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Trade and development in Sub-Saharan Africa: priority to regional integration or WTO negotiations?

Mathilde Douillet, FARM

Countries in Sub-Saharan Africa are very sensitive to changes in world markets, and trade policies contribute to shaping their agricultural development paths. Economic simulations show that, compared to multilateral trade agreements, regional integration spreads the gains from trade integration more equally between countries. Additionally, it stimulates local processing value chains for agricultural products. However, while trade policies can accompany agricultural and agro-industrial development policies, they cannot replace them. Policies that aim to increase agricultural productivity are likely to reduce poverty more efficiently.

There is a multiplication of trade negotiations involving countries in Sub-Saharan Africa (SSA). Following the World Trade Organization's (WTO) negotiations of the Doha Development Round and the economic partnership agreements with the European Union, ambitious regional integration initiatives are now mobilising African governments.

These governments need to establish reform priorities, but they have limited negotiation capacities and are facing considerable pressure. To do so, they must be able to compare the impacts of the trade agreements considered and make sure they are instrumental to their development strategies.

The PhD dissertation conducted at the Foundation for World Agriculture and Rurality, defended in 2012[1], shows that current research offers few recommendations to the countries of Sub-Saharan Africa that would enable them to evaluate the potential consequences of various trade reform scenarios. The dissertation brings two types of contribution to the debate. On the one hand, it presents new modelling results whose limits are clearly outlined. On the other hand, it considers the stakes of developing the food-processing industries downstream of agricultural production and of including the poorest farmers in the process of economic growth.

This note will discuss the main conclusions of the dissertation. It attempts to answer the following questions, frequently asked by development stakeholders:

- Why should African countries be interested in the international trade of agricultural products?

- What would be their benefit from an increased access to the world market compared to regional integration between African countries?

Considerable dependence on international trade

When it comes to the interest of international trade for African countries, there are many sceptics, especially in the French development community. But the evolution of world trade (of merchandise in general and agricultural products in particular) has become critically important for SSA countries. The fact is that these countries are among the most dependent on trade for both their economic activity and tax revenues.

Historically, the share of trade in the regional economy (measured, for example, by the sum of imports and exports divided by the gross domestic product GDP) has always been higher for Sub-Saharan Africa than for other regions of the world.

The ratio of trade to the GDP in SSA rose from 50% in 1960 to 60% in 2010, and from 25% to 55% worldwide[2]. For countries that do not export minerals and oil, those generally most affected by poverty, this dependence on trade is specifically related to the

[1] Douillet M. 2012. *Trade policies and agriculture in Sub-saharan Africa. Comparative analysis in a general equilibrium framework. Doctorate in economics. Paris Institute of Political Science. Full text available online: http://www.fondation-farm.org/spip.php?article514.*

[2] Except for countries in South-East Asia, who caught up with African nations in the 1990s, according to data from the World Development Indicator Database.

exports of agricultural products, which on average accounts for more than 50% of total exports (nearly 90% in Malawi, whose specific case is examined below).

Moreover, in SSA, a large share of tax revenue is derived from import taxes: between 2006 and 2010, this share ranged from 8% and 58%[3], compared to 0.3% for countries in the Organisation for Economic Co-operation and Development, and 0.6% for the developing countries of south-east Asia. This is because African countries impose much higher import duties, on average, than the rest of the world, particularly on agricultural products (27% versus 15% in 2004). Due to the difficulty in raising taxes to compensate for losses on customs duties, the dependence explains why many African governments are reluctant to lower their tariff barriers.

SSA countries are therefore very sensitive to the changes in international trade and highly vulnerable to trade shocks. In particular, the increased volatility of global agricultural prices, insofar as it is passed onto and increases the volatility of local prices, poses a risk for food security and the incomes of the most impoverished social groups, including many farmers.

Conversely, considering the significance of agricultural trade in the economy of these countries, the increase in exports and the reduction in agricultural imports may stimulate agricultural development and have positive repercussions on other sectors. However, these repercussions will strictly depend on the type of agricultural development resulting from the change in demand on the world market and from negotiated trade agreements.

Except for countries in south-east Asia, which caught up with African nations in the 1990s, according to data from the World Development Indicator Database

For SSA countries for which data is available, except for South Africa (4%).

Growing marginalization in international trade

Since the 1960s Sub-Saharan Africa's share of international trade has become progressively smaller (less than 5% for all merchandise and 3% for agricultural products in 2010).

The reasons for this marginalization are considerably debated. However, the marginalization is related to the modest growth rates seen in Africa in the past and to insufficient infrastructure. Other causes can also be identified.

A major characteristic of SSA is the extreme concentration of its exports on a few primary products (often agricultural products), which is a legacy of colonial history.

This specialization in primary products has grown over time, partially due to "tariff escalation" (i.e. custom duties increase for more processed products than for raw products within the same value chain)[4] and the imposition by Africa's trade partners of technical and sanitary standards that are more demanding the closer the product is to the end consumer[5].

The specialization of African exports has been in contradiction with the change in worldwide demand, which instead has diversified and integrated more and more processed agricultural goods (80% of agricultural trade in 2008).

Moreover, the terms of trade (measured by the export price index compared to the import price index) have declined more in Sub-Saharan Africa than in other regions.

SSA countries have even lost their historic market shares due to weak growth in their agricultural productivity and competitiveness compared to Asian and Latin American countries. This is the result of unfavourable agricultural policies applied during the past twenty years by African states and supported by international donors.

Recently, several factors have played a role in changing the direction of this trend. Ambitious agricultural policies that aim to increase farmers' productivity have been implemented. Some countries are also benefitting from improved terms of trade. Increased funding has been allocated to improving regional transport infrastructure. Finally, some African countries are exporting more and more processed foods in regional trade within SSA.

An original trading situation

The participation of SSA countries in trading agreements presents specific characteristics. Indeed, they benefit from a relatively favourable access to world markets as a result of numerous preferential agreements; their domestic markets are among the

[3] For SSA countries for which data is available, except for South Africa (4%).

[4] The European Union is an exception. Historically, the agricultural products of African countries have entered the European market free of duty on account of preferential agreements (albeit with the exclusion of certain sensitive products). Sugar is one of these sensitive products, and the quotas and tariffs that were applied led to an increase in customs taxes for certain agricultural food products.

[5] Faced with rapidly changing standards and technical regulations, and due to their proliferation, it is very difficult and costly for African countries to be compliant. Many markets are therefore closed to them.

most protected, and their regional trade is low, despite the proliferation of regional agreements.

For many SSA states regional trade negotiations are all the more important because they weight more on their orientation and content compared to multilateral negotiations.

The Doha Development Round: of questionable interest for Sub-Saharan Africa

Since it was launched at the WTO in 2001, the current round of multilateral trade negotiations has officially been presented as the "Doha Development Agenda" ("DDA"). According to its supporters, the implementation of this program should be particularly beneficial to Sub-Saharan Africa.

Yet, in reality, African countries already have a privileged access to the markets of developed countries. On the contrary, with the DDA, they risk experiencing an erosion of their trade preferences.

The recent addition in the Doha negotiations of an offer for the least developed countries (LDC) of a preferential duty-free, quota-free ("DFQF") market access is an attempt to answer to these fears. This DFQF offer has been used as an argument, especially by the Director-General of the WTO, to assert that the conclusion of the Doha round would be very advantageous for African countries (Lamy 2011) and to attempt to revive negotiations, with limited success.

Estimating the gains of international trade liberalisation is most often done using economic models that evaluate the potential impacts of the DDA based on the last text negotiated in December 2008. As the results differ depending on the model used and the exact detail of the scenarios and the data considered (Bouët 2008), it ends up being very difficult to establish with any certainty which SSA country would win or lose if the negotiations were concluded. Furthermore, the benefits, if any, are rather limited.

Renewed interest in African regional integration

Recently, there has been a multiplication of political initiatives aiming at accelerating trade integration in Sub-Saharan Africa[6]. Official declarations express the need to rationalise countries' memberships to trade agreements. In fact, the historic lack of coherence in regional integration efforts in Africa has meant that most countries belong to several regional economic communities. This partly explains the slow progression of regional trade integration. However, many other factors come into play, starting with poor infrastructure, in terms of roads and other aspects, which hinder trade.

According to official statistics, Africa has the lowest intra-continental trade rate: less than 10%, compared to 20% and 47% respectively for developing countries in South America and Asia (UNECA 2010). It should nevertheless be pointed out that these data do not take into account informal trade, which is extremely prevalent.

A thorough review of economic studies on trade agreements is enlightening: few analyses promote the benefits of regional integration, which is a sign of the bias of numerous researchers since the 1990s in favour of the full liberalisation of international trade. However, the dissertation, which takes a closer look at existing tariff barriers and non-tariff barriers, shows that there is considerable scope to improve market access for African producers, both between African countries and with the rest of the world.

The change in the international context also offers new arguments in favour of regional integration in Africa. Firstly, recent economic analyses show that the creation of regional value chains would allow African countries to achieve economies of level and integrate in global value chains. Secondly, due to the high international agricultural prices, African countries would be in a privileged position to respond to their own expanding demand (World Bank and FAO 2009, World Bank 2012). Finally, regional integration would shelter the continent against the effects of the global economic crisis and could make Sub-Saharan Africa a growth pole for other regions (Lamy 2012).

Comparison of scenarios for multilateral and regional trade agreements

To contribute to the debates on the type of trade agreements that African countries may favour, it makes sense to compare the advantages and disadvantages of regional integration with the same tools used to analyse multilateral integration in global trade.

One of the most common options is computable general equilibrium (CGE) modelling. The CGE makes it possible to compare various trade policy

[6] See, for example, the declaration of the African Union summit in February 2012 .

scenarios, studying the change in the main economic indicators (gross domestic product, welfare or real income of agents, sectoral distribution of growth) provided the necessary data are available (Sadoulet and de Janvry 1995).

The impact of a trade agreement on a given country or sector depends on the impacts observed in other countries and other sectors. Regional and multilateral agreements must therefore be analysed on a global level.

Within agriculture, particular attention should be paid to the distribution of gains between different production sectors and between different categories of farmers (richer and poorer), in order to evaluate more closely the potential consequences of trade agreements for agricultural development.

Most evaluation studies focus on a particular trade agreement. They analyse slight variations in the agreement, without comparing the effects of various types of agreement – bilateral, regional or global. The work undertaken for the doctoral thesis (Douillet 2012a) has provided the first quantitative results enabling a comparison of regional and multilateral agreements (see box 1). This is the first academic contribution that compares the impacts of different trade policies while considering issues related to the development of food industries downstream of agricultural production.

This work is based on the computable general equilibrium model MIRAGE, which was developed by the *Centre d'études et de prospectives internationales* [Centre for International Studies and Prospectives] (CEPII) and the International Food Policy Research Institute (IFPRI). Considering the inherent limits of using the database (GTAP) and an international model (high aggregation of sectors and countries, existence of a single representative household per geographic zone) (Douillet 2012b), this work also included a case study about Malawi (Douillet 2012c).

Malawi is a small, landlocked country that is densely populated and poor in natural resources, but has a real agricultural potential. Tobacco, the main export crop, is grown by both smaller and larger farmers. This country is of interest to researchers for several reasons: according to current thinking, it should theoretically gain from the liberalisation of trade in other countries; furthermore, in 2005 it launched a policy to massively subsidize corn inputs (seed, fertilizer) for the poorest farmers. In the study discussed here, the global model, which includes various trade agreement scenarios, is connected to a national model and to household surveys, which provide statistics on household consumption and income patterns. It is therefore possible to compare the distributive effects of trade and agricultural policies in terms of poverty reduction.

It is important to bear in mind the limitations of simulations that result from the use of a computable general equilibrium model and the quality of available data.

Generally speaking, the results do not seem to particularly overestimate or underestimate the effects of trade liberalisation. Firstly, the model used, as with most existing models, assumes that if SSA countries have access to new market opportunities, they will seize them, within the limits of their resources and current competitiveness: this is obviously a very optimistic hypothesis. Secondly, the data only take into account tariff barriers, without integrating other barriers to trade such as the lack of road infrastructure or technical and sanitary standards. Yet, on average the poor quality of African food products considerably reduces their attractiveness in developed countries and also decreases regional trade. Therefore it can on the one hand be considered that the results are optimistic estimates of the gains to be expected from a decrease in tariff barriers. On the other hand, if some non-tariff obstacles were also removed, for example with the help of a policy that standardises African

Box 1. Models for trade integration scenarios

1. Regional integration

"*Reg FTA*": Four free-trade agreements (FTA) are concluded between the countries of Sub-Saharan Africa on the basis of rationalising existing agreements: in central Africa, CEMAC (Central African Economic and Monetary Community); in southern Africa, SADC (Southern African Development Community); in western Africa, ECOWAS (Economic Community of West African States); in eastern Africa, the expanded EAC (East African Community). Trade is totally free between countries belonging to the same trade agreement.

"*SSA FTA*": The four agreements from the "Reg FTA" scenario are combined into one Sub-Saharan African free-trade agreement.

2. Multilateral integration in international trade

"*DDA*": Liberalization of global trade within the framework of the Doha Development Round is simulated based on the terms negotiated in December 2008. The least developed countries (LDC) are exempted from tariff reduction commitments, but non -LDC African countries must reduce their tariff barriers.

"*DFQF*": A very ambitious preferential agreement that offers all LDCs access to the markets of OECD countries, China, Brazil and India without customs tariffs or import quotas.

products, the benefits of liberalisation could be greater. In any case, these limitations do not challenge the comparison of the impacts of regional and multilateral integration.

The main results from the simulations are as follows[7]:

- **The expected economic benefits of regional integration and multilateral liberalisation are similar**.

An ambitious regional integration could bring as much to Sub-Saharan Africa as a multilateral integration in global trade in terms of the increase in gross domestic product, economic welfare and the volume of agricultural exports (Douillet 2012b).

As shown in figure 1, regional integration, taking the form of four distinct free-trade agreements, each covering various SSA countries (scenario "Reg FTA"), could lead to a 327 million USD increase in GDP. The increase could rise to 654 million USD with a single free-trade agreement that covers the whole of Sub-Saharan Africa (scenario "SSA FTA").

Comparatively, an agreement as part of the Doha Development Agenda (DDA) based on terms negotiated in December 2008 would lead to a 492 million USD increase in GDP, and a Doha agreement combined with preferential access to the markets of the OECD and emerging nations for the least developed countries ("DDA + DFQF") could bring in 686 million USD in GDP.

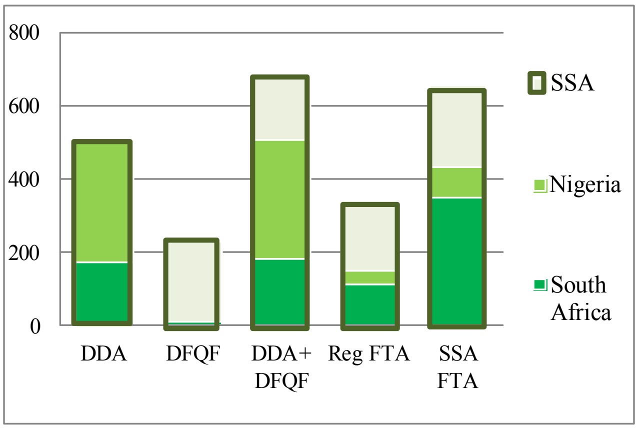
In the case of Malawi (Douillet 2012c), the scenarios of multilateral integration generate more growth and reduce poverty more than regional integration, but these results greatly depend on the model's assumptions and cannot be considered definitive. Moreover, according to simulations, regional integration in Malawi could lead to a greater reduction in poverty for smallholders because they would benefit more from the new market access. Indeed, smallholders produce a relatively higher amount of staple crops. These crops are more likely to be sold on regional markets, but are hardly exportable outside of Sub-Saharan Africa.

- **Global multilateral agreements place the development of the agro-industry at risk, therefore on employment**.

All simulations show that global multilateral integration scenarios encourage the pursuit of Sub-Saharan Africa's specialization in the export of primary agricultural products to developed countries. This conclusion applies both to the entire region (figure 2) and to Malawi in particular.

[7] It should be noted that these results are unchanged, whether or not negotiations of the economic partnership agreements lead to free-trade agreements with the EU .

Figure 1. GDP growth for Sub-Saharan Africa (mln $)



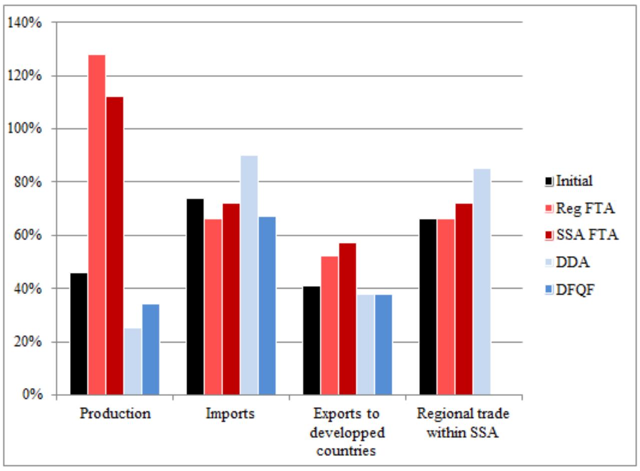
Source: Author's calculations from the model (Douillet 2012b)

Regional integration instead favours the trade of more processed products. African economies thus receive a higher share of the value added.

Douillet (2012c) illustrates this point in the case of Malawi: the multilateral integration scenario leads this country to become even more specialized in the production and export of tobacco, the only product for which it is competitive at the global level. On the contrary, an increased access to regional markets enables Malawi to diversify its exports and therefore offer greater prospects to its farmers, especially the smaller.

These results can be explained by the current make-up of the agricultural exports of SSA countries, focused on primary products, and by the lack of competitiveness in these countries. In the duty-free, quota-free preferential access scenario ("DFQF"), African countries are not able to compete with the Asian least developed countries which are granted the same market access.

Figure 2. Share of processed food trade



Source: Author's calculations from the model (Douillet 2012b)

Such a scenario would go against the objectives of Sub-Saharan African countries to diversify the type and destination of their exports, and to capture locally a larger share of the value added. The only way for SSA countries to take advantage of multilateral integration in world trade, even with very advantageous preferential market access (such as with a "DFQF"), would be to substantially improve their competitiveness. Regional integration would provide a favourable framework for improving competitiveness, as this would enable many countries simultaneously to increase the volume of their agricultural exports and to increase their share of exported processed foods. The result would be a "learning by doing" effect, which would have a cumulative effect on the development of agro-industry.

Due to the model's simplified assumptions and to uncertainties in the data, the results presented here cannot be considered definitive. However, they clearly show that the economic gains from regional integration are far from negligible and could even, in some conditions, be equivalent to the gains from multilateral integration in world trade.

- **Economic gains resulting from trade reforms are unequally distributed in favour of the richest**.

According to simulations conducted at the global level (Douillet 2012b), gains derived from the liberalisation of trade (in terms of GDP or welfare) are concentrated in a few countries, which are often the most competitive and thus the rischest. In all multilateral scenarios, developed countries reap most of these benefits (78% for a Doha agreement, 53% in the scenario of DFQF preferential access, and 77% for a Doha agreement jointly with DFQF).

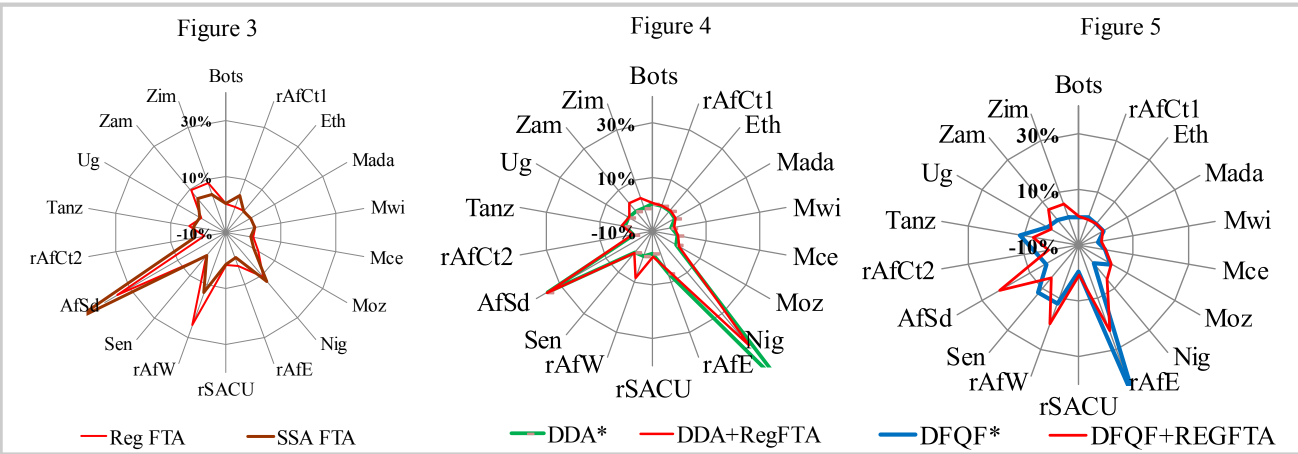
Considerable heterogeneity has been observed in SSA countries in terms of the impact of trade liberalisation on economic growth. Whatever the trade agreement under consideration, the increase in GDP is concentrated in a few countries: South Africa in the case of regional integration, eastern Africa in the "DFQF" scenario, Nigeria and South Africa in the "DDA" scenario upon conclusion of the Doha Development Round (figures 1, 3, 4 and 5). Multilateral integration combined with regional integration will enable a more homogenous distribution of growth.

An analysis of households in Malawi (Douillet 2012c) shows that growth generated by trade reforms favour farmers who are most integrated in the market and who devote the largest surface areas to export crops (mainly tobacco). These are also the farmers who own the most land, and definitely not the poorest, although the poorest farmers also produce tobacco to some extent.

- **The effect of trade policies on economic growth is much weaker than the effect of agricultural policies that directly aim at increasing agricultural productivity.**

The effects of trade liberalisation depend on the capacity of countries to take advantage of the improvement in market access. In Malawi, the only crop for which the country is competitive at a global level is tobacco. But demand for this product is

Figure 3, 4 and 5. Distribution of GDP change under various trade agreement scenari



Notes: Bots = Bostwana; rAfCt1 = Cameroon, Congo, Gabon, Equatorial Guinea, Central African Republic, Sao Tome-et-Principe, Chad; Eth = Ethiopia; Mada = Madagascar; Mwi = Malawi; Mce = Mauritius; Moz = Mozambique; Nig = Nigeria; rAfE = Burundi, Comores, Djibouti, Erythrea, Kenya, Rwanda, Seychelles, Somalie, Soudan; rSACU = Lesotho, Namibia, Swaziland; rAfW = Benin, Burkina Faso, Cap Vert, Côte d'Ivoire, Gambie, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Sierra Leone, Togo; Sen = Senegal; AfSd = South Africa; rAfCt2 = Angola, Congo democratic republic; Tanz = Tanzania; Ug = Uganda; Zam = Zambia; Zim = Zimbabwe.

Source: Author's calculations from the model (Douillet 2012b) limited. It is therefore not surprising that according to simulations the impact of trade policies on economic growth in Malawi is much weaker than that of policies directly aimed at increasing agricultural productivity, such as subsidising seed and fertilizer for farmers.

Moreover, an agricultural policy that stimulates food crop productivity would benefit all categories of producers, whatever their level of integration in the market, as well as consumers. It would therefore benefit the most vulnerable households, including the families of farmers with the least amount of land, unlike some trade reforms.

Conclusion

Trade agreements can contribute to an increasing pace of economic growth, together with national development policies. Changes in global markets shape agricultural development paths of Sub-Saharan African countries, but their own trade policies also play a role.

For long, economists depreciated the importance of preferential and regional agreements and focused on multilateral integration in global trade. But recently interest in regional agreements has re-emerged for both economic and political reasons.

Economic modelling makes it possible to anticipate the potential effects of trade agreements and to compare them. New simulations have shown that the conclusion of current negotiations at the WTO would lead to an increase in economic activity that is very unequally distributed between the various countries of Sub-Saharan Africa. South Africa and Nigeria would by far be the winners. Comparatively, regional integration would lead to more balanced growth, even if there would still be considerable inequalities between countries.

Moreover, multilateral integration, as negotiated in the Doha Development Round, may compromise the development of local agro-industries and their value chains, unless African countries succeed in becoming much more competitive against Asian countries.

Trade policies cannot substitute for true agricultural and agro-industrial development policies, but they can accompany them. Complementary features exist. The literature on international trade does not emphasise enough that in order to take advantage of the opportunities provided by trade reforms, farmers must have access to goods and services (credit, input, equipment, training, etc.) that enable them to produce and sell the quantities and qualities corresponding to consumer demand. They must also be able to resist the shocks, both climatic and economic, to which they are exposed. Without reliable extension and support services, without supportive policies particularly in favour of small farms, and without access to funds and risk management instruments such as insurance, agricultural trade liberalization has little chance of living up to our expectation. ♦

Mathilde Douillet is Project Manager « Agricultural markets and policies » at FARM.

Contact: mathilde.douillet@fondation-farm.org

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Notes takes stock of topical subjects or research themes, to feed reflection and prompt debates. The analysis and conclusions of the author do not necessarly reflect FARM's institutional position.

Fondation pour l'agriculture et la ruralité dans le monde
Foundation for World Agriculture and Rurality

Postal address	*Physical address*
12, place des Etats-Unis	100, boulevard du Montparnasse
92127 Montrouge Cedex	75014 Paris

www.fondation-farm.org *contact@fondation-farm.org*