# FROM BREEDING OBJECTIVES TO BREEDING (OR SELECTION) METHODS

ESAFF<sup>3</sup>

Are the traits present in crop varieties that are available to the community?

start

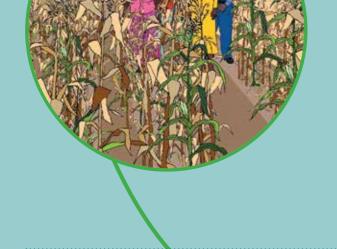
At the end of the diagnostic stage, a Farmer Field School group agrees on a set of 'breeding objectives' (or traits) they wish to focus on (examples of breeding objectives are 'high oil content in groundnuts', 'early maturity in maize', 'resistance to the brown planthopper in rice' or 'ease of processing in sorghum'). To decide on the breeding or selection method that the group will use that year, it is important to evaluate whether the traits that are important to reach the objective are present in the crops available.

no

<image>

yes

Do these traits exist in crop varieties in nearby communities, related research or breeding institutes?

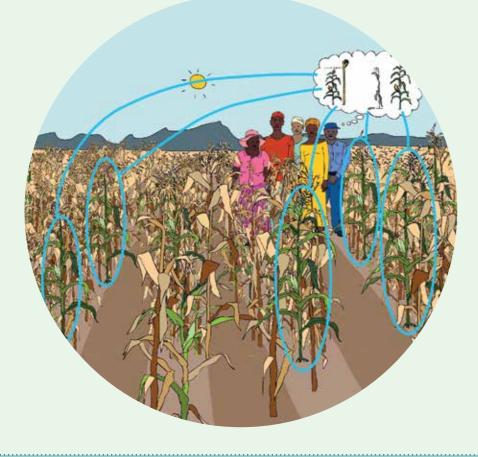


yes

### PVE

Reasons to go for Participatory Variety Enhancement:

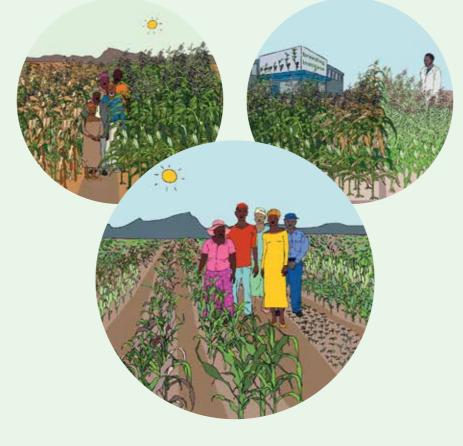
- The traits prioritized by the FFS are present in the crops or crop varieties that are available to the group. However, there are only some individual plants in which the trait is expressed fully, or to the extent desired by the group. With PVE, farmers aim to enhance the quality and quantity of the traits in the crop varieties.
- The group wants to learn about variety enhancement through selection.



### PVS

Reasons to go for Participatory Variety Selection:

- The traits prioritized by the FFS farmers can be found in varieties from neighboring communities and/or in stable breeding lines from breeding and research institutes.
- The group wants to test whether varieties or stable lines that contain their prioritized traits, perform well in their own fields.
- The group wants to learn about evaluation and comparative research.





no

## PVD

Reasons to go for Participatory Variety Development:

- The traits prioritized by the FFS farmers are not found in one single variety or breeding line.
- However, some varieties or breeding lines do contain some of the traits, often combined with traits that are disliked. So, the "dream variety" may be developed by combining, through crossbreeding, the desired traits of different varieties.
- The group wants to gain knowledge and technical skills in traditional plant breeding (something that is assumed to be only in the hands of scientists and seed companies).

