

I read with great interest the Vice Versa Seed Special Winter 2017 (Volume 51, Issue 1). The article 'Seed alone is not a silver bullet' correctly argues that "good (vegetable) seed on its own is not enough to obtain higher yields and make more profit. Good soil and crop management and marketing are also needed". In order to fulfil the potential of high-yielding seeds (better labelled high-response seeds, in my view) the article promotes a whole package approach. In this context four coordinated trainings on the various aspects of vegetable cultivation to vegetable marketing are organized on demonstration farms for groups of neighbouring farmers, including a field day with more farmers at the end of the season. "The good thing is that these trainings are very practical ... What sticks is what farmers can see". The HortIMPACT 'business case' reached some 3,600 farmers in the first year. "And through reaching the top, we reach many more farmers" (through a supposedly effective trickle-down effect, I assume). HortIMPACT makes use of phone and SMS platforms, and smartphone apps.

Although the involvement of a network of private companies in providing horticultural training to farmers is laudable, I am a bit worried about the apparent emphasis on the whole package approach, demonstration farms, field days and the assumed trickle-down effect. It creates an impression of the traditional T&V system of extension, which has failed to improve smallholders' productivity in Sub-Saharan Africa (SSA). Decades of demonstration fields and field days all over SSA had hardly any impact. The assumed, more or less spontaneous, trickle-down did not materialize. Will the involvement of private companies, largely within the framework of the same conventional extension methodology, make a difference? Although other articles in the same Vice Versa Issue, fortunately, also refer to the use of farmer field schools (FFS), it is not always clear which extension methodology is used. Mixing or blending the two methodologies of T&V and FFS is in my view not a good idea.

My experience at the countryside in SSA teaches that professional staff in the agriculture sector (be it in private companies or government service) easily falls back into the T&V mode of operation. Probably because it is easier to apply and less labor-intensive than the FFS methodology, and most importantly because it does not require a change in attitude and behavior of the professional staff (top-down teacher attitude versus bottom-up facilitator attitude).

One can wonder whether the relatively low number of training sessions in the HortIMPACT in which farmers can 'see' improved practices, is sufficient to motivate them to actually change their farming behavior. The FFS methodology implies season-long learning and 'doing' in actual farmers' fields (not in more or less artificially created demonstration or model farms, for example by providing a free greenhouse). Although the limited number of farmers trained might (partially) adopt or more likely 'adapt' the shown practices, the trickle down to large numbers of other farmers is unlikely to occur, because 'seeing' things during a few hours at a field day proves insufficient to change behavior. The use of ICT (mobile phones) is unlikely to speed up behavioral change. When seeing with your own eyes a new agronomic practice during a field day did not improve adoption rates, an SMS message would do so? 'Reaching' farmers can be a far cry from actual adoption/adaptation/behavioral change.

The first article in the Vice Versa Seed Special mentions that only 2-3 percent of the seed that smallholder farmers in Africa use, comes from the formal seed sector (certified companies). In this context it is important to note that 'high-response' hybrids only 'yield' more than local varieties when optimum growing conditions are created: they 'respond' well to application of irrigation water, fertilizers and pesticides. However, most farmers in SSA are not and cannot produce under optimum growing conditions: they have to divide their limited labor and cash over a variety of food, cash and fodder crops in their largely rainfed farming systems. Thus it is no wonder that the adoption of 'improved' seeds remains low. Properly implemented FFS that take into account the inevitable farming

systems perspective of African farmers might result into higher yields and profits. Private companies and farmer cooperatives could finance the planning and implementation of such FFS and provide technical expertise whenever required. Thanks again for this insightful volume on the importance of seeds.  
Toon van Eijk, Wageningen.