PRACTICAL GUIDELINES: ***Choosing targeted growing conditions for the selection of a new variety***

To achieve significant yield improvement based on agronomic and varietal innovations in a specific zone, it is essential to define, with the support of the farmers, the growing conditions, the production system and the major constraints to be addressed. Basic knowledge of conditions will help all partners to pinpoint the best varieties and agronomic technologies for testing and diffusion.

Stage 1: Establish a list of production systems of millet and/or sorghum with a characterisation of growing conditions and constraints.

For example: field with poor soil fertility, water stagnation in lowlands, hydromorphic soils, intercropping with maize, cow pea or groundnut; gravelly or sandy soil with a high frequency of drought, late sowing, abundance of weeds, good soil fertility, etc.

Stage 2: Classification of the "conditions" according to their importance to the farmer or on the basis of opportunities for improving productivity (this can vary between male and female farmers)

Pair-wise classification can be used for elucidating most of the reasons for and against a specific condition, as well as for facilitating the choice of target conditions for the experimentation/ diffusion of the techniques. A simple classification can be an option if the consequences of one choice vs. another are evident. A few points to keep in mind:

- Be cautious when choosing – feasibility, affordability, yield improvement, and availability of inputs in the zone are all important to the farmer
- Don't get bogged down in research theory
- Put the farmers' interests first
- It is possible to address the most common conditions
- It is possible to combine certain options/ conditions

Stage 3: Study the literature and think about the current know-how of farmers and the experience of field agents/ technicians to date in trying to improve the production of sorghum and millet in their region. Identify other stakeholders interested in agriculture in the region.

Stage 4: Choose the local variety that should be outperformed