

## S.1 Empowering Women, Smallholder Farmers and Youth through School-Based Agricultural Education

### 1. What, in brief, is the solution?

School-based agricultural education (SBAE) is a practical, cost-effective system that has enormous potential to engage the education sector in transforming food systems. By involving youth as early adopters of improved agricultural innovations, better nutritional practices, and environmental stewardship, SBAE empowers youth to be change agents for the diffusion of those innovations and practices within their rural communities. SBAE is not a new concept. It has been serving agricultural educators and students around the world for more than a century. What is new is its potential to empower youth, women, and smallholder farmers in rural communities across sub-Saharan Africa at a time when a youth population bulge poses both a unique challenge and opportunity to the agricultural, economic and political future of the continent.

### 2. What were the sources from which this solution emerged?

This idea emerges from a network of institutions that constitute The Movement for School-Based Agricultural Education (SBAE). Through the Movement's efforts, economist Chris Udry at Northwestern University's Global Poverty Research Lab, in conjunction with the Liberian Ministry of Education and 4-H Liberia, is currently conducting a multi-year randomized controlled trial on the efficacy of SBAE on youth development and rural livelihoods. Funding is provided by the World Bank, National Science Foundation and USAID.

Additional institutions associated and supportive of this solution: 4-H Ghana, 4-H Senegal, National 4-H Council, VVOB – Belgium, Liberia Ministry of Agriculture, University of Liberia, Cape Coast University, Borlaug Institute of International Agriculture, and Catholic Relief Services in Uganda (CRS).

To create a cross-cutting solution, this approach could be joined with similar youth, education and civil society game changing solutions including: *1.12: Implement comprehensive school food programmes in every country; 2.4: Education; 2.6: Civil society and youth; 5.19: Enriching child's food and nutrition education.*

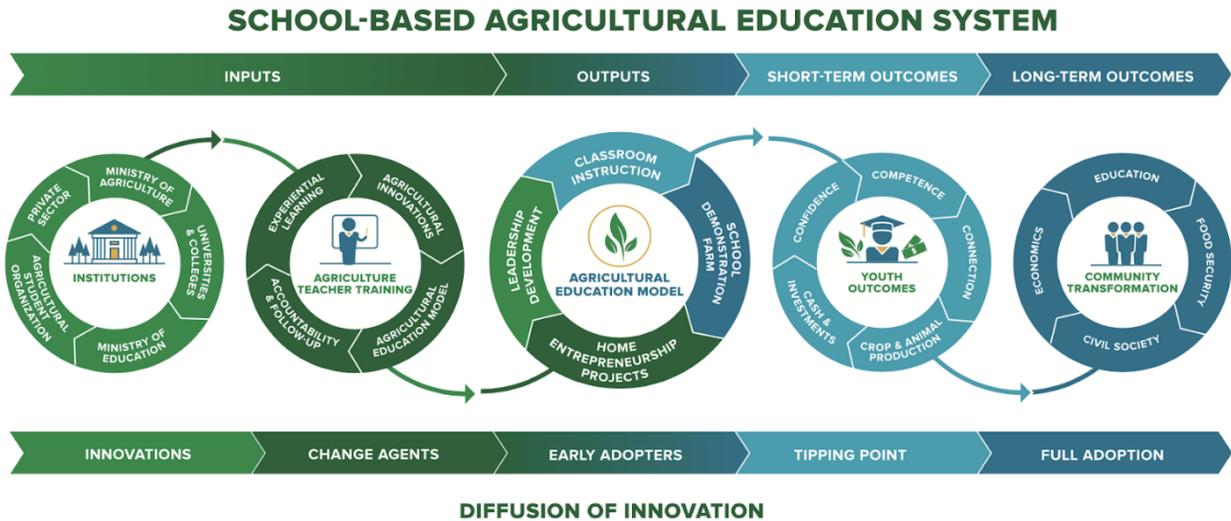
### 3. What problem is this solution addressing?

Sub-Saharan Africa (SSA) is home to almost 1 billion people – approximately 13 percent of the world's population. By 2050, the population of the region is expected to double, with half under the age of 18. Smallholder farmers constitute more than 60 percent of the region's population, piecemealing livelihoods from agriculture and other low-income jobs. Almost half of the farmers are women. With these trends, agriculture offers a significant opportunity for impact on poverty reduction, gender equity, youth development and rural transformation. Agricultural innovations ("any idea, practice or object that is perceived as new by an individual") that save time, make farm life more comfortable, improve productivity, reduce loss, enhance nutrition and preserve natural resources are critical to this process. Yet, innovations are only as good as their adoption rates.

Innovations often elicit feelings of uncertainty within any social system. This is especially true from the reference point of a smallholder farmer. An effective way to frame the efficacy of agricultural innovations is to shift a farmer's reference point, or perspective, through empowering school-aged youth as early adopters and change agents. Young people are the ideal entry point into a rural

community because they are more easily influenced than adults, especially within a school setting. This is not the standard school garden program often seen across the African continent. It is a twenty first century behavioural economics approach to an early twentieth century experiential learning model.

**4. How can this solution address that problem (theory of change)?**



Developed more than 100 years ago, school-based agricultural education (SBAE) encompasses the theoretical foundations of four different bodies of knowledge – diffusion of innovations, experiential learning, positive youth development (PYD) and behavioural economics. Within junior high and senior high school levels, SBAE works towards two core objectives:

contribute to the academic, vocational and life skills development of rural youth through experiential learning methods; improve rural livelihoods by transferring skills and agricultural innovations into the home and community through schools.

SBAE is a collaborative system that brings together actors from civil society, research-based institutions, agricultural extension, the Ministry of Agriculture, and the Ministry of Education. Through an experiential pedagogy, teachers diffuse improved nutritional and agricultural practices to students who demonstrate those ideas at home and school. As parents and other farmers, especially women, in the community witness the confidence, increased agricultural production and income generated by youth, they begin to ask questions and adopt the same knowledge and practices, themselves.

SBAE excites students about agriculture and school by actively engaging them in the learning process through various nudges. Earning money through home entrepreneurship projects empowers students with greater agency. And through the excitement of leadership opportunities within an agricultural student organization, students expand their confidence and world experiences. Leadership camps, public speaking competitions and agriculture fairs allow students to compete and connect with other students interested in agriculture. Leadership opportunities for girls within an SBAE agricultural youth organization has proven to be a powerful retention tool to keep girls in school.

Regardless of their status or aspiration, SBAE improves the lot of everyone currently in agriculture – those who remain smallholding, those who transition into commercial agriculture and those who exit the sector altogether. By identifying youth as early adopters of agricultural innovations and empowering

them to be change agents for the diffusion of those innovations, SBAE becomes an economic incubator for the entire rural community – amplifying existing agriculture and education initiatives.

**5. Existing evidence supporting the argument that this solution will work, or at least achieve the initial outcomes.**

In addition to the randomized controlled trial currently being conducted in Liberia by Northwestern University, many of the SBAE components are supported by agricultural development and youth development literature, discussed further in *Empower Youth, Transform Agriculture*. A 2016 randomized study found that students in Peruvian high schools who received agricultural extension videos significantly influenced their parents' knowledge and practices after a sustained eight-month intervention. Through positive experiences with adults, young people in SBAE increase their desire to contribute to their community, especially within agriculture. Many students of SBAE intend to study agriculture in post-secondary school, hoping to return and assist more farmers in their community with better knowledge.

**6. What is the current and/or likely political support for this idea?**

The African regional landscape prioritizes agricultural growth and job creation as a means of rural and structural transformation across Africa – many emphasize youth as a critical pathway. The following initiatives set the stage to successfully scale SBAE across SSA.

As the framework for action in agricultural transformation, the Comprehensive Africa Agriculture Development Programme (CAADP) focuses on the expansion of agricultural growth, improved infrastructure, expanded agricultural research and greater access to technologies through a market economy. The Malabo Declaration recommitted to the principles of CAADP, but with specific targets in agricultural finance and agrifood job creation – including creating new job opportunities in agricultural value chains by 2025, with preferential entry for women and youth. The African Union's Agenda 2036 foresees an inclusive development that eradicates poverty and transforms economies through improved education, modern agriculture, and environmental resilience. The Feed Africa Strategy outlines additional programs through the African Development Bank's (AfDB's) \$24 billion investment in African agricultural transformation. The Strategy emphasizes the need for a new crop of young "agripreneurs", which will require empowering and training youth to change the traditional view of agriculture while equipping them with the skills and financing to be successful. Additionally, the AfDB has launched the Technologies for African Agricultural Transformation (TAAT) initiative, designed to increase investment into agricultural research and dissemination of proven, Africa-tailored technologies ready for scale.

In addition, SBAE substantially contributes to eight of the UN Sustainable Development Goals (SDGs): No Poverty, Zero Hunger, Quality Education, Gender Equality, Decent Work and Economic Growth, Reduced Inequalities, and Peace, Justice and Strong Institutions.

**7. Is this a new solution or an existing solution that needs scaling?**

School-based agricultural education exists around the world and remains ready for scale, especially in sub-Saharan Africa. SBAE leverages existing capital and operational infrastructure including schools, teachers, research farms and extension agents – making it very cost effective. Its scale requires simple, collaborative adjustments between Ministries of Education and Agriculture.

**8. If selected as a game-changing solution, how will you leverage the UNFSS to scale your solution?**

*The UNFSS provides a crucial opportunity to recognize, center, and engage youth leaders and education specialists in the work of food systems transformation. It also offers a venue to center youth visions, aspirations, and demands as a force for transformative change and promote the participation of youth in awareness-raising, norm changing, and implementation agendas. The UNFSS could highlight forthcoming research on school-based agricultural education and the political support of such initiatives across sub-Saharan Africa and other parts of the world.*

**9. Is this idea applicable to a particular geography, demography, landscape or other type of setting (e.g. high- or low-income countries, aquaculture)? If so, please specify.**

While not limited to any particular geography, ecosystem, or income status, due to current demographic shifts towards a younger population, also known as the “youth bulge”, school-based agricultural education will achieve its greatest impact in sub-Saharan Africa.