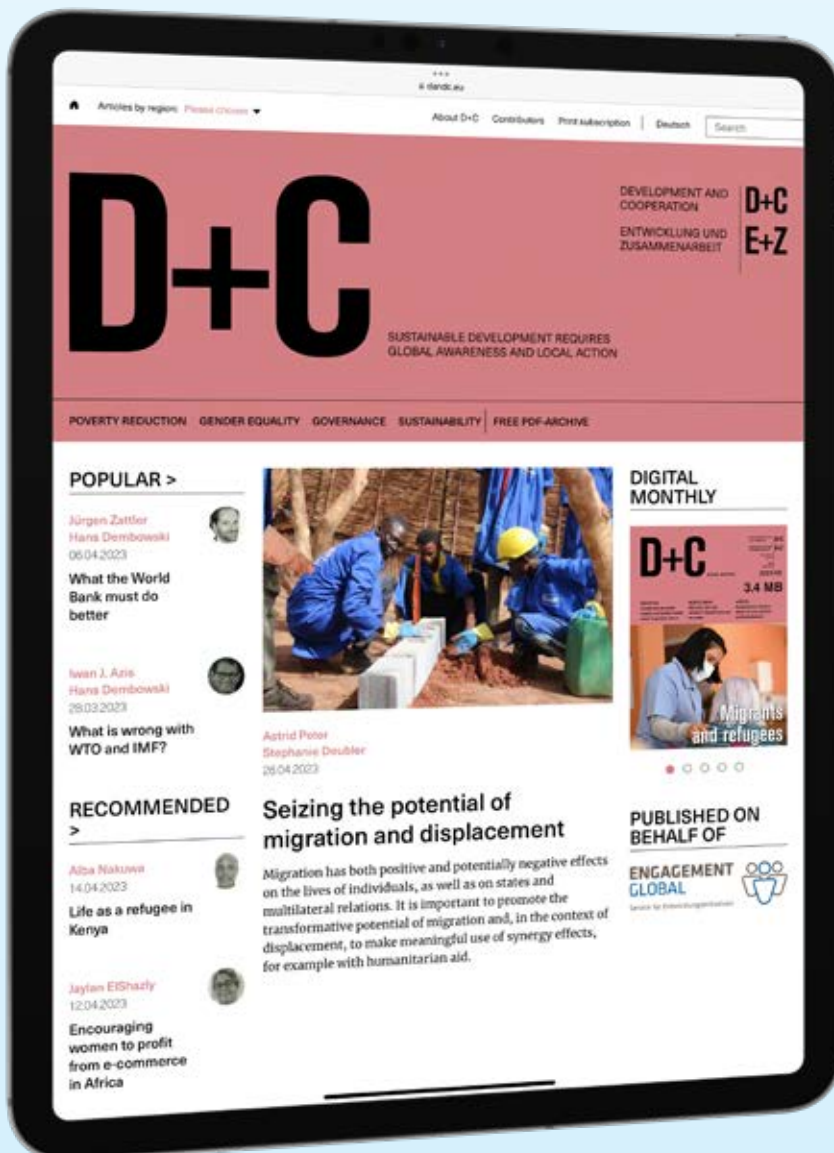
By the way, the term “global south” does not even make much sense geographically. Australia, New Zealand and Chile are three of the southern-most countries, but belong to the OECD (Organisation for Economic Cooperation and Development), the club of prosperous nations. Chile's neighbour Argentina is an upper-middle income country. Russia, however, a former colonial power that spans half the Arctic circle, is somehow not considered to belong to the global north.



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We have redesigned our website
and optimised it for mobile use.
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Informal Indonesian waste picker.

FOCUS

Managing waste

“Organised crime gangs are in control, and corruption matters very much.” **PAMELA CRUZ, P. 23**

“Nairobi River has been reduced to a trickle containing plastic bags and bottles.” **ALBA NAKUWA, P. 25**

“We believe that Moshi can be a role model and hope that others will follow our lead.” **VIANE KOMBE, P. 26**

“Illegal shipment of plastic waste has sharply increased worldwide.” **MICHAEL JEDELHAUSER, P. 28**

“India is exporting biodegradable single-use dishes made from sal leaves.” **SUPARNA BANERJEE, P. 30**

“By the end of next year, 80 % of Indonesian households are expected to enjoy regular waste collection.” **BURKHARD HINZ, P. 31**

“The observation of circular-economy rules offers enormous potential for sustainable development.” **SABINE SCHWAB AND ELLEN GUNSILIUS, P. 32**





A woman collecting usable items on a landfill on the outskirts of Mexico City in 2016.

GARBAGE

Gangland landfills

The informal sector plays a big role in Mexico's waste management. Organised crime and corruption matter very much.

By Pamela Cruz

Consumerism, urban sprawl and a fast-paced lifestyle result in the increasing use of single-use products that are discarded immediately. Buyers typically do not consider social and environmental consequences.

This trend is obvious in Mexico. The country generates around 120,000 tons of waste every day. That is an average of 0.95 kilogramme per person. According to the Ministry of the Environment and Natural Resources (SEMARNAT – Secretaría de Medio Ambiente y Recursos Naturales), not quite 31% could be recovered or reused in principle.

However, Mexico's formal infrastructure is not strong enough to manage the waste appropriately. The nation has 47 waste treatment plants which are located in 43 municipalities in 15 states. The idea is that their staff separate and select waste. However, even these plants only recover a little more than seven percent of the garbage they handle as marketable. That, at least, is what SEMARNAT and the National

Institute of Ecology and Climate Change (INECC – Instituto Nacional de Ecología y Cambio Climático) stated in a joint study in 2020, in which they assessed the state of integrated waste management.

Plastics are of particular concern. SEMARNAT reckons that per person, about 50 kilogrammes of plastics are thrown away per year and that the nation consumes 6000 tons of single-use plastics.

It is hard to tell how accurate the official numbers are, however. Though Mexico has a regulatory framework and public policy instruments for integrated waste management, authorities recognise that this is insufficient. The National Program for Waste Prevention and Management has acknowledged that it neither has an adequate infrastructure nor effective oversight mechanisms.

Adding to the difficulties, the formal waste-management system is fragmented along state and municipal borders. Generally speaking, rural areas and small towns are at a disadvantage, not least because they lack money for major investments and well-organised municipal operations.

In this scenario, the informal sector plays a decisive role, and it does not keep records. By definition, informal businesses operate without much regulation or govern-

ment oversight. Accordingly, there is no systematic quantification of how much waste is actually recycled.

Not only the true recycling figures are unknown. So is the number of people involved in informal waste management. According to the SEMARNAT/INECC study, between 500,000 and 2 million people are involved. What is known is that, at the bottom of the pyramid, entire families depend on hazardous work. Many of the scavengers remain extremely poor.

Informal waste management is a complex system that includes urban waste collectors, volunteer workers, scrap dealers and scavengers. The informal system recycles raw materials and sells them to businesses. Individuals and groups extract paper, cardboard, plastic and metals from municipal solid waste.

An irritating, though minor nuisance is that some people, who are looking for valuable items in household waste, open garbage bags and scatter what they cannot use on public streets. Such littering, however, can lead to health hazards, though other bad practices are certainly more harmful.

For example, the informal recovery of metals from electronic and electric equipment often causes hazardous pollution. People burn equipment parts without any understanding of the chemical consequences, as the National Programme for the Prevention and Management of Special Handling Waste 2022-2024 has pointed out. This kind of pollution puts human health at risk and causes damage in ecosystems. Obviously,

the poor people who do this kind of work are particularly exposed to hazards themselves.

ORGANISED CRIME

The recycling market and its value chains are vast, so a lot of money is circulating in the informal sector. Organised crime gangs are in control, and corruption matters very much. This is a common phenomenon when business activities take place in black and grey markets. Where the rule of law hardly applies, other forces hold sway.

Cartels decide who gets work in informal waste management. For example, they control who has access to landfills. One consequence is that the people who depend on sorting and collecting items on landfills are entirely at their mercy. Another is that there are only limited options for monitoring what happens on the garbage dumps.

Such information, of course, could help to improve the working conditions.

The plain truth is that many thousands of families slave away in hazardous and clandestine conditions on Mexican landfills. Child labour is common. It is culturally ingrained practice, with kids accompanying their mothers and contributing to the family income.

The nation has historically failed the people at the lowest rungs of the waste value chains. They are disadvantaged and vulnerable, forced to live in precariousness. Typically, they are people who have been marginalised in formal labour markets for decades. Many have a history of migration from poor rural areas. Some are the children of scavengers and were born on a landfill.

Government initiatives to improve matters exist, and civil-society organisations are active in this field too (see box). Some progress is being made, but it remains too slow so far. Vested interests that oppose change are only part of the problem. The

great challenge is that this is not simply about changing waste-management practices. It is also necessary to generate less waste and to make the remaining waste better reusable.

If change is to prove sustainable, it must be accompanied by broad-based participation. The whole of society must be involved. Mexico needs a comprehensive approach geared to sharing responsibility among municipal authorities, state agencies, private businesses, civil-society organisations and consumers in general.



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Small steps towards a triple goal

Various efforts are underway to improve the waste situation in Mexico. Some are made by government agencies, others by civil-society groups and private-sector companies.

Traditionally, Mexicans used to repair torn garments or utensils. It was also common to reuse bags and packaging. Mexico City had to pass legislation to ban the delivery, marketing and distribution of single-use plastic items. The idea was to return to the more environmentally friendly practices of the past. The ban ran into resistance from plastic producers as well as street-food vendors. Accordingly, the authorities started awareness-raising campaigns among street vendors, restaurants and informal businesses. They also reached out to the *tianguis* – a kind of flea market. Experience shows that

it is important to tell people again and again why single-use plastics are harmful.

A hot international topic is that supposedly long-lasting consumer goods are hardly repaired anymore. Mobile phones are an example. Manufacturers prefer selling new devices, so they produce their goods in ways that are hard to repair and charge high fees for repair services. Mexico is taking action in the matter. A reform of consumer-protection legislation is pending in the Senate. It is designed to oblige companies and suppliers to provide affordable repair services. Moreover, legislation is being prepared to improve the safety and durability of batteries, electric utensils and electronic devices.

Some initiatives aspire to improve the situation of informal garbage recyclers – which

typically means organising their work in a more formal way. One example is *Bahía Circular*, a project run by *Entreamigos*, a community-based not-for-profit organisation, in a bay area of Nayarit State. The underlying idea is to establish a circular economy in which all waste is ultimately reused.

The project supports a network of about 90 waste collectors from low-income communities. They operate in semi-rural areas which previously lacked proper waste management. *Entreamigos* supplied collectors with boots, gloves and other protective equipment. The NGO explained what different kinds of garbage

exist, what risks they imply and how to handle them safely. Capacity building also related to using digital devices and financial management. The projects’ triple aspiration is to formalise livelihoods, improve the standard of life and improve waste management.

To involve local businesses in the project, *Entreamigos* introduced “circular credits”. Using them to pay waste-management service helps to monitor operations and builds long-term relations.

Sarape Circulab is a social enterprise that is involved in similar waste-collection and other environmental projects. It is skills-oriented, training informal recyclers in things like resource management, personal finance, savings, food, health and safety. Quality-control issues are high on the agenda – workers are taught to keep records of what goes in and out of landfills as well as to recognise market trends. PC



MEGACITY

Nairobi's struggle with waste

For some time now, Kenya's capital and its huge metropolitan area have been engaged in an internal battle against waste. There is hope that the struggle will eventually be won.

By Alba Nakuwa

Greater Nairobi is one of the fastest growing urban areas in Africa. It has expanded to include parts of four counties (Kiambu, Kajijado, Machakos and Murang'a) adjacent to the capital, which together form the Nairobi metropolitan area. It is estimated that around 10.8 million people lived in the area in 2022. Rubbish is increasing proportionally with the population, exacerbating an old problem in the Kenyan capital. According to the World Bank, 2000 to 4000 tonnes of solid waste are generated daily in the Nairobi metropolitan area, disposed of by residents, industry and commerce.

The Nairobi Metropolitan Services (NMS) is at the forefront of the battle against these volumes of waste. This entity was launched in 2020 to make improvements and find lasting solutions that would help tackle some of the problems the city has been facing over the past decades.

Uhuru Kenyatta, then Kenyan president, apparently pinched words from another former president and introduced the slogan "making the city great again". He wanted to engage the responsible Nairobi citizen along with the NMS. Related campaigns should promote good environmental practices both at home and at the workplace.

More tangible measures were groundbreaking for Nairobi – for instance the introduction of door-to-door garbage collection by truck and subsequent disposal on various landfills. In addition, litter bins have been placed in most urban areas and street sweepers have been hired. They work both day and night shifts for a cleaner environment.

Although the new national government under President William Ruto has been vocal in its condemnation of many of the measures taken by the previous government, it has kept the NMS. The agency is

cooperating closely with the capital region's new governor Johnson Sakaja. Ruto's government is continuing on the path of the previous government, advocating recycling and an end to plastic pollution.

Despite the constant efforts of the authorities, any visitor will still witness people throwing their rubbish on the roadside and into the gutters of the metropolitan area. Nairobi River has basically been reduced to a trickle containing plastic bags and bottles.

What makes waste management difficult is the sheer number of people living close together in the numerous slum areas in and around Nairobi. The rubbish dumps of Kangoki and Dandora are notorious – and serve as a workplace for countless informal waste collectors.

It seems that the Nairobi agglomeration depends on people like Joseph Kirimi to become "great again". Kirimi is a community organiser in Juja, a typical suburban town on the outskirts of the metropolitan area.

Kirimi works closely with the Juja sub-county government to ensure that rubbish collected from households and on the streets is diverted from landfills by waste

dealers who are responsible for the disposal and recycling of certain waste such as bottles. There are now many companies all over Kenya that earn their money this way.

Kirimi views his volunteer work as a patriotic act. "It is everyone's responsibility to ensure that the waste they generate is disposed of in a timely and proper manner," he says. He adds that, in Juja and other constituencies, every household is entitled to at least five to ten plastic bags every month for their waste, which is then usually collected during the week. Unfortunately, this does not apply to numerous informal settlements.

From time to time, district offices educate citizens about the importance of participating in waste collection and recycling. Local schools and community-based organisations organise workshops and litter clean-up days, mobilising young people in particular to collect waste in their area.

Kirimi says he sees a gradual change in people's mindsets: "Relevant actions are on the rise. People are recognising the urgency of the issue. I am very confident that we are on the right track in the metropolitan region."



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Informal waste pickers at work in the Dandora dumpsite. Nairobi's waste management still depends heavily on them.



David Kimaro, responsible for the Moshi composting project, gives Tübingen's Mayor Boris Palmer and his delegation a guided tour of the composting plant.

COMPOSTING

Joint mission to manage waste

Moshi in Tanzania and Tübingen in Germany are twin towns. Their cooperation includes a climate partnership, which was forged with the help of Engagement Global's Service Agency Communities in One World (SKEW). Together, the municipal governments have set up a composting plant in Moshi. The plant has a strong reputation throughout Tanzania.

Viane Kombe, David Kimaro and Stephan Klingebiel interviewed by Katharina Wilhelm Otieno

When did your joint project start?

Stephan Klingebiel: The project was officially launched in 2018 and completed in 2020, but we continue to support the facility. We teamed up under the SKEW Municipal Climate Partnerships initiative, initially with the idea of building a biogas plant – because it was clear from an early stage that a project for waste management and recycling was needed. Like many communities, Moshi has a waste problem, partly because waste from households is mixed. But the biogas project proved too complex. After reciprocal visits in 2017, we made a joint decision to build

a composting plant instead. The project was financed with support from the SKEW Fund for Small-Scale Projects. We have been twin towns since 2014.

How exactly does the composting plant work?

Klingebiel: At first, we paid a person to supervise the separation of organic waste from the rest of the garbage collected at two Moshi markets. Today, that's no longer necessary – the vendors know how to separate the waste. Organic waste is deposited on a concrete surface and mixed with shrubs to add structure. Three machines were jointly purchased for the project. The first is a shredder, to shred and mix the organic waste and green material. The material is then naturally hygienised and kept at temperatures of 45 to 60 degrees Celsius. This ensures that microbiological activities promote the decomposition of organic matter. The most important tasks in this phase are turning the material with another machine, a mechanical turner, and constant watering. After 12 weeks, the maturation of the compost is complete, and it enters the third

machine – the sifting machine – where it is sieved.

David Kimaro: The plant is located about 18 kilometres from the city centre and produces around 12 to 15 tonnes of compost in a month. During the composting process, the compost is repeatedly turned, watered and, above all, its temperature is checked. The process can take up to twelve weeks. Nothing but organic waste goes into it; we do not work with chemicals. Organic residues from sieving are recycled for the next process. Finally, the finished compost is packaged and sold mainly to small farmers in the region. We receive enquiries from international farms, but we cannot always handle their large orders. Demand is very high.

How does your waste partnership work? Who plays what role in the project?

Viane Kombe: We have been working with SKEW since 2010. We were involved in the pilot phase of the "50 Municipal Climate Partnerships by 2015" project. From the outset, the German partners' role has been about capacity building and knowledge exchange on emissions reduction, as well as ensuring technical and financial support.

Klingebiel: My direct contact in Moshi, who is responsible for the municipality's international relations, takes care of the coordination of joint ideas and projects. As far as the composting plant is concerned, we from Tübingen of course continue to support where necessary, but Moshi now runs the plant alone and is also responsible for the maintenance costs, which can meanwhile be covered from the sale of compost. The plant was also constructed by the municipality of Moshi. We only had a German engineer on site once, at the very beginning, to run a training programme. Composting is not widely practised in Tanzania; there is only one other plant in Dar es Salaam.

What are the main achievements of the project?

Kombe: The important thing for us is that it enables us as a municipality to help mitigate climate change. The project has received a great deal of national and international attention. We already had visits from three ministers. We believe that Moshi can be a role model and hope that others will follow our lead.

Klingebiel: We are also very pleased about the general – and media – attention that the plant has attracted. What is more, it has strengthened our bond as twin towns. It was the first project to be launched on this scale and has worked very well. We are also proud of the fact that, three years on from the official end of the project, the plant is still operating smoothly, without hitches or downtime, and it is a major asset for Moshi.

What were the biggest obstacles faced?

Kombe: Initially, people working in the market were unaware of the value of waste. So, not everyone saw the point of the project straight away. But that soon changed after the project started up, and a number of meetings had been held. Now, there is a very high level of acceptance for the facility. However, there are always a few people collecting waste and selling it as animal feed or fertiliser.

Klingebiel: We did not want to take away work from informal garbage collectors, of course. At the outset, we didn't realise that they collected such a large amount of organic waste, so we planned for a greater volume of waste than was available. We now hope to be able to compost more waste from other markets in the future, in order to fully utilise the capacity of the plant, but at the same time to ensure that the informal waste pickers can continue their work and that they do not lose their livelihood because of us.

What were the most important insights and lessons learned?

Klingebiel: Good preparation and cooperation are very important. Projects like this work only if they are really needed. The initially planned biogas project did not materialise because the partners in Moshi did not really see the point. Of course, most poor communities don't say no when rich cities approach them with project proposals, but if you listen very carefully on the ground, you find out what is really needed.

Kombe: Through SKEW we learned to implement and carry forward projects confidently and independently – as long as they fit into the organisational structures of our municipality.

What has the project done for sustainability and environmental protection in Moshi?

Kimaro: We have already produced 210 tonnes of compost. We have thus prevented organic waste from damaging soil

and groundwater and from producing methane – a gas much more harmful to the environment than carbon dioxide. The compost also benefits local farmers.

Klingebiel: Garbage is dumped in Moshi at a landfill. The landfill is very expensive – it is financed by the World Bank, but the money needs to be repaid. The dump is full after about five years, which means that a new expensive dump would have to be built every five years. The alternative is that waste gets dumped in the landscape. Our composting plant removes and recycles a considerable amount of that waste, so the landfills no longer fill up so quickly.

What advice would you give to other municipalities wishing to implement similar projects?

Klingebiel: We felt it was important to gather information on the ground, so we started by applying to SKEW for a small €10,000 project to finance reciprocal trips for experts and municipal representatives. This preparatory phase is very important. Also, every aspect and step need to be closely scrutinised. We came to realise, for example, that we need to hold ongoing workshops at the markets to include new vendors.

Kombe: It is important to create awareness for the project within the community or target group. What is more, it is vital that you choose the right location, especially if you are making compost; otherwise, if a particular market sells only a small range of crops, you may have seasonal gaps in income. Building the plant next to the landfill site

also has lots of advantages. For example, it has enabled us to use the landfill's scales and front loaders.

What are your plans for the future?

Kombe: As far as the composting plant is concerned, we would like to access more waste resources to make full use of the plant's capacity. We are already talking to a neighbouring municipality to get more waste from them.

Klingebiel: A delegation from Moshi, including David Kimaro and the mayor of the city, will visit us in Tübingen in May. We will then discuss existing projects as well as new ones. There are plans, for example, for us to cooperate on solar energy.



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The plant's compost benefits local farmers.



The Agbogbloshie landfill in Ghana provides income for many people.

GARBAGE EXPORTS

Waste colonialism

Industrialised countries not only outsource a majority of their often environmentally hazardous production processes to poorer countries, they also dispose of considerable amounts of waste there. The consequences are disastrous for the affected regions – and for the whole world.

By Michael Jedelhauser

Part of Europe’s electronic waste lies at the huge Agbogbloshie electronic-waste dump in Ghana. Fires are burning everywhere, sending toxic fumes over mountains of old refrigerators, computers and televisions. “Toxic city” is the name given to the dump that covers 16 square kilometres in Ghana’s capital Accra. An estimated 40,000 people live here.

The fact that it is known that most of the waste is exported from rich countries is largely due to the work of civil-society organisations, which have drawn increasing attention to the issue in recent years. In addition to e-waste, plastic waste is a particular focus.

In target countries, the waste is by no means always recycled, but all too often

burned, landfilled or dumped. These practices cause harmful emissions, pollute the water and the soil and leave plastic traces in the entire environment. Various tests of soil and water that Greenpeace has conducted in Turkey have shown how the illegal land-filling and burning of plastic waste from the EU leads to excessive concentrations of substances that are very hazardous to health, such as chlorinated dioxins and heavy metals.

The export of plastic waste is not objectionable in itself. It can certainly be part of regional waste management in border areas. Smaller countries also do not always have access to the entire range of the necessary sorting and recycling facilities and are therefore dependent on exports.

If, however, target countries have lower waste-disposal standards and less developed infrastructure, the risk of improper disposal increases. In these cases, country organisations and multilateral institutions must regulate the shipment of plastic waste more strictly and prohibit export to poorer countries.

The EU, among others, has done too little in this regard. For many years, China

was the main recipient of its plastic waste. Since the country largely closed its borders to plastic waste in 2018, however, more waste has remained in Europe, and exports have shifted to Southeast Asia and Turkey.

In 2022, the EU exported 1.1 million tonnes of plastic waste to non-EU countries. Every day over 3 million kilogrammes of plastic waste leave the EU – 31% goes to Turkey, 16% to Malaysia, 13% to Indonesia and nine percent to Vietnam. Great Britain, Australia, Japan and the USA also ship waste to poorer countries.

In addition to these legal waste exports, which are recorded in official statistics, waste is also taken abroad illegally. Reliable estimates of the scale of illegal exports are hardly possible and largely restricted to spot checks on roads and at ports. According to Interpol, however, illegal shipment of plastic waste has sharply increased worldwide as a result of China’s import restrictions.

A PRACTICE THAT HARMS HUMANS AND NATURE

According to available information, it is mostly commercial plastic waste that is exported to countries outside the EU. However, this field is not very transparent. It lacks monitoring and accountability on the part of waste producers. Besides, intermediaries are often used in waste shipment, which makes exports even harder to trace. It

is almost impossible to identify the people responsible for improper or illegal disposal.

The motives of exporting companies vary. To some extent, exports are necessary if the country of origin lacks sufficient recycling capacity. Waste is also exported to save money, however. This is particularly true of plastic waste, which cannot be profitably brought to the recycling market, but instead must be disposed of at the waste generator's expense.

But even when waste is brought to a recycling facility, the whole input can never be fully salvaged there. Scrap material remains, which then must be disposed of at additional cost. If the recycling facility is located in a country with an underdeveloped disposal infrastructure, there is a high risk that these leftovers will end up in nature or be burnt uncontrolled.

The goal of illegal waste shipment is first and foremost to avoid disposal costs, for instance for incineration. For that reason, waste is purposely falsely declared or hidden in the back of shipping containers.

The European waste sector frequently maintains that these illegal exports are solely responsible for the improper disposal of waste abroad and that stopping this practice will simply require greater monitoring. However, this assessment falls short, because it is also the legal exports that often end up not being fully recycled due to inadequate certification systems at the foreign recycling facilities and a lack of responsibilities and tracking in the destination countries. These systemic deficiencies can-

not be overcome by expanding monitoring alone; instead, they demonstrate the need for stricter regulations on waste export.

The "Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal" regulates the export of waste as an international environmental agreement. It has so far been signed by over 180 countries and, since 2019, also contains stricter requirements for the shipment of plastic waste. The EU has adopted some of these regulations. They have been in effect since 1 January 2021 as part of the EU's waste shipment regulation, which forbids the export of unsorted plastic waste from the EU to countries that are not members of the EU or the OECD. The export of mixtures of various plastics into countries like Malaysia or Indonesia is therefore restricted.

RULES FALL SHORT

However, exports to OECD countries such as Turkey remain permitted. What's more, sorted plastic waste can still be exported to any country in the world, provided that the exporting and importing countries agree and that the waste is not classified as hazardous. It's obvious that existing regulations are not enough to prevent the EU from continuing to outsource part of its plastic waste problem.

Against this backdrop, a tightening of the EU's waste shipment regulation is currently being discussed. In December 2022, the EU Parliament declared its support for a general ban on the export of plastic waste

to non-EU countries. This is a welcome decision. It's still unclear, however, how member states will position themselves on this issue in the Council of the EU. There are fears that some countries are more likely to go along with the EU Commission's proposal, which only wants to ban exports to non-OECD countries. Exporting to Turkey would then still be possible.

Furthermore, the question remains to what extent waste shipment within the EU would be more strictly regulated. The present draft of the regulation envisages easing restrictions on the intra-EU export of certain plastics like PVC or PTFE ("Teflon"), which contradicts the Basel Convention. If the EU were to deviate from the global agreement in this regard, it would set an undesirable precedent that other regions could follow. In order not to reduce the effectiveness of the Basel Convention, the EU must adhere to the rules that were agreed on within the global governance regime.

There is also a need for transparent systems with publicly accessible information on all exports and their recycling in the destination country. Digital systems could contribute to better monitoring. Recycling facilities must be regularly subjected to an independent audit. In order to prevent illegal exports, more checks are needed on roads and at ports, for example.

Stricter regulations would have positive effects in both exporting and importing countries. In the latter, they would reduce the disastrous ecological and social consequences associated with the import of plastic waste. Importing countries' local recycling capacities would also not be taken up by waste from abroad. In exporting countries, on the other hand, there would be greater pressure to prevent waste and expand recycling structures.

It would be an opportunity to establish a global circular economy in which external costs are no longer outsourced to economically disadvantaged countries. The global community must seize this opportunity if it wants to avoid further exacerbating the climate and biodiversity crisis through its waste.



Plastic waste at a river in Kuala Lumpur, Malaysia.



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SAFE DISPOSAL

Biodegradable items

Given that single-use plastic items cause serious environmental problems, organic alternatives are needed. Sal leaves are an option. Sal-leaf tableware is a South Asian tradition, the potential of which has not been fully tapped yet.

By Suparna Banerjee

As their name suggests, single-use plastics are used once or at least only for a short period of time. They are discarded fast, but they do not biodegrade. All too often, they litter the environment in the long term. If they end up in landfills or incinerators, they cause problems too, with microplastics contaminating water, air and soils. Moreover, incineration causes greenhouse gas emissions. Recycling, however, is very difficult because there are very many different kinds of plastic. If they are mixed, the quality deteriorates.

Plastic waste is a global justice problem, moreover. According to the UN Environment Programme (UNEP), related hazards especially affect vulnerable, low-income communities in developing countries.

Awareness of the issue is growing. Accordingly, plastic bags have been banned in

many places. Nonetheless, the Minderoo Foundation, an Australian philanthropic institution, reckons that 139 million metric tons of single-use plastic waste was produced in 2021, which was 6 million metric tons more than in 2019.

It is true, of course, that some kinds of single-use plastic items are hard to replace. Surgical gloves are an example. However, they only make up a tiny fraction of plastic waste. It is urgently necessary to replace all other plastic items with biodegradable alternatives. The search is on internationally.

One option is to use the leaves of the sal tree (*shorea robusta*). This plant grows in India, Bangladesh, Nepal, Bhutan and Tibet. The leaves have been part of South Asian cultures and religious traditions for a long time.

Before plastic bags were invented by Swedish engineer Sten Gustaf Thulin, the leaves were used to pack food items, including raw meat or fish. In rural areas, that is still done.

Moreover, the leaves can be stitched together to make plates and bowls. This kind of tableware is quite popular in some South Asian regions – and where that is the

case, plastic waste problems have been kept in check to some extent. Fast-food vendors, kiosks and hotels sell meals on sal-leaf dishes. Moreover, India is now exporting biodegradable single-use dishes made from sal leaves. They are even marketed by Amazon in some high-income countries.

Other items can be made from these leaves too. All of them can be thrown away without worrying about long-term environmental impacts. Indeed, it is possible to feed them to goats and cows.

The plant also has medicinal value. Its bark and leaves are used to treat ulcers, leprosy, cough and diarrhoea, for example.

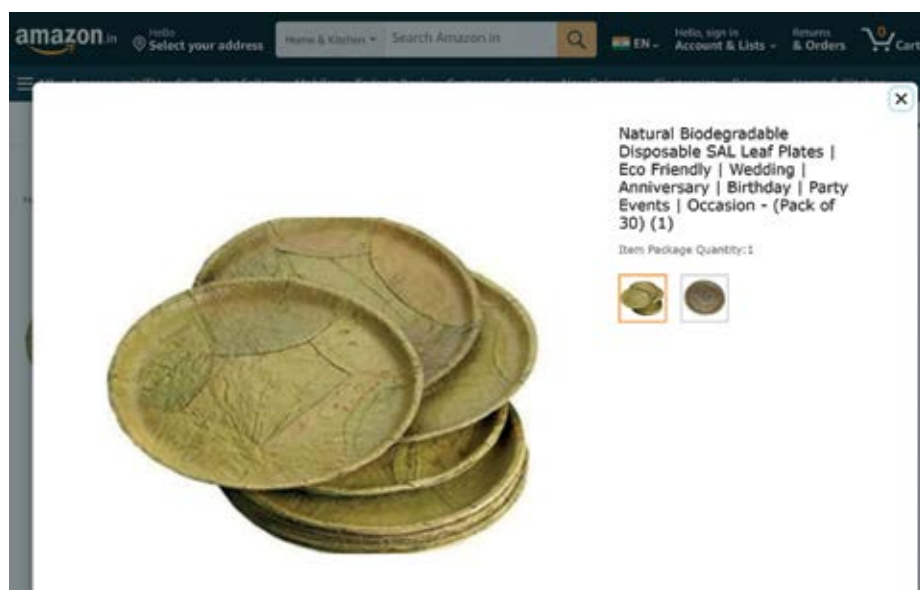
Small-scale businesses based on sal leaves make a difference in poor people's lives. Collection, processing and the sale of goods provide livelihoods to marginalised Adivasi communities in Indian states like West Bengal, Jharkhand and Chhattisgarh. Indeed, some of them consider the plant to be sacred.

While items used to be stitched by hand, machines serve that purpose today. Sal-leaf related industries are no longer only an informal and micro-scale industry as larger factories have been emerging too. State agencies promote this kind of tableware as an environment-friendly option.

However, there is scope for expanding this sector further.

Research and development could lead to more “sophisticated” goods in the future. For example, sal-leaf dishes could be made safe for micro-wave ovens. Moreover, it might make sense to replace glass utensils in hospitals or hotels, because cleaning them requires a lot of electricity and water for giant dishwashers. Sal-leaf alternatives would be at least as hygienic. One challenge is to further change attitudes as the traditional dishes are still considered somewhat spartan and uncultivated, so fancy restaurants hardly use them at all.

Modernisation need not mean replacing traditions. It makes just as much sense to build on traditions in ways that fully tap their potential. The traditions of indigenous communities do not harm the environment – so they deserve particular attention.



Distributed by Amazon: sal-leaf plates.



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Vacation on a plastic beach: trash washed up on Bali.

TRANSFORMATIVE AGENDA

Plastic bags in a whale's belly

Sustainable waste disposal has hardly been a priority in Indonesia, even though the country must manage the garbage generated by 280 million people. The island nation's waste all too often ends up in the ocean. Ambitious new plans, however, are geared to creating a circular economy which recycles all waste.

By Burkhard Hinz

Indonesia, the largest archipelago in the world, has a fascinating underwater world. But even in maritime national parks, it has become impossible to miss plastic floating in the water. In view of the huge challenges Indonesia's waste management faces, this is hardly surprising. The World Bank reckons that, with a population of almost 280 million, the country generated around 70 million tonnes of waste in 2022. Half of the

people live in cities and dispose of an estimated 150,000 tonnes per day. Jakarta, the capital, alone generates around 7500 tonnes of household waste daily.

According to the World Bank, regular waste collection only serves about 60% of urban households. In rural areas, the figure tends towards zero. The implication is that about half of the waste is burnt and about 14% is disposed of in water bodies and open dumps, according to the Indonesian Ministry of Health. Municipal budgets show that proper waste disposal is not appreciated much. They earmark only 0.7% of total expenditures for this purpose.

Plastic waste accounts for up to 6.8 million tonnes of Indonesian waste per year, according to the World Economic Forum, and about 620,000 tonnes end up in the ocean. It typically pollutes large rivers

that flow into the sea. Through fish and whales, plastic also makes its way through the food chain. For example, 115 plastic cups, 25 plastic bags, four plastic bottles and two plastic sandals were found in the stomach of a sperm whale that died near Bali in 2018. No doubt, the increasingly obvious litter is harming the country's distinctive tourism sector.

The government of President Joko Widodo has started to take steps to improve waste management with better infrastructure and services. The aspiration is a paradigm shift from largely unorganised disposal to a circular economy. The guiding principle is "3R", the tried and tested triad of waste avoidance: reduce, reuse and recycle.

By the end of next year, some 80% of Indonesian households are expected to enjoy regular waste collection, according to the national targets. In 2025, the share is supposed to rise to 100%. At the same time, the volume of waste is to be reduced by 30% and marine litter even by 70%.

Indonesia's ambitious goals are to be achieved primarily with funding at the

municipal and regional level. At the same time, measures are designed to cover costs in the long run. They include waste tariffs that must be both appropriate and socially acceptable, as well as subsidies and private sector involvement. Furthermore, awareness raising is needed to promote behavioural change.

Indonesia has made some initial progress towards the targets, even though they may be unrealistic in many parts. For instance, 72 cities and districts have passed directives to limit the single use of plastic products. Larger municipalities are planning incineration plants. The first two facilities for producing refuse-derived fuel are operational. They can burn up to 2150 tonnes of waste per day. Marine pollution was reduced by about 15% by 2020, according to the government. Nonetheless, plastic waste in the ocean remains a significant problem.

President Widodo has repeatedly emphasised he wants to move on to a circular economy fast. In a speech delivered at the opening of a mechanical-biological waste

treatment plant in 2023, he stated that all subnational governments should take this labour-intensive approach.

Four regulated landfills are setting the right example. They were financed by KfW on behalf of Germany's Federal Government. Thanks to components like sealed landfill bodies, drainage, leachate purification, composting, sorting as well as gas collection and usage, the standards they meet are comparable to those enforced in the EU. They could reduce greenhouse gases by about an annual 450,000 tons if combined with coverage and gas collection on previously used landfills.

RELIGIOUS LEADERS PREACH ENVIRONMENTAL AWARENESS

For decades, the waste of a nation with now 280 million people was not disposed of adequately. Change requires a holistic policy and collective rethinking. Multi-stakeholder working groups could provide additional impetus, with an eye to entrenching proper waste management more firmly in society

and politics. They are likely to come up with new solutions, moreover. A good early step was to convince religious leaders of these issues. Many of them are now addressing waste and hygiene in their sermons, promoting environmental awareness and personal responsibility.

In the meantime, KfW is currently cooperating with other banks on a major policy-based loan that will allow Indonesia to tackle marine pollution in a meaningful way. The loan will only be disbursed once the government has implemented the jointly defined reforms. Focus areas include waste management, especially in regard to small islands and coastal regions. The programme includes measures that would reduce plastic packaging and facilitate improved data collection.



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WASTE MANAGEMENT

How to make the economy sustainable

Establishing a circular economy is a key strategy for achieving sustainability goals. The basic idea is to reuse all waste. The full potential has yet to be tapped. It will also help to raise living standards.

By Sabine Schwab and Ellen Gunsilius

A successful transition to a circular economy requires more commitment and investment from business, policymakers, research and civil society. Policymakers and business increasingly recognise the economic risks inherent in the present linear economy and are working to align supply chains and business models with a circular economy in

sectors such as industry, agriculture, construction and energy. Nevertheless, waste volumes keep growing – and so does demand for natural resources.

According to the World Bank, 2 billion tonnes of so-called municipal waste are generated worldwide every year, and the figure could be 70% higher by 2050 – at 3.4 billion tonnes. Municipal waste does not include waste generated by large companies. The UN World Food Programme estimates that an additional 1.3 billion tonnes of food are wasted every year. At the same time, less than 10% of raw materials which waste contains is recycled. Vast amounts of valuable materials are thus simply discarded.

The pollution caused by municipal waste poses a threat to biodiversity, human health and major economic sectors. Improper waste disposal carries high costs for a nation's economy. Municipalities, which are mostly responsible for waste management and recycling, are often overburdened with these tasks.

This is one of the reasons why, according to various estimates, at least 15 million people worldwide informally collect recyclable garbage items. Those waste pickers are not sufficiently integrated into the formal waste-management system. They have no secure income, no work safety, no health insurance and are often victims of discrimination.

According to the UN, growing mountains of waste are one of the four main problems that stand in the way of achieving the Sustainable Development Goals (SDGs). Waste management currently accounts for about 1.6 billion tonnes of climate-damaging greenhouse gases, or about five percent of global greenhouse-gas emissions, according to a World Bank study. Unless corrective ac-

tion is taken, those emissions could grow to 2.6 gigatonnes by 2050.

As a federal enterprise for international cooperation, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is committed to boosting circular economy approaches in collaboration with partners in lower-income countries and promotes cooperation between governments, businesses, civil society and consumers. One important goal is to speed up the transformation of the waste sector from a waste-disposal service to a sustainable resource-management system.

However, circular economy is more than just waste management for GIZ; it also includes the environmentally friendly extraction and recycling of resources, product design with a focus on efficient use of non-fossil or recycled materials, reparability, resource-efficient production, new business models such as leasing instead of buying products or sharing models as well as reuse and refill systems.

INVOLVING THE INFORMAL SECTOR

GIZ advises on the development of prevention and recovery concepts as well as waste management strategies. It organises trainings on logistics, treatment and storage and promotes private-sector participation as well as informal-sector integration in waste collection and recycling.

Another goal is to protect the environment and create employment opportunities by harnessing resource-efficient circular economy solutions. For example, organisational and contractual models are developed with partners to encourage the integration of informal workers.

GIZ also promotes citizen participation and raises awareness of consumption options that avoid waste. Examples include the use of reusable rather than disposable products or alternatives to plastic bags.

In East and Southeast Asia, GIZ worked from 2019 to 2022 on developing and implementing models for resource-efficient production and sustainable consumption of plastic on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the EU. Among other things, it organised policy dialogues, financed pilot projects and engaged in awareness-raising campaigns to reduce marine pollution there.

Knowledge-sharing is also important. GIZ arranges contacts with German and international circular economy companies and thus promotes technology cooperation. It also advises on initiatives and funding

to sharpening the focus on circular economy measures in national climate plans and international climate discussions.

The observation of circular-economy rules offers enormous potential for sustain-



An informal waste picker in Puerto Carreño, Colombia. Many marginalised groups such as indigenous peoples earn their living like this.

instruments for new technologies and sustainable business models.

Measures in the waste-management sector are increasingly combined with change processes in manufacturing. In Colombia, for instance, GIZ on behalf of BMZ has worked with municipal authorities to develop programmes that increase recycling and has identified new business models for waste collection and plastic recycling with companies, while informal waste collectors receive training and support in formalisation. In parallel, innovative circular economy approaches are supported at companies in the textile, packaging and household appliance sectors.

Waste avoidance, waste recovery, use of recycled materials and energy production from waste reduce greenhouse-gas emissions. For this reason, GIZ is also committed

able development. If governments, businesses and civil society work closely together, it will be possible to combat the climate crisis, create employment and strengthen the economy.



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African health-care professionals protest against poor working conditions. Many of them are moving abroad.

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Photo: picture-alliance/AA/Heenan Heffieje