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The Challenges of Scaling up Innovations to Achieve Food Security

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An innovation can be understood as ‘a change in the way things are done’. For a smallholder farmer, this entails the use or adoption of a new seed or machine, a change in his day-to-day agricultural practices, a new way to harvest, or an enhanced method to preserve and process the farm output.

Innovation can also mean a new farming business model, a new crop in the farmers’ production basket, or access to new markets with an enhanced or new product.
The large majority of innovations will fail during the first four critical stages.

Only a fraction of emerging innovations scales up to a stage in which they have transformational effects at large scale.

Source: Geels, 2005
“The challenge is not just a matter of more, better coordinated and less volatile aid. A key constraint that needs to be overcome is that development interventions—projects, programs, policies—are all too often like small pebbles thrown into a big pond. They are limited in scale short-lived, and therefore without lasting impact”.

“This may explain why so many studies have found that external aid has had only a weak or no development impact in the aggregate at the global and at the country level, even though many individual interventions have been successful in terms of their project or program-specific goals”.

Source: Scaling up Programs for the Rural Poor (IFAD report)
The adoption of an innovation occurs when end users change their practices and routines by fully incorporating the innovation into their set of practices and repeatedly derive benefit from it.

A farmer that has been trained to use an innovation, or participated in a demonstration day may have knowledge about the innovation but has not adopted it. The innovation will be adopted if the farmer includes the crop as part of his farming portfolio and grows it repeatedly.

Large-scale adoption of an innovation commonly creates changes in organizations, norms and institutions. This means that an innovation may have an impact at the organizational and institutional levels, when new economic actors are created, value chains are enhanced, policy recommendation are enacted, new norms regulations are put into place and new policies lead to institutional change.
It is important to emphasise that impacts at scale are the result of an innovation that has been widely adopted and should not be confused with other types of progress indicators (e.g. the number of farmers reached by a project, the number of women trained, etc.).

These indicators, although essential for monitoring the progress of a planned intervention, do not indicate adoption at scale of an innovation.
There is an interplay between the adoption and abandonment of an innovation. For impacts at scale to occur the number of users adopting the innovation per unit of time must be greater than the number of users abandoning the innovation. This means that it is not only important to track the users that are adopting the innovation; it is also important to track the users that are abandoning it.

Figure 2: S-Curve
The adoption of an innovation can be spontaneous and self-reinforcing if it is adopted by approximately 25% of the population of users (Rogers, 1995).

For example: if 25% of the farmers in a community are actively using a new wheat variety, it is likely that most of the remaining farmers in that community will eventually start growing that variety, provided they are growing wheat under similar conditions.
The five challenges of scaling up

1. Getting a good solution
2. Finding the right business model for scaling up
3. Finding the right partners
4. Reading the context and taking advantage of opportunities
5. Finding leadership for the long run
Food security policies and strategies should include scaling up approaches of innovations.

Food security monitoring systems should include indicators of successes or progress made in scaling up innovations.