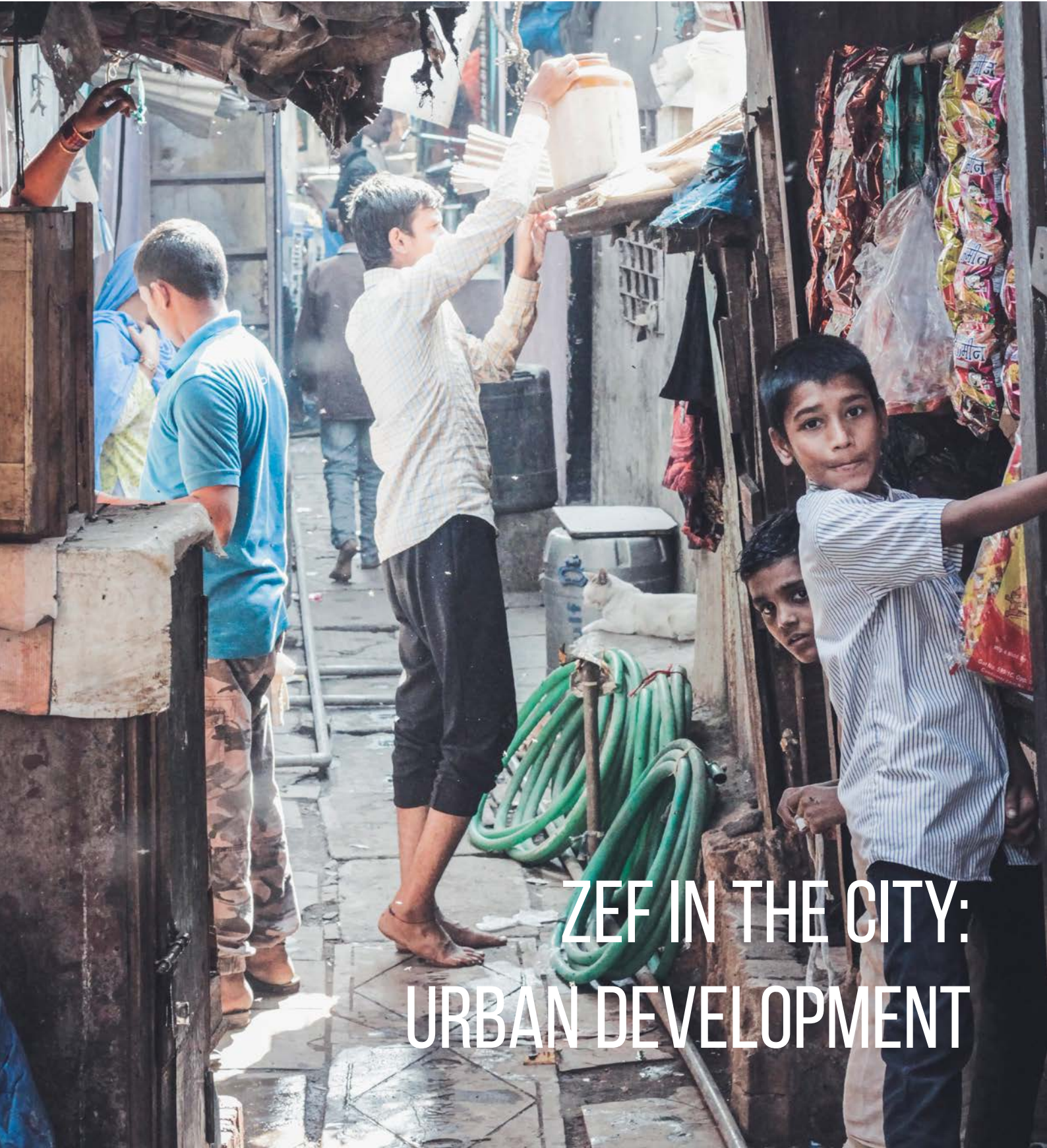




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ZEF IN THE CITY:
URBAN DEVELOPMENT

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LEAD ARTICLE

DENSE AND TENSE**HIGH POPULATION DENSITY AND LOW-QUALITY HOUSING IN ABIDJAN**

From London to Lagos, the Corona pandemic illustrates that high population densities coupled with insufficient social security and poor-quality housing increase not only infection rates but also vulnerability to mental stress. The pandemic shifted the focus to favelas, townships, or slums, where residents have been unable to observe physical distancing.

Population densities indicate economic inequalities

Unequal population densities and their relationship with living conditions in cities are not random. They are often the result of city administrations' policies that focus on other priorities. The popular narrative continues to reason that dense quarters in African cities are a result of rural to urban migration and a short supply of formal, good-quality housing. Our findings from Abidjan in Côte d'Ivoire, however, underline the relevance of urban policy and private investors, as well as their impact on housing markets for the poor.

Population densities in different parts of Abidjan, a West African city of five million inhabitants, range between ca. 4,900 to 26,800 inhabitants per km². These numbers hint at economic stratification. While most houses in the well-off and middle-class quarters are multi-storey buildings such as villas or apartment blocks, the dominant housing type in precarious quarters, where population densities are highest, are low-rise buildings, so-called courtyard houses. In practice, the everyday spaces of residents are even denser as people live and work at ground level.

Ethnographic research in an unplanned settlement

We carried out an ethnographic census in Adjahui-Coubé, an unplanned settlement on a central peninsula in Port Bouët Municipal District of Abidjan, in which we collected data on 52 courtyard houses and their residents to estimate current population numbers and identify typical housing conditions. Most households live in a rented single, windowless room of 9 to 10m², constructed from wooden planks, without access to electricity or drinking water facilities in the house. The schematic of a courtyard house (see illustration, p. 4) shows a classical layout that includes a shop. It is home to 53 people who share a ground plot of ca. 200m². The courtyard houses have been built wall-to-wall to one another, with a maze of paths and sand roads connecting them.

Are courtyard houses part of the housing solution?

People reach their homes, as well as basic sanitation facilities by walking through the courtyard. Such open spaces are shared for leisure, work, household activities and childcare. For many decades, these yards have shaped everyday life and social interactions in Abidjan. Perhaps this explains why courtyard houses are so popular among Abidjanais. We found that family courtyards and a higher share of owner-occupiers characterize older quarters, whereas rental housing dominates the younger unplanned settlements, such as Adjahui-Coubé. Here, informal real estate agencies facilitate contracts between small-scale private investors and their tenants.

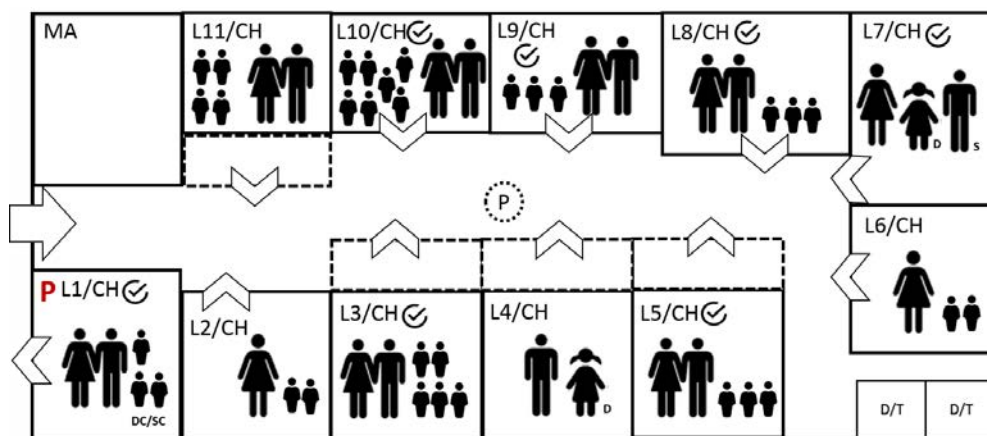


Successive Ivorian governments and city administrations have never favored courtyard houses. Rather, they have perceived them as a hindrance to their goal of achieving urban modernity. Many such quarters have experienced demolitions, as well as forceful evictions after the political crisis in Côte d'Ivoire in 2011. Ironically, authorities justify evictions with the excuse that they are carried out to protect vulnerable populations against hazards and pandemics.

The layout of courtyard houses, however, is not the problem. Instead, such houses are part of the solution as they satisfy the high demand for low-cost housing. Though population densities are high, the tenants of these affordable small housing units do enjoy the additional airy semi-public space of the yard. Where the government tolerated unplanned settlements, house owners and tenants improved the buildings over time, irrespective of absence of legal land titles. Housing quality became better, with stone buildings and windows for ventilation. In older quarters, electricity and tap water in the yard became normal amenities.

Reasons for intra-urban migration

Although housing quality in Adjahui-Coubé was found to be more precarious than in the older quarters of Abidjan, the settlement has attracted more than 60,000 new inhabitants since 2011. Evictions or demolitions, skyrocketing security deposits and costly rental apartments in the regular city pushed many low-income individuals and families to the unplanned settlement. In some cases, former owner-occupiers became tenants. Interestingly, almost all the households had already lived in Abidjan and other cities before. We also observed some newly built courtyard houses located in planned quarters. The need to close the local rent gap, however, resulted in the houses having layouts that comprise 10m² self-contained housing units and yards that function only as tight corridors. One can say that by prioritizing quick amortization of investment over housing quality, investors triggered densification in practice.



L + no.	Household identifier	☑	Surveyed household
CH	Type o accommodation (single room)		
D/T	Shared bathroom/ latrine		
P	Owner of the courtyard		
⌈ ⌋	Extension made by tenants (timber)	⊙	Hand-dug well
♂ ♀	Man/ woman (> 18 years old)	♂ ♀	Male/ female youth (> 14 years old)
♂ ♀	Couple of adults	♂	Children (< 14 years old)
S D	Son/ daughter	SC DC	Grandchildren

Icons made by [Freepik](https://www.freepik.com) from www.flaticon.com



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The project “Waterfront Metropolis Abidjan. Between everyday urbanity, spontaneous urbanisation, town planning and real estate development” (Dec. 2017-May 2020) was funded by the German Research Foundation (DFG), EG 381/1-1.

DEVELOPMENT DISCOURSE AND THE URBAN POOR

A COMPARATIVE STUDY OF THE SLUMS OF ISLAMABAD AND BRASILIA



Katchi Abadi, Islamabad. Photo: Arslan Waheed

Islamabad and Brasilia are planned cities and the respective capitals of Pakistan and Brazil. As planned cities they were hailed as the embodiment of modernist urban development. According to Whitman Rostow's (1960) envisioned stages of growth they were inevitable 'model' cities. Modernist planning believes blindly in the power of architecture to regulate and shape human societies across the globe, especially in the Global South (for example, India, Pakistan, Brazil, Kenya).

Dividing designs

In this way, modernist rationalities were presented and believed as scientific rationalities that should be accepted without any regard to local socio-economic realities. However, the growth and development of Islamabad and Brasilia show the dark side of urban development in the Global South blanketed by scientific rationality, a paternalistic state, and the semi-divine role of modernist planners and international development institutions. Although they were once considered the harbingers of the modernist promises of wealth and

progress, the design of both cities laid the foundation for institutional discrimination and reified already existing socio-economic and political urban hierarchies.

The poor are trapped at bottom of spatial order

Based on extensive ethnography, in-depth interviews and archival research, I argue that the rise of slums in both cities shows that the urban poor are not only ignored in master planning but are also trapped at the bottom of the spatial order of the planned, polarized cities – a classic outcome of modernist planning everywhere (India, Kenya, Brazil, Pakistan and the United States). Over time, using informality as the territorial logic of organizing urban space, the urban poor in both cities are subjected to socio-spatial discrimination by discursively constructing them as social deviants, e.g. through their categorization as the 3Ds (dirt, drugs, and danger). Along with the naturalization of market-forces, these discourses legitimize the continued marginalization of the urban poor in the socio-spatial hierarchies of Islamabad and Brasilia.



Paranoa Marketplace, Brasilia. Photo: Arslan Waheed

Arslan Waheed

is a junior researcher at ZEF. His research focuses on Critical Discourse Analysis, Comparative Sociology, and Urban Planning and Development. His project is funded by the German Academic Exchange Service (DAAD).

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FROM ENCROACHMENT TO CITIZENSHIP SELF-ORGANIZATION AND MOBILIZATION OF SLUM DWELLERS IN MUMBAI



In the informal settlements of Mumbai, people deemed to be evicted are getting self-organized and mobilized to create a place for themselves within the city.

Most of the slums in Mumbai were built on waste. Mumbai is an island city and waste has been used for land reclamation, for connecting different islands, and to expand the city at its edges. By dumping waste over the mangroves, the marshy land turned into housing construction sites. One percent of Mumbai's population engages with waste to earn a living, whereas many use waste materials for construction, for storing water, and in other ways in their daily lives.

Spill-over effect of waste

Waste from the dumping grounds is spilling over the city, releasing methane which causes frequent fires with smoke spreading all over the city. Those who aspire for a planned world-class city, who consider waste as something that should be out of sight and mind, demand to fight the unplanned and unscripted, and to move the dumping grounds far from the city. As a result, settlements near the dumping sites have been demolished on the premise of fire outbreaks and residents have been arrested as suspects of arson. People living on and engaged in recycling these heaps of waste feel threatened. Because they have unlawfully built their houses on municipal lands, city officials call them encroachers and can evict them at any given time.



Amit Kumar

Amit Kumar is a junior researcher at ZEF. His research is funded by the Right Livelihood College (RLC) and the German Academic Exchange Service (DAAD).

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Case of Sanjay Nagar II

The houses of the residents of Sanjay Nagar II, a settlement near Deonar dumping ground, have been demolished multiple times yet have always been rebuilt. The residents' claim to "the right to the city" is a radical position vis-à-vis the current regime of exclusionary citizenship. The people of Sanjay Nagar II argue for an expanded perception of citizenship. To assert such claims, they associate themselves with people living in other settlements in Mumbai with the same informal status, and people who were dispossessed from their agricultural lands due to infrastructure projects. They created a community based on their common experience, which is their confrontation with those who do not acknowledge them as citizens. This is a breeding ground for politics, because those who have no rights are acting as if they have. As a collective, these activist citizens of Mumbai push an alternate development paradigm: One which opposes the existing model of urban planning through dispossession, and emphasizes the establishment of a just city.

People-made space for themselves

Their placemaking through collective resistance against evictions resulted in a shift in identities and social relations. The people of Sanjay Nagar II negotiated a place for themselves in the city through politics. But the remaking of Sanjay Nagar II happened outside the city's official urban planning and development programs. It is not just a change in the built environment but has a deeper meaning in terms of human experience. Whereas before they were branded as informal, unplanned, illegal, dilapidated and unwanted, they have now become something that cannot be categorized in common notions of formal-informal and legal-illegal. They have changed a world of duality and contestation into a world of possibilities for organizing and building cities; and in doing so have shown that this is not just the job of urban planners and policy makers.

“THERE IS A NEED TO STRENGTHEN AND DEMOCRATIZE LOCAL INSTITUTIONS”

INTERVIEW WITH ZEF JUNIOR RESEARCHER OYEWOLE SIMON OGinni ABOUT THE COVID-19 PANDEMIC'S IMPACT ON THE LAKE CHAD REGION

Oyewole Simon Oginni is a doctoral student from Nigeria at ZEF working on his thesis “Humanitarian urbanism: everyday life in the front-line cities of the Lake Chad Basin”. Andreas Haller interviewed him for ZEFnews.

You were conducting your field research in the cities of Maroua, Cameroon and Mubi, Nigeria in the Lake Chad region when the pandemic struck. In two blog-posts for our website you described the situation there (see links below). How are you doing right now?

Thank you, I am doing well. I wrote about how the Covid-19 outbreak affects the urban poor there because I was just a few weeks from completing my fieldwork when the pandemic struck. I also experienced the lockdown. So, I was both an insider and an outsider.

Cities in the Lake Chad Basin region serve as commercial hubs for the exchange of agricultural produce of four countries. They also hold a large displaced population. The cities of Mubi and Maroua, like their counterparts in Chad and Niger, are facing multiple challenges that range from infrastructural deficits to insecurity caused by violent extremism and climate change. Covid-19 added another layer to the existing challenges. Nonetheless, there is much to learn from how the urban poor build resilience despite their precarious living conditions. Some examples will feature in my doctoral thesis.

Has the perspective of your research shifted as the pandemic compounded the tensions in the cities you study?

Yes, a lot has changed in my research. My main focus was on the modalities of return and reception of displaced populations in post-conflict cities and their interactions with the host communities. The goal was to understand how people rebuild their lives after protracted conflicts by analyzing their everyday experiences. Now, I have to think about the population affected by Covid-19 in addition to the conflict-affected population. Many people have lost their livelihoods, and there is a new stratum of urban poor due to the ‘new normal’ created by the pandemic. My initial conceptualization of the urban poor has changed drastically. I have to reflect again on who falls into the category of urban poor because there are now ‘the poorest of the urban poor’. I achieved my research objective to a great



extent, but the pandemic presents an avenue to explore how the poorest of the urban poor navigate in a post-conflict and post-Covid-19 context. In the future I would like to go back to re-assess the situation in these cities.

There is much fear of a global recession due to the pandemic. What is the outlook for the urban poor, especially for the displaced people in post-conflict cities, when the economic downturn hits the region? Also, could this lead to a new increase in political and sectarian violence in the region?

The countries in the Lake Chad Basin region are already facing a recession. Nigeria, which has played the role of big brother in the region, is currently experiencing a major economic setback due to the global price drop of crude oil. This has many implications for the region in terms of counterinsurgency and the provision of public goods to the vulnerable population. The bordering cities already have the highest inflation, unemployment as well as poverty rates compared to the rest of the region. The inability of the respective governments to provide enough assistance to cushion the effects of the pandemic may increase political and sectarian violence. This may make the recruitment of young people for Boko Haram and the Islamic State in West Africa much easier. Terrorists take advantage of the weakness of governments and their failure to provide services. The violent extremists in the region have already capitalized on this over the past decade.

What could be done by local governments, but also by the international community, to relieve the situation in the Lake Chad region?

The Lake Chad Basin Stabilization Strategy (2018-2023) is the result of a multilateral cooperation that seeks to reposition the region. It addresses most challenges of the region based on a sectoral analysis. However, its implementation has been slow. There have been meetings at



Photos: Oyewole Simon Oginni

the regional level involving the regional governors, but the participation of local governments has been minimal. There is a need to strengthen and democratize local institutions in the region so that the Stabilization Strategy can be localized. For example, this may empower mayors to make autonomous decisions on critical infrastructure projects. The Lake Chad Basin is mostly comprised of farming communities, but agriculture is predominantly carried out in a primitive form. At least partial mechanization would help to mitigate the effects of climate change on crops, address food insecurity in the cities, and has the potential to create new jobs.

You are a member of the “ZEF in the City” working group. What are the more general challenges for development research regarding urban space?

Rapid urbanization as a consequence of displacement through protracted conflicts has caused a shift in the past decade in the way people conceptualize urban space and how it interacts with other spaces. New actors such as the humanitarian establishment and development actors, influence the socioeconomic and political configuration of urban space.

What is the most important take-away from your time at ZEF?

ZEF builds a community of thinkers and helped me develop an ability to look at issues from an interdisciplinary perspective. For example, I now see human security from different angles than when I first came here: I think of how environments contribute to the emotional landscape and affect well-being and productivity.

→ **Read more about** the outbreak of the pandemic in the Lake Chad region in Oyewole Simon Oginni's contribution to ZEF's research blog:

Coping with COVID-19 in post-conflict communities

Part 1: [Covid-19's impact on West Africa's vulnerable communities](#)

Part 2: [What does a lockdown entail in the Lake Chad Basin region?](#)



GLOBAL IMPACTS FROM TRADE IN AGRICULTURAL COMMODITIES

ESTIMATING CARBON FOOTPRINTS OF BRAZILIAN SOY EXPORTS

Global trade causes a displacement and distribution of impacts across increasingly interconnected supply chains. Environmental footprints, such as the ‘carbon footprint’ of coffee, are calculated to gauge impacts. These depend largely on the location of production, transport infrastructure and export logistics.

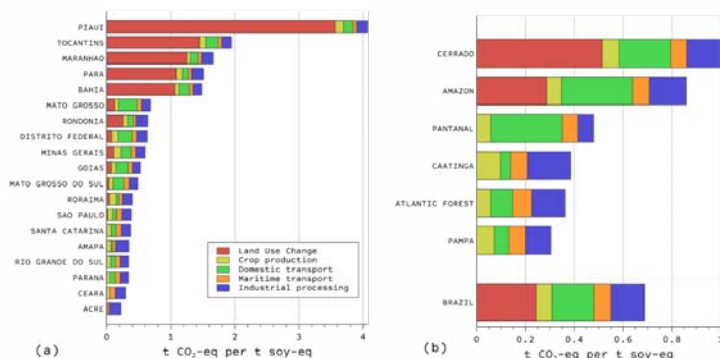
Researchers from ZEF, together with partners from Spain, Belgium and Sweden developed a framework to estimate spatially-explicit environmental footprints of agricultural products with unprecedented accuracy. They based their work on the integration of Life Cycle Assessment with data from the initiative “Transparent Supply Chains for Sustainable Economies” (Trase, see: trase.earth). This new approach is used to quantify the greenhouse gas emissions from trade in Brazilian soy, the most traded agricultural commodity in the world.

Carbon footprints at sub-national scales

The study is the first to provide an estimate of the carbon footprint of Brazilian soy exports across the entire sector and for each of the nearly 90,000 trade flows of beans, oil and cake identified in the period 2010-2015. Results per unit of product show a large variability, not previously detected in previous studies. The most carbon-intensive products originate from municipalities where soy was grown at the cost of natural vegetation, mainly Cerrado savanna but also Amazon rainforest. Municipalities with the largest carbon footprint are located in the MATOPIBA region – consisting of the states of Maranhão, Tocantins, Piauí, and Bahia – the current hotspot of soy-induced deforestation. Together with Pará, these are the top five states with the largest state-level footprints. Transport throughout Brazil is also an important contributor to greenhouse gas emissions: it makes up more than a third of the emissions in the export-oriented states of Goiás and Mato Grosso in Center-West Brazil.



Soybeans. Photo: Michele Dorsey Walfred
(<https://www.flickr.com/photos/dorseywm/43981375230/>), CC BY 2.0 (<https://creativecommons.org/licenses/by/2.0/>)



Carbon footprint in the period 2010-2015 of (a) the soy exporting Brazilian states; (b) biomes and the whole country.

Implications for global responsibility

The results reveal a large variability in the carbon footprint of importing countries and regions per unit of soy. Surprisingly, the European Union shows the largest footprint among all regions (0.77 tCO₂-eq/t), even larger than China’s (0.66 tCO₂-eq/t), the world’s largest single importer. This is because major EU countries import soy from the MATOPIBA region in large amounts, while China imports a larger share of soy from municipalities where land was cleared long ago. China still accounts for more than half of the total greenhouse gas emissions in absolute terms, but the European Union imports more emissions from deforestation. This study can inform companies’ decisions on where to source soy to reduce their carbon footprint and prevent deforestation in Brazil, while enabling coordinated action for more effective governance at the local, regional, national, and international levels.

→ For further information, see:

[Neus Escobar et al. Spatially-explicit footprints of agricultural commodities: Mapping carbon emissions embodied in Brazil’s soy exports. *Global Environmental Change*, Vol. 62 \(2020\). DOI: 10.1016/j.gloenvcha.2020.102067](#)

More about the STRIVE project: strive-bioecon.de

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is a senior researcher at ZEF working in the project “Sustainable Trade and Innovation Transfer in the Bioeconomy” (STRIVE). This research is funded by the German Federal Ministry of Education and Research (BMBF).

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PLANTING TREES

NO ALL-ROUND SOLUTION FOR CLIMATE-CHANGE MITIGATION

Trees are able to sequester and store carbon. Re-planting trees in degraded ecosystems thus seems like a straightforward way to curb increasing CO₂ concentrations in the atmosphere. Last year, Bastin et al. claimed that global tree restoration could be the most effective solution to mitigate climate change. But is it as easy as that?



Tree Nursery in Kenya. Photo: Christine B. Schmitt

Different dimensions to planting trees

In fact, the climate benefit of trees depends on locality and species and there are many more dimensions to planting trees than just carbon gains. Major issues are:

Soil carbon: Global ecosystems differ in how much carbon they store below ground. This needs to be factored in when estimating the carbon benefits of tree planting. Humid tropical savannas for example, store much more carbon below than above ground due to the extensive roots of savanna grasses. As was shown for boreal forest, soil carbon gains also depend on the planted tree species.

Albedo: Trees, especially evergreen conifers, have a relatively high albedo, meaning they absorb solar energy which is then emitted as heat. By contrast, snow, bare ground and grasses reflect solar energy and have a lower

albedo. Thus, planting trees in high-latitude or high-elevation areas that would otherwise be covered by snow or consist of open ground can lead to warming that is more severe than the cooling caused by carbon sequestration.

Tree density: Open-canopy ecosystems such as savannas and grasslands naturally have low tree density due to factors such as poor soils as well as natural fire and browsing regimes. Planting additional trees in such ecosystems may interrupt ecological processes, reduce biodiversity, and lead to increased carbon losses from fire.

Biodiversity and ecosystem processes: Trees affect ecological processes such as groundwater and surface-water recharge. The positive or negative effects on ecosystems and people strongly depends on locality and tree species. For example, the ongoing trend to plant exotic trees can have negative effects on soil, water balance, and tree-associated faunal species such as insects and birds.

People: Land that could support trees is often used as agricultural or grazing land. Hence, the costs of tree restoration and maintenance are augmented by the opportunity costs of foregone local land-use alternatives. Moreover, effectively promoting restoration requires clear land property and use rights as well as mechanisms to solve land conflicts that prevail in many regions with alleged restoration potential.

Long-term effects to be scrutinized

Tree planting has many benefits for nature and people if carried out in an ecologically sound manner adapted to the local situation on the ground. However, tree and forest growth will also be affected by a changing climate, possibly leading to shorter stands, higher turnover rates and less carbon storage. Hence, the long-term outcome and cost-effectiveness of tree planting vis-à-vis other mitigation strategies require further scientific scrutiny. Overall, it remains more important than ever to reduce human carbon emissions and protect the last remaining natural forests as reservoirs of carbon and biodiversity.

→ For further information, see:

[Bastin et al. \(2019\): The global tree restoration potential. Science 365: 76-79. DOI: 10.1126/science.aax0848](#)

[Luedeling et al. \(2019\): Forest restoration: Overlooked constraints. Science 366: 315. DOI: 10.1126/science.aay7988](#)

[Veldman et al. \(2019\): Comment on "The global tree restoration potential". Science 366: eaay7976. DOI: 10.1126/science.aay7976](#)



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HOW WATER MANAGEMENT COULD HELP SMALLHOLDER FARMERS TO ADAPT TO CLIMATE CHANGE

A CASE STUDY FROM DANO, BURKINA FASO



Flood after heavy rain in Dano. Photo: Mouhamed Idrissou

The majority of West Africa's rural population are smallholder farmers. They are practicing rainfed agriculture on small farms (less than 1 ha). During the dry season (seven to eight months per year) the farmers are mostly jobless.

In Dano, in South-Western Burkina Faso, nearly 60% of people live on less than 0.5 Euro per day (average per capita). Farmers are already experiencing the impact of climate variabilities, which are expected to increase in the future. Due to the limited capacity of the government only a few adaptation measures are in place. One adaptation strategy promoted by governmental and non-governmental organizations consists in shifting agricultural cultivation from the uplands to inland valleys to benefit from better water and soil conditions. However, many such projects have failed because the basic hydrological information needed for effective management is lacking.

Understanding and modeling hydrological processes

My research aimed at supporting the management of these landscapes by improving the understanding of hydrological processes. Using a process-based model and investigating the impact of climate change and land use/land cover change on water resources, an intensive instrumentation was carried out.

Technical implementation in four sub-catchments

In four data-sparse sub-catchments (Bankandi-Loffing, Mebar, Moutori, and Fafo), the instrumentation included five rain recorders, seven stream gauges, 64 piezometers in shallow groundwater, and 64 soil moisture point measurements at three different depths, and three deep wells. From 2014 to 2016, meteorological data were recorded at five to ten minute intervals, and piezometer and soil moisture were automatically recorded at 30 minute to six hour and manually recorded at weekly time steps. A hydrological model (Water flow and balance Simulation Model, WaSiM) was applied. The Land Change Modeler was utilized to predict future land use/land cover change,

and the Africa dataset of Coordinated Regional Climate Downscaling Experiment (CORDEX) was used to assess the impact of climate change.

Water reservoirs: Simple steps could have huge impact

The results show a runoff coefficient (share of runoff in relation to rainfall) of 14% and suggest that four million m³ per year flow out of Bankandi-Loffing alone. This is ten times the average reservoir size in the area. A runoff harvest equivalent of one or two reservoirs could help farmers cope with water scarcity in the dry season without impeding the needs of ecosystems and the people living downstream. 65% of annual rainfall is lost by evaporation and does not contribute to biomass production. The annual groundwater flow to the stream (approximately two million m³ per year on average) suggests that groundwater could be used for supplementary irrigation.

Preparing for a future with more climate change effects

The gradual conversion of savanna into croplands, which leads to an increase in surface runoff and subsequent soil erosion and soil fertility losses, has to be considered in land use planning and soil conservation strategies. Rainfall intensity is expected to increase in the future, which creates the need for flood preparations in the area that could be combined with water storage reservoirs. With the proper management of water resources, the potential for agroforestry or afforestation for increasing biomass production is huge.

→ Read the full thesis:

[Modeling water availability for smallholder farming in inland valleys under climate and land use / land cover change in Dano, Burkina Faso](#)

Mouhamed Idrissou

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THE PANDEMIC AND POOR PEOPLE'S STRUGGLE FOR SURVIVAL

HOW SHOULD GOVERNMENTS IN LOW-INCOME COUNTRIES RESPOND AND WHAT RESOURCES ARE NEEDED?



Street scene in Liberia. Photo: Phillip Garjay Innis

As Covid-19 expands across the globe with increasing speed, many low- and middle-income countries are confronted to urgently identify and implement measures to combat the life-threatening pandemic.

The Economist wrote in March 2020 that “Africa is woefully ill-equipped to cope with Covid-19”, emphasizing the fact that “people cannot stay away from work if they have no money”. Covid-19 not only brings the risk of a huge death toll, but fighting its spread inevitably affects the livelihoods of the most vulnerable people. Once deprived of their income opportunities, they are at the brink of starvation. The dilemma faced by African governments is to balance the trade-offs between saving lives in the short term and saving livelihoods for long-term survival.

Role and impact of social programs

In response to the pandemic, governments have started to introduce, expand, and modify welfare programs. In our research, we examine how social programs during the pandemic should be designed in different environments, particularly to keep food systems functioning. In addition to that, we estimate the amount of public financial resources in the form of cash transfers required to compensate the urban poor for the economic damage induced by the pandemic, i.e. costs incurred to keep the poor above the international poverty line (assuming an international poverty line of 1.9 USD a day per person).



Tekalign Gutu Sakketa



and **Lukas Kornher**
are both senior researchers at ZEF.

Cash transfer: Does it suffice?

Currently 413 million sub-Saharan Africans live in extreme poverty, 165 million of them in urban areas. The Covid-19 pandemic could push at least an additional three million people in urban areas into poverty. The total public costs of a 1.9 USD-transfer per person to lift households above the poverty line depend on the number of beneficiaries, location of distributions, size of transfers and the existing infrastructure. If cash transfers were to be paid to 50% of all people in urban areas, the costs would be between 177-289 million USD a day depending upon the efficiency of the program. Paid for 30 days, the costs would quickly increase to 5.3-8.6 billion USD. However, a significant cost reduction could be obtained if mobile cash transfer approaches and cost-efficiency drivers are systematically designed and employed.

Donor and international communities have to help

African countries cannot get cheap loans on the credit market to finance investment programs through additional public debt. Moreover, there will be a massive outflow of capital from the Global South which makes it unlikely that African countries would be able to cope with the financial burden on their own. The development community and international donor countries have to fill the finance gap to ensure that the investments in global health, food security, and poverty reduction made over the past 30 to 50 years will not be nullified.

→ For more information, see:

[Pandemic Crisis and Poor People's Struggle for Survival: How Should Governments in Low-Income Countries Respond and What Resources are Needed? \(ZEF Policy Brief 33\).](#)

THE PUSH FOR DIGITALIZATION

HOW THE CORONA PANDEMIC ACCELERATED VIRTUAL ACADEMIC LIFE AT ZEF

Physical distancing regulations led to the closure of ZEF's office building and a plunge in face-to-face contact. However, research, teaching and administration had to continue. Digital tools and services offered a solution to this challenge.

The Bonn International Graduate School for Development Research (BIGS-DR) team at ZEF under the leadership of Günther Manske established and maintained digital ways to communicate with doctoral students. BIGS-DR team member Anna Grimminger stresses the importance of informal ways to stay in touch: "To support our students we offered regular morning hangouts, digital office hours and online game nights via Zoom. Many students attended and shared their daily struggles." Manske and Max Voit also developed a strategy for digital learning and research which points beyond the pandemic to "strengthen our core competence by digitally integrating our teaching and research efforts".

Learning and teaching

Lisa Biber-Freudenberger and Cory Whitney were among the first at ZEF to begin digitalizing their course work. Together they taught an R-programming online-course for ZEF doctoral students. Biber-Freudenberger describes the advantages: "Since we recorded the teaching material in advance, students were flexible when, where and how often to watch the videos. As a result, it was easier for us to include students with different levels of knowledge and speed. Regular face-to-face time on Zoom served as an open space for anything that came up. Some students struggled with time differences and poor internet connections that made it difficult for them to download the videos or access the meetings but overall it went very well." Wyclife Oluoch, a doctoral student at ZEF who participated in this course, says: "I got several e-mails with instructions such as: 'Install the latest version of R. Install the latest version of R Studio. Install Zoom or here is the link to our Zoom. Install desktop Slack or use the online platform. Here is the link to the Pinup board. I hope you can access Sciebo.' I was surprised by the long list of prerequisites." Despite being overwhelmed at first, Oluoch is very content with the result: "The electronic learning materials were easy to use. All materials were made available on time and remain available for further use. I actually saved time since I did not have to travel



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to class. Sharing outputs on a platform like Slack made it easier to get help from colleagues."

Digital events

As the pandemic began, Mahsa Motlagh and Shivam Gupta, both researchers in the Bonn Alliance for Sustainability Research of which ZEF is a partner, were organizing an international brainstorming workshop – a 'Thinkathon' – on the role of digitalization for sustainable development. Although complemented by digital components, the core event was supposed to be a physical one. Gupta explains how they adapted the program: "We sent out information and tutorial videos beforehand. We didn't expect people to download anything and tried to use the most common tools. We tried to mimic the physical part but brainstorming requires that multiple people speak at the same time which gets complicated online. We adopted a digital platform where participants could stick and arrange post-its. But, unaware of other participants' activities, they dragged at the same sheets simultaneously. One lesson we learned is to have a mock session in advance to allow people to get used to the digital tools." Although a slow internet connection or access to power can be an obstacle, Motlagh says: "Technical accessibility was not the problem. It's more about usability and the willingness to try out new methods. People had to shift from what they knew and we had to bridge the gap in expectations. At a physical meeting you get out of the office, meet others, have lunch together. But sitting alone in one place and engaging in an entirely virtual event is completely different. Thus, more effort is needed to motivate people and make sure they see the benefit." Motlagh adds: "A big advantage is that people joined from all over the world. If it had been a physical event, the outreach would have been more local and limited."

→ Read more about 'digitainability' in Shivam Gupta's article on ZEF's Covid-19 Blog "[COVID-19 and its impact on research realities](#)".

FACTS & NEWS

FROM OUR COVID-19 BLOG [WWW.ZEF.DE/2129/ZEF-COVID-19]

Juliana Minetto Gellert Paris

[Sustainable nutrition during the COVID-19 pandemic: a digital survey in the Metropole Ruhr, Germany](#)

Rodolfo E. Herrera M.

[Migration and the COVID-19 pandemic in the Northern Triangle of Central America](#)

Ambrose Bockarie Kanneh and Abdul Wahid Arimiyaw
[Challenges beyond public health: the impacts of the COVID-19 outbreak on Sierra Leone's biodiversity](#)

Teddy T. Nakanwagi and Dorothy Birungi Namuyiga
[COVID-19 hits Uganda: livelihood impacts and mitigation measures scrutinized](#)

Dennis Avilés-Irahola, Tina Beuchelt, Christine Schmitt, Sarah Nischalke, Eva Youkhana and Franziska Geiger
[Gender inequalities show and deepen in times of pandemic](#)

Namrata Rawat

[India grounded: Covid-19 poses gigantic challenges](#)

Jakob Rhyner

[The Covid-19 crisis – reflections on dealing with risks](#)

Hiroe Ishihara

[Side-effect of Covid-19 pandemic in Japan: Start of a new paper-less and online-based business style?](#)

NEW COVID-19 RESEARCH

Two ZEF researchers obtained grants in a competitive process from the Transdisciplinary Research Area Innovation and Technology for Sustainable Futures (TRA 6) of Bonn University:

Nawaphan Metchanun's research on "Covid-19 epidemic trends and health system needs projections for developing countries" will receive funds of 30,000 €.

Girma Kelboro Mensuro receives 21,500 € for his research on "COVID-19 Risks and Innovations for Sustainable Livelihoods in Ethiopia" which will be carried out in collaboration with Professor Detlef Müller-Mahn and his colleagues of the Geography Department/Institute of the University of Bonn.

GOOD NEWS!



Felix Asante (right) with Germany's former Federal President Horst Köhler in 2007 at his appointment as the first member of the African Good Governance Network.

ZEF alumnus Felix Ankomah Asante becomes new Pro-Vice-Chancellor for Research, Innovation and Development at the University of Ghana.

ZEF congratulates Professor Asante who was appointed to his new office as of August 1, 2020. The agricultural economist obtained his doctoral degree at ZEF through a DAAD-scholarship from 1999 to 2002.

More information about Felix Asante's career on University of Ghana's [website](#).

NEW PROJECTS

Implementing Climate-sensitive Adaptation strategies to reduce Flood Risk in the transboundary Lower Mono River catchment in Togo and Benin (**CLIMAFRI**).

This new research project which is funded by the German Federal Ministry of Education and Research (BMBF) aims at reducing current and future flood risk in the transboundary Lower Mono River catchment of Togo and Benin. The project will therefore co-develop and co-implement a river basin information system. This system will include climate-sensitive adaptation strategies and integrate science-based data with information and knowledge from local stakeholders and communities.

Project homepage:

www.bmbf-client.de/projekte/climafri