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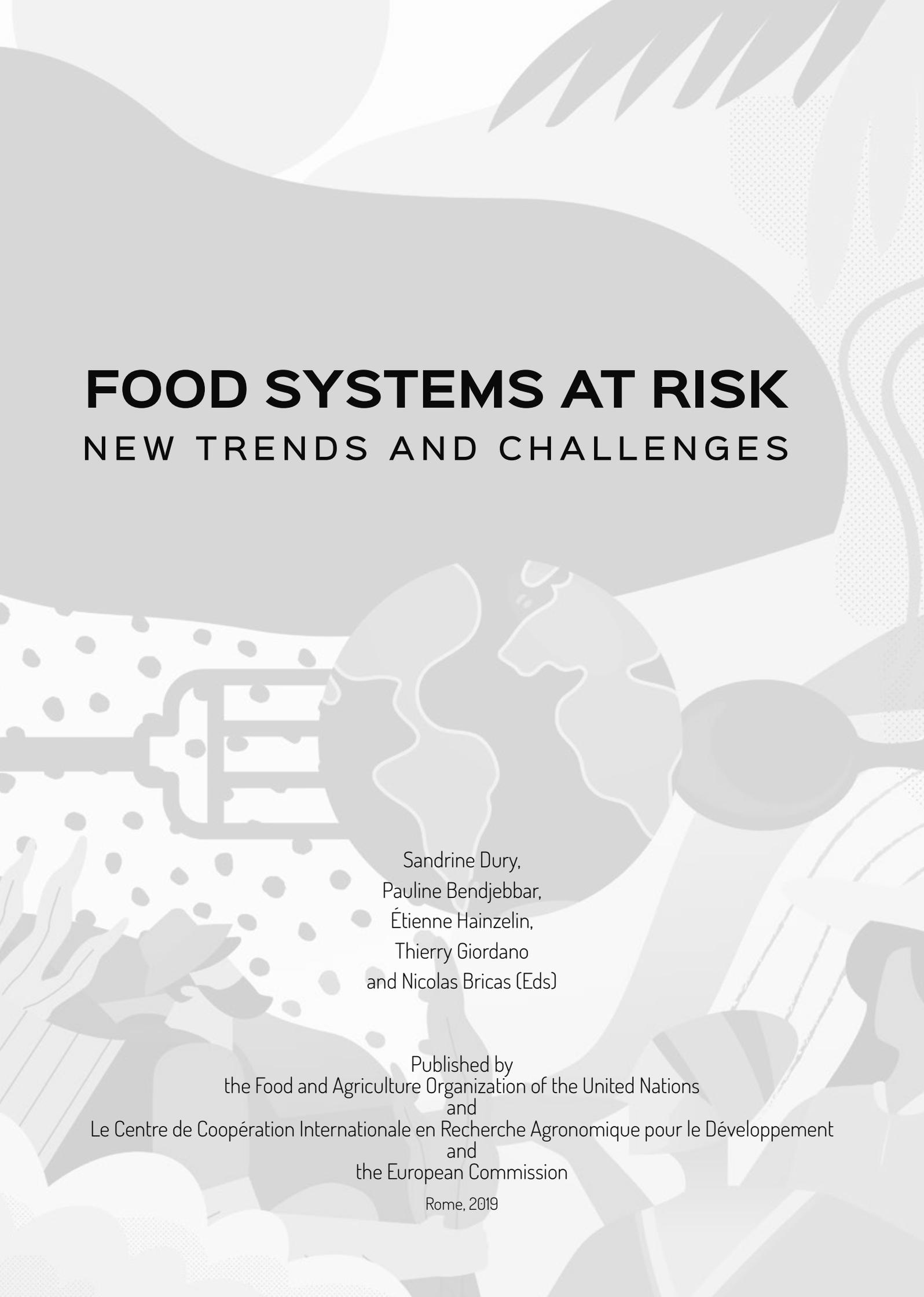


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FOOD SYSTEMS AT RISK

NEW TRENDS AND CHALLENGES





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CHAPTER 3.4

LARGE-SCALE LAND AND WATER ACQUISITIONS: WHAT IMPLICATIONS FOR FOOD SECURITY?

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SUMMARY

Since 2007, the world has seen a rush towards natural resources, particularly land as well as water. It resulted from a convergence of the 2007–2008 food price crisis in a context of growing populations and changing diets, and the search for alternatives to financial investment products. Although data is scarce, recent estimates show that about 42 million hectares have been acquired (Nolte, Chamberlain and Giger, 2016). Contrary to what is often highlighted, these lands are not the most marginal, underused and unowned, but are close to other resources, especially water, as well as infrastructure (roads and transport) and services. This means the resource acquisition phenomenon is embedded in a complex matrix of resources and processes which is increasingly under pressure. That said, attention has so far mainly been sectoral, focused on land issues and neglecting this interconnectedness. However, the water implications of these land deals are starting to surface.

Large-scale land and water acquisitions for food production

Although these acquisitions of land and water are aimed at a wide range of production, most - and a still growing number of them - are focused on agricultural and food production (Land Matrix, 2018). Adding to earlier concerns about the land footprint of large-scale agribusiness plantations, a fuller consideration of the wider range of economic consequences is now mushrooming, leading to questions related to their broader impacts on sustainability, food security, competition with local farming systems, delocalisation of production and virtual water use etc., which may lead to potential food crises.

Even though the 'global land rush' that peaked in 2007–2011 has now slowed (mainly resulting from lower commodity prices and the large number of failing large acquisition projects), the evidence suggests that the squeeze on natural resources, especially land and water, is currently being felt more acutely in many places, as new deals continue to be concluded and many existing deals enter the implementation phase (Cotula and Berger, 2017).

Looking beyond the role of transnational corporations, local actors and national processes are currently also driving land acquisitions for natural resource investments, highlighting beyond international land acquisitions, national dynamics, with speculation, corruption and domestic concentration becoming increasingly prominent. Other trends emphasise how national strategies to promote economic growth are driving land acquisitions not only for agriculture but also for industrial use and the construction of infrastructure to improve connectivity for international trade. In addition, there is the role of urbanisation and the increasing pressures on water and rural land from land-use conversion and natural resource use. Urbanisation not only entails the expansion of big cities, but also the concentration of people into smaller towns, where schools and health services, water and communications are more readily available. It is often associated with the spread of unregulated land markets and land speculators (Cotula, Anseeuw and Baldinelli, 2019).

The underlying land water nexus

In light of the fact that the majority of global freshwater is used for agricultural purposes, the complementary analysis of global food and water systems is essential. 'Water for food' has become an important slogan in the current debates on poverty reduction, food security and climate change in sub-Saharan Africa. Water is both a target and a driver of the popularly known phenomenon

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of land acquisitions. This key factor has been largely ignored despite the interconnectedness of water and land (Mehta, Veldwisch and Franco, 2012). Land is not always valuable from an investor's point of view. Land requires added properties such as access to water that turn land deals into lucrative businesses. In some regions, particularly in the Sahel area, land investors would face a high degree of risk in drought periods and securing access to water is critical. Every land acquisition is also a 'green water grab', which becomes a 'blue water grab' if land is irrigated (Dell Angelo *et al.*, 2017).

Unlike land acquisitions, water acquisitions have no commonly accepted definition in either the academic or international development arenas. Water acquisitions can be abstractly defined as a circumstance where powerful actors are able to appropriate water resources at the expense of traditional local users, often with negative impacts on the environment (i.e. loss of environmental services, discharge of untreated wastewater into the environment, water and soil pollution or degradation, etc.).

The underlying dynamics in the 'acquisition' of irrigation water might differ from those driving land investments because they may involve more varying levels of consent and power relations. For instance, in regions characterised by abundant land but scarce water, communities might favour land acquisitions but be reluctant to allow investors the rights to withdraw water from rivers or aquifers. Often, water remains the hidden dimension of large-scale land deals. Agreements upon water are rarely included in land acquisition contracts and, when included, they are inadequately valued. The loss of water rights for smallholder farmers and the potential impacts of large-scale land use, occasioned by the agricultural production activities of investors, are other dimensions that are not adequately considered when lands are leased out (Woodhouse and Ganho, 2011).

Large investment projects as drivers of conflicts over natural resources

Although significant investments in the agricultural sector are needed, acquisitions of land, water and other natural resources are all the more problematic with regards to food security since many of these large investment projects have not delivered on their promises, not only in terms of production, but also in terms of job creation and service/infrastructure development. So not only have local communities

tended to lose access to their resources, but the promise of feeding the world through these large-scale investment models remains unfulfilled.

The consequences are numerous and not restricted only to driving conflict over land, water and other natural resources. In this changing context, new questions are being raised about the values that rural people attach to land, natural resources and small-scale farming. The ways that natural resource disputes are playing out affects different users in different ways. In some countries, for example, pastoral communities have been hit by an increasing number of land and water conflicts, the loss and fragmentation of grazing land, barriers to mobility, drought and the breakdown of customary institutions. Such factors have fuelled conflict in areas where farming and herding overlap, for example, in many parts of East and West Africa. Similarly, the continued expansion of agri-business continues to squeeze the rights that indigenous peoples and farming communities claim to the territories they depend upon for their livelihoods, food systems and social identity. People have also raised concerns about the exacerbation of poverty and dependency associated with large-scale investment projects. This trend has been reported to have severely affected collective property rights over the land, water and other natural resources of indigenous and farming communities (Anseeuw *et al.*, 2012).

Indeed, competition over resources may change the institutional arrangements for their management in these new investment areas and far beyond in the case of water. While land is fixed, water is fluid and part of the hydrological cycle. Water acquisitions can therefore potentially affect greater numbers of water users (Franco, Mehta and Veldwisch, 2013) and can certainly have consequences for communities and populations living far away downstream, even in different countries. Negotiating water-use rights allocations should therefore involve not only local communities, but also national governments and regional bodies, especially international water basin organisations or agreements between countries (for example, the dispute over Nile River water, involving Egypt, Ethiopia, Uganda and Sudan, relying on treaties signed in the early twentieth century between colonial powers) (Cascão and Nicol, 2016).

Developments in international policy arenas, including the "voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security"⁴ or the "principles for responsible investment in agriculture and food systems"⁵, present new opportunities for organisations, communities and social movements

4. <http://www.fao.org/cfs/home/activities/vggt/en/>

5. <http://www.fao.org/cfs/home/activities/rai/en/>

to advocate for systemic reforms to land and water governance. However, these international frameworks have only been mildly harnessed to advance their implementation and promote equitable and sustainable development and food security.

There is a high risk that without the uptake of these principles at the heart of national policy processes in the coming years, further civil conflicts may arise with dire consequences on food security and nutrition. ●

BOX 8

RISKS ON WATER ISSUES: CASE STUDY OF THE OFFICE DU NIGER AREA IN MALI

In the Office du Niger (ON) region in Mali, while around 100,000 ha is currently being cultivated, mostly by smallholders, a total of 600,000 ha of land has been allocated in the past ten years to investors for large-scale farming (Adamczewski *et al.*, 2013). This process has largely bypassed the official procedures established by the local state body (Office du Niger) at the regional level (Adamczewski-Hertzog *et al.*, 2015). Between 2010 and 2012, the allocation of new land shifted to the national level, with an attempt to recentralise the management of land deals and associated benefits at the highest level, despite contrary efforts by foreign donors to strengthen the ON institution. The Ministry of Agriculture (and even different ministries and the Presidency itself) allocated land on political and other grounds rather than on technical considerations.

ON experts (former directors, consultancy companies, etc.) and donors (foreign development agencies involved in the very costly funding of land development for irrigation) understand the contradictions attached to land allocations, but they are not key decision makers and have been side-lined. Hydrological realities and natural limits are not adequately considered and challenges

continuously arise. Competition for water in the dry season is likely to rapidly become a source of tension, notably in dry years when the issue of priorities will be critical. Furthermore, they also signal that accessing land does not mean accessing water. Investors (even if investments are not always visible in the field) have deployed different strategies to negotiate priority access to water in order to avoid or limit the occurrence of future water shortages.

After 2012, ON, whose decision-making power was strengthened, decided to renegotiate the water rights granted with different investors. The negotiations focused on projects that had not started. Planned land development in the Office du Niger area is likely to result in water reallocation. Without the availability of public capital to develop new irrigated land for farmers, the state has opened up irrigable spaces to investors. To secure their private schemes, access to water is a priority. Water allocated to new investors would directly or indirectly lead to a decrease in water allocation to other users within and downstream of the ON area and deeply impact their water-based livelihoods (Adamczewski-Hertzog *et al.*, 2015).

References

- Adamczewski A., Burnod P., Papazian H., Coulibaly Y.M., Tonneau J.P., Jamin J.Y. 2013. Domestic and foreign investments in irrigable land in Mali: tensions between the dream of large-scale farming and the reality of family farming. In S. Evers, C. Seagle and F. Krijtenburg, eds. *Africa for sale?: Positioning the state, land and society in foreign large-scale land acquisitions in Africa*. Leyde, Brill, pp. 159-180.
- Adamczewski-Hertzog A., Hertzog T., Jamin J.Y., Tonneau J.P. 2015. Competition for irrigated land: Inequitable land management in the Office du Niger (Mali). *International Journal of Sustainable Development*, 18 (3): 161-179. <http://dx.doi.org/10.1504/IJSD.2015.070237>
- Anseeuw, W., Boche, M., Breu, T., Giger, M., Lay, J., Messerli, P. & Nolte, K. 2012. *Transnational land deals for agriculture in the Global South*. Analytical report based on the Land Matrix Database. Bern/Montpellier/Hamburg, CDE/CIRAD/GIGA.
- Cotula, L. & Berger, T. 2017. *Trends in global land use investment: implications for legal empowerment*, London, International Institute for Environment and Development.
- Cascão, A.E. & Nicol, A. 2016. GERD: New norms of cooperation in the Nile Basin? *Water International*, 41(4): 550-573.
- Cotula, L., Anseeuw, W. & Baldinelli, G. 2019. Between advances and deepening concerns: a bottom-up review of trends in land governance 2015-2018. *Land*, 8(106): 1-13.
- Dell'Angelo, J., D'Odorico, P., Rulli, M.C. & Marchand, P. 2017. The tragedy of the grabbed commons: Coercion and dispossession in the global land rush. *World Development*, 92: 1-12.
- Franco, J., Mehta, L. & Veldwisch, G.J. 2013. The global politics of water grabbing. *Third World Quarterly*, 34(9): 1651-1675.
- Hertzog, T., Adamczewski, A., Molle, F., Poussin, J. C. & Jamin, J.Y. 2012. Ostrich-like strategies in sahelian sands? Land and water grabbing in the Office du Niger, Mali. *Water Alternatives*, 5(2): 304-321.
- Land Matrix. 2018. *Land Matrix public database* [online]. [Cited 2 December 2018]. www.landmatrix.org
- Mehta, L., Veldwisch, G.J. & Franco, J. 2012. Introduction to the Special Issue: Water grabbing? Focus on the (re)appropriation of finite water resources. *Water Alternatives*, 5(2): 193-207.
- Nolte, K., Chamberlain, W. & Giger, M. 2016. *International land deals for agriculture. Fresh insights from the Land Matrix: analytical report II*. Bern/Montpellier/Hamburg/Pretoria, Centre for Development and Environment, University of Bern, CIRAD, German Institute of Global and Area Studies, University of Pretoria, Bern Open Publishing.
- Woodhouse, P. & Ganho, A-S. 2011. Is water the hidden agenda of agricultural land acquisition in sub-Saharan Africa? Paper presented at the International Conference on Global Land Grabbing, 6 April 2011, University of Sussex. (also available at <https://www.tni.org/files/Watergrabbing%20-%20Woodhouse%20paper.pdf>).