



**EWA-BELT**

Linking East and West African farming systems ex  
into a BELT of sustainable intensification

# Introducing Fonio in the Farming systems to enhance Food Security and Incomes in Northern Ghana and Burkina Faso

Practice Abstract n.1

**Authors:** Giovanna Seddaiu (1), Margherita Rizzu (1), Laura Altea (1), Quirico Migheli (1), James Kombiok (2), Rachele Stentella (3), Joseph Adjebeng Danquah (4), Deodatus Kiriba (5), Simone Merafina (6).

**Authors' affiliation:** (1) Desertification Research Centre, Department of Agricultural Sciences, University of Sassari, Italy; (2) Kundok Development Consult Ltd., Tamale, Ghana; (3) Fondazione Acra, Italy; (4) Council for Scientific and Industrial Research - Savanna Agricultural Research Institute, Ghana; (5) Tanzania Agricultural Research Institute, Tanzania; (6) Osservatorio per la Comunicazione Culturale e Audiovisiva nel Mediterraneo e nel Mondo, Italy.



The EWA-BELT Project has received funding from the European Union's Horizon2020 research and innovation programme under agreement No 862848

# Introducing Fonio in the Farming systems to enhance Food Security and Incomes in Northern Ghana and Burkina Faso

Given its early maturing stage and nutritious nature, Fonio (*Digitaria Exilis* (Kippist) Stapf) has been known as an important food security crop in the growing areas since it closes the hunger gap between the planting and harvesting period of the major staple crops such as maize. However, nowadays its production is being neglected in many areas of West Africa and no improved varieties are currently available. Kundok Development Consult as part of the EWA-BELT project has introduced and evaluated Fonio production in four Ghanaian districts (Savelugu, West Mamprusi, Talensi and Nabdam) testing four local varieties (Namba, Nnamba, Wagadugu and Nfonikpa). Since Nnamba resulted the highest yielding landrace (~900–1000 kg ha<sup>-1</sup>), it was proposed to 20 farmer groups in the 4 districts, for a total of 400 farmers, which have been linked to a processor company. Furthermore, five farmers per each district, representing each group, will be trained with a Training of Trainers (ToT) approach on the manual processing of the crop so that by the end of the project, a total of 100 farmers (25 per district) will produce Fonio. On these premises, not only the inclusion of Fonio in the farming systems will have the capability to enhance food security, but also, if produced in larger quantities than farmers own consumption, it could be sold to the mechanical processing company also increasing the farmers' household income. Within the project, the partner ACRA also directed part of its research on Fonio, assessing two different crop management practices in the areas of Zorgho, Loumbila and Guié in Burkina Faso. Preliminary results showed a yield increase of about 124% (830 kg ha<sup>-1</sup>) under manure fertilization (60 kg ha<sup>-1</sup>) and deeply row-seeding compared to the traditional practices with no fertilizer and broadcasting sowing (370 kg ha<sup>-1</sup>).





# EWA-BELT

Linking East and West African farming systems ex  
into a BELT of sustainable intensification



[www.ewabelt.eu](http://www.ewabelt.eu)

The sole responsibility for the content of this publication lies with the authors. The publication reflects the views of the authors and the European Commission cannot be held responsible for any use which may be made of the information contained therein