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Information and criticism on reproductive and genetic engineering

ENGLISH-LANGUAGE DOSSIER 2024: DEVELOPMENT COOPERATION

DEVELOPMENT COOPERATION

AS LABORATORY

BIOTECHNOLOGIES IN

THE GLOBAL SOUTH

Biotechnologies, genetic engineering and reproductive technologies are historically connected to so-called development. How are colonial power structures and conflicts of interest perpetuated in international cooperations between research, politics and corporations? And when do these continuities become problematic?



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LIST OF ABBREVIATIONS

AA Foreign Office (Auswärtiges Amt)

AATF African Agricultural Technology Foundation

AGRA Alliance for a Green Revolution in Africa

AIDS Acquired Immunodeficiency Syndrome

AU African Union

AUDA-NEPAD AU Development Agency – New Partnership for Africa's Development

BGR Federal Institute for Geosciences and Natural Resources (Bundesanstalt für Geowissenschaften und Rohstoffe)

BMGF Bill and Melinda Gates Foundation

BMZ Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung)

CBD Convention on Biological Diversity
CDU Christian Democratic Union
CPB Cartagena Protocol on Biosafety

CRISPR Clustered Regularly Interspaced Short Palindromic Repeats

CSO Civil Society Organisation
CSU Christian Social Union
CYP Couple-Years of Protection

DARPA Defense Advanced Research Projects Agency

DC Development Cooperation

ECHO Evidence for Contraceptive Options and HIV Outcomes

ECOWAS Economic Community of West African States

EU European Union FP 2020 Family Planning 2020 FP 2030 Family Planning 2030

GAVI Vaccine Alliance, former Global Alliance for Vaccines and Immunisation

GDO Gene Drive Organisms
GE Genetic / Genome Engineering

GeN Gen-ethical Network

GIZ Society for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit)

GM Gentically Modified
GTAI Germany Trade & Invest
HIV Human Immunodeficiency Virus

KfW Reconstruction Credit Institute (Kreditanstalt für Wiederaufbau)

LDC Least Developed Countries
NGT New Genomic Techniques
ODA Official Development Aid

OECD Organisation for Economic Cooperation and Development

PNLP National Program for the Fight Against Malaria

PTB Federal Physical and Technical Institute (Physikalisch-technische Bundesanstalt)

R&D Research & Development UN United Nations

UNCST Uganda National Council for Science and Technology

UNFPA United Nations Population Fund
USA / US United States of America
UVRI Uganda Virus Research Institute
WHO World Health Organisation



THE GLOBAL SOUTH

AS LABORATORY

BIOTECHNOLOGIES IN DEVELOPMENT COOPERATION



Biotechnologies, genetic engineering and reproductive technologies are historically connected to so-called development. How are colonial power structures and conflicts of interest perpetuated in international cooperations between research, politics and corporations? And when do these continuities become problematic?

By Janina Johannsen, employee at GeN and editorial manager of GID magazine.

After plans for the German 2024 federal budget were published, media reports spoke of record investments – a total of 70.5 billion euro has been budgeted, including 4.8 billion euro for education and research, 16.3 billion euro for rail infrastructure, 15.6 billion euro for defence and 1.4 billion euro for the environment and na-

ture conservation. However, these record investments are not made in all departments: Drastic cuts have been made in development cooperation (DC) and humanitarian aid. The budget of the Federal Ministry for Economic Cooperation and Development (BMZ) will be cut by almost ten percent (minus 940 million euro) compared to 2023 and the budget for humanitarian aid will be reduced by almost 20 percent (minus 500 million euro).(1) The medium-term financial plan from 2025 on stipulates further cuts in the billions. On the one hand, these plans elicit concern and harsh criticism, but on the other hand the current debate also resurfaces the question whether international development cooperation makes sense in the first

place. This dossier will not deal with the fundamental question if development cooperation is effective or reasonable in principle. However, some of the ambivalent connections and problematic aspects in the context of biotechnologies will be highlighted and discussed.

What's driving Development Cooperation?

"Development cooperation (DC) is tasked with giving people the freedom to shape their lives in a self-determined and self-reliant manner without material hardship and to enable their children to have a good future. [...] It promotes a socially just, ecologically viable and thus sustainable shaping of globalisation," according to the description on the BMZ website.(2) The ministry is primarily responsible for long-term strategies, but also for transitional aid on a structural level in development cooperation. During acute crises, the Federal Foreign Office (Auswärtiges Amt, AA) is primarily responsible for humanitarian aid. However, the work of the two ministries always goes hand in hand.

The Gen-ethical Network (GeN) has been criticising the entanglements between the profit interests of large corporations and development cooperation repeatedly over many years.

From a German perspective, development cooperation is always also security policy. Although political conflicts or even wars are not necessarily resolved through development cooperation, and neither civilian nor military involvement is a guarantee of security, Germany wants to have its say and gain influence – also and perhaps espe-

cially in countries of the Global South. The ultimate goal of development policy is to change and improve living conditions. To this end, dialogues are sought with governments and institutions in countries with ongoing armed conflicts or autocratic governments. However, reputation and a certain status in the international context plays a role as well.

Looking at long-term development cooperation, the question which topics should or should not be focussed on keeps reappearing: for example, should less investment go into poverty reduction and more into climate protection? At times, development cooperation worldwide addresses many issues simultaneously without a specific focus. But if, as it is the case in the 2024

federal budget, funding is cut, there will have to be restrictions in certain areas of work sooner or later. These are the moments when the influence of other, private donors, such as civil society organisations, large foundations and corporations, becomes more evident.

The Gen-ethical Network (GeN) has been criticising the entanglements between the profit interests of large corporations and development cooperation repeatedly over many years. Here is an excerpt from a GeN press release from 26th May 2015 on the topic of population policy: "Non-governmental organisations and a university department in Kassel are protesting against the fact that the pharmaceutical company Bayer HealthCare is using the revival of population policy in development cooperation to massively promote the distribution of the Jadelle contraceptive implant worldwide. Under the name Jadelle Access Program, the company has been offering the five-year effective hormone implant at a reduced price to development programmes since 2012 in exchange for a purchase guarantee of 27 million implants within six years. The target group is women in rural regions of Africa in particular, where there is little or no medical infrastructure."(3)



It is time for GID MAGAZINE to take a critical look at development cooperation.

In this dossier

This publication is special in that it involves both departments of GeN, "humans and medicine" as well as "agriculture and food": because a critical look at DC deals with reproductive technologies and corporations as well as food sovereignty and interventions in ecosystems. Our collection of articles is by no means a comprehensive representation of the topic, but rather a foray into selected aspects, intended to create more debate and dialogue.

In the first article, **Jonte Lindemann** provides an introductory overview of historical continuities, power dynamics and conflicts of interest. The field of development cooperation is large and diverse, but the basic concept stems from a colonial logic and a dichotomy that distinguishes between progressive/backward and developed/underdeveloped. These distinctions are social constructs of the West that follow and perpetuate certain historical patterns.

In an **interview with Tim Schwab**, the US journalist reports on the connections between governments, development programmes and large private donors, above all the Bill and Melinda Gates Foundation. He explains how Bill Gates' own financial interests influence global policy and thus have a significant impact on global power dynamics and tangible effects for those addressed. In his opinion, this type of philanthrocapitalism does more harm than good.

In the third article of the dossier, **Jonte Lindemann** concentrates on biopolitics and population policies in the context of development cooperation. Interventions that were promoted under different names for a long time, today tend to be sold under the label of "family planning". Despite the new name, the myth of alleged overpopulation and structures for maintaining power and control are still part of these programs. Alternative experiences, traditional knowledge and regional differences are devalued and negated. This is because global control of population development is particular-

ly profitable for corporations that provide the (pharmaceutical) means for birth (and population) control.

The final article by Sabrina Masinjila is about gene drives – a current example that illustrates well how countries in the Global South are becoming a testing ground for the latest technologies. At this moment, genetically modified mosquitoes are being released in several African countries under the pretext of health precaution – without evidence-based prognosis of the consequences. Such technical modifications and interventions in the ecosystem are seen as an innovative solution for containing malaria despite the existence of a number of other possible approaches, such as a general improvement of health care systems, better access to fresh water, etc. But the global players would not be able to profit from these solutions.

The articles clearly show how interwoven capitalist interests and technical innovations are and how the Global South is used as a laboratory to further strengthen these entanglements. These dynamics call into question the concept of development cooperation, which suggests cooperation on equal terms.

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COMPLEX SITUATION

DEVELOPMENT COOPERATION BETWEEN

INTERNATIONAL INSTITUTIONS, GERMAN NATIONAL

INTERESTS AND PROFIT MARGINS FOR COMPANIES

In recent years the term "development aid" has been replaced by "development cooperation", as it was deemed too paternalistic and one-sided. But the power structures and vested interests behind the concept have not significantly changed. This also applies to the field of gene editing and reproductive technologies.

By Jonte Lindemann, employee at GeN and editor of GID magazine.

In 2015 the United Nations formulated a total of 17 goals for sustainable development within its 2030 Agenda, from ending poverty and hunger to climate protection, strong institutions and partnership-based cooperation in development policy.(1) These goals are preceded by five guiding principles in the preamble: People, Planet, Prosperity, Peace and Partnership. With the "BMZ 2030 Reform Strategy" (2a), the Federal Ministry for Economic Cooperation and Development (BMZ) is aligning itself with these principles. However, the precise organisation of Germany's national development policy is much more complex.

Every three years, the OECD's Development Assistance Committee publishes an updated list of countries that are eligible recipients of ODA (Official Development Aid) according to their per capita income calculated by the World Bank. The countries are categorised into "least developed countries" (LDCs) (44), low-income countries that are not LDCs (two), lower middle-income countries and territories (35) and upper middle-income countries and territories (58). The last category includes countries that are often labelled as emerging economies in development discourse, such as India or Brazil, and European countries such as Kosovo or North Macedonia.(3)

Many different partners

With the adoption of the new reform programme, the BMZ is focusing its direct official work on 60 "partner countries" where cooperation takes place at different levels. This includes "bilateral partnerships" with countries that are considered "reform partners", where there has been measurable success in previous cooperation and a strong focus on reform, as well as countries where rapprochement with the EU is supported. The programme also defines "global partners" as countries that mostly fall under the heading of "emerging economies" where cooperation is sought "for the protection of global goods". In addition, there are so-called "nexus and peace partners", where the focus lies on combating causes of conflict and securing peace.

As a donor country, Germany states certain prerequisites for these "partnerships", which are emphasised more strongly than previously in the new programme: "We demand measurable progress in good governance, respect for human rights and the fight against corruption from our partner countries even more than before. Personal initiative is the key to development. Our partner countries can and must do more themselves."(2b) The fact that these standards are applied with varying degrees of rigour can currently be seen in the cooperation with Rwanda, which is experiencing considerable economic growth but whose government is becoming increasingly autocratic. However, European countries including Germany - still want to cooperate with the East African country to prevent migration and when it comes to criticising human rights violations and the dismantling of democracy they are keeping a low profile. CDU (Christian Democratic Union) member of the Bundestag Alexander Dobrindt has a similar deal in mind to the one the UK has already negotiated with the country: "Illegal" asylum seekers are deported to Rwanda and undergo the procedure of applying for asylum there, while Rwanda receives money from the UK in return, which, among other things, is channelled into a fund for economic transformation and integration.(4)

Development cooperation as a multi-purpose instrument serving German national interests

Development policy has always been regarded as a "multi-purpose instrument" in which different ministries are involved, each pursuing their own interests – in addition to the Ministry of Finance, this also includes the Ministry of Agriculture and the Ministry of Defence, for example. The BMZ itself exists for over 60 years, beginning in the use of "half a million Deutschmarks from Marshall Plan funds to promote the exchange of experience with less developed regions".(5) How the BMZ's funds are distributed is decided anew with each budget. The target is a budget of 0.7 percent of gross national income.

However, this money does not necessarily flow directly to the partner countries, but also covers the mandatory shares in international and EU programmes and maintains the implementing organisations affiliated with the BMZ: the German Society for International Cooperation (GIZ), the Kreditanstalt für Wiederaufbau (KfW – Development Bank), the Physikalisch-Technische Bundesanstalt (PTB) and the Federal Institute for Geosciences and Natural Resources (BGR). The promotion of private investment in socalled developing countries is also financed from the BMZ budget. The fact that Germany's own economic and geopolitical interests are also negotiated via development co-operation is not a recent

development. As early as 1997, then Development Minister Dieter Spranger (Christian Social Union, CSU) said: "It is important to us that development cooperation contracts are awarded to Germany, i.e. that taxpayers' money is also used to maintain jobs in Germany."(6) Today, this connection is most evident in "Germany Trade & Invest" (GTAI), the federal government's economic development agency. The online platform it operates provides tips and information on advertised projects and funding priorities in various economic sectors, illustrated in its website content titled "Donors support a wide range of healthcare projects in Africa" or "New lender in Sub-Saharan Africa and Iraq".(7)

Echo of colonial thought pattern

The idea of development, and the image of Western superiority inscribed in it, is already present in colonial discourse. Political

scientist Aram Ziai traces the origins of the idea of development in European colonialism and cites the Treaty of Versailles of 1919 as an example. It states: "To the colonies and territories which, as a result of war, have ceased to be under the sovereignty of the states which previously ruled them, and which are inhabited by such peoples as are not yet capable of governing themselves in the particularly difficult conditions of the contemporary world, the following principles apply: The welfare and development of these peoples constitute a sacred task of civilisation, and it is

expedient to include in the present constitution guarantees for the accomplishment of this task. The best way to realise this principle by action is to entrust the guardianship of these peoples to the advanced nations which, by reason of their resources, their experience or their geographical position, are best able and willing to assume such responsibility." With this ideology of white suprimacy, brutal colonial rule was not only legitimised, but also transfigured into a noble calling.(8) Ziai writes: "Another notable continuity with post-Enlightenment colonial discourse is that the deficits of the South are conceived as improvable, no longer through a process of 'civilisation', but one of 'development'", whereby the world is divided into an advanced and a supposedly backward part.(9) According to researcher Sarah White, this goes hand in hand with certain ideas of a "development world" that appears monolithic and leaves little room for complexity: "`The developing world´ that they make 'speakable' and 'writable' is a residual category, apparently geographical, but in practice a catch-all term, comprising societies which are highly spatially and culturally diverse, whose unity lies in being `not the West'."(10) The implicit norm for measuring development is the Western self - therefore, there is no room for different paths and directions of development, the Global North sees itself at the top and expects these programmes to follow its example - despite the destructive effects of its own economic system on the environment.

Who decides where the money goes?

The actual balance of power in so-called cooperation also perpetuates this dichotomy. The basic direction of development

policy endeavours is dictated by donor countries – mostly states whose own wealth is at least in part the result of colonial exploitation. Countries that are forced to take out loans, for example, must comply with the conditions – they have little room for negotiation. Development cooperation does not only consist of bilateral agreements between countries, but is determined by a large number of different actors. These include international organisations such as the United Nations, supranational bodies such as the EU, regional organisations, but also clerical aid organisations and, increasingly, private foundations with large capital investments. This mixture continuously leads to a deficit in transparency and also to a lack of clarity regarding competences and ultimately responsibility – especially when different actors are involved in one and the same project.

The investments of foundations such as the Bill and Melinda Gates Foundation in the budgets of international organisations

also reveal a deficit in democratic legitimacy: how is the direction of the programmes influenced by the fact that private foundations contribute larger shares than some countries? For example, less than 20 percent of the World Health Organisation's funding comes from membership fees, which are determined by the UN General Assembly and are linked to gross national income. The majority comes from voluntary contributions – from member states, but also from large foundations. These contributions are often earmarked, i.e. they can only be used

for specific programmes. Currently, earmarked contributions account for 88 percent of voluntary contributions.(11)

The WHO's decision on distribution is therefore limited: donors who contribute large sums ultimately help set the agenda. One ex-

The implicit norm for measuring development is the Western self — therefore, there is no room for different paths and directions of development.





ample is the comparatively good level of funding for programmes to combat HIV/AIDS and malaria, while non-disease-specific approaches, i.e. programmes to expand general healthcare, to train and educate medical staff and to secure medical supply chains, often remain underfunded.(12)

Part of the mix: Market development, corporate interests, genetic and reproductive technologies

There are numerous examples of individual countries' economic interests. In the field of agriculture, the debate on the use of genetically modified crops has also been a recurring topic in

An updated look at the role genetic engineering plays in international and especially German development policy is more than necessary.

development cooperation. During an impending famine in southern Africa after a prolonged period of drought in 2002, for example, the USA wanted to ship genetically modified maize to affected countries – several countries rejected these aid shipments. These countries, critics of genetic engineering, and the EU were publicly accused of risking star-

vation of millions of people for irrational and ideological reasons. The actions of the USA and other countries with liberal legislation concerning genetic engineered food demonstrate its action was not simply a response to an acute food crisis. It was also a conflict about sovereignty of interpretation in the debate, especially vis-àvis the EU, and securing market power.(13)

Since Bayer acquired Monsanto in 2018, the company has acquired a monopoly on patents for genetically modified maize and rice varieties in many regions. By participating in various programmes, some of them in cooperation with the Gates Foundation, like the TELA maize project, the company is trying to open up additional markets – under the guise of food security. The project page clearly states: "Through TELA, AATF and its partners are pursuing the regulatory approval and dissemination of new biotech/genetically-modified maize seeds containing either an insect-resistant trait or the stacked insect-resistant and drought-tolerant traits across seven target countries in Africa".(14)

In the field of population policy, Susanne Schultz and Daniel Bendix have already laid out in 2015 how the increasing demographication of problems is shaping the focus of the BMZ's investment allocation and development policy priorities (15) - and how German companies such as Bayer are benefiting from contraceptive programmes. Among other things, Bayer is currently involved in the Challenge Initiative launched by the Gates Foundation, which is dedicated to enabling family planning in various African and Asian countries, although its focus is clearly on birth control. While Bayer claims that the company's support for the initiative is not linked to the use of Bayer products, marketing strategies in similar programmes in which the pharma giant has been involved have repeatedly emerged in the past. Bayer also appears to profit financially from the cooperation, even if the money does not always flow back directly: Bayer received a large grant from the Gates Foundation in 2022 to advance its own research in the field of non-hormonal contraceptives.(16)

An updated look at the role genetic engineering plays in international and especially German development policy is more than necessary – also because proxy debates are being fought in this field that are of central importance for other policy areas and ultimately also for the formation of public opinion regarding genetic and reproductive technologies.

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"DOING MORE HARM

THAN GOOD"

INTERVIEW ON PHILANTHROCAPITALISM

AND THE GATES FOUNDATION



The Bill and Melinda Gates Foundation is the largest private foundation in the world and is active in many fields of technology to combat poverty. US journalist Tim Schwab published his critical research on the foundation in the book "The Bill Gates Problem" in 2023.

Interview with Tim Schwab,

investigative journalist. He has been researching the Bill and Melinda Gates Foundation since 2019.

The interview was conducted by Pascal Segura Kliesow, edited by Isabelle Bartram.

Last year you published the book "The Bill Gates Problem".(1) What motivated you to learn about Bill Gates?

You have this phenomenally rich man, Bill Gates. Today, he's worth 130 billion US-Dollars and runs a very powerful private foundation, the Bill and Melinda Gates Foundation, whose endowment today is 67 billion US-Dollars. He has a great deal of money, but also a great deal of influence on the world stage. He's traveling around the world, meeting with government leaders, shaping priorities, shaping the agenda of governments, and also shaping how tax dollars are spent.

One of the most fascinating parts of the book for me was how foundations work in the U.S. Could you elaborate a bit on how the Gates Foundation operates, where the money comes from and how it uses its money?

In the United States, it is incorporated as a non-profit private foundation and there are very few rules and regulations governing how it works: Bill Gates donates money from his private wealth to his private foundation and in doing so, he gets massive personal tax breaks because of the way the US tax code is written. Now that money sits in the Gates Foundation's bank account, where most years it's generating billions of dollars in investment income. Again, this is tax free income and one reason why the Gates Foundation is growing over time. You would expect the reserves and endowment of an institution in the business of giving money to be diminishing over the time. But you find the exact opposite with the Gates Foundation, where it's getting richer over time. In terms of the endowment the investments are into anything and everything from private prisons to fast food companies. The foundation is positioned to make money from products, practices, industries that many would say are harming the very same poor people that the Gates Foundation intends or aims to help. So, there's a kind of conflicting mission or conflicting ethics there. In terms of where the Gates Foundation gives money, some of the largest recipients of the Gates Foundation's funding are organizations where the Gates Foundation sits on the board of directors.

I think the top destination of foundation's funding is a vaccine distribution procurement organization called GAVI in Switzerland.(2) And the Gates Foundation sits on the board of directors. So, Bill Gates is donating money from his private wealth to his private foundation, where he continues to exercise control over it and then goes to an outside organization where the Gates Foundation sits on the board of directors. At a point you have to say, is this charity?

Bill Gates made his career as the founder of Microsoft; did he adopt strategies from this business into his foundation?

I think we've either forgotten or forgiven Bill Gates' first chapter as software technologist, the head of Microsoft. We've imagined that he was a cold-hearted capitalist, and now he's this kind-hearted philanthropist who has really changed his character, his personality and his ambitions. But that's not at all what happened. Bill

Gates today remains the exact same person who ran Microsoft. And you see that in the values and sensibilities and the approaches he brings to the Gates Foundation. For example, in his work with pharmaceuticals, where he is working with and through the largest multinational pharmaceutical companies to try to bring new drugs and vaccines to the marketplace. It's very much a classically neoliberal sensibility. It's

It's about market-based solutions, it's about corporate power, it's about technology as a solution to everything and the importance to preserve intellectual property at all costs.

about market-based solutions, it's about corporate power, it's about technology as a solution to everything and the importance to preserve intellectual property at all costs.



Activists repeatedly protest against the machinations of the Gates Foundation, as here in London in 2015.

The other way that the Gates Foundation is like Microsoft, is that today it is hounded by allegations of exercising monopoly power and bullying because it has so much money that it can go into a given field and to a great degree, take it over. It raises a lot of questions about science, about research, and about how effective it actually is in all this work. In many of the areas that the Gates Foundation works, it stands accused of doing more harm than good. And after writing the book, that's certainly the conclusion that I came up with.

I don't doubt that Bill Gates is well-meaning in the sense that he really believes that he's helping the world. The problem is he's helping the world the only way he knows how, which is by taking control. So he is forcing his ideas and solutions in a fundamentally anti-democratic way, in ways that are counterproductive, that create all kinds of collateral damage and opportunity costs.

Where do you see the problem with regard to the research funds that come from the foundation?

A kind of quirk of the Gates Foundation is that it's donating money to private companies like Pfizer, which again, strains the common definition of charity. Why would we give tax benefits to Bill Gates or the Gates Foundation for donating money to a massive, major multinational pharmaceutical company? If you look at people who can't afford access to lifesaving medicine - is Big Pharma really a humanitarian partner in solving this problem, or are they the ob-

The Gates Foundation legitimizes and normalizes pharmaceutical companies as humanitarian partners in humanitarian bodies. By doing so, they're standing in the way of more egalitarian strategies that would challenge Big Pharma's power in the marketplace,

which in practice means that the lifesaving medicines they sell are too expensive for poor people to access.

The Gates Foundation has a number of markets shaping projects, as they call them, that try and get around this market failure. They try and negotiate prices with big pharma and do bulk purchasing. But, you know, that is one way to tackle this problem but it's not the only way. If you look back on the foundation's history, it's arguably the least efficient way, certainly the least just way in terms of access to medicine.

There are major transparency problems at the Gates Foundation that limit what we can see. But from everything that has been published, you can see that something around 90 percent of its charitable dollars go to rich nations. That should be counter-intuitive, because if you go to the Gates Foundation's website, all you see are these images of these nameless, poor people, you know, mostly black and brown women and children smiling. But if you follow the money, the actual model of social change from Gates is not helping the poor, but it's helping the rich to help the poor.

Do you see colonial tendencies in the way the Gates Foundation operates?

So, I do think there's something fundamentally colonial about the Gates Foundation that speaks to certain bias within the Gates Foundation: That it really doesn't think that the global poor have or will ever have the sophistication, the capacity or wherewithal to take care of themselves. It imagines a political future in which there are poor who will always be poor, but their lives will be marginally better because of the philanthropic endeavors of the richest people on earth, like Bill Gates and the Gates Foundation. It's interesting that in areas like global health or public health for

poor people, there's now a political or social movement trending under the hashtag of Decolonize Global Health, where you have scholars and activists and practitioners who are challenging the fundamental colonialism you see throughout global health. This political movement hasn't yet come fully to the doorstep of the Gates Foundation. But in many ways, it presents an existential threat to the Gates Foundation's modus operandi and to how it does business.

Do you think that the failure of the Alliance for a Green revolution in Africa (AGRA) has had an impact on the image of the institution? Perhaps you could end with elaborating about this example for the readers?

It's been nearly two decades that Bill Gates said he was going to revolutionize African agriculture. And it started under this project called the Alliance for a Green Revolution (AGRA) in Africa. And the model essentially was like the original Green Revolution decades ago, which bypassed Africa. Gates wanted to take the same

things that made the Green Revolution successful elsewhere – as he saw it – and bring them to sub-Saharan Africa.(3) It's about a kind of industrialization, an expanded use of agrochemicals fertilizers, especially chemical fertilizers. It's about the use of inputs bought from foreign manufacturers and new high-tech varieties of seeds. Gates promised that this revolution would double farmer incomes, it would cut hunger in half and it would dramatically increase yields and farmer incomes.

So, he had certain things that he promised that his agriculture development plan would deliver and it has failed to deliver those. But more importantly, I think, is

that you now have many farmer organizations across the African continent openly petitioning the Gates Foundation, asking it to stop its charitable crusade because it's causing so much harm, because it's standing in the way of better alternative pathways of agricultural development. African farmers who say we shouldn't be dependent on these foreign producers of agrochemicals for our farming to thrive. We should be able to use local knowledge and local solutions and locally produced inputs, working through agroecology to expand and develop agriculture in the nations in which we work.

When you step back and think about Bill Gates, he's this multibillionaire in Seattle, yet he's managed to become one of the most powerful voices in African agriculture. What does Bill Gates know about farming? How does he become such a powerful voice and shaper of vaccine policy, of policy around contraceptive access and all manner of public education in the United States and elsewhere? Bill Gates is claiming expertise, claiming authority, using his wealth and power to try to remake all of these public policies according to his own narrow and often wrong-headed view of how the world should work.

It is a striking example of money and politics and anti-democratic power. And if we ignore the Bill Gates problem we're going to have a Jeff Bezos problem and a Mark Zuckerberg problem next,

because Gates is now traveling around the world getting other billionaires to sign what he called the giving pledge, asking them to promise to give away most of their wealth to charity, to follow in his footsteps. So, unless we deal with our Bill Gates problem, this is our political future where climate change, artificial intelligence, public health, public education and immigration, all of these areas are increasingly going to be influenced by these obscenely rich men through philanthropy. I do think that it is a very serious problem for democracy that we should think about and we should address now, not later.

That's not a positive prospect, but it's a good way to end the interview...

I myself am inspired by the political change I see all around us. And this is not new either. You have to look at Occupy Wall Street, look at Decolonize Global Health, look at Black Lives Matter. You see all these political social movements right now. The political will and the political culture is changing and it's changing in a way

that goes against the sort of oligarchical, plutocratic ethos that Bill Gates brings to the table.

I think that his days as this kind of undemocratic unofficial diplomat, roaming the world and trying to shape government budgets and government agenda, are coming to an end. He's reached his zenith. But it's not just going to happen. We have to be able to get past the political fatalism and to believe in another world as possible and to really fight for it. So, you know, I do hope that the book that I wrote does send that message that another world is possible. It's there and it's worth fighting for, and we should do it.

You now have many farmer organizations across the African continent openly petitioning the Gates Foundation, asking it to stop its charitable crusade because it's causing so much harm.

Thank you very much for the interview, it was a great pleasure!

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BETWEEN "SELF-DETERMINATION"

AND FULFILLING QUOTAS

"FAMILY PLANNING" IN DEVELOPMENT COOPERATION

Public interventions in reproductive lives and choices have a long-standing tradition. In so-called development cooperations, population policies are usually disguised as "family planning". But whose interests are at stake? And how is it connected with the old myth of overpopulation?

Just a few years ago, in 2019, the Federal Minister for Economic Cooperation and Development, Gerd Müller, declared: "The major challenge in terms of population development is the African continent, where the population will have doubled by 2050. This puts great pressure on the limited resources of these countries. Development policy must therefore make a contribution to reducing birth rates."(1) The fact that population policy has always been and still is part of so-called development cooperation (DC) is no longer stated quite as obviously in 2024. Instead, there is much talk of "feminist development policy" and "self-determined family planning".

Reproduction as a field of power and control

Already during European colonialism population control was a part of the oppression and exploitation apparatus, even if its policies were often times contradictory. After permitting abortion during the early stages of colonisation, to reduce pregnancy-related absences of enslaved laborers, the colonizers were confronted with a decline in population in the colonised areas at the beginning of the 20th century. In what was then called German East Africa, for example, the colonisers reacted with an abortion ban, set up a number of birth centers, under the euphemistic title "Maternal Health Care" and illegalized traditional doulas.(2) The centers' titles do not only obscure the fact that they were not meant to improve the health of the colonised, but instead secure the future supply of forced laborers. They also suggest a false reason for the population decline - instead of enslavement, forced labor, bad sanitary conditions, poverty and hunger, the blame was put on the practices of traditional midwives and the alleged absence of "sexual morals" and hygiene.(3) Strikingly, these are the same stereotypes used today to claim a looming overpopulation.

The myth of overpopulation

The perceived threat of overpopulation as an obstacle to development (but implicitly also as a racist scarecrow scenario in which the white, Western world makes up an even smaller proportion of the world's population) characterised development policy from the Second World War onwards. Development cooperation was

By Jonte Lindemann, employee at GeN and editor of GID magazine.

supposed to "regulate fertility and thus contribute to a reduction in misery".(4) This myth was further fuelled by the publication of the book "The Population Bomb" by biologist Paul Ehrlich in 1968, in which he predicted global hunger and bitter distribution struggles for humanity, as the available resources would not be able to keep up with population growth in the Global South. Among other things, the idea of an explosive population growth completely ignored the fact that the exploitation of resources is distributed very differently around the world.(5)

The discourse was characterised by the image of allegedly ill-considered to non-existent family planning in countries of the Global South, which was contrasted with the supposedly superior and more rational nuclear family model of Western societies. The message was that people in the Global South only needed to be made to understand they should have fewer children and provided with the means for birth control.

From population policy to family planning

The UN World Population Conference in Cairo in 1994 seemed to herald the end of this era: a shift in focus from number-fixated population planning to individual reproductive rights and self-determined family planning with a strong emphasis on the importance of gender equality marked a turning point in development cooperation, at least superficially. Population policy disappeared as a key concept, now only appearing hidden behind concepts of sexual and reproductive health. This strategy changed once again with the "Family Planning Summit", which took place in London in 2012. In addition to governments, e.g. of the USA, the UK, Germany, Norway, Ethiopia, Kenya, India, Nigeria and Indonesia, not only public organisations such as the United Nations Population Fund (UNFPA) and the World Health Organisation (WHO) took part, but they were joined by private foundations such as the Gates Foundation and pharmaceutical companies such as Bayer and Pfizer.(6a)

This was followed by the initiation of the FP2020 committee, which set itself the goal of providing an additional 120 million people in the Global South with access to contraceptives by 2020. The following year, the German Federal Ministry for Economic Cooperation and Development published a strategy paper (7) on "Population Dynamics" – population policy had thus once again become

a guiding principle of German development cooperation, even if the majority of these endeavours now run under the umbrella of family planning.

With the objective of FP2020, the focus was set. In addition to the national contributions to the programme's funding, multilateral collaborations involving foundations and companies, among oth-

ers, also increased. This shift was most evident in the "Implant Access Programmes", which were primarily concerned with the provision and insertion of hormonal contraceptive implants, including the Jadelle Initiative. "In this context, Bayer and the Bill and Melinda Gates Foundation agreed to provide 27 million units of the Jadelle contraceptive implant marketed by Bayer over six years at a reduced price per implant from 18 to 8.50 US dollar."(6b)

The implant was presented as ideal for "developing countries" as it offers contraceptive protection for up to five years. How-

ever, it was largely unclear how a desired premature removal or the treatment of side effects could be guaranteed in areas without comprehensive access to medical care. In this respect, the programmes initiated as part of FP2020 are symptomatic of a development in international development cooperation: donors are investing less in the UN's core programmes (for example in the field of basic healthcare) and are instead pouring resources into programmes with a very specific focus. In this way, donors – and not just state actors, but also philanthropic foundations – are influencing policy strategies and have been able to prioritise population policy in the process.

Self-determination vs. fulfilling quotas

FP2020 has since been replaced by FP2030 – what has remained is the focus on measurable success. Its website states: "We're fundamentally data-driven and believe in the power of data to drive results and measure impact"(8). But how do you measure success when the stated overarching goals are reproductive choice, autono-

my and empowerment, and gender equality? The indicators (9) that FP2030 uses to quantify the impact of its own programmes provide little information on whether the conditions under which people in the Global South make decisions concerning family planning and contraception have improved in terms of a good information base and greater freedom of choice.

The only exception: the "Method Information Index Plus", which is based on surveys on knowledge about side effects and information about alternative contraceptive methods. However, no details are

collected on which alternatives the respondents were informed about, for example whether they were offered methods that can be discontinued at short notice in addition to long-term hormonal contraception. The main factors measured are the use of modern contraceptive methods in absolute figures, the rate of teenage pregnancies, the availability of contraceptives from certain healthcare providers and one figure in particular: CYPs – Couple Years of Protection, i.e. the years that a (heterosexual) couple is protected from unwanted pregnancies. The focus on this figure was already heavily criticised in the context of FP2020.



But how do you

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In a two-part report published in 2020 (10), Dutch journalists Lisa Peters and Marlies Pilon showed the effect that the target of increasing CYP has on the counselling and care practices of the

The pressure to use long-term contraceptives stood in the way of freedom of choice and unbiased counselling.

organisations providing services on the ground. During their research, they visited family planning centres and clinics in Uganda, but also spoke to local health experts and activists. During their travels, they repeatedly heard from women who actually wanted contraceptive pills or a three-month injec-

tion but ended up receiving a hormone implant with an effective duration of three years. According to Jackson Chekweko, Director of Reproductive Health Uganda, the CYP target was a big problem and that his organisation was dependent on donations – the pressure to use more long-term contraceptives stood in the way of freedom of choice and unbiased counselling.

Generating data – at any cost?

The fact that the rights and health of girls and women in the Global South are not always the core driver for the design of programmes was sadly demonstrated in the context of a study about a possible link between a contraceptive implant and an increased HIV infection rate among its users. After some countries considered removing the Depo-Provera implant from their family planning programmes in the face of a possible link between the two, the WHO launched a study with start-up funding from the Gates Foundation: Evidence for Contraceptive Options and HIV Outcomes (ECHO). In addition to conflicts of interest (the Gates Foundation owns shares in various pharmaceutical companies, including Pfizer, the manufacturer of Depo-Provera), there were other, perhaps even more serious violations of ethical standards such as bonuses for recruiting participants and language in the informed consent forms that put moral pressure on the participants (young women aged between 16 and 35) and downplayed health risks. In addition, there was inadequate medical care and counselling during participation in the study and insufficient legal protection for the test subjects.(11) How valid is data collected under such circumstances? And what does this kind of treatment of people in the Global South mean for "development policy" programmes and concepts of family planning where similar actors are involved?

Feminist development policies?

After taking office, the new Federal Minister for Economic Cooperation and Development, Svenja Schulze, announced her intention to place women and girls at the centre of German development cooperation. In 2022, the BMZ launched the "Strengthening sexual and reproductive health and rights" initiative, followed in 2023 by a strategy paper entitled "Feminist development policy".

Even though Development Minister Schulze has repeatedly emphasised that she wants to set different priorities than her predecessors, the idea of dangerous overpopulation has not completely disappeared. On the occasion of the publication of the World Population Report 2023, she declared: "The right response to popula-

tion issues is a policy that strengthens the rights and opportunities of women and girls. If we as humanity want to enable a good life for eight billion people, then women and girls must be given equal rights worldwide. If you empower women and girls, you empower entire societies. This is a key to good development and, as a result, also helps to steer population development in a sustainable direction for the planet and for us humans."(12)

We therefore, cannot assume an abandonment of population control – for 2022 and 2023, Germany has committed to using 200 million euro of its bilateral funding in the area of family planning and reproductive health as part of FP2030.(13) In the near future, nothing is likely to change in terms of prioritisation and the influence of actors without democratic legitimisation such as the Gates Foundation.

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NEOCOLONIAL EXPERIMENT

HOW DANGEROUS ARE GENE DRIVE MOSQUITOS

FOR AFRICA?

Prevent the spread of malaria-carrying mosquitoes in Africa – that is the expectation surrounding a new biotechnology called gene drives in which organisms are genetically modified so that they do not follow classic rules of inheritance. Concerns about the efficacy and impact of the technology are growing – yet gene drive research continues in Africa.

Within the last decade, molecular and big data biology developments have opened doors to novel genetic engineering (GE) techniques deployed by the biotechnology industry, including synthetic biology based on clustered regularly interspaced short palindromic repeats (CRISPR-Cas-9) gene editing techniques.(1a) Gene drives are an extreme form of GE that is part of the package of synthetic biology techniques.(2a) They are 'mutagenic chain reactions' designed to spread throughout a population – overriding Mendelian inheritance patterns.(1b) This means that a single trait introduced at one time could spread throughout an entire species and lead to that species becoming altered for a long period or facing extinction.

In Africa, gene drives have been proposed as a tool to prevent the spread of malaria. Globally, gene drives are also being proposed for pest control in agriculture and environmental conservation – e.g. eradication of invasive species – and military applications. Instructively, the United States military Defense Advanced Research Projects Agency (DARPA) is one of the largest funders of gene drive research.(3a) With the nature of gene drives being to spread rapidly through the population and to bring about irreversible changes, across national and international borders, they present a new level of risks and biosafety concerns globally and for Africa. It is especially concerning in the light that, currently, there are no international biosafety risk assessments in place to regulate gene drive organisms (GDO) to prevent environmental and health risks.

Position and influence of the African Union

The African Union (AU) has wholeheartedly endorsed gene drive technology. (2b) The AU Development Agency-New Partnership for Africa's Development (AUDA-NEPAD) in collaboration with various organisations, is spearheading efforts to explore the potential of gene drives for malaria control. (4) Funding comes from the Open Philanthropy Project, a foundation started by a co-founder of Facebook. An AU report on emerging technologies highlights gene drive techniques like population suppression and replacement to combat malaria. In addition, AUDA-NEPAD conducts outreach activities, including meetings and workshops, across different regions of Africa, including Ghana (West Africa), Kenya (East Africa), Botswana (Southern Africa) and Gabon (Central Africa), in partnership with the International Life Sciences Institute Research Foundation. These are done to expedite the adoption of gene drives alongside

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permissive regulatory frameworks. Currently, gene drive regulation is featured under the biotechnology framework of the Commission of Economic Community of West African States (ECOWAS).

Africa – a testing ground for gene drive experiments: the case of Target Malaria

In Africa, the deployment of global gene drives for disease vector eradication is being pushed as the first potential gene drive application designed to eradicate the malaria-carrying Anopheles mosquitoes. The research and development (R&D) of transgenic and gene drive mosquitoes is largely carried out by a consortium called Target Malaria, comprised of American and European universities and research institutions - with partners from African research institutions.(5a) The biggest funders include the Bill and Melinda Gates Foundation (BMGF), the Open Philanthropy Project Fund, and DARPA. Individual laboratories also receive additional funding from a variety of sources to support their respective work, including the United Kingdom government (UK Department of Environment, Food and Rural Affairs and the Medical Research Council), the Wellcome Trust (a UK-based charity), the European Commission, the Ugandan Ministry of Health, and the Ugandan National Council for Science and Technology (UNCST).(6a)

Target Malaria has been operating in several countries on the African continent including Burkina Faso, Ghana, Uganda, Mali, and most recently Cape Verde, and is touted as being the first to develop a gene drive application for release.(5b) Target Malaria specifies a phased approach by starting with the release of non-gene drive genetically modified (GM) sterile male mosquitoes in the first phase and ultimately the release of gene drives in further phases.(3b) Open releases of nongene drive GM mosquitoes are intended to test the infrastructure and systems for the eventual release of gene drive mosquitoes.

First ever releases of GM mosquitoes in Africa: the case of Burkina Faso

Burkina Faso is the first country where Target Malaria released the non-gene drive GM mosquitoes Anopheles gambiae in the village of Bana on 1st July 2019, after obtaining approval from the National Biosafety Agency (Agence Nationale de Biosecurite – ABN). This took place following experiments on imported mosquitoes in 2016, which were led locally by the Institut de Recherche en Sciences de

la Sante (IRSS). The open release - the first on the African continent - was done despite African civil society organisations (CSOs) raising numerous serious concerns and forewarnings for several years that the project was turning Africa into a testing ground for risky technologies. These groups argued that the open release was meant only for experimental purposes and not expected to deliver any benefits for malaria control and was thus highly unethical. (7a) Further, they argued that releasing GM male-sterile mosquitoes presented risks of inadvertent release of biting female mosquitoes because of imperfect sex sorting of mosquitoes, or the possible failure of the sterility mechanism. In addition, several different Anopheles mosquito species can transmit malaria, including A. arabiensis and A. funestus, and thus targeting only one species of mosquito may result in another species taking its place and continuing to transmit malaria, which could be harder to eradicate.(6b) Further concerns were raised about the lack of meaningful, open, and transparent consultation with affected communities. There was also no comprehensive risk assessment subject to open and transparent public consultations, as mandated by the Cartagena Protocol on Biosafety (CPB), to which Burkina Faso is a party. (7b) Thus, the release took place without fulfilling the international obligation of prior informed consent. Other regulatory concerns included the lack of transboundary notification by Imperial College for the importation of GM insect eggs to Burkina Faso from the UK, as required by the CPB, to which the UK is also a Party.(6c)

However, Target Malaria remains unrepentant and has sought and obtained further approval to conduct experiments on GM male bias mosquitoes in 2022, and in doing so, is continuing to lay the ground for future experiments and releases of gene drive mosquitoes in the country.(8) Despite initial laboratory work being undertaken, the country Mali has withdrawn from the Target Malaria project for unclear reasons. In Uganda, according to Target Malaria, the project is still nascent, focusing on conducting entomological mosquito collections from field sites on islands within Lake Victoria and mainland

sites (9), while in Ghana the project is still in the early stages.(10) Noteworthy is that all these projects are being done in collaboration with national research institutions, particularly the Uganda Virus Research Institute (UVRI) and the University of Ghana.

Other GE projects in Africa

Other projects have emerged that include work on GE and gene drive mosquitoes. These include Transmission Zero - an international research programme - focused on gene drive technology development.(11) Transmission Zero involves partners from Tanzania including the Ifakara Health Institute and the National Institute of Medical Research as well as researchers from Imperial College London in the UK. The University of California Malaria Initiative in Sao Tome and Principe also promotes gene drive systems, which adopt a phased approach as well. (12) Additionally, Oxitec Company - which is a UK-based commercial company that produces GM mosquitoes and other insects -, in partnership with Association Mutualis and the Djibouti National Malaria Control Programme (PNLP), is developing GM mosquitoes of the species Anopheles stephensi to combat malaria.(13) It is not certain to what extent adequate democratic public consultations have taken place with communities and what, if any, biosafety procedures have been adhered to, in embarking upon these projects by these institutions. This is especially pertinent considering the absence of internationally recognised biosafety governance mechanisms for African governments to regulate such experiments. Currently, guidance regarding the regulation of gene drive mosquitoes is still underway at the global level under the Convention for Biological Diversity (CBD) by way of an Ad Hoc Technical Expert Group working on Risk Assessment protocols.

It is also worth noting that Oxitec has come under heavy criticism for not delivering on their promises after they released GM mosquitoes in other countries. Oxitec's GM mosquitoes project in



Anopheles, a genus in the mosquito family, is the most common carrier of the malaria pathogen in humans.

Photo: public domain on unsplash.com

Mexico was abandoned after unintentional cross-breeding with non-GM mosquitoes occurred. In the Cayman Islands the Environmental Health Minister in 2018, confirmed that Oxitec's GM mosquito trials had failed.(14) Similar cases of discontinuation of GM mosquito trials have taken place in Malaysia and Panama. In India GM mosquito projects of Oxitec subsidiaries have been dormant for several years. The releases by Oxitec worldwide, including those in Florida and Brazil, continue to expose communities and environments to unnecessary risks.

The unsubstantiated claims of gene drive to eradicate malaria

The purported claims that gene drive technologies will eradicate malaria are unfounded and questionable. There is a lack of data necessary to predict the potential efficacy of gene drive technology, as in the case of the Anopheles gambiae, with studies showing resistance to gene drive constructs that are so far unsuccessfully countered by developing newer constructs.(2c) This has also been corroborated by a recent report released by the World Health Organisation (WHO) in 2022, highlighting challenges with Target Malaria's gene drive mosquitoes.(15) These developments are a warning that the technologies are doomed to fail while exposing many African populations to risky technologies. Furthermore, claims by gene drive developers that risks are unlikely - including ecological and human health risks, are also unfounded as planned projects have no understanding of how other organisms in the ecosystem, such as fish, bats, flowers and insects, could respond to gene drive releases.(2c) At the moment, current risk assessment methods are inadequate for assessing gene drives. Therefore, it is particularly difficult to assess how ecosystems and species would behave across time and space, considering the potential accumulation of mutations that may occur due to off-target activity of CRISPR systems at each generation, which is also connected to the genetic diversity of targeted populations. With regards to health impacts, it is yet unknown how, for example, niche replacement could affect the transmission of malaria or other vector-borne diseases.(16)

Links to industrial agricultural gene drive systems

The huge attention by the biotech industry on gene drive applications in the public health sector should not desensitize us from what is happening with agricultural gene drive applications. These are still ongoing with quiet support from large-scale agricultural corporations and include suggested applications for reversing herbicide resistance in weeds, livestock alterations, and suppression of pest species.(3c) Already, various patents exist for agricultural applications and there is also immense lobbying for a permissive gene drive policy by agribusiness, devoid of public discussion.

Conclusion

Malaria is a huge public health challenge in Africa, resulting in massive casualties every year, which requires countries to seek interventions that eradicate the structural causes of malaria, such as clean water and sanitation, and strengthen the public health systems. The reliance on technofixes based on risky technologies such as gene drives is not the solution to solving this problem. These technologies stem from the same systems that have caused the

health and agricultural crises globally.(5c) The BMGF funds these technologies while also investing directly in chemical corporations and agribusiness, which are creating the very public health problems that the Gates Foundation is purporting to address.

Imperialist projects are not interested in bettering the lives of Africans. Africa's agency in addressing health problems such as malaria is also overlooked by reductionist Western scientific approaches which have long been used to justify imperialist projects, as well as provide the necessary tools for their application, while denigrating and simultaneously appropriating indigenous scientific systems in the process. Just recently, the WHO certified Cape Verde as malaria-free, making it the third country in Africa to be so – yet the country is part of a new gene drive mosquito project.(17) Cape Verde strengthens the country's health system and provides an example for other countries to emulate. Should this not give us pause to question the motives of Target Malaria and others who foist GM and gene-drive mosquitoes on the continent since these are bound to fail, as has been revealed by recent examples?

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[Last access online sources: 08.05.24]



GEN-ETHISCHES NETZWERK

(GEN-ETHICAL NETWORK)

Gen-ethisches Netzwerk (GeN) was founded in 1986 in reaction to the rapid developments in biotechnological research. Since then we have observed and reported on research and industry trends in the fields of biotechnology, genetics and reproductive technology for the public. Our goal is to make the developments in these fields accessible for emancipatory, socially focused debates in Germany. As a non-profit grassroots organisation we promote independent knowledge generation.

Our vision is:

- a just and sustainable and solidary future for all
- · a society that uses biotechnology, genetics and reproductive technology responsibly and for the common good.
- politics, science and research that include diverse perspectives and reflect social diversity.

How we work

In order to counterbalance the self-promotion of academia, industry and politics, we engage in critical science communication with a focus on the social implications of biotechnological and reproductive technology research. Our expertise is generated in cooperation with critical scientists, activist groups and initiatives of people affected by technologies. By joining or initiating campaigns and protests, we also actively advocate for transparency and responsibility in science, and ultimately a just and non-discriminatory society.

Our office in Berlin is managed by a small team of scientists and activists that work together with the members of our management board on our political and editorial work. Our advisory board meets once a year to discuss scientific and strategic questions. Since its establishment GeN publishes the quarterly German-language journal Gen-ethischer Informationsdienst (GID) which reports on our current work and the newest technological developments. As a non-profit organisation we are financed nearly exclusively by membership fees, GID subscriptions and individual donations. Our donors give us the basis for our political independence.

What we want

Our criticism of genetic engineering in agriculture and medicine is linked through the objective to promote a democratisation of science and technology policy. We advocate for pushing back capitalist dynamics of economisation in the different fields of biopolitics.

We strive for

democratic and transparent sciences

In agriculture

- adherence to the precautionary principle
- sustainable and ecological agriculture
- food sovereignty for all
- regulation of genetic engineering that includes risk assessment and mandatory labeling
- consistent and transparent implementation of the polluter pays principle
- the prevention of biopiracy
- no patents on animals and plants
- no release of genetically modified wild species

In medicine

- a health care system without profit interests based on solidarity
- ullet long-term data protection of genetic and biological samples from research volunteers and patients
- sexual, reproductive and physical self-determination
- evidence-based and ethical use of reproductive technologies
- ullet maintaining the ban on egg "donation" and surrogacy in Germany
- no selective prenatal diagnostics
- no heritable genome editing in humans

We publish mainly in German, but we speak English and invite international journalists, researchers and potential cooperation partners to get in touch with us: gen[at]gen-ethisches-netzwerk.de or phone 0049-30-6841183.

Did you like what you read? We are financed mainly by individual donations of people who support our work. Thank you!

Donate via our website www.gen-ethisches-netzwerk.de/spenden or to

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