Summary:
This policy brief assesses the pressing demand for access to finance and suggests actions that could be useful in mitigating the challenge facing rice value chain actors in Ghana. The brief recommends a revision of the Ghana National Rice Development Strategy to include specific strategies for creating and sustaining access to finance mechanism within the sector. The brief recommends the establishment of a committee of experts across the various value chain actors to assess the potential and possible enactment of a Warehouse Receipt Act and Warehouse Licensing agency in Ghana. Emphasis on financial literacy in Extension service delivery is also recommend.

1. INTRODUCTION

Rice is a major food crop providing cash incomes as well as food for the household. The commodity serves as a source of livelihood for many smallholder farmers which constitute the very poor in Ghanaian society with incidence of poverty hovering around 60 percent\(^1\) Having obtained a level of food self-sufficiency in the middle 1970s, the imports of rice have increased steadily overtaking local production in 1980s. Rice imports now contributes about 60 percent of the 650,000 metric tonnes of consumed in the country (See Figure 1). While other supply side constraints including trade liberalisation policies \(^2\) cannot be ignored, in adequate investment and

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\(^1\) See Offei-Nkansah and Antwi-Asare, 2005
\(^2\) Supply side constraints include land tenure problems, removal of subsidy on inputs, absence of water control systems which consequently leads to high-risk and non-intensive cropping practices. Other problems include low yields and low profitability and reduction of the productive capacity of the soil. For further information read: Multi agency partnership for technical change in west Africa agriculture: national Workshop on rice production in Ghana, November 2000.

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lack of access to finance among value chain actors have immensely contributed to the sector dwindling fortunes.

The need to intensify rice production in Ghana for that matter: cannot be over emphasised. “The possibility of expanding the area to meet the rising demand however, is limited, due to the inadequate access to finance among rice value chain actors”.

A recent study conducted by the JAK Foundation confirmed that: access to finance remains the number one priority need among all the major actors long the rice value chain thus constraining the sector ability to optimise its potential.3

This policy brief has the following objectives:

- Assess the demand for Finance within the Rice Value Chain in Ghana
- Analyse a number of innovative approaches that have been shown to overcome constraints to financing the rice value chain
- Suggest actions and the attendant implications the Government of Ghana and development partners (including the JAK Foundation) can undertake to create access to finance among rice value chain actor

2. DEMAND FOR FINANCE WITHIN THE RICE VALUE CHAIN IN GHANA

2.1. Input Dealers
There are opportunities for the agro-input dealer business to thrive in the Ghanaian rice value chain, due to increased demand for rice. Input dealers on the contrary, are unable to meet the demand of producers/ farmers in terms availability and cost of products. Agro Input dealers’ access to finance in terms of cash and or credit (products) is essential in optimizing the agricultural and financial cycles. For example input dealers can purchase or acquire and stock inputs in adequate amounts and at the right time

and provide these on credit to farmers at reasonable cost without suffering losses.

2.2. Producers/ Farmers
Producers or farmers require funding to cover production costs: labour, seeds, fertilisers, herbicides, pesticides, irrigation, and transport. Rice farming is characterised by periodic income after harvest, whereas production costs and other private expenses are incurred throughout the season.

The right financing at the right time means greater efficiency, improved product quality and increased incomes. Due to lack of access to finance in terms of savings and credit, Rice farmers in Ghana are forced to sell produce immediately after harvesting when price is very low. This keeps rice farmers in low-investment/low-productivity agricultural operations.

2.3. Farmer Based Organisations (FBOs)
Farmer Based Organizations (FBOs) have a critical role in the rice value chain. Given access to capital, FBOs could buy farm inputs for distribution to farmers, buy produce from farmers for delivery to traders or other off-takers as well as facilitate term of loans for investment in storage, transport and (pre)processing facilities. A recent study conducted by JAK Foundation in Ghana4, corroborated the above as producers/farmers’ expectations of FBOs. FBOs are however, constrained in providing these useful services due to lack of finance.

2.4. Processors/ Millers
Processors and millers have had their challenges compounded with the current spate of erratic power supply in Ghana. The need to acquire alternative sources for power such as using power generators for milling has become indispensable. Moreover, Processors/Millers require capital to

3 For the full report see JAK Foundation, Prioritization of Policy Areas for Private Sector and Evidence Based Policy Papers and Guidelines for selected private sector priority areas

4 Ibid
buy agricultural produce, term loans for investment in processing facilities as well as Insurance to take care of rampant unpredictable calamities, theft and or loss.

2.5. Aggregators/Marketers
Aggregators require working capital to buy rice produce. Capital or term loans for investment in storage facilities, transportation, equipment and insurance. Similarly, Marketers also require access to finance to buy processed produce. Working capital to provide stock finance to retailers. Capital or term loans for investment in storage facilities, transportation and equipment.

3. POLICY ALTERNATIVES FOR FINANCING THE RICE VALUE CHAIN IN GHANA
Over the years, numerous initiatives have been taken to improve the provision of agricultural finance through a variety of financial services. It must be noted that most “innovations” are not necessarily new, as some date back decades and in some cases even centuries. What is new, however, is agricultural financing in new environments and circumstances and for different category of farmers who hitherto, were oblivious of such alternatives. Some of the major financial innovations and the key factors of success for their implementation are discussed below. These innovations tackle specific constraints in agricultural finance and reduce lending risks.

3.1. Warehouse Receipt Finance
The Warehouse receipt finance is a process where producers deliver the grains to a certified and secured elevator for storage. The farmer subsequently hands the warehouse receipt to the bank as collateral for credit — often 70%-80% of the value in storage5. Upon selling the product, the farmer notifies the bank, which obtains repayment from the buyer in return for the warehouse receipt. The buyer now presents the receipt to the warehouse to retrieve the product. The bank transfers the balance (minus the loan amount + interest) to the farmer6. Default rates in warehouse receipt finance tend to be low — the borrower (producer) repays the loan with earnings from the sale of the product.

Warehouse receipt finance is practiced in the rice sector. In Latin America, and notably in Brazil and Mexico, warehouse receipt finance of cereals is well-known, and some banks own warehouse infrastructure7. The practice of Warehouse receipt financing is rapidly increasing in Eastern Africa — for example in Tanzania for rice, coffee, cashew, maize, sesame and pepper. In 2002, the IFAD-funded Agricultural Marketing Systems Development Programme (AMSDP) introduced the Inventory Credit Scheme through the Warehouse Receipt System (WRS) for cereals (maize and paddy) in 11 districts8 of Tanzania.

“The introduction of the WRS led to an increase in farm gate prices up to 300 per cent9. This led to an immediate and positive impact on farmers’ income”. Again, the WRS scheme enabled farmers to improve the quality and increase the quantity of their produce and access financial services and loans10. WRS also contributed to the enactment of the Warehouse Receipt Act and the establishment of the Tanzania Warehouse Licensing Board.

In Latin America, the documents used are (1) the warehouse receipt itself, confirming that the produce was received in storage; and (2) a warrant or chattel bond that represents ownership of the crop.

5 Warehouse receipts are “documents issued by warehouse operators as evidence that specified commodities, of stated quantity and quality, have been deposited at particular locations by named depositors” (Onumah, 2003). The form of the receipt depends on local regulations, and consists in some legal systems of two documents: a certificate of title and a certificate of pledge.

6 Two possibilities: (1) the buyer pays the full amount to the bank, which pays the balance to the farmer; or (2) the buyer pays the bank the loan amount + interest due, and the rest to the farmer.


9 Ibid. p. 34.

main exception. The practice in Ghana, however, is common with maize and not the rice value chain.

**Fig 1: Warehouse receipt finance**

**Box 1:**


In 2002, the IFAD-funded AMSDP introduced the Inventory Credit Scheme through the Warehouse Receipt System (WRS) for cereals (maize and paddy) in 11 districts of the country. Under this scheme, small-scale farmers were able to store their produce in warehouses during harvest, when prices are relatively low, and release them to the market at better prices during periods of low supply. To meet farmers’ immediate financial needs while they deferred their incomes, the programme enabled them to access finance from commercial banks through Savings and Credit Co-operative Societies (SACCOS).

The role of the SACCOS is to mediate and provide guarantees to banks on behalf of farmers. As household incomes improved (due to the increase of farm gate prices by 200-300 per cent), the WRS also had other positive outcomes. For example, in the programme areas, access to education and health improved and some communities were able to build new and modern housing, as well as purchase motorcycles and bicycles to ease transportation problems. The programme also increased women’s participation in SACCOS and promoted collective bargaining and selling among the farmers and farmer groups.

**Results**

- After the WRS was introduced, farm gate prices increased up to 300 per cent. This led to an immediate and positive impact on farmers’ income.
- The WRS scheme enabled farmers to improve the quality and increase the quantity of their produce and access financial services and loans.
- Business relations between banks, SACCOS and smallholder farmers were strengthened, resulting in more favourable loan terms for agricultural producers; interest rates for commercial loans were reduced from 20 per cent to 13 per cent.
- Introducing the WRS in the pilot areas created employment in various activities related to the warehouse system, such as transportation, dusting and security.
- AMSDP contributed to the enactment of the Warehouse Receipt Act and the establishment of the Tanzania Warehouse Licensing Board.
3.2. **Value chain intermediation**

The World Bank (2005)\(^{11}\) presents a special type of value chain finance where an intermediary, which is not itself a value chain partner, facilitates the process for all parties. DrumNet\(^{12}\) Kenya has developed a technology platform allowing it to act as an intermediary between finance providers, farmers, input suppliers, and buyers. It combines elements of value chain finance and microfinance.

The main objective of DrumNet is to simultaneously address credit and market limitations by integrating both into one approach.

**Fig 2: Value Chain Intermediation**


The programme has two features: i) Cashless microfinance; and ii) An integrated marketing and payment system. Farmers organised into farmers’ groups sign a supply contract with a buyer, which could be an (export) trader, supermarket or agro-processor. Usually, DrumNet negotiates the contract on the farmers’ behalf.

The price and supply conditions are set. With the contract in hand, the farmers’ group obtains financing from a bank or Microfinance Institution (MFI). The bank or MFI disburses the money to certified input retailers (with agreed upon quality standards), who release the inputs to the farmers. At harvest, the product is certified and sent to the buyer, which triggers a payment in favour of DrumNet. DrumNet then pays off the bank and gives the remainder (minus its fees) to the farmers.

This is essentially contract financing, but with the innovation that an independent party sits in the middle, and manages the process through a master contract. The fact that farmers receive their loans in kind and that the loan repayment is withheld from harvest receipts reduces risk to the bank. Transaction costs are reduced via Drumnet, which aggregates financing, technical advice, input supply and marketing. Risk is also reduced due to technical advice and access to premium markets.

3.3. **Extension services and financial literacy**

Little literature exists on the link between extension services and agricultural finance. For many years, the key paradigm was that financial and non-financial services needed to be separated. This paradigm has recently been challenged. The generally low level of education and technical know-how of farmers is one of the main reasons why banks decline to finance agriculture.

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\(^{11}\) WORLD BANK (2005), Rural Finance Innovations – Topics and Case Studies (DrumNet), World Bank, Washington, D.C.

\(^{12}\) DrumNet is a third party supply chain management company which facilitates the extension of credit to and the management of transactions for small scale farm producers in Eastern Africa.
Farmers, and smallholders in particular, generate little cash, and even when they do, they may not be able to provide the documentation to convince bankers that this is so. Research undertaken in Moldova (EFSE, 2010) found a strong correlation between farm performance (increase in production and profits) and the use of extension services provided by the regional branches of the Ministry of Agriculture. Naturally, the farms’ repayment capacity will have increased as well. In recognition of this finding, some banks in Moldova oblige their agricultural clients to seek government-subsidised extension services.

Research in India (Mahajan, 2010) found that credit to poor farmers has little impact on their income, hence levels of poverty. However, when combined with extension services and input supply for productivity enhancement, risk mitigation (through insurance), education and market development, the results were much better. It was found that farmers are willing to pay for these services. Farmers preferred cost-saving and risk-reducing solutions over yield-enhancing technology that requires investment.

**RECOMMENDATIONS**

**To the Government**

- Formulate policies and strategies for the establishment of Warehouse Receipt System in Ghana. The strategy should ensure strong participation of private value chain actors including umbrella bodies such as the Ghana Grains Council and Ghana Rice Inter professional Body and financial institutions. Draw on best practices in other emerging markets to ensure a robust and self-sustaining systems

- Establish easy accessible funding mechanism for the grains/crop sub-sector in partnership with CSOs in agriculture, including umbrella bodies, commodity traders, input dealers, equipment service providers and financial institution to facilitate the flow of fund to the rice sector.

- Integrate extension services, financial literacy and access to finance schemes to stimulate productivity and mitigate credit risk

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**Box 2:**

**PROMIFIN Project in Central America**

The PROMIFIN Project in Central America executed by Triodos Facet and financed by the Swiss government conducted 3,210 financial education seminars for 23,485 people. It involved 45 MFIs and cooperatives in Nicaragua and Honduras (until 2011). An impact assessment of the project showed that those who participated had, compared to non-participants, four times higher savings. Due to better money management (fewer unnecessary expenses and more savings) investment in income-generating activities increased, and so did incomes. Consequently, indicators of family well-being (access to food, health, and education) improved. Research also showed that spouses actively discussed and collaborated in the management of family finances, whereas this had not been the case before. Misuse of money by (mostly male) family members was greatly reduced.

*Source: AFD (2012), Creating Access to Agricultural Finance*

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