Global Rice Trade: Dynamics, Policy Conflicts and Strategies in Africa

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Abstract
Globally, about 6% of the total rice produced enters the international market, indicating that most rice is consumed in the producing countries. The rice export market is thin and concentrated, with Thailand, Vietnam, India, China, Pakistan, the USA, Australia, Italy, Uruguay, Argentina and Spain as major exporters. The nature of the international rice market provides a platform for highly variable prices, which are largely influenced by policy and weather conditions. Global rice trade policies are becoming increasingly liberalized following the WTO, EU and World Bank trade agreements. These changing policies have direct impact on rice production, consumption and trade in African countries.

The international rice trade policies can be characterized by importing and exporting countries. While importing countries pursue market-stabilizing policies, exporting countries pursue policies to promote rice exports. Strategies like subsidies, credit guarantees and State-controlled trading monopolies, bans or quotas on rice imports, etc. are among policy strategies implemented to isolate their domestic markets from external competition and to boost exports.

African countries, particularly those in SSA, are net rice importers spending close to 1.4 billion US dollars annually on rice imports, accounting for 19% of the continent’s total grain import bill. Given this increasing rice consumption trend in Africa, rice self-sufficiency objectives continue to be pursued as a means to achieve food security. In the major rice consuming countries, rice is a staple and perceived as a ‘political crop’. Therefore, governments are sensitive about price effects on producers and consumers. Thus, governments intervene to protect producers and consumers from large price fluctuations.

WARDA and its partners are using science to develop technologies and knowledge for application along the rice production to market chain. Among the most recent successes, is the release of the ‘New Rice for Africa’ (NERICA). This paper analyses the global rice trade dynamics and policies; and draws lessons for promoting rice production and marketing in Africa. It also highlights the programs and strategies that are promoting NERICA and estimates expected impact, the challenges and the new opportunities for achieving rice self-sufficiency in Africa.
1. Introduction

Although most of the world’s rice is produced in Asia, it is becoming a food of strategic importance in much of Africa. The importance of rice is driven mainly by changes in food preferences in both urban and rural areas, even where rice is not a traditional food crop. Other contributing factors are the high population growth rates and rapid urbanization. Rice consumption in Africa has increased by about 4.4 percent per annum between 1961 and 2003. Among the major cereals cultivated, rice is the most rapidly growing food source in Africa. For instance, between 1985 and 2003 the increase in rice production was 4% per annum, while production growth for maize and sorghum went up by about 2.4% and 2.5%, respectively.

Rice is a major source of livelihood for smallholder farmers, processors and traders and is a major food for urban and rural dwellers in West and Central Africa, where the demand for this staple is growing at the rate of 6% per annum—faster than anywhere else in the world. In Eastern and Southern Africa, where rice is not a traditional food, annual per capita consumption is also increasing and has reached 15 kg. For sub-Saharan Africa (SSA), rice consumption has grown by 5.3% over the period 1995 to 2001, while production growth rate during the same period is only about 2%. To meet the high demand for rice, imports increased over the same period by 8.4% per annum, thus SSA now accounts for 20% of total world rice imports. Given this trend, SSA countries are spending more than US$ 1.2 billion annually on rice imports, depriving these countries of scarce foreign exchange that could instead be used to import strategic industrial and capital goods.

This paper analyses the global rice trade dynamics and policies, and draws lessons for promoting rice production and marketing in Africa. It also highlights the programs and strategies that are promoting NERICA and estimates expected impact, the challenges and the new opportunities for achieving rice self-sufficiency in Africa. The paper is divided into six sections. Following this introduction, section 2 puts SSA within the context of the world rice economy. In section 3, rice policies in major importing SSA countries and the major world exporting countries are reviewed. In section 4, reasons for low investment in domestic rice production and marketing are explored. This is followed in section 5 by the role of policy in promoting investment in domestic rice production and marketing in SSA. Summary and conclusions are provided in the final section.

2. Africa within the global rice economy

On a global basis, per capita rice consumption has been projected to decline (59.3 kg) in 2010, reflecting dietary changes in South East Asia (Calpe 2002), where most of the world’s rice is produced and consumed. The rising incomes in South East Asia are expected to shift demand from cereals to livestock products. In contrast, per capita rice consumption in African countries is expected to continue increasing. To meet the increasing demand, rice imports are expected to rise to 6.2 tonnes by the year 2010, assuming the current liberal trade policies in the region are maintained (Calpe 2002). The increasing trends in demand (Figure 1) indicate that rice is becoming more of a strategic food in Africa.

Most rice worldwide is consumed in producing countries, with few countries exporting significant quantities. Thus, the international rice market is very thin, comprising only 6.3% of the total rice produced globally, compared to wheat (18%), soybeans (25%) and maize (13%) (FAOSTAT, June 2005). In Africa, only Egypt exports a significant quantity of rice.

The rice export market is concentrated, with Thailand, Vietnam, India, China, and Pakistan, the USA, Australia, Italy, Uruguay, Argentina and Spain as major exporters. The thin and concentrated nature of the international rice market provides a platform for highly variable prices. Such variability could result either from shifts in exportable supplies in major
exporting countries and/or production shortfalls in large consuming countries. Such price changes have implications for rice imports and trade in Africa. For example, any significant increase in the world market price would increase the price of imported rice in African countries; but might stimulate increased domestic production.

In terms of imports, the international rice market is less concentrated, although segmented by type and quality. The major types of rice on the market are ‘indica’ and ‘japonica’. Rice quality issues have become very important among African consumers who have shown a stronger preference for imported rice, because of both the low price and high quality.

3. **Rice policies and trade to major SSA countries**

Because of its strategic importance as a lifeline for many farmers and as a major staple food for the growing urban and rural consumers, governments in the major importing countries in SSA, have intervened actively to stabilize domestic rice prices. In most of these countries, promoting rice self-sufficiency is the major policy objective. This policy objective is being pursued as a means to achieve both food security and national security. Thus, in order to protect producers and the growing urban consumers, governments in the major rice importing countries, particularly those in West Africa, intervene to stabilize their markets. The stabilization measures have largely been in the form of border measures.

Within Africa (Figure 2), only Nigeria and Senegal feature prominently among the leading rice importers. Indonesia, Philippines, Brazil, the EU, Saudi Arabia, Iraq and Malaysia are the most important rice importers. Other important African rice importers are Côte d’Ivoire, South Africa, Sierra Leone, Madagascar, Guinea and Benin. Africa-wide, Nigeria (16%), South Africa (11%), Senegal (9%), Cote d’Ivoire (8%), Sierra Leone (4%), Ghana (4%) and Burkina Faso (3%) are the leading rice importers . It is projected that imports to these countries will continue to increase in the short and medium term (Kormawa, 2004).
3.1 Rice trade policies in major SSA rice importing countries

A policy objective for promoting rice production in Africa is to attain self-sufficiency in rice. As a result, production and trade policies are put in place to equilibrate the need to make rice available at an affordable price to the growing urban rice consumers and the need to promote domestic production. However, the tariff schedules differ between the member countries of the West African Economic and Monetary Union (WAEMU), or Union Economique et Monétaire de l’Afrique de l'Ouest (UEMOA), and non-member countries in West Africa.

The WAEMU countries maintain and apply the Common External Tariff (CET) since 1 January 2000. The WAEMU treaty includes Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Togo and Senegal, which are also member of the Economic Community of West African States. Tariffs on imported rice to the WAEMU countries range from 35 – 45% depending on country-specific additional taxes. Generally, rice imports to the WAEMU countries attract a maximum customs duty rate to 20%. In addition, a statistical fee is levied at the rate of 1% and a solidarity tax of 0.5% if import is outside the WAEMU countries. These countries also levy a common value-added tax rate of 18%, payable at the port of entry. Additionally, imported rice attracts a service fee of 6% or 12% depending on its customs classification.

Unlike the WAEMU countries, tariff schedules on imported rice for the non-WAEMU countries in West Africa are set independently. Most interestingly, total tariff on imported rice in Nigeria is estimated at 120%. This policy provides an opportunity for rice farmers as well as millers to invest. The effect is already evident with a declining volume of imported rice with an attendant increase in the domestic price of rice. The volume of rice imported in 2003 was 2.5 million tonnes at the price of NGN 29.85 billion. In 2004 the volume imported was less than 1 million tonnes (0.84 million tonnes) but the price was higher (NGN 30.31 billion) (Kormawa, 2005). This policy is also encouraging rice millers to invest in new equipment and set up growers’ schemes with farmers. In Ghana, total tariff on imported rice is about 38%. This is made up of 20% import duties, 12.5% Value Added Tax, 2.5% National Health Insurance Levy, 0.5% ECOWAS levy, 0.5% Export and Development and Investment Fund among other charges.
3.2 Rice trade policies in major exporting countries to SSA

Estimates from the FAO, show that about 26.5 million tonnes of rice is traded on the world market annually, Asian countries – mainly Thailand, Vietnam, India, China and Pakistan are the major exporters to SSA (Figure 3). In these countries, there is a mix of public and private sector control of the export rice market. For example, exports of rice from Vietnam is mainly in the hands of State trading companies, though private traders have been allowed entry into the market since 1998. The government controls rice exports through issuance of licenses. In India and Pakistan, rice exports are liberalized, while rice exports in Myanmar have been under government control since 2004 (FAO 2003).

Figure 3: Major rice exporting countries (million tonnes)

Although the United States and Japan are also important rice exporters, however, exports to Africa have been mainly in the form of food aid. It is estimated that food aid deliveries represents about 5% of the global trade flows. While food aid has humanitarian advantages, it distorts domestic prices in recipient countries and may lead to collapse of domestic rice markets if not properly managed. In addition to the favorable trade policies, conditions that facilitate access of smallholder farmers to inputs and credits are in place in these countries to ensure that farmers produce quality rice at favorable prices.

4. Reasons for low investments in domestic rice production and marketing in SSA

Despite efforts to promote sufficient rice production in SSA to feed the teeming population, SSA countries remain reliant on imports despite availability of appropriate production technologies, including the NERICAs. A rapid rural appraisal amongst rice farmers, millers and traders in Burkina Faso, Mali, Niger and Nigeria in 2004 indicated that “market failure” is the major reason for both the low productivity and uncompetitive market for domestic rice\(^1\). When markets fail, capacity of smallholder farmers to use available or prospective technologies is undermined. Although there are policies in place to promote domestic rice production, three factors – the implementation, institutions within which policies are implemented and structural factors – influence market failure.

\(^1\) Rice produced within West Africa
Implementation factors: these have to do with the lack of broad-based support for market reforms and the frequent policy reversals by governments, which create uncertainties for market participants and limit private-sector investment. Institutional factors relate to the absence of the institutional arrangements that are needed to make markets work better for farmers, especially those needed to lower transaction costs, improve market coordination and ensure availability of price information. Structural factors are concerned with the low level of investments in roads and transport infrastructure, electricity, communications, storage and credit for farmers and traders. All of these lead to poor market arrangement and performance.

5. How can policy improve on competitiveness of domestic rice?

For rice production in Africa to be competitive, production costs have to reduce, quality has to improve and prices of output have to be right. In short, the role of policy is vital.

5.1 Develop rural input markets

Unless farmers get access to seeds, chemical fertilizers and other complementary inputs to improve their yields, African rice farmers cannot produce sufficient rice to feed the teeming population. Governments should be encouraged to establish national Input Credit Guarantee Funds (ICGF) to accelerate the access of farmers to agricultural inputs. The private sector in most of WCA is not yet sufficiently developed to meet the task of providing sufficient quantities of input at the right time and quantity to farmers.

The few private sector input dealers face high risks in supplying rural markets. For example, there is no guarantee that farmers will repay loans if there is a crop failure. This situation is mostly due to natural factors that are beyond the control of farmers. Governments can set up or be encouraged to use National Input Credit Guarantee Funds to help cover the risk faced by farmers and private input suppliers.

As extension services in most countries are being rationalized, capacity of the agro-input dealers should be enhanced to provide extension messages to rice farmers, particularly about new technologies.

5.2 Organize the domestic rice market

Following rice market liberalization, farmers now have to find markets for their produce themselves. Lacking collective action, they are unable to negotiate higher prices for their produce with traders. Most of the rice farmers do not have access to an organized market for their harvest. They are often left to the mercy of exploitative traders, though it is known that there is market power in organization.

When farmers are organized, they can overcome the disadvantage of their atomistic sizes and achieve economies of scale in product bulking, storage, transport and marketing. As more than 90% of rice farmers in West Africa are smallholders, without an organized market, such farmers will not benefit from economies of scale and size. Thus, policy makers must be encouraged to support programs that organize the rice market so that farmers and rice millers can get better returns on their investments.

5.3 Set up effective Market Information Services

Market information is needed for farmers to know what to sell – whether paddy or milled rice, where to sell, when to sell, and at what terms to sell to other market participants. The lack of market information creates unequal playing fields between market middlemen and farmers. This negatively affects the terms of trade for smallholder farmers and raises market transaction costs. It also leads to poor integration of markets across space and time. The recent availability of mobile phones in rural areas could be explored in the setting up of active market information services to serve the rural areas.
5.4. Improve policy and rural infrastructure
The general policy and rural infrastructure environment needs to be improved to help farmers become competitive in accessing markets and raising their incomes. For this to happen, they need to (a) set up credit guarantee facility within an organized rice market, (b) facilitate private companies to be linked up with rural agri-dealers, and (c) be part of an innovative private-public-community partnership.

5.5 Improve rice processing and quality
In most rice producing areas, rice processing is constrained by inadequate and inappropriate processing equipment, especially at the farm or village level. The inability to provide and use improved technologies in rice processing has led to the production of poor quality and substandard domestic rice that is not competitively marketable. The unavailability of these accessories and farmer and processor practices account for the poor quality of domestic rice processing. A major opportunity in the rice commodity chain is in the post-harvest area with the aim to increase capacity utilization and generate employment. Opportunities for private and public sector intervention therefore exist to improve processing standards, quality and grades of domestic rice through encouraging investment in rice mills and capacity building for farmers and rice millers.

5.6 Support science and capacity building
Africa will need to have solid science if it is to address most of the problems facing its farmers such as drought, soil fertility depletion, diseases and pests. The new science “biotechnology” has much to offer. However, human capacity is still limited in this area, so there is a need to invest in human capacity development in this area.

5.7 Take advantage of Regional initiatives
West Africa should take advantage of the opportunities offered by the sub-regional organizations – ECOWAS and UEMOA – as well as the regional initiative NEPAD to promote rice production. NEPAD has placed emphasis on agricultural development, through its Comprehensive Africa Agricultural Development Programme (CAADP), which has a goal to attain an agricultural growth rate of 6%. CAADP has identified (a) the harmonization of regional policies (ECOWAAP) and (b) scaling up transfer of selected technologies as two priority areas that are of importance to rice sector development.

West African countries should use a sub-regional approach to promote rice production through common policies and scaling-up of rice technologies, within the CAADP framework. Furthermore, given the growing importance of rice as a staple in Africa as reflected by the huge quantity of foreign exchange used to import this commodity, and the growing demand for WARDA’s research and research output both in member and non-member states in Africa, we in West Africa are proposing NEPAD that WARDA be adopted as a center of excellence for agricultural research and development within the African Union.

6. Conclusions
Rice research in Africa has developed technologies for promoting rice production in various ecologies in SSA. The recent development and release of the NERICA rice varieties by the Africa Rice Center (WARDA) has been acclaimed as a breakthrough for improving rice production in SSA. However, there is an urgent need to remove conditions that lead to market failure, in order to promote production and market for domestic rice. Unless farmers get access to sufficient quantities of improved seeds (e.g. NERICAs), chemical fertilizers and other complementary inputs to improve their yields, West African rice farmers cannot produce sufficient rice to feed the teeming population.
Secondly, post-harvest handling and rice milling has to be improved to ensure improved quality. Thirdly, the market for the domestic rice needs to be organized and improved so they can get better returns for the rice produced in West Africa. Fourthly, the general policy and rural infrastructure environment needs to be improved, to help farmers become competitive in accessing markets and raising their incomes.

However, developing competitiveness will need to be backed by solid science, if it is to address the emerging problems facing farmers such as drought, soil fertility depletion, diseases and pests. Thus support to rice research institutes or programs cannot be overstated. Also, actions to make markets work for the rice farmers must be seen as a long-term agenda, for which the development of human capacity is critical, as knowledge drives product innovation. Thus, rice market “knowledge chains” need to be developed at several levels: (a) at the level of farmers or farmers’ associations and civil society, (b) at the level of researchers and policy analysts and (c) at the level of the private and public sectors.

References
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