# INTRODUCTION

### WHAT IS THE CONTENT IN THIS PUBLICATION INTENDED FOR?

The content in the pages is intended to provide information and tips to agricultural extension and advisory services (AEAS) providers who work directly with farmers in the sorghum-based dryland farming systems of Burkina Faso and Tanzania. The content may also be adapted for use in other African countries with similar conditions and farming systems.

### WHAT ARE THE COMMON PILLARS?

This publication is built on two common pillars. First is that, in general, agricultural extension agents need to package the advice they give to farmers in the context of <u>agrifood system</u> <u>resilience</u> and the practice of <u>climate-smart agriculture</u> (CSA) based on the crops that they grow. Second is that the CSA services have to rely on robust <u>climate services</u>.

The focus on agrifood system resilience, emphasises the aspect of food (not just production and productivity) in advising farmers. A truly resilient agrifood system must have a robust capacity to prevent, anticipate, absorb, adapt and transform in the face of any disruption, with the functional goal of ensuring food security and nutrition for all and decent livelihoods and incomes for agrifood systems' actors. For these reasons, all the topics addressed in th e content are prefaced by clearly articulated climate change and food system resilience issue being addressed and the essential technical knowledge needed.

## WHO ARE THE TARGETED USERS OF THIS PUBLICATION?

The content is explicitly intended for potential use by village-based advisors (VBAs) and other extension service providers in the countries targeted by Alliance for a Green Revolution in Africa (AGRA). It is assumed that they are knowledgeable about the agro-ecologies they are working in and that they are fully integrated with agricultural research systems that are developing, testing and releasing the knowledge and technologies. This is necessary for them to be continuously aware of the new proven technologies as they become available. They are also assumed to have the knowledge and skills to use a range of extension methods for engaging with individuals or groups of farmers and other actors. In the case of AGRA this should include the approaches promoted through the <u>AGRA Extension Strategy</u><sup>1</sup>, namely: "Mother-Baby-Demonstrations (M&B)" and extension message delivery through "ICT4Ag".

<sup>&</sup>lt;sup>1</sup> <u>https://agra.org/extension-capacity-building/</u>

### WHAT ARE THE TARGETED FARMING SYSTEMS AND LOCALES?

The AGRA commissioned the production of the content in this publication for use in the Sahelian sorghum-millet-agro pastoral subsystem in Burkina Faso and the East African sorghum-based arid and semi-arid lands (ASAL) subsystem in Tanzania.

In Burkina Faso the agro-ecological setting of sorghum-based systems is typified by ancient, weathered soils, drifting sands from the Sahara and climatic pattern that is remarkably steady, stretching across a vast west-to east belt (Figure 1). This pattern is characterized by a rainfall gradient that ranges from very dry in the northern Sahelian ecozone to the wetter Guinea savanna ecozone that lies further south. The sorghum-based system lies between the northern Sahelian and the wetter Guinea Savanna in the south.

In Tanzania, sorghum-based systems are found in the central regions. Agro-ecologically, the systems are more complex than the other regions of the country because of a wider range of geological, soil morphological, altitude, latitude and climatic attributes (temperature and rainfall).



### HOW WAS THE NEED FOR THE CONTENT DETERMINED?

The content in this publication is based on the needs that were identified through literature reviews as well as key informant interviews and focus group discussions involving stakeholders working in the sorghum-based farming systems in Tanzania and Burkina Faso.

#### HOW IS THE CONTENT INTENDED TO BE USED?

The content is structured in a way that the AEAS providers can use to engage with farmers on a "journey" that can start from identifying and selecting the varieties of sorghum and other crops that they can grow, all the way to marketing or consuming the produce. This "journey" is depicted graphically in Figure 2. The farmers (groups or individuals) may already have started on the journey and may not even wish to be taken the whole way. In these cases, the content can be used to give them a "lift" from where they are to where they want to go. Whatever the case, the AEAS provider should ensure that the advice s/he provides is wholesome from the perspective of integrating other considerations needed for sustainable farming system livelihood strategies based on diversified crop and livestock production.

Figure 2: Generic extension content domains for crop production (Adapted from "Step-by-step production" International Rice Research Institute (IRRI) Knowledge Bank. <u>http://www.knowledgebank.irri.org/step-by-step-production</u>

