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Food Security in Times of Crisis: Poor Developing Countries are Different

Summary

The corona crisis has taken the world captive. While there is broad discussion of the immediate risks of the pandemic, the same can rarely be said of the immense impact that the virus is expected to have on food security for those living in absolute poverty. This impact is resulting primarily from lockdown measures aimed at reducing infection rates and is already having a detrimental effect on all four pillars of food security through many cause-and-effect chains: Access to food will deteriorate tremendously if incomes fall and purchasing power dwindles, as most likely will food availability as a result of the difficulties and losses in terms of inputs, harvests, trade and transportation. The new instability could easily spread to other areas such as migration, security and statehood. Women especially are at risk, as are children in many cases.

Different types of households are affected in very different ways. The first to be hit hardest by this crisis will be households with no connection to the agricultural sector, that is, the urban poor for the most part. Those that do have agricultural links could benefit from food transfers or (partially) migrate back to their home regions. The impact of this crisis on the food situation of smallholder subsistence households, which describes most of the world's poorest families, will be smaller in the short term at least (unlike in the case of natural crises). Larger agricultural enterprises capable of producing a reliable supply of food for the market should prove to be a pillar of stability during and after the crisis, provided the markets they serve do not suffer massive collapse.

At overall level, the impact of the corona crisis on nutrition, alongside the design of lockdown measures, depends in particular on the degree of economic development, the extent to which the agricultural sector is separated from the

rest of the economy and the scope that the state and prosperous sectors of society have and retain for making transfers. When it comes to balancing measures to tackle the coronavirus with those for economic stimulus, greater emphasis must be placed on the economy in poorer nations than in wealthier ones. Lockdown measures pose a risk to life and health in poor countries. It should be clearly stressed at this point that the "economy" refers in this context to the complex results chains on the way to food security and not simply to growth and jobs.

Corona strategies in the poor South should thus look different to those in the global North and in emerging economies. For development cooperation, this means in the first instance assisting with the development of specific local strategies. Initiatives must flexibly address awareness-raising, health and hygiene in particular in the short term and, where necessary, include cash and food transfers and employment programmes. Economic structures and actors should be protected and supported in this process. Resilience in the face of the corona epidemic and other epidemics can be boosted in the medium term by promoting sustainable agricultural and food systems in particular.

In so doing, it is vital to avoid neglecting resilience with regard to other types of crisis in which other cause-and-effect chains are operating in some cases and in which other relevant measures are thus required. For instance, climate-related crises often harm the local agricultural sector, and so access to the international agricultural market serves as a key means of protection. Research shows that employing a combination of economic diversity, reserve-building, open agricultural markets, insurance policies and social security systems is the most effective way to achieve resilience across the board.

Lockdown measures in the fight against corona-virus

The corona crisis is currently dominating people's lives the world over. So far the epidemic has been treated primarily as a crisis for health and the health care sector. In the short term, efforts are being made to combat the virus through medical measures, such as the establishment and expansion of treatment capacity, testing methods and intensive care. However, the focus is on public transport restrictions, business closures, contact bans and rules on going out in public, hereinafter referred to collectively as lockdown measures, with a recognition that individual measures vary greatly in type and form. Present corona strategies virtually always involve drastic lockdown measures, (Sweden and South Korea are two exceptions). In the medium term, it is hoped that treatments will improve and, in particular, that a vaccine will be developed.

While the immense consequential economic losses are being addressed, they are being afforded secondary priority. Wealthier nations are attempting to cushion their impact through massive support programmes. As of late April, proponents of economic arguments are mostly outnumbered by those making health arguments; the latter are acknowledged as superior, often for ethical reasons.

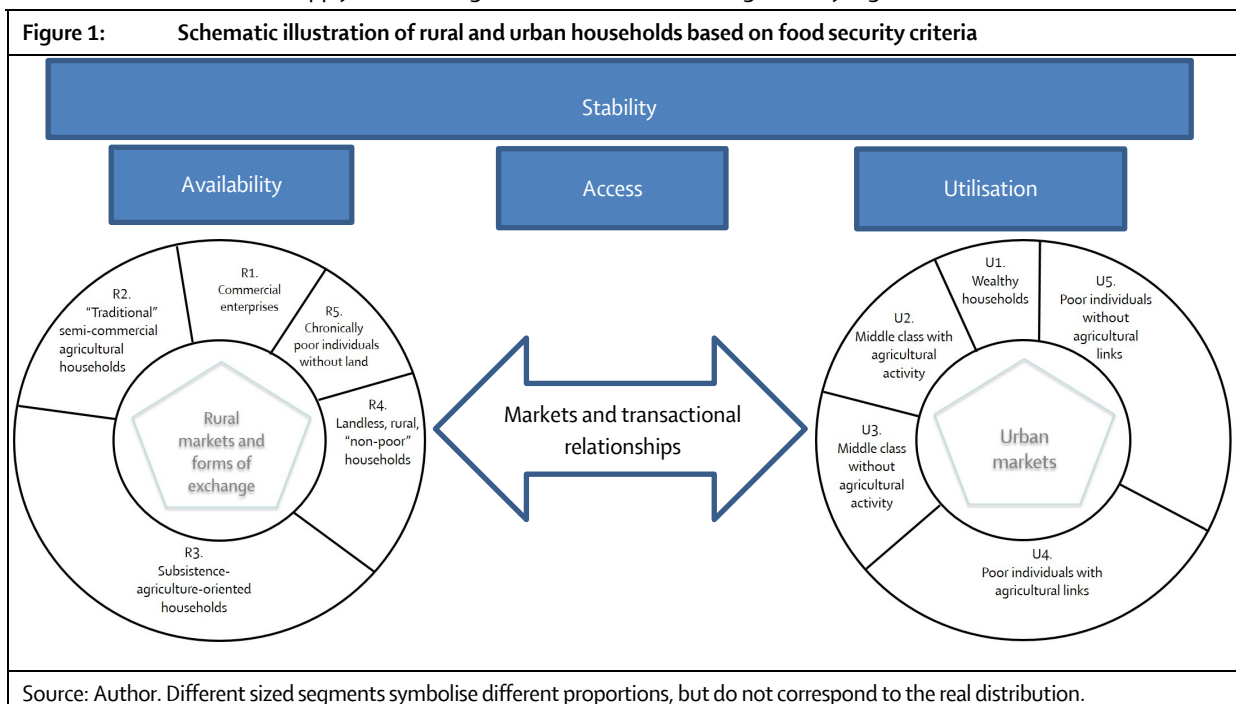
This emphasis in the public discourse and among policy-makers is based on experiences from past epidemics, the exponential spread of the coronavirus and horrifying images and reports of overstretched health care systems. Another key factor is the fact that the lockdown measures in the industrialised nations and emerging economies (hereinafter referred to as the global North) that are currently affected most by the virus and that are defining the discourse are causing relatively little harm to health. Food security especially is barely at risk. Apart from a minority of people stockpiling basic non-perishable foodstuffs, there is a general sense of confidence that there is no short-term or medium-term risk to food supply nor to the generation of

income to purchase food and/or that state welfare systems will guarantee food supply

The situation is completely different in poor developing countries. In these nations, lockdown measures introduced for health reasons not only have major potential consequences for society and the economy, but can also pose a direct and serious risk to food security and thus to human life. As argued below, this has to have implications in terms of efforts to combat the corona epidemic in these countries. Additionally, there are lessons to learn here when it comes to boosting resilience to food-related crises, but they should be applied cautiously and not on an overly generalised basis.

A different baseline in poor countries

A high proportion of individuals in poor nations live below the absolute poverty line of around USD 2 per day. Living and working conditions are extremely cramped and retirement and care homes are virtually unheard of. A third of the population is undernourished and a similar number have no access to clean drinking water. Malaria and dietary and hygiene-related illnesses are almost ubiquitous, and HIV/AIDS and tuberculosis are widespread in southern Africa especially. Public medical facilities are few and far between and the quality of their provision is extremely poor. The same is even true in many cases of private establishments. Consequently, the mortality rate in these countries was already high prior to the COVID-19 pandemic, with over 60s accounting for just five per cent of the population. However, as Nigeria's success in containing Ebola has illustrated, there are pockets of efficiency within the health care system and a number of countries and regions that have become well versed over time in dealing with epidemics. For some individual development indicators, the situation in rural areas is usually far worse than in cities. In spite of this, while mortality rates in rural areas are significantly higher for children, the same is not true



for adults. Adults in cities especially bear the double burden of typical poverty illnesses (infections, ailments resulting from a lack of supplies) and new civilisation diseases (malnourishment, diabetes, heart conditions). The population as a whole is very young, under 20 years old on average.

Indirect risks resulting from food insecurity

We will now consider what changes we can expect lockdown measures to bring to the four pillars of food security (availability, access, utilisation and stability) for the different population groups. For rural households, the model used is that of the five rural worlds. A similar model has been drawn up for urban households, with a focus on access to one's own agricultural production (U2 versus U3 and U4 versus U5) through urban gardening and animal husbandry, agriculture on the periphery of smaller cities and in people's home villages (Diagram 1). The assumption underlying this household classification is that one's relationship to agriculture is decisive to the impact that lockdown measures have on food security in poor countries.

Availability: From a global perspective, 2020 is a good year for agriculture. Nonetheless, initial signs of the effect of lockdown measures in the global North indicate that the availability of food could still decrease, despite attempts to limit only the movement of persons, not goods production and trade. Depending on the culture in question, there is a lack of harvest workers, even in the short term (the coming weeks), who are no longer permitted to travel. Agricultural products are also becoming scarce as a result of speculation and panic-buying. Nonetheless, the most severe impact is being felt in the transport sector, which is especially staff-intensive in poor countries. In the medium and long terms (months to years), production could also be hampered further by workforce shortages or, for instance, if there is less fertiliser or fewer other production inputs available to modern farm enterprises (especially R1 and R2) and to the small-scale, but important cash crop production activities of subsistence farmers (R3). (Examples include China, which saw a fall in fertiliser production in Hubei province, and India, where the rice market has been severely disrupted by the lockdown.) Generally speaking, smallholders (R2) should be less susceptible to production losses during this crisis, as their families make up a high proportion of their workforce, they employ fewer external inputs, they barely use loans and they tend to supply local markets. However, the base level is very low, and many of these households are net buyers of food. The global availability of food can also be reduced by lockdown measures (Indian traders, for instance, suspended rice exports) and export bans (e.g. wheat from Kazakhstan, rice from Vietnam).

Access: Far more significant, in the short term at least, are the effects of lockdown measures on access to food. In poor countries, the average household spends between 50 and 85 per cent of its income on food, including subsistence production. The lockdown measures are leading to massive drops in income for many households, especially those working in the dominant service sector. Aside from their agricultural products in the field or in storage depending on

the season, poor households have barely any savings to tide them over for even just a few weeks without outside support. This is especially true of poor urban households (U4 and U5), but also affects the middle classes (U2 and U3), though with a time lag (when they have used up their savings). Although an astonishingly high proportion of urban households in poor countries are engaged in agricultural activities (U2 and U4) with significant contributions for both subsistence and monetary income, it is not certain whether their access to agricultural production sites and their products is secured during the corona crisis. The lockdown measures pose a risk to physical access to fields, transportation and sales activities. The wealthy upper class (U1) themselves are often engaged in agricultural activities, in some cases using modern methods; nonetheless, they are unlikely to have any difficulties with food security even without these activities.

In rural areas where households grow their own food in the immediate vicinity of their homes (R1-R3) or can obtain food through neighbourly assistance (R1, R4 and R5), lockdown measures are likely to pose fewer obstacles to food access. However, in the medium term, rural agricultural households (R1-R3) and rural households with close ties to agriculture (R4-R5) could also be negatively affected if production and sales conditions and, by extension, incomes take a turn for the worse, and if cuts are made to public services and investments as a result of the economic crisis and shortfalls in state revenue. Rural regions are usually hardest hit by such developments.

Lockdown measures are also likely to pose a risk to those who access food by means of transfers. Although social security systems have been significantly expanded in recent years, states and governments are often too poor, powerless and sometimes even unwilling to provide for the needs of the vulnerable in times of crisis, as seen in numerous cases, from Mozambique (Cyclone Idai), Somalia and South Sudan (drought) to Liberia (Ebola). Without international assistance, many more disasters would undoubtedly develop into humanitarian crises. Non-governmental organisations especially are limited by the corona crisis in their freedom of movement. Families and local solidary networks thus are and will remain the key safety nets. They too are at risk from lockdown measures, but they often still function, albeit at a very low level.

Utilisation: The way that food is utilised is important for a healthy diet. Knowledge about the quality and preparation of food, hygiene, the allocation of (good) meals within households, etc. play a role in this context. These factors appear not to be directly affected by the crisis. Nonetheless, without access to clean water, individual water stations and money for sanitary products, poor households have fewer means for taking even simple precautionary measures that help to guard against corona infections and can be followed regardless of lockdown measures. It is also known that the weaker members of a household, primarily women and in many cases children too, frequently suffer particularly acutely from malnourishment in stressful situations. The

consequences are especially severe for children, who may experience long term impairment in their physical and psychological development.

Stability: Stability refers to the sustainability of the other pillars of food security. The corona crisis, and the lockdown measures in particular, are more than a short-term shock to many aspects of the three other pillars; they also pose an ongoing risk to food security in the medium and long term. Global agricultural markets could experience structural instability, negatively impacting security, statehood and conflicts in countries and entire regions.

Conclusions and recommendations

There is still uncertainty as to the impact that the corona crisis will have on health in poor countries, where initial outbreaks were delayed. What is certain is that these countries are not only more poorly prepared in terms of their health sector, but are also impacted differently by the lockdown measures and, in particular, differ in their ability to absorb their effects compared with nations in the global north. The economic and social effects of lockdown measures are far more negative, primarily affecting the weakest and the youngest, the urban population more than the rural and those without recourse to agricultural production more than those with such recourse. These negative side effects of lockdown measures pose a risk to health, life and routes out of absolute poverty. Governments and the development cooperation community should take account of the following when working to combat the coronavirus in these countries:

- Each lockdown measure should be analysed carefully in terms of its impact on food security. Negative impacts that are identified must be countered with targeted activities for promoting healthy nutrition. The conclusion that individual lockdown measures (even those with realistic supporting measures) result in greater harm to health and diet than the further spread of the coronavirus will be

drawn far more often than in the global North. In such cases, the lockdown measures should be abandoned.

- Development cooperation initiatives must address awareness-raising, health and hygiene in particular in the short term and, where necessary, include cash and food transfers and social and employment programmes. Economic structures and actors should be protected and supported as much as possible in the process.
- There should be a clearer recognition of the importance of agriculture as a fall-back option in the corona crisis, in other epidemics and also for many other collective and individual risks. The resilience of most households can be enhanced through the promotion of sustainable agricultural systems that need to be adapted to different types of households, e.g. kitchen gardening (U5, R3 and R4), low-input agriculture (R3) and semi-professional cultivation systems (R2). Inclusive economic growth remains another focus of activities to enhance resilience; as the key economic sector in poor countries and for partners of the agricultural sector, the food industry is a suitable funding area in this context.

Care must be taken to avoid neglecting other crises, where there are sometimes other cause-and-effect chains in operation, necessitating the employment of other relevant measures. Climate-related crises (e.g. drought) often harm local agriculture, and so access to the international agricultural market must serve as a key fall-back option. Research shows that employing a combination of diversity, reserve-building, social security systems and insurance policies is the most effective way to achieve resilience across the board. The development cooperation community should explicitly seek to enhance resilience to a range of risks and provide for smooth transitions between development and crisis modi (contingency planning).

References

- Brüntrup, M. (2016). *Erweiterung des OECD-Modells der fünf ländlichen Welten für die sektorübergreifende armutsorientierte Analyse, Kommunikation und Planung* (Analysen und Stellungnahmen 12/2016). Bonn: German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE).
- Heidhues, F., & Brüntrup, M. (2001). Subsistence agriculture in development: Its role in processes of structural change. In S. Abele & K. Froberg (Hrsg.), *Subsistence Agriculture in Central and Eastern Europe: How to Break the Vicious Circle?* (S. 1-27). Retrieved from http://www.iamo.de/fileadmin/documents/sr_vol22.pdf#page=17



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