

Impediments in adoption of organic farming - A few lessons from the farmers who reverted to conventional farming practices

Ganesh Birajdar, Tarak Kate

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Abstract

The stated goal of ‘*Organic 3.0*’ is to “*bring organic out of its current niche into the mainstream (Arbenz, Gould & Stopes, 2015).*” This means to understand how majority of the farmers would be convinced to adopt organic farming practices and will find them satisfactory enough to continue with. One of the effective ways to understand this is to ask the farmers themselves about the factors that discourage them from adoption of organic farming practices. We interviewed 67 farmers from *Vidarbha* region of central India, who started with organic farming and then abandoned it for different reasons. 65.68% of the interviewed farmers quit organic farming in first 3 years. The leading factors mentioned by farmers included perceived lack of profitability, availability of resources (mainly farmyard manure and labor), and external barriers (factors including lack of capital buffer, indebtedness, sickness/death/marriage in family, or drought/flood that forced them to quit organic farming or farming altogether).

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Introduction

Understanding the perceptions, motivations and the abilities of farmers is most crucial when it comes to pursue them for the adoption of organic farming system. There have been a number of studies in the past that have attempted to directly ask the farmers about their perception of organic farming: why they adopted sustainable farming practices, if they did, and why if they didn’t? In different studies, most frequently mentioned barriers to organic farming include, perceived lack of usefulness/low yield, lack of required inputs, lack of technical knowledge (Darnhofer *et al.*, 2005; Panneerselvam *et al.*, 2012; Kimani *et al.*, 2013) and lack of external monetary incentives (Lapple & Kelley, 2010; Iliopoulou *et al.*, 2011). These studies included the farmers who have either been organic farmers or conventional farmers at the time of interview. Another very informative group to ask this question would be the farmers who started organic farming and then reverted to conventional farming after some period. Harris and others (2008) conducted one such study with the farmers who were associated with different organic certification bodies in United Kingdom. The leading reasons mentioned by these farmers to quit organic farming included, the practice not being viable (27%), certification fees being too high (16.4%), and the farm being sold or tenancy relinquished (9.7%). We undertook a similar study in the *Vidarbha* region of central India.

Material and Methods

The study was conducted in *Vidarbha* region of Central India during year 2014-16. It was conducted in two different rounds, for the reasons mentioned in the following paragraph. In the first round, we

randomly selected 60 individuals, from a list of farmers who had been part of an organic farming initiative, and then shifted back to conventional farming for different reasons. This initiative was undertaken by ‘Dharamitra’, an NGO working for the promotion of sustainable agriculture (among other issues) during 2000-2010 in Yavatmal district in central India. 13 farmers of these 60 could not be interviewed for different reasons including, permanent migration to some other place, death of the farmer due to old age, not being in the village at the time of interview, etc.

The data was collected using the ‘structured questionnaire survey’ (Ajayi, 2007; Kimani *et al.*, 2013). The second round was followed by the first for two reasons:

1. Investigators believed that the paper-and-pencil nature of the survey instrument might have brought some biases in responses by farmers. There was a need of some way to check whether the magnitude of this bias is so large to make the study unreliable. Therefore, the same study was conducted with another set of sample, from another district in the same region. This time, the same questions were asked, but in a semi-structured interview format (Chambers, R. 2007; it was made sure that all the questions from the previous round were asked, but in more of organically developed conversation). The interviews were recorded on a voice recorder, instead of using a printed questionnaire.
2. In the first round, all the farmers belonged to a homogeneous group, as in they had been part of the same program conducted by the same organization. This limited the possibility to observe diversity of reasons for which farmers may say no to organic farming. Therefore, the farmers in second round were selected from another adjacent district, Wardha, located in the same region (N=20), using the ‘snow-ball sampling’ technique (Webler, Danielson & Tuler, 2009). Farmers in this sample started organic farming in three different conditions: a. as part of organic farming project by another NGO, ‘Chetana-Vikas’, b. motivation by govt. agricultural officers and c. on their own.

Farmers responses were categorized in 6 different categories: ‘Negative opinion about usefulness/lack of profitability’, ‘external barriers’, ‘lack of required resources’, ‘individual preparedness, priorities and skills’, ‘practical choice of methodology’, and ‘ease of use’.

One important design we added in questionnaire was to ask the ‘reasons for quitting organic farming’ in two different ways. In one question, we asked farmers to simply state 2-3 reasons as they believed, why they could not continue with organic farming. In another question, we went on asking the same question but in terms of specific practices. For example, if a farmer responded that he used organic pesticides for pest control, why then he could not continue that particular practice. This allowed us to have deeper perspective on farmers’ perception, reasoning and reasons to leave organic farming practices.

Results

We plotted the responses from both rounds of survey against each other. We found that the responses from both rounds (each representing a different district) followed a similar trend (Figure 1). Average age of the farmers was 50 years for both groups, total land (organic+chemical) was 6.83 and 8.23 acres, and number of years under organic system was 3.82 and 4.35, respectively for the farmers in Yavatmal and Wardha districts. As shown in figure 1, the most frequently cited reasons by farmers to revert to conventional farming were ‘negative experience about usefulness/lack of profitability’, ‘external barriers’ (factors including lack of capital buffer, indebtedness, sickness/death/marriage in family, or drought/flood) and ‘lack of required resources’. 65.68% of interviewed farmers quit organic farming in first 3 years. These observations suggest that most of the farmers do not have an ‘economic buffer’ to survive through the ‘period of transition’ in

which the yields are expected to decrease (Panneerselvam et al., 2012); and, therefore, most of them are forced to shift back to conventional farming in which there is at least minimum assurance, in immediate terms. Also, we noted that farmers mentioned the specific factors related to ‘ease of use’ when asked in terms of why they stopped each specific practice (e.g., mixed-cropping, composting) which do not come up when simply asked why they stopped organic farming. Overall, factors related to ease of use were noted 22% more frequently in latter case. Responding to what change was noticed after shifting back to conventional farming, 62.31% responses were that comparatively the productivity increased a little. Rest of the responses were: 27.54% - it negatively affected to shift back to conventional farming, in terms of increase in input-cost, soil health, and productivity; 7.24% - there was no difference; and 2.89% - they did not notice the difference. When asked if they would like to start organic farming in future, about 40% farmers said no for different reasons; however, more than 40% farmers showed their willingness to shift to organic farming again under certain conditions (Figure 2).

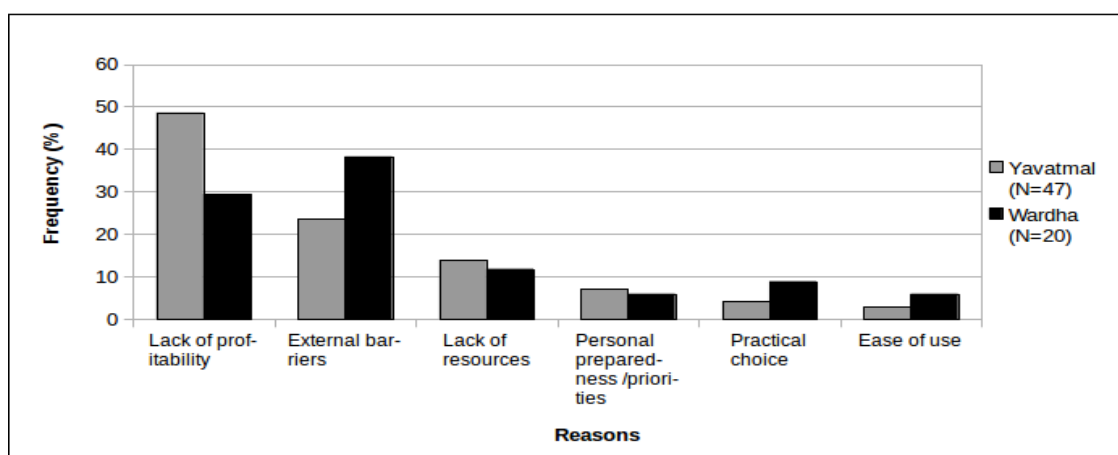


Figure 1: Reasons to quit organic farming, cited by farmers from Wardha and Yavatmal districts in central India

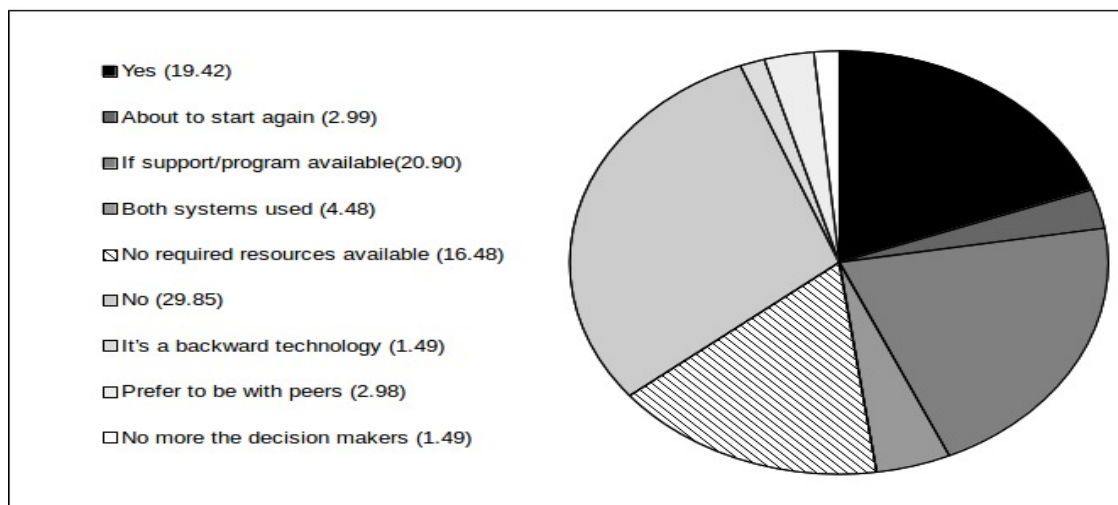


Figure 2: Responses - Willingness to shift back to Organic Farming

Discussion

Most studies so far have indicated that the key barrier to shift towards organic farming is the lack of the needed and expected returns from it, either because of the lack of any institutional support or because the lack of good yield/prices/market (Harris et al., 2008; Iliopoulou *et al.*, 2011 ; Panneerselvam *et al.*, 2012; Kimani *et al.*, 2013). We received similar responses in our study with a particular note of tendency to revert to chemical farming in very initial years of transition. This suggest that creating an economic buffer for farmers in period of transition is one of the most crucial factors.

‘Ease of use’ of a practice very much affects the choice to adopt a practice (Ajayi, 2007). Importantly, we want to emphasize that ‘ease of use’ is not only, for example, about how to prepare an organic pest repellent. Apart from how ‘demanding’ a practice is, it is also about ‘how easy is the access to required resources’, ‘how commonly it is used in surrounding community’, and ‘what is the amount of perceived certainty about the outcomes’. Taking together the issue of ‘ease of use’ and the farmers willingness to start organic farming again, we conclude that farmers *will* be able to shift to organic farming, if there is significant amount of institutional support. *The more challenging issue, we argue, is that of sustainability, not in terms of the productivity of soil, but rather in terms of individual farmers’ ability to respond to changing needs.* The Green revolution, which was another ‘significant shift’ in farming practices, had been able to achieve its goal to increase the production of food-grains; but what it did not offer was the financial and knowledge empowerment of these farmers. According to a recent report by National Sample Survey Office of India (NSSO, 2014), average monthly income of an Indian farmer household is ₹6426, while the monthly consumption expenditure is ₹6223. This is the reason why most of the farmers today do recognize that yield in chemical farming system gradually decreases after initial peak, and the chemicals are degenerating the soil, but they are reluctant to do something about it on their own. Therefore, one of the key concerns in debate of ‘Organic 3.0’ should not only be about how to increase the area under organic farming, but also how to ensure that the farmers will be empowered enough in terms of capital and knowledge, so that they will be able to respond to the changing needs in future on their own.

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