

Agroecology is the future



Welcome changes in the discourse - Maria Tekülve on the role of agroecological approaches in international cooperation, old and new "silver bullets" in rural development and why the wide scope of the concept of agroecology is at the same time one of its greatest strengths.

Ms Tekülve, is agroecology the new silver bullet in the struggle against climate change, pandemics and hunger in the world?

The term "silver bullet" tends to polarise and doesn't really do justice to the issue. What is correct is that the concept of agroecology has raised many questions and sparked controversy. I believe this is understandable and should even be welcomed, since it shows that people are interested and that we can only find good ways to address forthcoming challenges together, via common discourse. What is also correct is that a significantly growing consensus has developed both world-wide, in the European Union and in Germany that agroecological approaches can make important contributions to creating sustainable agricultural and food systems and rural areas with acceptable living standards. Furthermore, it is clear that contemporary systems oriented on capital and, primarily, production - "old silver bullets", if you like - are neither economically nor ecologically sustainable and have in addition caused society high costs.

What is the role of agroecology in German development cooperation?

In 2019, with its resolution on "Recognising and supporting the potential of agroecology", the German Federal Parliament gave important impetus to raising and enhancing the quality of already existing engagement in sustainable approaches on the part of Germany's Federal Ministry for Economic Cooperation and De-

velopment, the BMZ. This has given the topic a further boost at the political level, for example in the Parliamentary Committee on Economic Cooperation and Development, here at the BMZ and thus among the implementing organisations. This already constitutes an important contribution to the June 2021 recommendations by the Committee on World Food Security, CFS, namely creating political foundations. For it is important to look not only at the projects and finance but also at changes in discourses, strategies and networks, etc. And a lot of things have been happening in these areas over the last few years and right now.

What changes has the integration of agroecological principles brought about in German engagement in the area of rural development?

Spatially based and cross-sector approaches in rural development, such as "territorial concepts", appear to be closely related to agroecological elements like diversification and regionality. "Rural regional development", which for some time had fallen out of view in international development cooperation, is there once again, as are "holistic approaches". Here are a few examples:

- The BMZ is actively involved in international agenda setting. Examples here include the CFS, the Global Landscapes Forum or the UN World Food Summit, where we support agroecological approaches. These are important global, structure-forming debates, even though many controversies exist.
- In Germany, we conduct departmental talks and round tables. We regularly communicate with civil society and the organic food companies.
- The new BMZ strategy "A World without Hunger - within the Planetary Boundaries" contains detailed sections on agroecology and rural development.

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- Funding of agroecological approaches is constantly on the increase. This applies to projects by Deutsche Gesellschaft für Internationale Zusammenarbeit and KfW Entwicklungsbank, for example on five knowledge centres for organic agriculture in Africa, developing a focal area addressing agroecology with India or collaborative schemes with the EU and the International Fund for Agricultural Development. This also includes the considerable engagement of a large number of church and private organisations. Misereor, to name but one example, is working on the "True Costs" project.
- We have good relations with research and teaching, internationally (e.g. CI-FOR, CGIAR), consulting services in partner countries and in Germany, including the Centre for Rural Development (SLE) at Humboldt University Berlin, where a postgraduate project on agroecological approaches in the Global North is currently underway. This changes mind-sets and adapts curricula in the long term.

This is a "colourful bouquet" – which we have picked on purpose to achieve a broad impact.

The term "agroecology" leaves much scope for interpretations. What is the essence of the concept in your opinion, and what are its greatest strengths?

The ten Food and Agriculture Organization elements of 2019, the 2019 report by the CFS and the High Level Panel of Experts on Food Security and Nutrition (HLPE) as well as the 2021 CFS recommendations prescribe a clear direction for transformation. It includes diversification, reducing external inputs, regional economic cycles and basing developments on tradition and culture. I believe that these are very good guiding principles!

It is true that the concept of agroecology has a very wide scope. This can lead to misunderstandings. For example, the connotation with "organic farming" seems to suggest itself, whereas today, the term agroecology goes way beyond it. The considerable leeway for interpretation may also mislead actors to greenwashing or to watering down and relativising certain elements.

At the same time, the strength of the concept is precisely that, in addition to its clear direction, it can be adapted holistically and according to location. There simply is no globally uniform patent recipe applying, say, to individual cultures. The context is the space one is looking at and the people living in it, viewed in all its dimensions.

Even the - subjective and local - assessment of the individual elements varies. In Latin America, governance aspects may play a special role, whereas in Europe, it may be the environment and recycling, in Africa resilience, and in Asia perhaps culture which count. Here's an example. During my last visit to Tamil Nadu, in 2019, I was impressed by the extent to which the local food culture, the delicious South Indian Dish based on regional products, had been retained, also in the metropolises - in contrast with, say, the pizza and burger offers in many cities of sub-Saharan Africa, with imported meat, wheat products and tomato purée. While this may not have prevented the major ecological and social problems which India is currently facing, it certainly has strengthened the intensive regional economic cycles and preserved a food culture which people can rightly be proud of.

Can the poor afford agroecology?

That is a highly pertinent question! For in order not to drive people into economic ruin and also meet with general acceptance, it is of key importance for "transformation" towards agroecology to pay its way, both in terms of national economies and of businesses. Especially last year, many stocktaking reports were published with the catchwords "true costs" or "externalised costs", primarily with view to the politically very important national economy level. The tenor here is that among the systems referred to as "conventional" in the EU, it is not only the long-term ecological but also the already existing economic damage or loss which is higher than the benefit or gain. For example, according to a highly topical report of the Zukunftskommission Landwirtschaft Deutschland in June 2021, the external costs of German agriculture have been put at 90 billion euros a year. In many developing countries, areas previously cultivated are now increasingly lying fallow or are used sub-optimally because of not having been appropriately managed, and rivers and village wells are polluted.



A traditional South Indian Meal, vegetarian curries, served on a banana leaf (Thanjavur 2019). That Indian food culture has been retained over generations is impressive, despite the banana leaf being used mainly for tourists nowadays.

Photo: Maria Tekülve

Thus I ask back: can poor people afford capital and environment-intensive systems with their often negative impacts at business management level? What with climate change in particular, resilient systems are of high relevance for the poor. Everywhere in the world, soil – the key means of production for the rural poor - is overexploited, and there is a lack of water. In sub-Saharan Africa, 60 per cent of the population live in rural areas, the major share of them in poverty. In 2015, in Zambia's Northwest Province, I saw a badly deteriorated village which had previously had the reputation of being especially progressive, where the farmers had grown maize monocultures with the synthetic "magic fertiliser" in the same area for many years, until the soil no longer yielded anything. There, just like elsewhere, the government and agricultural extension services failed. It is known from India in particular that many farmers ran into debt because the input costs were too high.

The ecocomic returns of (agro-)ecological farming vary considerably, depending on crops, management forms and markets. For example, when monoculture is continued, say of maize or rice, reducing external inputs really can lead to lower yield and income per hectare — if market prices don't rise. In contrast, the performance of legumes and mixed cropping in the same area is more positive. Moreover, the latter is less prone to risk and hence also more poverty-oriented. However, agro-ecological cropping systems usually involve a greater labour effort and often, drudgery. This should

not be romanticised, especially with regard to youth. Here, pilots, affordable new small-scale technologies and support for "agroecological intensification" and the like are certainly required.

It is also true that – just like everywhere in the world – some regions are not or no longer suitable for agriculture. Then other rural economy branches developed over a longer period, such as processing or services, or migration to regional centres or the like can provide prospects for the future which young people can accommodate to.

Does the concept fall on sympathetic ears in partner countries? Or does it rather tend to be viewed as an "idea from the Global North" which does not (always) fit in with local conditions?

Just like in Germany, interest varies considerably among governments. Since distinctions like "Global North" and "Global South" do not apply here, the negotiations in the World Food Committee in 2021 have revealed that the USA, Brazil and Russia are pursuing strategies differing from those of, say, the EU, Senegal or Sri Lanka. And one cannot even claim that the Global North is setting a good example here. Nevertheless, interest is growing in alternatives to concepts of the "Green Revolution" or the EU Common Agricultural Policy. Now, many regional organisations, such as the African Union Commission, have corresponding guidelines. Interest exists in the ECOWAS organisation, whereas in the ECOWAS countries it differs, and Senegal and Mali appear to be more active than others. Multilateral organisations such as the United Nations Food and Agriculture Organization or the International Fund for Agricultural Development with a high presence of our partner countries are strong actors and deliverers of ideas.

Since 2005, India has been drawing up national strategies on organic farming. Several Indian Federal States, including Sikkim and Andhra Pradesh, are opting for one hundred per cent organic farming, and so is Bhutan. Sri Lanka's President recently pronounced a ban on imports of synthetic fertiliser. Nepal is working on a directive to promote bio-fertilisers and bio-pesticides. In North Africa, including Egypt, Tunisia and Morocco, national laws and visions are being amended. Then again, there are countries like Brazil, where some States and civil society networks are very active but the current national government is de facto, despite good sets of regulations, pursuing a different approach to agroecology. In terms of sheer quantity, in Africa and Asia, certified organic farming – an area of agroecology which should not be confused with traditional farming – plays only a marginal role, with market demand showing a significant increase and offering incentives.

Critics of the concept say that the burgeoning world population cannot be fed with agroecology. What do you answer them?

Here, there are different calculations and opinions. There is a considerable demand for clear figures which represent "the only truth" - except that this type of simple answer doesn't exist. Furthermore, we all know that availability alone does not solve the problems of hunger and malnutrition, certainly not at global level. Calculations addressing the issue of whether it will be possible to feed 9.5 billion people by 2050 crucially depend on the variables that have been entered: global and regional population distribution, climate and soil, access to land, cultivating systems, income development, loss and waste, trade and consumption, food culture and "fashions", etc. Depending on the author and the science, these will be fed into the model calculation in different ways. And it is clear that the present systems are no long-term option. According to the 2019 World Food Committee report, organic farming with many legumes and mixed cropping can feed more than nine million people. However, this also requires a different emphasis in research, extension and consumption.

Looking at 2030, what has changed in rural areas?

A nice question! I will first of all answer looking back, because I believe that a long-term perspective is important to assess the present and the future.

For Africa, since the end of the colonial era, apocalypses and Golden Ages have been predicted alternatingly. Those who are familiar with Africa know that there have been continuity and changes, differing considerably at local level. However, as is also borne out by statistics, the long-term trend is positive. Widespread stark poverty, sometimes economic and social destitution, which I witnessed in Zambia and elsewhere forty years ago, has since lessened considerably. High levels of poverty continue to exist, but to a different extent and of different quality. Despite the tragedy of HIV/Aids since the 1980s, life expectancy has once again risen, while child mortality has declined. There are tarred roads and cross-country buses, more lively markets, solar lamps where it used to be dark after sun-



A cooperative using a mini thresher in India (2019). It makes work easier, but the drudgery remains. The women have covered their faces with cloths because of the dust.

Photo: Maria Tekülve

set, mobile phone connections, more cars, mopeds and bicycles, the latter also for women and girls, etc. In the Thanjavur District in South India in 2019, after forty years, I spotted hardly any homeless beggars, the "pavement dwellers", who had then often suffered from leprosy and elephantiasis. While life in the villages continues to make a modest impression, there are vibrant building activities, financed with income from agriculture, regional handicraft and remittances from the Gulf States.

We should also appreciate such success as the life-time achievements of the people there. That is often given too little mention! However, none of this should be sugarcoated. Inequality in landed property continues to exist, and the environmental problems in rural areas and in the cities – regarding soil, water and the air – are enormous. The impact of climate change, the loss of biodiversity, conflicts and the effects of as yet unknown events and crises like the current corona pandemic are hardly assessable.

Nevertheless, allow me to present an optimistic outlook, in the sense of a new vision from which I will omit crisis and conflict situations. A global trend reversal has been achieved in 2030 regarding the development of agricultural and food systems. In the course of the "transformation" we are awaiting, new-modern systems with clearly agroecological and spatially based elements will gain significance everywhere. I wish and believe that rural poverty (in all its dimensions) will decline further, which does not rule out the further existence

of sometimes severe problems. Settlement areas and markets are going to shift, already because of climate change. Temporary and permanent migration will continue to exist and even increase. The rural regional centres will continue to grow. Better rural-urban linkages are going to create new regional economic cycles and local incentives. Rural youths are trained largely in the city.

Imagine a setting on a saturday evening: youths meet up at the village bar in the evening, discuss the city's weekly market prices of the new manioc varieties, send text messages to their brothers and sisters in neighbouring villages and towns and engage in a heated debate over the prospects of their schoolmate running as a woman candidate for the provincial parliament. The last minutes of a soccer match, Cameroon-Germany, 2:1, are running on a video screen. The noise from the machinery ring park next-door interferes with the music of the village combo, who have just arrived. An old man casually passes by on his ox-drawn cart full of groundnuts and sweet potatoes, with mopeds and small lorries overtaking him. On Sunday, the relatives from the city will be travelling back to the metropolis with a basket full of vegetables and an envious sigh: "It was so cosy, the air so fresh, the food so good!" The tales and history books refer to the agricultural and food systems of the past fifty years as a bygone phase in history.