



Improving Farmer Selection for the Babban Gona Farmer Agricultural Franchise in Nigeria

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ABBREVIATIONS

BG: Babban Gona

FAW: Fall Armyworm

FFM: Five-Factor Model of Personality

IRB: Institutional Review Board

SIPA: School of International and Public Affairs at Columbia University

TG: Trust Group

TGE: Trust Group Entrepreneur

TGL: Trust Group Leader

TOR: Terms of Reference

EXECUTIVE SUMMARY

Babban Gona (BG) is an investor-owned social enterprise in Nigeria that serves networks of smallholder farmers. Primarily, it provides credit and other agricultural services to a group of three to four farmers called Trust Groups (TG). A TG is headed by a Trust Group Leader (TGL), who is responsible for the selection of TG members and serves as the focal point to BG.

BG began its operations in 2012 with 102 maize smallholder farmers and 16 TGs. By 2016, it had grown to become Nigeria's largest maize-producing entity. Since its inception, BG has served over 65,000 smallholder farmers and it seeks to expand its program to reach one million farmers by 2025. BG, therefore, sought to develop a more standardized recruitment process to identify TGLs that are able to both deliver high maize yields ('high performing'), as well as possess behavioral traits ('cooperative') that are conducive to BG's plans for program expansion. For this purpose, BG requested the assistance of Columbia University's School of International and Public Affairs (SIPA) Workshop team to develop a risk assessment tool and design a comprehensive survey for the purpose of enhancing BG's farmer selection process.

In January 2020, two team members traveled to the BG headquarters in Lagos, Nigeria to conduct interviews with BG staff from different departments, in order to further understand BG's organizational structure, business practices, and context in which it operates. This led to further clarification and refinement of the team's project methodology and scope of work.

Due to the unforeseen circumstances surrounding the emergence of the COVID-19 pandemic, as well as restrictions surrounding Columbia University's research protocol requirements, the team was unable to conduct its planned March visit and had to modify its initial work plan to adapt to changing circumstances.

Through consultations with Columbia University faculty members, BG counterparts, and staff in similar organizations assessing credit risks, the team produced a comprehensive survey and a risk assessment tool. The comprehensive survey with its questions formulated based on extensive secondary research, as well as complemented with BG's existing survey, incorporated additional indicators aimed at identifying high performing and cooperative farmers. The risk assessment tool was produced based on the random forest model, which is informed by the survey responses of existing TGLs to predict the performance of a prospective TGL.

The tools developed by the team require iterations by BG, both in terms of regularly updating and expanding the dataset used in the risk assessment tool, as well as fine-tuning the survey to reflect the ever-changing realities on the ground. The continued use and iteration of the risk assessment tool and the survey will strengthen their predictive power and accuracy. Supplemented by the experience and expertise of BG staff, the team expects the tools to strengthen its selection process and thereby scale up its successful program.