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Promoting rice self-sufficiency in West Africa: achievements, limits and issues for debate

The sharp rise in rice prices in 2008 led to unrest in several West African countries, causing governments to take emergency measures and adopt policies and programmes to promote rice self-sufficiency. Government intervention helped boost the supply of locally produced rice in just a few years. But despite the progress made, rice imports don't look like they'll be declining anytime soon. Performance in West African countries has not yet been able to overcome the constraints that are hindering the growth of rice value chains. This document will examine the changes that have been implemented since the 2008 food crisis. After analysing the measures taken by public authorities and showing the effects those measures have had, we will take an in-depth look at current issues of debates.

Initiative Prospective Agricole et Rurale

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I - Reviving rice production in West Africa

A. 2008 food-price shock

Increase in the price of rice. Rice prices skyrocketed on global markets in 2008 after some of the world's biggest rice-producing countries (Thailand, India, Pakistan and Vietnam) announced they would be introducing export limits. That announcement triggered the Philippines and certain Arab countries to start buying up massive quantities of rice **[1, 2]**. West Africa was hit particularly hard by the jump in price, as 40% of the rice consumed there is imported. Rice prices doubled in Senegal and were 1.5 times higher than normal in Benin and Mali. Some households were spending up to a quarter of their income on rice alone **[1, 3]**.

Sharp rise in demand. Large-scale importing was driven in part by changes in demand. Rice consumption in West Africa jumped from 10kg per person per year in 1961 to 26kg in 1981, and then to 34kg in 2009. Recent projections show that average rice consumption per person will likely reach 53kg by 2025. Total rice consumption could therefore reach nearly 24 million tonnes by 2025 (which would be a 74% increase between 2011 and 2025) **[4]**.

Population and urbanisation. The sharp rise in demand is due to population growth, rapid urbanisation and greater purchasing power. Not only is the population growing 2.7% annually, but urbanisation is also changing people's eating habits. Demand for rice —particularly imported rice—has risen in comparison with demand for other grains **[2]**.

Policy choices. Other factors also help explain West Africa's high dependence on rice imports. The climate shocks of the 1970s had a negative impact on the supply of local grains. Subsequent food aid generally consisted of imported rice. "Pro-urban" policies—which consisted in part of supplying rice at low prices and which were made possible thanks to the availability of less-expensive surplus rice on the international market—also got people to start eating more imported rice. Those changes drove down the supply of local rice.

B. Short-term measures to alleviate the crisis

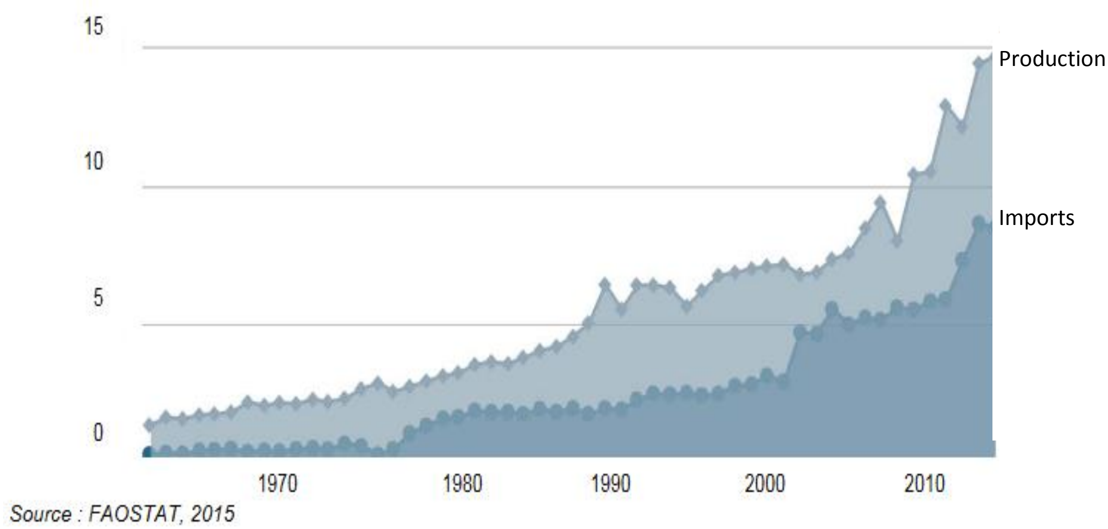
Tax measures. Faced with soaring prices in 2008, West African countries first introduced tax measures to curb the immediate effects of the crisis. In 2008, countries such as Benin, Burkina Faso, Ghana, Liberia, Mali, Nigeria and Senegal decided to suspend the customs duty for rice. Benin and Mali also suspended VAT on rice.

Price controls. In certain countries, measures to reduce taxes on imports were accompanied by controls on prices. In Liberia, Mali and Senegal, for instance, public authorities set the price of rice for wholesale and semi-wholesale, and sometimes for retail. In 2009, the government in Burkina Faso set a floor price of 128 FCFA/kg for producers. Two years later, they set ceiling prices of 340 FCFA/kg for consumers of imported rice, and 300 FCFA/kg for consumers of local rice **[1, 5]**.

Export restrictions. There were also restrictions on exporting and re-exporting rice. Mali banned exports of local rice, while countries such as Guinea, Sierra Leone and Liberia banned re-exports of imported rice.

Subsidies for consumers. Senegal stood out from the pack by subsidising consumption of imported rice (40 FCFA/kg). Several analysts agree, however, that poor targeting rendered the subsidies ineffective. The IMF said that 55% of the subsidies and exemptions in Senegal went to the wealthiest 40% of households **[2]**.

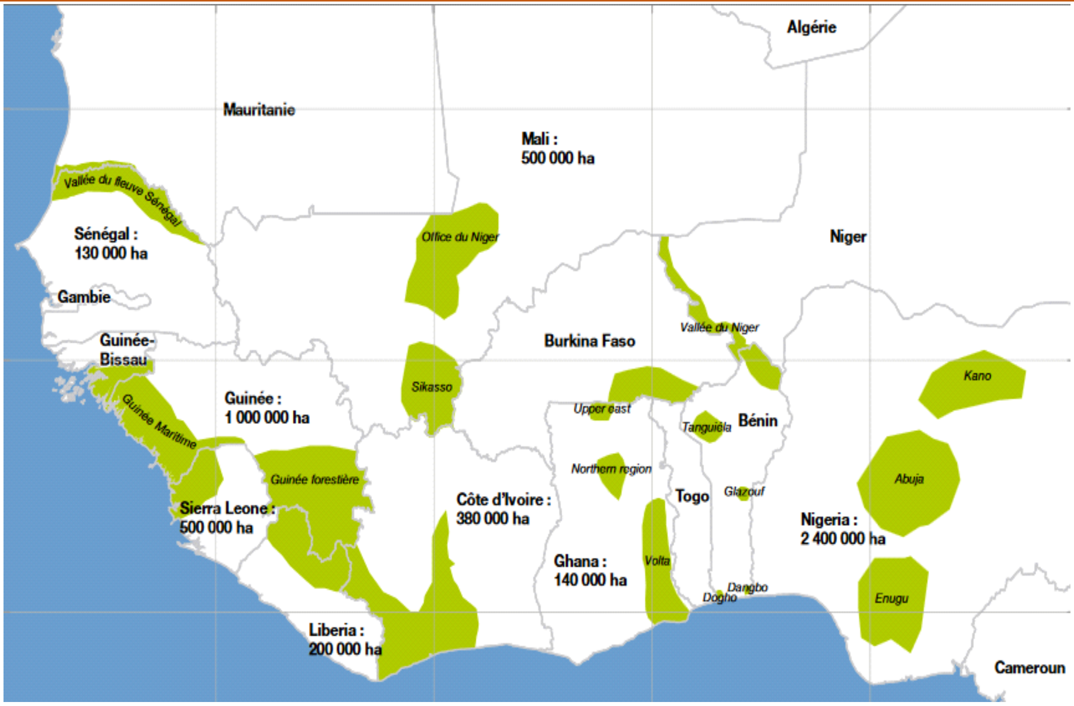
Measures at a high cost. The tax measures (suspension of customs duties, elimination of VAT, export restrictions) ended up placing a heavy burden on most of the countries that implemented them. Loss of tax revenue on food products in 2008 amounted to 1.1% of GDP for Liberia, and 0.8% of GDP for Senegal and Niger.



Rice production and imports in West Africa (millions of tonnes)

C. National strategies and regional offensive

Towards rice self-sufficiency. In addition to tax measures, public authorities also implemented structural measures to help countries become self-sufficient in rice production by between 2012 and 2018 (depending on the country). Nigeria launched a national strategy in 2010 to expand rice production, with the aim of increasing production from 3.4 million tonnes in 2008 to 12.85 million tonnes by 2018. Benin launched a special strategy in 2008 to expand national rice production, with the aim of increasing rice production from 150,000 tonnes in 2009 to 600,000 tonnes by 2018. Senegal's revised national rice self-sufficiency programme aims to produce 1,600,000 tonnes of rice in 2017 to fully meet domestic demand. Ivory Coast's revised national strategy to expand rice production aims to meet local demand for rice through domestic production, build up reserve stocks and export surplus production. Burkina Faso's *Guide to the Green Revolution* document says the country would like to cover all of its rice-consumption needs—estimated at 826,000 tonnes—by 2015.



Major rice production basins in West Africa, *OCDE Map* [10]

Policies to expand production. The Coalition for African Rice Development, with support from Japanese development aid, has helped most of the countries in West Africa define their strategy for boosting rice production. In an effort to make sure each country becomes fully self-sufficient, the strategies aim to help the countries increase rice production and become more competitive through several different initiatives, such as (i) development of hydroagricultural infrastructure; (ii) access to farm inputs (seeds, fertilizer, plant-protection products); (iii) mechanisation of agricultural production; and (iv) improvement in product quality.

A "regional offensive". At regional level, ECOWAS adopted a programme in 2014 called the Regional Offensive for the Sustainable Revival of Rice Production in West Africa. The goal is to produce 25 million tonnes of milled rice by 2025 in order to cover the needs of West Africa. The programme has four components: (i) sustainably increase rice production; (ii) process and add value to locally produced rice; (iii) promote the regional market for locally produced rice; and (iv) improve the environment for the development of rice production. The aim of the programme is to get involved in regional aspects without interfering with the plans and programmes led by governments, intergovernmental organisations and producer organisations. For the creation of the programme, ECOWAS organised a business meeting in Dakar in November 2015 to explore financing opportunities.

II – Effects of rice self-sufficiency strategies

A. Changes in the "institutional" landscape

Access to inputs. The government has been playing a greater and greater role in coordinating efforts to achieve rice self-sufficiency. In its early stages in 2008, government intervention mainly consisted of arranging funding to give producers access to farm inputs. This consisted mainly of controversial subsidies, which were considered to be a poor management of resources. According to many producers, those subsidies went for the most part to intermediaries.

Changes at all levels. Governments then got more involved to support players involved in producing, processing and selling rice. In Senegal's national rice self-sufficiency programme, Mali's rice initiative, Benin's strategic plan to revive farming and Nigeria's national rice-development strategy, the governments sought to boost rice production by investing in irrigation equipment, granting subsidies for inputs and providing easier access to funding for players involved in processing and selling rice. In some cases, public authorities offered attractive conditions for land to international investors [6, 1].

New players on the rise. Policy measures implementted since 2008 have brought about profound changes that are still underway. New major players have emerged as industrial businesses, giving rise to innovative funding mechanisms (see inset below). Positive effects include easier access to inputs, less supply difficulties for rice-processing units and fewer constraints when it comes to selling white rice. It is still too early to tell what impact those types of organisation are having on producers' productivity and income.

Different partnerships between producers and industrial players

The rise of industrial players has led to the development of new funding mechanisms. The type of mechanism depends on the respective roles of the different players (government, private operator, producer). There are three major models:

(i) The Olam Group model in Nigeria. The industrial business provides specially selected seeds and services to producers, buys and processes rice and sells the final product. A total of 3,000 small producers in the state of Nasarawa were partnered with Olam in 2014, and the goal is to reach 16,000 in 2018. Olam also had a 3,000-hectare farm operated on-site (expandable to 10,000 ha) that employed 1,000 farm workers.

(ii) The regulated three-party form with rice producers, private operators (industrial businesses) and semi-public institutions (technical support, funding, consultation). In Senegal, for instance, with support from the Economic Growth project, rice-processing companies such as Vital Agro-Industries have signed contracts with rice-producer networks to establish agreed criteria in terms of quality and price. Thanks to those contracts, the National Fund for Agricultural Loans (CNCAS) granted a seasonal-business loan (*crédit de campagne*) to producers, making sure that the funds to be repaid go through the rice-processing companies. A special line of credit for business purposes, offered by the government through CNCAS, also provided rice-processing companies with additional funds for buying rice.

(iii) **Co-management and self-management. These are** contractual relationships set up by co-ops or companies where producers play an important role.

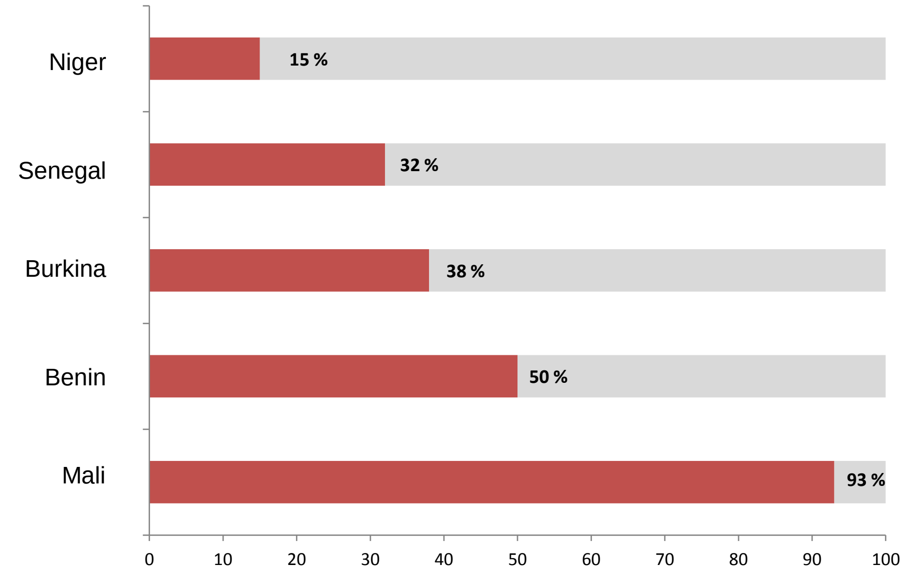
B. Higher levels of rice production

More cultivated land. The policies and programmes put in place after the 2008 crisis have helped increase production. Before 2008, average rice production in the region was growing 3.7% annually. After the crisis, average annual production rose to 5.4%. That growth was due in large part to an increase in land, which has grown 3.8% annually versus 2.2% before 2008 [10]. In countries such as Senegal, Mali and Ivory Coast, huge efforts have been made to restore and build new hydroagricultural facilities with total or partial control of water.

Slightly higher yields. Yields continued to grow almost at the same pace as before (1.6% now versus 1.5% before). In some cases, however, considerable progress was made. In Nigeria, for instance, collaboration between the company Olam (see inset above) and growers in the state of Benue helped boost average rice yields from 1.25 to 3.25 tonnes per hectare and helped producers double their income [1]. Elsewhere, the use of NERICA rice grown in upland fields helped quickly expand land area and boost yields. In Senegal, for instance, land area increased from 80 hectares of NERICA in 2010 to 4,500 hectares in 2013, with 8,458 tonnes of rice produced.

Can production catch up with demand? Thanks to the increase in production, more and more consumption is supplied by local rice throughout West Africa. But West Africa remains highly dependent on imports, as demand for rice is rising fast. A recent study by Ifpri [4] shows that total rice consumption could reach roughly 24 million tonnes by 2025, which amounts to a 74% increase over the period between 2011 and 2025. So in order to achieve food self-sufficiency by 2025, production will need to increase on average by 8% annually, or twice as fast as the increase in consumption (4%).

Percentage of consumption supplied by local production



III – Issues for debate

A. Promoting local production and satisfying consumer demand

Contradictory strategies. Most national policies face a key dilemma. They support the growth of the local rice sector in order to increase production, while at the same time maintaining a favourable environment for imports to make up for the deficit in production. Mali's rice initiative, for instance, has not stopped the country from continuing to encourage imports through subsidies for VAT and customs duties [7].

A Cornelian dilemma. Some are calling for regional institutions to tighten regulations and improve protection of the regional market, particularly by implementing higher tariffs on imports. The Network of Farmers' Organisations and Agricultural Producers of West Africa (ROPPA) wants to increase the common external tariff on rice from 10% to 35% in order to support local production. But since local production isn't yet able to fully meet demand, implementing such a measure in a way that wouldn't affect vulnerable consumers would place a heavy burden on state budgets. Also, global prices have fallen considerably since the crisis, which presents a big obstacle when it comes to promoting self-sufficiency in the region [3].

Productivity and market regulation. Better productivity could help reduce production costs and thus guarantee greater profits for producers and lower prices for consumers. Other initiatives aim to guarantee minimum prices for producers—for example, through institutional purchases made by public authorities to supply school cafeterias, barracks, prisons, etc. That's what the National Security Reserve Management Company is doing in Burkina Faso on a relatively small scale (7,500 tonnes on average in recent years, or roughly 2% of national production) [7].

Changing eating habits. Icrisat, an institute set up in Niger and Mali, has long sought to change eating habits in urban areas, but to no avail. Although its efforts have not borne fruit, the issue is still an important one. There is a strong correlation between dry-grain production and rice imports. The government regulates depending on dry-grain production, which translates into a reduction in import taxes. There are currently very few voluntarily policies to promote local grains (millet, sorghum, etc.), whether it's to improve the varieties, productivity or the ways in which the crops are processed [7].

B. Choosing the right industrialisation model

The importance of the value chain. In addition to investing in production, it is vital to optimise investments in processing. Building a dynamic industrial fabric is necessary for the smooth development of the value chain, because of the effects that downstream can have on upstream.

Different industrialisation models. Most countries in West Africa are striving for rice self-sufficiency, but there are many different ways to build a rice industry. In Nigeria, for instance, a multinational agribusiness company called Olam is playing a key role. Ivory Coast, for its part, is integrating different levels of processing. In Senegal, traditional threshers and modern rice producers work side by side. In Mali, threshers and small rice factories, managed by either smallholder organisations or private operators, account for roughly 80% of artisan production [7].

Jobs and local economic benefits. Choosing the right industrialisation model is very important. A model based on the development of large companies (mainly foreign) and a model consisting of an ecosystem of small and medium-sized companies (often local) can have a very different impact when it comes to jobs, local economic benefits and distribution of income. At a time when demographic trends are making job creation in agri-food sectors an important issue, this question cannot be ignored.

The common-external-tariff "paradox", or the complexity of food strategies

ECOWAS' common external tariff highlights the ambiguity of West African strategies to promote rice, torn between the desire to become more self-sufficient and the need to offer imported rice at low prices (which is hard for domestic production to compete with). Regional debates on the common external tariff, particularly as it applies to rice, also show that the situation is very different from one country to the next. Some countries, such as Liberia and Senegal, want to promote national production but fear the consequences of higher prices for people living in urban areas. Other countries, such as Mali, are less exposed because they consume less imported rice.

Rice producers within the Regional Cooperation Framework for Rice Producers in West Africa, in connection with the Network of Farmers' Organisations and Agricultural Producers of West Africa (ROPPA) used all of their influence to get the fifth tariff band (35%) of the common external tariff to apply to rice. An impact study showed that Ivory Coast is the only country that would not be negatively affected by a 10% customs duty. Despite their efforts, however, the member states decided to apply a 10% customs duty on rice imports.

Negotiations concerning the common external tariff show the pressing need for strong consensus among the West African countries when it comes to adopting policy measures to boost local production.

C. Improving quality in rice value chains

Improving quality. The quality of the rice (trueness to variety, moisture content, lack of flawed grains and foreign particles, etc.) helps determine in large part the outcome of the processing and therefore the level of consumer satisfaction. Today, many urban consumers prefer buying imported rice, which is usually better processed, easier to prepare and sometimes less expensive than local rice [3]. In order for a value chain to function properly, the different players in the chain must agree on a set of common rules. How should those rules be defined? What systems need to be put in place so that all players, and in particular the producers, can comply with those rules?

Defining shared quality rules. Certain characteristics of rice are not conducive to compliance with contracts (low value, ability to be stored, high number of small sellers, vulnerability of producers). But inspiring confidence, transparency and mutual advantages between players in the sector can only help strengthen collaboration and compliance with signed contracts. The "path to good rice" and the quality inspection tested in the Senegal River valley (see inset below) should be capitalised on.

Strengthening inter-professional organisations. Inter-professional organisations are another one of the sector's governance instruments and a privileged intermediary in discussions with the government. In Senegal and Burkina Faso, they serve as a forum for trading and setting floor prices. Still, they have not yet reached their full potential. Inter-professional organisations sometimes run into problems when it comes to representation and legitimacy, because they were created at the instigation of technical and financial partners or because they are not properly rooted in the organisations that they are supposed to comprise. Cooperation between players that are already well structured in their own professional organisations is an appropriate condition for the proper functioning of an inter-professional organisation.

Quality inspection and the "path to good rice" in Senegal

The quality inspection is a procedure where the buyer assesses the quality of the goods ordered in order to determine whether the goods are in compliance or not. For rice, the processor assesses whether the rice complies with the criteria defined in the contract (moisture content, trueness to variety, presence of foreign particles, presence of unripe grains).

In Senegal, using a participative approach and with support from the Economic Growth project, the different players involved have agreed on quality rules, applicable on the ground, based on accessible technologies. Those quality-inspection rules now govern contracts between processors and producers. The agricultural bank supports the system by encouraging fast repayment of seasonal-business loans taken out by producers and by offering financial assistance to processors.

D. Exclusion-related risks and environmental impacts

Exclusion. The growth of the rice sector shows that there are serious concerns regarding the exclusion of women and young people from opportunities for employment and entrepreneurship. In the Senegal River valley, there is a relative lack of developed land, so young people are banding together to rent land and are therefore capitalizing on existing opportunities by taking advantage of the informal market for land. Women are more "specialised" in selling white rice. In some countries, such as Benin, Burkina Faso and Guinea, parboiling plays a big role, particularly for women. Women control the processing sector and are able to process, individually, between 0.5 and 2 tonnes per week. Getting them to transition from traditional parboiling to industrial parboiling, while still allowing them to maintain control over this activity, is an issue that has yet to be resolved **[8]**.

Environment. Lastly, policies to boost rice production pose questions relating to environmental sustainability. Those policies in large part involve expanding irrigated land, which gives rise to a number of environmental impacts and issues in terms of sharing resources. Those policies also encourage the use of higher levels of chemical inputs (pesticides and fertilizers) and the pursuit of monoculture practices that affect soil fertility. More-sustainable practices are sometimes promoted to counteract those forces, but they are struggling to take off and are still insufficient **[3]**.

See Brief no. 22 for more information on exclusion, the sustainable and fair management of natural resources, and how they relate to the development of irrigated rice production ***[9]****.*

Conclusion

After the 2007/2008 crisis, most West African countries implemented national strategies to move towards rice self-sufficiency. Those strategies marked a welcome turning point after years of disinterest on the part of the government in the agricultural sector and food policies dependent on low-cost imports. That said, reconciling medium- and long-term growth objectives for national production with the need to meet current and future demand will not be easy. It will be important to follow the environmental and social consequences of today's political choices, in order to ensure that the strategies put in place remain environmentally sustainable and socially acceptable.

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This brief is based in part on the results of studies conducted on rice value chains in West Africa. Those studies have also been referred to in two other SOS Faim Belgique publications, cited below.

Those studies were conducted as part of an EU-funded programme implemented by several different structures in various countries: Vredeseilanden asbl West Africa (Veco West Africa); Plateforme Nationale des Producteurs du Riz du Mali (PNPR-M); Association malienne pour la sécurité et la souveraineté alimentaires (AMASSA – Afrique verte Mali); Syndicat des exploitants agricoles de la zone Office du Niger (Sexagon); Coordination nationale des organisations paysannes Mali (CNOP-Mali); Fédération des producteurs du bassin de l'Anambé (Feproba); Union des jeunes agriculteurs de Koyli Wirnde (Ujak); Comité interprofessionnel du riz du Burkina (CIR-B); Union nationale des producteurs du riz du Burkina (UNPR-B); Conseil de concertation des riziculteurs du Bénin (CCR-B); Fédération des unions de coopératives de producteurs de riz du Niger (Fucopri); Cadre régional de concertation des organisations de producteurs de riz [Roppa](CRCOPR); SOS Faim Belgique; Prague Global Policy Institute (Glopolis).

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