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BRINGING AGROECOLOGICAL ALTERNATIVES TO LIGHT
A process of reflection & engagement in West Africa

Over the course of 2017, the International Panel of Experts on Sustainable Food Systems (IPES-Food) will seek to support and stimulate an open reflection on the future of agricultural development in West Africa. While industrial agriculture and 'Green Revolution' approaches promise short-term increases in productivity, they are yet to provide a convincing answer to the question of how countries can *feed themselves* now and in the future: reducing their reliance on imported food and farming inputs, adapting to climate change, sustaining the resource base and providing nutritious diets for all. It is therefore crucial to explore alternative pathways. Emerging evidence suggests that *diversified agroecological systems* have major potential to provide an exit strategy from industrial agriculture and deliver productive and sustainable food systems. Through dialogue, consultation and collaborative research, IPES-Food will work with local partners to explore how agroecology is understood and applied in the West African context, how it is performing and what obstacles it faces. The key objectives are to consolidate the knowledge base on agricultural alternatives, to bring these alternatives to light, and to pave the way for a meaningful debate where different agri-development visions can be confronted and a way forward can be collectively defined.

The reinvestment in agriculture: what trajectory for food and farming systems?

For more than a decade now, agricultural development has been rising up the agenda for many African countries. Through the Maputo Declaration and the 'CAADP' framework[1], governments of the African Union have committed to developing ambitious national plans to reinvigorate the farming sector and increase agricultural productivity. The stakes are particularly high in West Africa, where agriculture accounts for 65% of regional employment[2], and where farmers' groups and civil society organizations have been strong advocates for rebuilding and reinvesting in farming systems.

The growth potential of African agriculture has not gone unnoticed in the rest of the world. The Millennium Development Goals (MDGs) and now the Sustainable Development Goals (SDGs) have made fighting food insecurity and hunger a priority, underlining the need to increase food production in Africa and around the world. International donors and agribusinesses have thrown their weight behind the quest to

increase agricultural productivity in Africa. Initiatives such as the Alliance for a Green Revolution in Africa, the Grow Africa platform and the G8 New Alliance for Food Security and Nutrition have driven forward this agenda, emphasising the need for farmers to get access to land, credit, inputs and markets – both by improving local processing facilities and through global commodity chains. Meanwhile, the food price spikes of 2007-2008 and the accompanying rush for farmland has reinforced Africa's position as the new frontier in global agriculture, sparking a major reinvestment in what was until 2006-2007 a relatively neglected sector.

This reinvestment in African agriculture is crucial. Having been a net food exporter in the 1970s, the African continent had become a net food importer with a $22bn agricultural trade deficit by 2007; this shift has been particularly pronounced in West Africa, where food imports have climbed to 150% the value of agricultural exports,[3] leaving countries highly dependent on global markets for staple foods.

There are various pathways, however, through which the ability of African countries to feed themselves can be improved. As choices are made today that shall lock in future development pathways, now is the time to ask whether the recipes currently on the table are really the key to building sustainable food systems in Africa.

Agricultural industrialization from the 'Green Revolution' onwards has succeeded in raising farm productivity around the world – but at a huge cost, and with major question marks about the future. Yields are now plateauing on nearly half of all global rice and wheat areas, with stagnation occurring even in the wealthiest and most industrialized regions[4]. Pests, viruses, fungi, bacteria and weeds are adapting to chemical pest management faster than ever: 210 species of herbicide-resistant weeds have been identified[5]. Meanwhile, synthetic fertilisers are fast destroying the soil biota and its nutrient-recycling potential.

In regions adopting industrial agriculture, this creates a **vicious cycle of environmental degradation and declining productivity**. Increasing resistance leads to increasing pesticide use, and the loss of natural soil fertility is compensated by reliance on increasing doses of nitrogen-based fertilizers. Input-intensive monocultures, heavy tillage and other practices associated with industrial agriculture are the leading cause of land degradation[6], which now affects some 33% of global land[7], and as much as 75% of Africa's arable land[8]. Meanwhile, food systems are responsible for up to 29% of global greenhouse gas emissions[9], with climate change already disrupting production systems and taking a severe toll on those farming marginal land.

Nor does the path to increasingly industrialized agriculture offer solutions for durably improving livelihoods. Too often, the opportunities presented by commercial farming – particularly for cash crops - have come alongside increased reliance on expensive inputs and on a handful of buyers, and have been promoted at the expense of the food crops on which local communities rely. As a result, increases in production are not translating into improved nutritional outcomes. 143 million people still go hungry in Africa, including 36 million in West Africa alone[10]; small-scale farming communities in fact make up half of the world's hungry[11]. According to the ECOWAS Commission, the current agricultural model - with its dependence on cheap labour, insecure livelihoods and over-exploitation of natural resources - has become 'unviable'[12].

Defining alternative pathways in West Africa

Agroecological alternatives exist: around the world, farmers are leaving chemical-intensive monocultures behind by **diversifying farms and farming landscapes**, **replacing chemical inputs** with organic matter, **optimizing biodiversity** and **stimulating interactions between different species**, as part of holistic strategies to build long-term fertility, healthy agro-ecosystems and secure livelihoods. The need for a paradigm shift away from input-intensive industrial agriculture, and towards agroecological production systems, has been increasingly recognized in international assessments, including by UNCTAD[13], the FAO- and World Bank-led IAASTD process[14], and the UN Special Rapporteur on the right to food[15]. Reviewing the latest evidence in its 2016 report[16], IPES-Food identified major potential for *diversified agroecological systems* to deliver strong and stable yields, environmental resilience and secure farming livelihoods – thereby succeeding where current systems are failing.

These alternatives are starting to make their way onto the agenda in West Africa, through initiatives such as the **African Union's 'Ecological Organic Agriculture Action Plan**' and the ***Divecosys* regional research programme** on diversified farming and agroecological pest management. However, these efforts are still marginal in terms of the funding and visibility they command. At this crucial juncture, it is necessary to explore the potential of agroecology as a genuine alternative, to find complementarities with existing approaches, and to work with a range of actors to collectively define new agricultural development pathways in West Africa. The following questions have been insufficiently addressed to date, and must now be asked:

- What is the **exit strategy for moving beyond chemical-intensive monocultures** on the one hand and **subsistence agriculture** on the other in

order to build healthy agro-ecosystems, deliver **climate resilience** and **sustain yields over time**?

- How can **knowledge, technology and innovation** be spread while increasing farmers' autonomy and **reducing their reliance on expensive external inputs**?
- How can countries capture export opportunities and harness the reinvestment in agriculture while **safeguarding national sovereignty**, **reducing exposure to global market volatility,** and allowing farmers to **rise up the value chain**?
- What is the scope for tackling hunger and micronutrient deficiencies by building on the **diversified farming** already practiced by many small-scale farmers and translating it into local **dietary diversity?**

What are the project activities and objectives?

IPES-Food will seek to support and stimulate this reflection through a process of **open-ended engagement**, **consultation**, **alliance-building** and **collaborative research**. In its initial phase the project will be focused primarily on the **West African region**, in order to develop detailed understanding of the state of play and opportunities for transition in specific contexts. However, IPES-Food will remain attuned to developments and potential partnership opportunities in other regions of Africa, and will seek to deliver outputs that are relevant beyond West Africa. The project will be structured around three key activities:

i) Mapping the landscape. IPES-Food will undertake initial scoping work to identify the key actors and initiatives operating in this space, and the different agricultural development models underpinning their activities.

ii) Consolidating the knowledge base and bringing the alternatives to light. IPES-Food will engage with a range of local partners in order to build understanding of the alternatives that are emerging on the ground, including both incremental adjustments to conventional approaches, and more fundamental *agroecological* shifts[17]. IPES-Food will seek to document how agroecology is understood and applied in the local context, the extent to which it is managing to reconcile different challenges (food security, resilience, livelihoods, etc.) and what obstacles it faces (technical, structural and political). This inquiry will proceed through open-ended dialogue and consultation with a range of actors, including farmers' groups, social movements and research institutes, as well as governments and international partners active in the region (intergovernmental organizations, development agencies, philanthropic foundations). Where possible, it will draw on and support work already being done by local groups to build the knowledge base and bring to light the alternatives. This engagement will

culminate in written outputs – potentially co-authored with local research partners – in order to synthesise the findings and describe the state of play.

iii) Building comprehensive sustainable *food policies*. As indicated above, some of the obstacles to transition are *political*. Sustainable food systems must be built from the ground up, and must be governed in a way that reconciles a variety of different concerns. Given the complex priority-setting this entails, it is essential to ensure that different policy measures at different levels – from farm subsidies to local land rights – are combined and aligned with the objective of building *sustainable food systems*. It also requires a forum where policymakers and civil society actors can co-develop this vision, where different knowledge bases can be drawn on and accommodated on equal footing, and in which different visions and framings can be confronted with a view to finding common ground. IPES-Food will seek to support such deliberations where they already exist, and to promote and potentially co-convene new processes where they are yet to take root.

What are the next steps?

Over the coming months, IPES-Food will be identifying and contacting a range of local actors in order to understand their activities and explore potential consultation and collaboration opportunities. Opportunities to bring forward this reflection through upcoming events and dialogues with policymakers will also be sought from the outset. Engagement is foreseen with actors working at the **local, national and regional levels** across West Africa. IPES-Food is interested in hearing from all of those **building, studying and advocating for sustainable food systems** in West Africa and across the continent, and invites those interested in collaborating to **make contact as soon as possible**.

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[1] The Comprehensive Africa Agriculture Development Programme (CAADP) is 'Africa's policy framework for agricultural transformation, wealth creation, food security and nutrition, economic growth and prosperity for all'. See: http://www.un.org/en/africa/osaa/peace/caadp.shtml

[2] World Bank, "Agriculture Development in West Africa: Improving Productivity through Research and Extension" (2013): http://www.worldbank.org/en/results/2013/03/28/agriculture-development-in-west-africa-improving-productivity-through-research-and-extension.

[3] Manitra A. Rakotoarisoa, Massimo Iafrate, and Marianna Paschali, "Why has Africa become a net food importer: Explaining Africa agricultural and food trade deficits," FAO (2012): http://www.fao.org/fsnforum/ resources/why-has-africa-become-net-food-importer-explaining-africa-agricultural-and-food-trade-defi. Data on West Africa also refers to 2007; only in North Africa is the ratio of food imports to exports higher than in West Africa.

[4] Deepak K. Ray, Navin Ramankutty, Nathan D. Mueller, Paul C. West, and Jonathan A. Folley, "Recent patterns of crop yield growth and stagnation," *Nature Communications* 3 (2012).

[5] David Pimentel and Rajinder Peshin, eds. *Integrated pest management: pesticide problems*, Vol. 3. Springer Science & Business Media (2014).

[6] ELD Initiative, 2015. Report for policy and decision makers: Reaping economic and environmental benefits from sustainable land management. Economics of Land Degradation Initiative, Bonn.

[7] FAO, State of the World's Soil Resources (2015): http://www.fao.org/news/story/en/item/357059/icode/

[8] Khan, ZR., Midega, CAO., Pittchar, JO., Murage, AW., Birkett, MA., Bruce, TJA., Pickett, JA. (2014). Achieving food security for one million Sub-Saharan African poor through push–pull innovation by 2020. Philosophical Transactions of the Royal Society B-Biological Sciences, 369. DOI:10.1098/rstb.2012.0284.

[9] Sonja J. Vermeulen, Bruce M. Campbell, and John S.I. Ingram, "Climate change and food systems," *Annual Review of Environment and Resources* 37 (2012): 195–222. doi:10.1146/annurev-environ-020411-130608.

[10] OECD, (2016). Stats of the Week: Food Security in West Africa. Retrieved from http://www.oecd.org/statistics/stats-of-the-week-food-security-in-west-africa.htm

[11] World Food Programme, 2015. Who are the hungry?

[12] ECOWAS, (2008). Regional Agricultural Policy for West Africa, ECOWAP. ECOWAS Commission. Retrieved from: http://www.diplomatie.gouv.fr/fr/IMG/pdf/01_ANG- ComCEDEAO.pdf

[13] Hoffmann, Ulrich. "Lead Article: Agriculture at the crossroads: assuring food security in developing countries under the challenges of global warming." *Trade and Environment Review*, United Nations Conference on Trade and Development (UNCTAD), (2013).

[14] IAASTD (International Assessment of Agricultural Knowledge, Science and Technology for Development). "Agriculture at a Crossroads: Global Report" (2009).

[15] De Schutter, Olivier. "Agroecology and the right to food: Report presented at the 16th session of the United Nations Human Rights Council." Geneva, Switzerland, United Nations Human Rights Council (2011).

[16] In June 2016, IPES-Food released its first thematic report: 'From Uniformity to Diversity: A paradigm shift from industrial agriculture to diversified agroecological systems'. The report offers a global survey of the economic, environmental and social outcomes of these contrasting production models, synthesizing the latest evidence from a variety of settings and identifying major potential for alternative models to put food systems onto sustainable footing, while identifying a series of 'lock-ins' keeping industrial agriculture in place. The report can be found here: http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf

[17] In practice, 'organic' and a range of other terms are used to describe the types of farms referred to by IPES-Food as *agroecological* or *diversified agroecological systems*. All such alternatives, based on rejecting monocultures and fundamentally reintegrating agriculture with ecosystems, are of interest here.