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How do I build my agricultural growth pole? A review of policies in three West African countries.

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Abstract

Development Banks promote growth poles for agricultural development in Africa, without detailing the nature of policies that should be implemented. The purpose of this paper is to explore the types of national public policies that support agricultural growth poles in West Africa. We called upon the typology of policies from Daviron, Faivre, Dupaigre, & Ribier (2004) to carry out a literature review about agricultural growth poles in Burkina Faso, Cote d'Ivoire and Senegal. We show that national policies aim at fostering the business environment in order to attract large foreign investments. However, action aimed at fostering spillover effects such as direct support to agrifood activities or coordination between actors of value chains and territories remains weak. Such strategy is explained by the liberal approach underlying growth poles, and the structural budget limitations of West African States. It however represents risks of unbalanced negotiation power, job destruction and environmental degradation.

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Key words: agricultural public policies, agropole, growth pole, Public-Private Partnerships; agribusiness; contract farming;

1- Introduction

The 2008 price crisis highlighted the risk for developing countries of an increasing dependence on global food markets. Development banks called for an inclusive agricultural growth in developing countries in order to improve national food security and to foster poverty alleviation (World Bank 2008). They promoted Public Private Partnerships (PPPs), in a context of scarce State financial resources (World Bank 2014). Such partnership relies on a combination of public and private actions, in order to carry out a mission of public service (Ribier and Baris 2013). Public action should stimulate the engagement of the private sector in agrifood activities (World Bank 2018).

Agricultural growth pole is a form of Public Private Partnerships that is increasingly promoted in West Africa by the World Bank (WB), the African Development Bank (AfDB) and several States (Tyrou 2018). They are agrifood-based spatial development initiatives that aim at concentrating agro-industrial activities in areas with high agricultural potential, in order to increase productivity and to integrate production, processing and marketing (African Development Bank 2013). The spatial concentration of large-scale investments in improved technologies should generate economies of scale and agglomeration that would enhance the quality of food products and reduce production costs (World Bank 2013). Family farmers should be included in such dynamics through contract or wage earning activities, thus benefiting from positive spillover effects (World Bank 2013).

The purpose of this paper is to explore the types of national public policies that are implemented to support agricultural growth poles in West Africa. Indeed, public action may take various forms, and the development banks do not detail the nature of policies that should be designed to set up this model of development (World Bank 2013). We therefore carried out a literature review about agricultural growth poles in Burkina Faso, Cote d'Ivoire and Senegal, in order to understand what types of policies are implemented by these States to foster agricultural development through growth poles. We used the typology of policies from Daviron, Faivre, Dupaigre, & Ribier (2004), which highlights if policies are oriented towards transfers, supplying of good and services, and/or regulation. We provide evidence that national policies are composed in great part of transfer through fiscal exonerations. They aim at fostering the business environment in order to attract large foreign investments, and, on the contrary, they support agrifood activities and coordination between the actors of the value chains and territories in order to ensure spillover effects to a much lesser extent. We discuss the reasons of States' preferences for these modalities of public action.

In what follows, we first present in section 2 the research method. We then detail in section 3 the model of agricultural growth pole as defined at the level of development banks, and present the review of national policies implemented to support this model of development in section 4. We discuss the reasons and limitations of such choices in section 5, and conclude with a research agenda in section 6.

2- Research method

The present paper highlights the results of primary research which aimed to understand the capacity of States to support and guide the development of agropoles, by questioning the modalities of action, target actors, and justifications invoked by national policies.[1] The analytical framework consists of a typology of public action completed for the three selected

1 Carried out in the frame of a master's thesis (Tyrou, 2018)

case studies: Burkina Faso, Senegal and Cote d'Ivoire. These countries have been selected for the availability of information, and the different stages of progress of agropole projects.[2]

The analysis then takes place from three angles. First, by systematizing the characterization of public action through the reading grid of the Daviron et al. manual (2004). Developed to support the construction of public action in line with the objectives of developing countries, it has the advantage of making a broad inventory of available measures. The second objective was to demonstrate the passage from intention to implementation of public action. While it was essential to analyze policy framework documents, their implementation is the subject of this paper. The comparative perspective is enriched by the documentation of trajectories of private actors for each of the agropoles studied (Bagrepole, the Senegal River Valley, and Belier/Yamoussoukro).

For this last point, interviews with researchers in the field allowed to complement figures on public agricultural expenditures and capture more accurately trends in policy implementation. The other sources mobilized for the literature review are academic and institutional sources, public policy and advocacy documents – accessed through scientific databases, institutional websites and online media.

3- What lays at the roots of the agricultural growth pole model?

Our results should first be placed within the framework of the *agropole* development model, its theoretical bases and the context of its emergence. It spread under the impetus of several actors in international arenas, including development banks (World Bank, WB, 2011; African Development Bank, AfDB 2016). The AfDB has been particularly active in supporting its

2 These were launched in 2011 for Bagrepole in Bagre, 2013 for the PDIDAS (Program for the Development of Inclusive and Sustainable Development of Agrobusiness in Senegal), and 2016 for the agro-industrial pole of Belier (PAIB).

dissemination in West Africa, as part of its *Feed Africa* strategy, which includes the United Nations Food and Agriculture Organization (FAO) and the Industrial Development Organization (UNIDO) (Ouattara, 2016).

The initial observation is that there is a need to integrate agricultural value chains to enable markets to function efficiently and to improve the remuneration of agricultural activities (AfDB, 2016 : 3). Domestic value chains are characterized by low capitalization and often provide low quality products, resulting in a preference for some imported products (Soullier, 2017). Smallholders are the first to invest in their farms (FAO, 2012), they however face severe funding constraint and their vulnerability to economic and food insecurity is very high (Tapsoba *et al*., 2018).

Public-private partnership is identified as a means to increase value chain capitalization, and is therefore a favoured tool for growth (Camp David Declaration, 2012; FAO, 2016).[3] Agropoles are identified in the literature as a "territorial approach to operationalizing PPPs" (Ouattara, 2016 : 2), in which private investment is the key to increasing production through concentrated agro-industrial activities. The geographical concentration of several large-scale investments should bring about economies of scales and of agglomeration. The increase in product quality is therefore expected to be accompanied by a reduction in costs and the generation of added value.

The solution put forward rests on industrialization and production increase, a choice further justified in the wake of the 2008 price surge.[4] Such model is based on vertical coordination mechanisms combined with changes in scale of activity and technology. These changes

3 Explicitly mentioned in points 7, 17 and 18 of the Camp David Declaration of 19 May 2012, after the G8. The Declaration also formalizes the creation of the New Alliance for Food and Nutritional Security (NASAN).

4 It is important to note that the crisis was analyzed by the proponents of such approach as a supply crisis threatening food sovereignty in its *accessibility* dimension (Fouilleux et al., 2017)

should improve not only product quality and added value, but also the volumes of agricultural products that are generated, processed and commercialized. On the theoretical level, spatial development approach for agropoles calls upon the literature of industrial clusters and pools, which are based on the effects of agglomeration and increased competitiveness (Picard et al., 2017 :3). A definition synthesized from the wording used in various African legislation documents shows the central role of agribusinesses, and reads as follows:

> "*Agropoles, or agricultural growth poles, are defined as a set of companies located in a given geographical area that maintain functional relationships in their activities of producing, processing and marketing of a given animal, plant, fish or forest product.*" (Dagor et al., 2016 : 19)

Agribusiness is the cornerstone of this model: it allow for an increase in processing, distribution, input supply activities, and last but not least, the development of contractual relations with small producers. Agribusiness is defined as a national or multinational private company, with capital-intensive means of production, integrated into markets, that develops productivist agriculture and can integrate agro-supply, processing, and trade activities (Byerlee et al., 2013). These agribusinesses, or "agribusiness companies" (Reardon & Barrett, 2000) are referred to as "agribusiness firms" in the agribusiness research literature (see Purseigle et al., 2017). They therefore include both multinational firms (identified by several studies as targets of public policies, Dagor et al., 2016; Picard et al., 2017), and national companies. Family farmers are expected to benefit from positive spillover effects, envisaged through contract or wage earning activities (World Bank 2013).

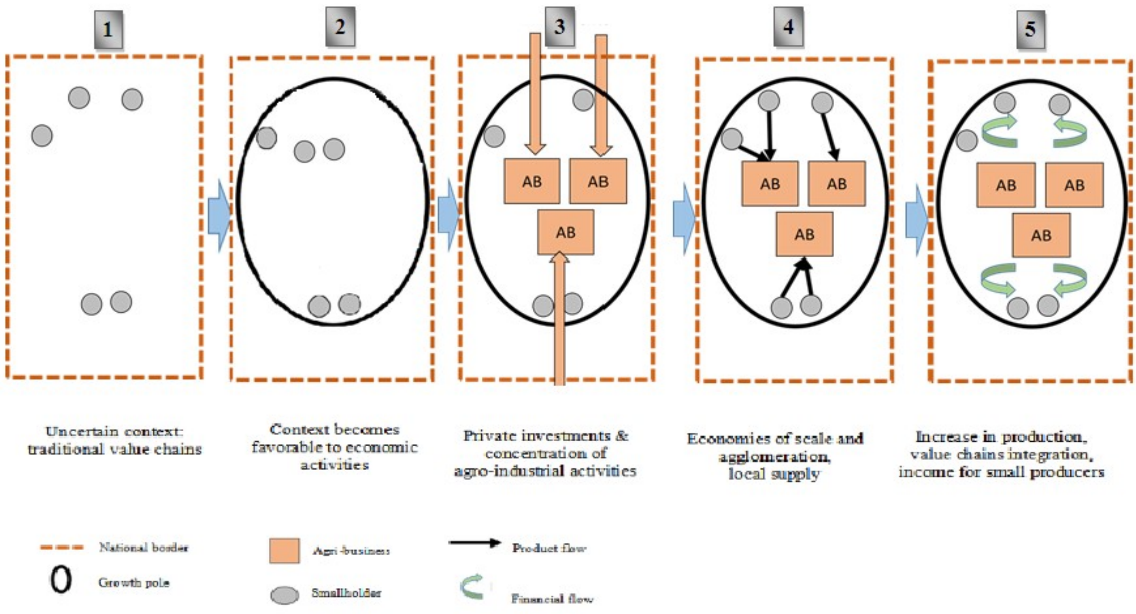
The agropole approach has emerged to promote a vision of agricultural development, alongside a set of concepts with similar theoretical inspirations. Spatial development initiatives are often grouped under the name "Agro-industrial Processing Zones" which include agro-industrial complexes, agrifood clusters, agricultural corridors, or else, agropoles (AfDB, 2018). While it is not on this article to go back over the specificities of each variant, it can be underlined that the latter two have recently been deployed on the African continent.[5]

In geographical terms, the development of agropoles in West Africa is relatively undocumented (Ouattara, 2016), and is therefore at the center of the present paper. This development model is more recent than that of agricultural corridors, which are rather located in southern Africa. The economic corridor approach was born in South Africa under the name of Spatial Development Initiative with the Maputo Transnational Project, and involves an integrated planning of infrastructure and agro-industrial interventions (Byiers and Rampa, 2013). Agropoles, as in the case of economic corridors but within national borders, have an important infrastructure development component. This concerns both transport and agricultural production such as irrigation or storage (Gálvez Nogales, 2014 :12).

In light of this review of the theoretical bases of agropoles, we propose a schematic representation of the agricultural development model through agropoles, seen as a linear development process with several successive stages (figure 1).

5 The study previously conducted provides a table summarizing the different territorial approaches to promoting agro-industrial investment conceptualized in the literature (Tyrou, 2018:64)

Figure 1: Successive phases of the agropole model identified in the literature.



Source: The authors

Such a representation of the model points out that documents conceptualizing the approach through agropoles do not determine exact modalities nor instruments of public action. Admittedly, policies are expected to reduce market failures (raised by uncertainty) and provide incentives to private investment through the development of infrastructures (Speakman and Koivisto, 2013: 105; Webber, & Gálvez Nogales, 2017). Apart from this leverage effect, the institutional literature does not make any explicit recommendation as to the policy solutions that could give rise to the successive phases of such a linear, virtuous process (Tyrou, 2018). In the following section, documented public policies are presented, using a representation of the model's phases as a guiding thread.

4- Results

The results of our preliminary study are summarized in a table that offers a synthesis both by type of measure according to the adopted reading grid, and by country (Tyrou, 2018:36). The latter is presented in the appendix (1). Any reference to specific measures refers to the descriptive appendices gathering relevant data for each country (ibid:68-83-99). For the purposes of this article, we present the results of the comparative characterization of public action following the dynamic approach schematized in figure 1. This approach illustrates that the role of the State is confined to that of facilitator at the pre-investment phase (phase 2), before agro-industrial activities are initiated (phase 3). Policies only partly accompany actor's interaction in subsequent phases (4 and 5), and rather increasingly rely on private initiatives.

Policies are primarily geared towards providing a favorable economic context, at the pre-investment phase

At this stage (step 2), the most frequently and thoroughly used policy instrument is tax exemptions for agribusiness. All three countries have adapted their investment codes to make them more attractive for the agro-industrial sector, targeting large investments and export activities. The legislation provides for significant tax exemptions targeting large investments and exports, with conditions in terms of geographical areas (Senegal, Cote d'Ivoire) and/or job creation (all three cases). In all three countries, tax regimes applying to the highest investments offer exemptions up to 100%, and of permanent duration. The similarities between the cases are clear, including in terms of target actors (appendix 1).

These exemptions are supported and made more visible abroad through reforms of administrative institutions and procedures related to trade and investment. This is the second lever that has been quite strongly mobilized, as countries seem to have entered into a contest for foreign investment – with the WB's Doing Business ranking considered best indicator. Highly normative, this ranking assigns higher scores to countries where there are fewer barriers to investment, without analyzing whether this lack of barriers stems from more effective legislation in its application, or simply from a lack of enforceability – which may in this context imply a significant deterioration in land governance, or even human rights.

In the area of services, public action focuses on services to promote productive investment, shifting away from training, access to funding, or else technical assistance. The latter is carried out through parastatal agencies, which dispose of resources below stated objectives. The services offered establishe a strong segmentation between operators assigned to agropoles perimeters and others.[6] Research and training policy, as is the case with *stricto sensu* agricultural policy plans, includes public investments aimed at partnering with the private sector for the technological and capital intensification of agricultural practices. Regarding access to funding, few measures are put in place by the State, and are especially accessible to actors with the most resources. The conditions of eligibility for credit with the SOFIGIB in Burkina Faso, or the CNCAS in Senegal (which excludes indebted organizations of producers) illustrate this point.

In conjunction with the improvement of the "business environment", the field of land regulation is undergoing changes aimed at structuring West African agriculture in a lasting way. Regulation in socio-environmental areas is, in comparison, neglected. States have certainly not gone into overturning the very national nature of the land domain. However, administrative reforms have accelerated. These reforms are sufficiently thorough to result in

6 The respective agencies are SAED in Senegal and ANADER in Cote d'Ivoire. The former sees its role shrinking with the rise of private actors, although it remains relatively present among smallholders (in comparison with other countries). In Burkina Faso, it is the joint venture Bagrepole, created as part of the growth pole project in 2011, which is to take charge of extension and training in technical itineraries

an improvement, in all three cases, in the World Bank indicators that measure the "quality of land administration"[7].

The reforms carried out as regards land tenure, beyond their administrative nature, contribute to the development of rental tenancy practices that sometimes involve opaque arrangements to facilitate access to land for investors, including foreign investors. Governments are calling for these practices (communications from Senegalese and Ivorian investment promotion agencies, while in Burkina Faso they seem less developed), which are also included in the World Bank's recommendations.[8]

Finally, investments in the supply of public goods should be highlighted. They are intended to have a leverage effect and are focused on hydro-agricultural facilities, mainly dedicated to the rice sector.[9] They are made through extensive recourse to loans from development banks (AfDB and WB, from 70 to 120 million euros). The share provided by the State in the financing of projects related to agro-poles ranges widely: from 20% in Burkina Faso for Bagre to 93% in Senegal for the PDIDAS. Often presented as financed by donors, projects of several tens of millions of euros are to a large extent constituted by loans and therefore involve significant long-term debt.

At the stage of the arrival of investments and the concentration of activities, public action grapples to position itself in relation to private actors

The concentration of agro-industrial activities through private investment is a pivotal step of the model (step 3). It is mandatory to the subsequent realization of the expected positive

7 The property registration index measures the ease with which companies can obtain property rights. This includes the number of steps, time and cost of registering the property. The Land Administration Quality Index has five dimensions: infrastructure reliability, information transparency, geographical coverage, land dispute resolution and equal access to property rights. Source: Doing Business

8 See "Financing Agricultural Investments: Leasing as Credit Alternative." The World Bank. Expert Meeting on Managing Risk in Financing Agriculture. 1-3 April 2009, Johannesburg.

9 State funding also includes a processing component in Cote d'Ivoire.

impacts. Little state action is implemented at this step, with agribusiness having a central role. Through the documented cases, it appears that the power relations between economic actors and governments are strong determinants of public action at this stage. The blurry delimitation line between private investors and public action participates in the occurrence of material, logistical or communication blockages between actors having different rhythms and logics. The cases documented show substantial gridlocks, namely linked to investment in infrastructure, and the tenure system: two documented examples illustrate such gridlocks.

In Bagrepole (Burkina Faso), delay in delivering infrastructure and the fulfilment of mutual commitments are sources of tension. This can be seen through the trajectory of the Velegda group, a Burkinabe company that has been allocated irrigated plots in Bagrepole. Velegda reportedly aims to cultivate 600 ha of rice and maize with high mechanization, and to establish a rice husking plant. To date, the development of the main irrigation facilities for Bagrepole is still not complete, which hinders the development of the secondary infrastructure for Velegda. According to information collected in the field, Velegda leased the 500 hectares of land allocated in 2015 to several other farmers, who are cultivating crops other than rice, without any hydro-agricultural development being carried out.

States then tend to adopt ambivalent positions as regards tenure reforms. In Senegal, the PDIDAS project[10] was intended to encourage direct negotiations between small landowners and investors. The State, without accompanying the interactions between actors in a very asymmetrical balance of power, remained legal intermediary for long-term leases (model of lease option - under rental). This situation has contributed to high tensions in all three cases, and even land grabbing and human rights violations. Such an observation raises questions about the State's support for the most numerous rural actors: small-scale family producers.

10 Project for the development of sustainable and inclusive agribusiness in Senegal. For extended analysis of the project and its links with public policies, see Tyrou, 2018, chapter 2.

At the downstream phases, states are comparatively providing very little support, calling upon spillover effects.

The final steps (4 and 5) correspond to agglomeration economies and vertical coordination (commercialization or wage contracts) between small producers and agro-industrial companies. The former are the origin of raw material flows, while the latter ensure both initial funding for crop cycles, and commercialization.

At that stage, the field of stabilization is dominated by insurance-related measures, while the action on prices taken by governments is very limited. Price regulations consist in the fixing of indicative prices in Cote d'Ivoire and Senegal, which are generally below international levels: effective protection rates most often remain negative. There is no doubt that States are increasingly mobilizing the private sector, particularly for the coverage of agricultural risks through PPPs in the insurance sector.[11]

Direct support through input subsidies is one of the few fairly important modality of public action for growth poles that intervene during post-investment phases. The weight of subsidy transfers in public agricultural expenditure and their almost exclusive destination on inputs (40 to 60% of the policies studied) make them an important lever in the strategy for agricultural intensification. These subsidies are allocated very unequally between producers, and their efficiency has long been questioned by donors, who point to their capture by large-scale, long established producers. In at least two of the three cases documented (Senegal and Burkina Faso), their allocation systems seem to have recently been undergoing a slight inflection. In Senegal, reform is alledgedly underway, to replace input subsidies by added-value tax exemption. In Burkina Faso, the stated objective to benefit family farmers to a greater extent.

11 Senegal is the most advanced case. Although the two others have less developed insurance systems, they aim at instauring such PPPs.

Indisputably, policies primarily incentivize agribusinesses development: in the three countries studied, there are virtually no policies targeting family farming, to which few measures are actually accessible. The stated desire to generate inclusive growth through this model of agropoles is expected to materialize through spillover effects, linked essentially to contract farming. States' supervision of contractual relations is, however, generally weak, although there are national nuances (see appendix 1).

Such distribution of public action has led, in some instances, to evident shortcomings. The case of Ivorian PPP in the Belier region, Yaanovel, serves as an illustration. In 2013, a PPP was signed between the Yamoussoukro district and the Novel S.A. group, a spin-off of the Interval Genève S.A. group, based in Switzerland, which is at the time supported by the recommendations of UNDP and the AfDB. However, the latter withdrew in 2017, and no new investors are known to date. The PPP operated as follows: contracted producers and their cooperatives received credit for seeds, inputs and production equipment, while the output was transferred to Yaanovel for processing (Chiapo, 2016 :27). Yaanovel's activities provided opportunities for non-contractualized producers, depending on paddy needs (ibid: 20).

Problems related to agribusiness' compliance with commitments have been documented. First, it should be noted that the impacts in terms of jobs creation have been well below targets (Chiapo et al., 2017). Risk sharing has proven very disadvantageous for producers: they were forced into debt as a result of delays caused by Yaanovel in both the supply of inputs and the payment of harvests (more than 3 months). An asymmetrical power balance and little support from public authorities left producers without virtually any recourse to protest.

The operator eventually withdrew following the blocking of negotiations, partly due to the issue of subsidies for infrastructure development. The case of Yaanovel highlights that the existence of contractualization links is not sufficient for the development of the sector in an inclusive and sustainable manner: the conditions under which production and income flows circulate between agribusiness and small producers, as well as the sharing of risk between these actors, are key elements. Finally, the Yaanovel case is an invitation to consider the risks of such a concentration of the sector in terms of power relations and sustainability.

The results presented in terms of orientation of public intervention throughout the various stages of setting up growth poles thus show that the State is mainly present in the first stages, which involve the creation of infrastructure and the arrival of private investors. In contrast, state action is much less present in the final stages of the process, that relate to the relationship between newly arrived investors, and the more long-established producers. The explanation for this selective positioning may rest on various factors, which we explore in the next section.

5- Discussion: explanatory factors and limitations of documented policy choices

The focus on the upstream part of the process can be explained in large part by the model's strong entrenchment in a liberal paradigm. It is visible in the clout given to agro-industries, as an end and means of growth in agricultural production and income. We underline that agropoles are actively promoted by international institutions, while African governments widely share a belief in its positive spillover effects. We then aim at nurturing the debate through a critical review of most recent literature on contract farming and its effects on income.

As for the weakness of public levers downstream, it is more difficult to decipher. As possible explanations, we discuss the significant constraints structurally affecting public action downstream, the limited awareness on the part of the public authorities on topics such as agroecology, or the promotion of labor-intensive activities which development requires significant public intervention. These lines offer possible ways forward in terms of policy recommendations.

A model grounded in ideology and budgetary limits.

First, the crucial role of international institutions in promoting certain policy solutions is to be understood in the global context. The liberal paradigm is a strong determinant of both the definition of the problem of hunger in the world, and of the solutions formulated. Much work has been done on the relationship between political and institutional powers in the field of global food security. Some authors agree that the level of production is not the major issue in the crises of the mid-2000s (e. g. Holt-Jimenez, 2012). Numerous studies show that arenas and political forums are dominated by the productivist paradigm (Jarosz, 2011; Fouilleux et al., 2017). Its strong discursive power immediately precludes the search for other solutions such as institutional arrangements, better access for all to production factors, the promotion of labor-intensive activities, or else agro-ecological practices.

The agropoles approach and the use of public-private partnership contracts to finance the agricultural sector have thus emerged in a political and institutional context dominated by a highly liberal and productivist paradigm. International institutions promoting this model are part of the very arenas defining food security concepts with an emphasis on agricultural productivity (on the WB and FAO, see Jarosz, 2011).

In such context, development banks offer considerable budgetary lines towards projects that fit into the agropoles model. The spreading of the model can thus be interpreted, at least partly, as a strategy of funding by States whose agricultural budgets have been stretched thin for decades. Such mechanisms are coherent with analysis of socio-anthropology of development, which identify the strategies of actors with less negotiation power: among these strategies, surfing the wave of an ongoing trend (Fresia et al., 2018).

If the latter argument certainly has explanatory power and could be further explored through in-depth socio-anthropological research, we argue here that national decision-makers share values and interests embedded within the agropole model.

Indeed, our study evidenced that public policy documents and official declarations make recurring reference to inclusive development where a large part of the local population would benefit from the productive dynamics created around agropoles. These references are combined with weak accompanying measures to strengthen the articulation of the different types of actors. This observation therefore suggests that the spillover effects favoring small producers adjacent to agropoles are expected to occur in a more or less spontaneous way. This belief in quasi-automatic spillover effects seems well established in the minds of both organizations such as the AfDB and the World Bank and national political elites.

In addition, it is striking how the abundant literature on the conditions of emergence of African countries presents a relatively standardized vision (Ribier, Gabas et Nubukpo, 2018). This vision emphasizes economic development centered on growth poles concentrating the bulk of investment. The agropole model involves the creation of national and international key players, both efficient and competitive, who are expected to become the drivers of such emergence. The future of the vast majority of agricultural producers bordering agropoles, located on small areas with limited means of production, is hardly ever explicitly addressed.

The implicit dominant idea is that the implementation of integrated agropoles will create a driving effect for all agricultural activity. The increase in production made possible by massive investments in agropoles is expected to create a virtuous circle that will create jobs and wealth for the benefit of the entire population. In the same vein, the integration into external markets made possible by the increase in agricultural production must guarantee the reshaping of the national economy through a better structuring of the food chain.

The foundations of this virtuous circle, however appealing it may appear, are nevertheless highly disputable from both a theoretical and an empirical point of view.

Spillover effects and contract farming for grains: a critical assessment

The agricultural growth pole model is expected to include family farmers and improve their living conditions. Contract farming is a vertical coordination mode often presented as favorable to the participation of family farmers in transforming value chains (Swinnen 2007). It is defined as a contractual agreement, written or oral, between a producer and a company, specifying one or several conditions of production and/or of marketing of an agricultural product (Rehber 2007). It was developed by the private sector since liberalization to meet a demand for higher quality products.

Jaffee et Gordon (1993) documented that contract farming is a major coordination mode on global markets. However, Little et Watts (1994) showed that participation in contract farming often failed to benefit farmers. Indeed, the implementation of contract farming brought about conflicts, unbalanced negotiation power, and inequalities among producers. However, the literature questioning since 15 years the impacts of farmers inclusion in exports chains of high value products is much more positive. It reports that participation has mainly positive impacts on farmers income (Ton et al. 2018). Indeed, through contract farming, family farmers get access, on credit, to improved inputs (such as high-yield seeds, synthetized fertilizers, insecticide, pesticides) and sometimes to mechanized service and technical advice (Reardon et al. 2009). For this reason, the development of contracts in the framework of agricultural growth pole is expected to fuel a positive development dynamic including family farmers (World Bank 2018).

Nevertheless, the positive impacts of contracts on family farmers in the case of growth poles is quite uncertain. Indeed, these growth poles in West Africa often concern domestic food chains, particularly rice, for which there is much less research than for export chains (Soullier 2013). There are at least two reasons that could drive to contract failure. First, a positive impact on farmers income is not sure. Indeed, margins are much lower in domestic grain chains than in export chains of tropical and horticultural products. Scientific evidence questioning the impact of contracts on farmers in such chains are limited and contrasted. On the one hand, it was documented in Benin that contracts developed by small companies increased farmers cropped surfaces and yields (Maertens and Vande Velde 2017). On the other hand, contracts implemented in Senegal are used by farmers as a last chance to get a credit, and lead to lower income than if they were to get a credit from the bank (Soullier and Moustier 2018). Second, the enforcement of contract may be complicated. Indeed, cereals are low-perishable products that can be stored and more easily side sold (Swinnen, Vandeplas, and Maertens 2010). Furthermore, the enforcement institutions in developing countries may be weak, which could let some room for opportunistic practices from large companies.

The higher likelihood of contract failure in the case of cereal chains raises the issue of the role of state in supporting agricultural growth poles. Indeed, encouraging large-scale investments will not automatically have positive spillover effects for family farmers. Based on existing and further research, policies could therefore support the design and implementation of contracts favorable to all actors. They could also support the identification of enforcement mechanisms adapted to actors' needs. Research and research-action have a lot to contribute in that sense.

A reflection on the challenges and possible directions for more beneficial public action downstream.

In light of our study, it would only be fair to point out that significant constraints limit the effective implementation of public action at the downstream stages of agricultural development. Among the actions which have been implemented at the downstream stages – mainly inputs subsidies, agricultural insurance, and some contractualization and technical support – many are facing implementation difficulties.

Challenges correspond to both endogenous and exogenous dynamics, of which we provide a few examples. The cost and rigid nature of input subsidies schemes epitomize endogenous limits. Studies have highlighted that forces at play – prominent political and religious figures, sole suppliers of inputs and equipment – capture much of the subsidies and oppose reforms, benefiting the status quo (Lynn & Hathie, 2016).

Among the exogenous dynamics which seem to be detrimental to both conception and implementation of downstream public policies, the field of stabilization is pretty illustrative. First, international trade rules undoubtedly discourage any tendency to support agricultural prices. Then, States compose their agricultural policies relying more and more on mixed measures (i.e. they increasingly rely on private actors), as illustrated by the rising trend for insurance PPPs, within the framework of the growth pole model. The positioning of public action vis-à-vis private actors has in fact been particularly tedious.

If we do not hold these limits as primary explanatory factors for the observed unequal repartition of public action, they must be taken into account for they allow to understand constraints structurally associated with agropoles. Such recognition is a necessary first step to a distanced approach to the objectives and solutions to the issue of "agricultural development".

The choices embedded in the agropole model imply structural changes in terms of relationships between rural actors, farm financial governance schemes, and the purpose of agricultural activity. The model sets a hierarchy between and within agrarian systems, which ought not to remain implicit, but rather should be critically questioned. In this debate, scientific research should contribute to shed light on a wider range of relevant, viable alternatives.

For one thing, attention and funding could, within existing constraints and mobilizing existing instruments, be geared towards backing not only agro businesses, but also small-scale family farming (e.g. through technical assistance, access to funding or commercialization opportunities). For another thing, the fact that the agropole model and public policies currently implemented completely neglect topics such as agroecology or the promotion of labor-intensive activities, seems particularly worrying.

Intensification is the main objective of the modernization of African agriculture. The preferred approach at present, however, is that of intensification based on increased use of inputs (motorization, fertilizers, seeds, etc.) at the expense of another form of intensification, which would be labor-intensive. Widespread use of fertilizers and mechanization is expected to lead, as has been observed in other latitudes, to a sharp increase in labor productivity and, consequently, a sharp reduction in the number of agricultural workers. This would result in many small producers abandoning their land and migrating to the city.

However, other intensification practices, such as agro-ecology, are possible, and their implementation is much more favorable to family farming. Cash flow requirements are low since input purchases are minimal. Tedious work is reduced thanks to the elimination of soil preparation and reduced weeding. The timetable is less restrictive and economies of scale reduced – avoiding penalizing small producers in comparison to larger ones from the outset.

The ability of family farms to move towards intensification is a particularly crucial issue in the African demographic context. Sub-Saharan Africa will have a billion more people to feed in 2050 and 330 million young people will enter the labor market in the next fifteen years! It is the only region in the world where asset flows will continue to grow after 2050. There is obviously no question of asking the agricultural sector alone to absorb this mass of new entrants into the labor market, but it is imperative that the sector not be subjected to a massive exodus at the same time. Although the "traditional" intensification proposed in the context of agropoles aims at a significant increase in production, its contribution to the necessary improvement of the economic viability of the very large number of small farms remains insufficient. However, the alternatives observed elsewhere and at other times - namely the exodus to cities and international immigration - are no longer conceivable. The priority is therefore a reasoned intensification, creating jobs, based on ecologically sustainable and economically viable production systems in which family farming is an integral part.

The weakness of public interventions in the downstream part of the growth pole development process reflects the choice to favor intensification through inputs to the detriment of more labor-intensive practices. The promotion of these, in fact, requires significant public intervention. It entails the provision of public goods and services that have unfortunately been too neglected since the 1980s, such as research, information systems, consulting, as well as investments designed to rehabilitate or adapt environments to sustainable ecosystem management (water accumulation, biomass production, plantations, etc.). The required public intervention includes a strong institutional dimension consisting in strengthening local authorities that are able to reconfigure the natural environment and promote ecological landscape management.

6- Conclusion

In West Africa, development banks increasingly promote agricultural growth poles for food security and poverty alleviation. Such poles are believed to attract large-scale foreign investments from agribusiness, generating economies of scale and agglomeration. Family farmers are expected to be included in this development dynamic through vertical coordination. They would thus benefit from positive spillover.

However, public policies may take various forms, and the development banks do not detail the nature of policies that should support growth poles. In this paper, we explore what types of national public policies are implemented to support agricultural growth poles in West Africa. Using the typology of policies designed by Daviron, Faivre, Dupaigre, & Ribier (2004), we carried out a literature review about growth poles in Burkina Faso, Cote d'Ivoire and Senegal. This typology highlights if policies are oriented towards transfers, supplying of good and services, and/or regulation. It therefore reveals the paradigms behind public action implementation.

Results show that although national policies take different forms in the three countries, they mainly aim at fostering business environment in order to attract large foreign investments.

Policies are essentially made of tax exemptions and regulatory changes. As a result, agribusiness may benefit from lower taxes, simplified administrative procedures for investments, and favored access to land through long-term legal leasing practices. Investment in infrastructures is fairly limited, with the exception of land development funded through loans. On the contrary, little public action directly supports agrifood activities or coordination between the actors of the value chains and territories. Public spendings dedicated to technical support, training, research and insurance development remains limited, and little public action is developed to foster family farmers' inclusion in growth poles.

Two factors explain such uneven distribution of national policies. First, the model of agricultural growth poles is designed by development banks, which keep promoting a liberal, productivist approach of agricultural growth. Second, governments face structural budget limitations, and increasingly rely on loans from these development banks, and investments from the private sector to support agricultural development. As a result, policies do not directly support family farmers' inclusion in order to ensure positive spillover effects. These choices bear risks of unbalanced negotiation power, job destruction and environment degradation. We argue for a reorientation of public policies to consider such aspects, and recommend that future research carries out primary data collection in order to determine if current policies are able to attract private investments, and if so, how are family farmers affected by these investments.

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Appendix 1- Characterization of public policies.

Public Action	**Burkina Faso**	**Cote d'Ivoire**	**Senegal**
1- Transfers	**Important levers, especially exemptions and input subsidies. Relatively low stabilization, mainly through mixed measures.**		
1.1 Fiscal	Significant exemptions, favorable to major investments and export production (1995 code awaiting revision).	Significant exemptions targeting rural areas, employment, and processing companies (2012 code). Inter-ministerial steering committee.	Significant exemptions targeting export and large-scale activities, extended to all agricultural production during GOANA (2008-12)
1.2 Direct	High subsidies on inputs and machinery, mostly captured by a small proportion of producers. Willingness to better target FF (N)	High subsidies for inputs and machinery, concentrated in the rice sector. Targeting not specified. (N)	High subsidies for inputs & machinery, concentrated in the rice sector. Decentralized management and a desire to benefit small producers. Progressive disengagement of the State from input supply schemes. (N)
1.3 Stabilization	Storage (SONAGESS) Little action on prices Mixed measures: guarantee funds and insurance (mainly for large scale)	Not much used Support prices for export products (and rice) below market	Supervised interest rates. Action on prices but negative effective protection rate. Mixed measures: subsidy for an insurance PPP
2- Public G&S	**Investment in HAF. Mediation services and activities with still limited means.**	**Major investments in HAF and processing. Various services whose development is prioritized.**	
2.1 Public goods, incl. infrastructure	PAS mainly for HAF. Delays in implementation. ODA	Increase in PAS, mainly for HAF and processing. Delays in implementation. ODA	Increase in PAS, mainly for HAF and rice. ODA
2.2 Services and mediating activities	Being developed, but difficulties (2014-16 crisis, fuding). Business environment & technical services Balance FF/AB as a goal	Being developed. Business environment & technical services + Mainly AB	Being developed. Climat des affaires & technique + Mainly AB
3- Regulations	**Important and problematic for land tenure (implementation, tensions) Comparatively little State involvement in socio-economic and environmental regulations**		
3.1 Land sector	Priority of access to land. Long-term leases Legal reform: recognition of rights but weak operationality. Tensions	Priority of access to land. Administrative reforms. Long-term leases + Pending legal reform. Tensions.	Priority of access to land. Administrative reforms. Long-term leases + Pending legal reform. Deadlock of PDIDAS project. Tensions.
3.2 Socio-economic and environmental sector	Little supervision of contracts (investors' prior selection) Regulations that are not very restrictive for employers/investors.	Little supervision of contracts (prices). Min.wage increased (2018). SD principles and workers' rights reaffirmed. Implementation?	Support for commercialization contracts (prices). Min.wage increased (2018). Regulations that are not very restrictive for employers/investors.

Notes:
(N) : Development of productive and alimentary support through social nets for the most vulnerable. These measures, observed in the three countries, are analyzed in Chapter 3 of the thesis.
(+) refers to a significant degree of mobilization of the measure
HAF : hydro-agricultural facilities
ODA : Official development assistance: importance of loans and grants in public investment for agropole related infrastructure.
SD : sustainable development
PAS : Public agricultural spending (used here without distinguishing between investment and expenditure)
FF : Family Farming ; AB : Agribusinesses

Source: Tyrou, 2018:36