



MECHANIZED

Transforming Africa's Agriculture Value Chains



Mali is one of the countries in West Africa that has shown noticeable progress with regard to agricultural mechanization. Between 2005 and 2014, Mali observed an average agricultural machinery growth rate of five percent. During the same period, the level of agricultural output growth rate was also five percent. Strong institutional and programmatic commitments to enhance mechanization have contributed to this progress. However, despite the progress, the 2018 Biennial Review Report by the African Union revealed that Mali is not on track to meet Malabo Commitment area #3.1, "Access to agriculture inputs and technologies", having a score of 4.56 out of 5.53.¹ The overall commitment category score is 10.

INSTITUTIONAL COMMITMENTS

Prior to 2000, the Malian Government was responsible for the provision of agricultural equipment and other agricultural inputs, including seeds and fertilizers. In 2006 the *Loi D'orientation Agricole* was passed and the Malian government shifted its focus to creating an institutional and economic environment favorable to the development of agricultural mechanization, including strengthening the role of the private sector.² Within the Ministry of Agriculture's Direction Nationale Du Genie Rural (DNGR), a division dedicated to agricultural mechanization was created in 2005. The division aims to equip smallholders with appropriate equipment to increase agricultural production. A system for monitoring and evaluating mechanization programs is also carried out by the DNGR. In addition, the Institute of Rural Economy (IER), a major national research institution, aims to contribute to the implementation of the national agricultural research policy, and through the Center for Study and Experimentation in Agricultural Machinery (CEEMA) it tests locally made and foreign manufactured equipment. CEEMA is also tasked with training farmers in the use of agricultural

equipment and village blacksmiths in the production of small animal traction and craft equipment.

Moreover, training programs in agricultural mechanization have been introduced at the university level. The Institute of Training and Applied Research (IPR/IFRA), which is another public institution, has offered education and training in agricultural machinery and agricultural equipment since 2015. The objective is to train students to design, manage, monitor and evaluate projects in agricultural and rural mechanization, including cold circuits, handling systems, transport, drying, storage, and primary processing of agricultural products. Students also learn how to use and maintain agricultural equipment and agricultural industrial units, how to produce, manage, and distribute energy in rural areas, how to design and conduct training programs related to mechanization, and how to develop a business plan.³

The private sector also plays an important role in the production of agricultural equipment. In the Office du Niger zone, blacksmiths have organized themselves into a *Société coopérative des forgerons de l'office du Niger* (Socafon) since the 1990s, and have put in place an efficient structure to ensure the supply of quality tools, at low prices, adapted to local needs, as well as local services for the maintenance and repair of tools. The organization was set up by the blacksmiths to enable them to better coordinate their activities, to facilitate access to credit, to stock up collectively on raw materials, and to help each other.⁴

POLICY AND PROGRAMMATIC COMMITMENTS

Over the past 15 years, several programs were implemented by the Government of Mali to increase the level of agricultural mechanization. Following the adoption of the Agricultural Mechanization Strategy in 2002, the Government has provided direct public investment and financial support to farmers in their acquisition of 400 tractors and associated equipment purchased from India. The prices of these tractors were subsidized by the Government to stimulate demand. To sustain the acquisition of tractors, the imported tractor components from India were later assembled locally and sold. In addition, the Government made additional direct investments by purchasing 49 percent of the shares of a local tractor assembly plant.

In Mali, smallholders growing the main staple crops, such as millet and sorghum, are usually unable to get credit for purchasing agricultural equipment, unlike cotton and rice producers. The Government provided interest-free loans of up to US\$1,000 for the purchase of a pair of draught animals,



a plow, and an animal-drawn cart. Farmers need to provide a down payment of five percent of the loan and are requested to plant trees, which work as a guarantee for the loan. The wood is harvested and sold after five years and the profit is used to repay the balance of the loan if the farmer has not completed the repayment. The rate of repayment has been estimated at about 90 percent.⁵

The Government has also developed an assistance program to support young farmers in rural areas. One hundred tractors have been supplied to youths at subsidized prices, interest-free and repayable within 10 years, with a one-year grace period before loan repayments can begin. Young farmers also receive training in developing business plans to make it easier to access loans from commercial banks, with the state providing up to 80 percent of the guarantee for the loan.

In 2016, with the aim of creating more employment opportunities and adding value in the agricultural sector, the Government set up an agribusiness incubation center. The incubation center aims to promote entrepreneurship in rural areas based on agribusiness opportunities such as seed marketing and the processing of agricultural products. The goal is to integrate smallholder farmers and young people into the agriculture value chain by facilitating access to resources and new markets and by providing education and skill development.

Through the *Agricultural Competitiveness and Diversification Program (PCDA)*, the Government provides support to small

agricultural processing companies. For example, through this support one small company, which had begun with a focus on local grain storage in 1985, was able to expand and diversify its activities. In 2009 it acquired the status of an Economic Interest Group (GIE) under the name *Unité de Transformation des Produits Agricoles DADO PRODUCTION*, and it is now registered in the trade register of Mali. Through the support of the PCDA, the company can now process agricultural products, particularly cereals, and add value. The company received technical support and a grant of US\$6,180. With that financial support, the company bought a fonio (traditional West African crop) huller with a capacity of up to 150kg per hour, an electrical fonio destoner with a capacity up to 100kg per hour, a cross-flow mixed dryer with a capacity of 80kg per hour, a gas dryer, and a grain mill. The company increased the number of its employees from four to 16 and now offers eight different products.⁶

Mali has shown ambitions to boost agricultural growth through institutional and programmatic commitments to improve the uptake of mechanization and rural technologies along the value chain. Importantly, the government has placed an emphasis on capacity strengthening and skill development, as well as employment creation for youth and entrepreneurship, to increase value addition at post-harvest stages. However, the extent of public-private partnerships in the mechanization of food value chains is still low, and more needs to be done to meet continental and international targets on agricultural transformation.

Preferred citation: Malabo Montpellier Panel (2018). *Mechanized: Transforming Africa's Agriculture Value Chains: Mali*. Dakar. June 2018.

- 1 African Union (AU). 2018. The 2017 Progress Report to the Assembly. Highlights on Intra-African Trade for Agriculture Commodities and Services: Risks and Opportunities. Addis Ababa, Ethiopia. <http://www.growafrica.com/file/2017-full-report.pdf>.
- 2 Ministry of Agriculture, Republic of Mali. 2008. Stratégie nationale de mécanisation agricole. Bamako, Mali. http://www.passip.org/passip_intranet/pdf-intranet/Politique/9-66%20Strat%C3%A9gie_Nationale_M%C3%A9canisation_Agricole_2008.pdf.
- 3 Institut Polytechnique rural de Formation et de Recherche Appliquée. Master en Machinisme Agricole. Accessed 5 June 2018. <http://www.ipr-ifra.edu.ml/spip.php?article8>.
- 4 O. Djiré. 2009. La fabrication locale d'équipements agricoles: l'expérience de la Socafon au Mali. Grain de sel, 48: 27. http://www.inter-reseaux.org/IMG/pdf_GDS48_p27_Socafon_Mali.pdf.
- 5 FAO. 2011. Investment in agricultural mechanization in Africa. Rome, Italy. <http://www.fao.org/docrep/014/i2130e/i2130e00.pdf>.
- 6 PCDA (Programme Compétitivité et Diversification Agricoles). Transformation des produits agricoles Unité DADO PRODUCTION à Yirimadio. Accessed 5 June 2018. <http://www.pcdamali.org/v2/index.php/rencontrez-nos-promoteurs/26-la-femme-aux-mille-bras>.