



WDR Background Paper on Retail-led Transformation of Agrifood Systems

BOX focusing on whether the rise of supermarkets exclude small farmers

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Does the rise of supermarkets lead to the exclusion of small farmers as producers? Yes, it does lead to the exclusion of asset-poor farmers as producers. But small farmers who have access to certain assets that are critical to meeting the conditions of the supermarkets can in fact be “included” in the supermarket channel. Do the included farmers increase their income compared to selling in the traditional markets? Yes, they do, by between 10% to double. However, asset-poor rural households can indirectly gain – as hired laborers – from the emergence of the supermarket channel.

Recent studies based on household surveys of 150 to 600 farmers each, have compared horticultural product producers participating in modern domestic market channels (in which supermarkets are key downstream actors) versus traditional market channels. These studies have looked at tomatoes in Guatemala (Hernandez et al. 2007), Indonesia (Natawidjaja et al. 2007) and Nicaragua (Balsevich et al. 2006), kale in Kenya (Neven et al. 2006), lettuce in Guatemala (Flores et al. 2006), guavas in Mexico (Berdegue et al. 2006), and produce in China (Wang et al. 2006).

Supermarket chain buying agents prefer first to source from large and medium farmers if they can, such as in the case of bananas in Central America (Berdegue et al. 2005), tomatoes in Mexico (Reardon et al. 2007), and potatoes in Indonesia (Natawidjaja et al. 2007). In all of these cases where medium and large farmers are available with sufficient quantity of product, small growers are simply not included in the supermarkets’ procurement system.

When medium and large growers are not available or do not produce enough to meet the year-round needs of supermarkets, the domestic-retail impact studies available so far (with the exception of the China study), tend to confirm that asset-poor small farmers are almost universally excluded from supplying supermarket chains. As a rule of thumb, it could be said that only the top tercile of asset-rich small farmers tend to participate.

Flores et al. (2007) show that the “included” (in the supermarket channel) Guatemalan lettuce farmers are, relative to the “non-included”: (1) twice the farm size (2 vs 1 ha); (2) twice as specialized in lettuce (58% vs 23% of cropping) and in horticulture (91% versus 79% in horticulture instead of basic grains); (3) 40% more education; (4) twice as close to paved roads; (5) nearly twice as likely to have irrigation (51 vs 37%); (6) four times as likely to have a truck; (7) twice as likely to be in a small farmers organization (focused on marketing and production)

(79% vs 42%). Finally, as the included use much more labor-intensive practices due to the supermarkets requirements (for field practices, sorting, packing), and the fact that they are four times more likely to double (rather than single) crop over the year, they hire 2.5 times more labor (typically from local asset-poor households) as the non-included; if for example 50 lettuce farmers shift from the traditional to the supermarket channel, the data show that they hire 20 additional full-time workers for the two seasons. There is thus a significant exclusion effect on the producer side, and an inclusion effect on the farm hired-laborer side.

In Indonesia, Natawidjaja et al. (2007) show that the “included” (in the supermarket channel) tomato growers are, relative to the “non-included: (1) have 17% more education; (2) are 26% more specialized in tomatoes; (3) have 38% “larger” small-farms (but they are still below 1 ha per household of cultivated land); (4) are 20 % more likely to crop thrice over the year due to irrigation; (5) had 10% more irrigation before entering the modern channel; (7) have 58% higher per-hectare profit rates; (8) but hire 30% less labor due to greater capital intensity (such as greater use of plastic covers for the fields which reduces weeding needs).

In Kenya, Neven et al. (2006) show that the “included” (in the supermarket channel) kale producers relative to the “non-included: (1) have twice the education; (2) 10 times larger farms (14 cultivated hectares, hence medium farms, versus 1.3 ha farms for the non-included) – hence a case of medium farmers being the “included”; (3) four times greater share of their land irrigated; (4) thrice more likely to have a cell phone and 10 times more to have a truck and packing shed; (5) and hire 10 times more permanent labor and 5 times more casual labor (thus less than compensating for their larger farms, hence more capital-intensive than small farms).

As illustrated above, and found in the cited studies, it is important to note several key points:

First, in all regions, small farmers are not excluded on the basis of size of their landholding or land tenure, except when these factors affect the farmers' capacity to implement certain technologies that in turn have an impact on quality, productivity, costs, or the ability to plant and/or harvest at the needed times during the year.

Second, other assets appear to play a much bigger role than does land. In particular, the included have more education, more access to transport and roads, have greater prior holdings of irrigation (for consistency of supply), and other physical assets, depending on the product, such as wells, cold chain, greenhouses, good quality irrigation water (because of contaminants), vehicles, and packing sheds.

Third, in the very rare instances where small farmers sell direct to the supermarket, they have a very good RPO. The mass of excluded, such as most of the traditional tomato farmers in West Java (Natawidjaja et al. 2007), lack those assets.

Fourth, we find only two exceptions in the domestic retail horticulture-impact studies to the “exclusion of the asset-poor” rule. The first is where procurement modernization is as yet insignificant, and there is a cap on farm size and a relative evenness of asset distribution. In our set of seven studies, only the China case (Wang et al. 2006) fits that. The second is where NGOs have “assisted” (implicitly or explicitly subsidized) the participation of the asset-poor small farmers (in fact by alleviating that asset poverty). Only the Nicaragua tomato case, for the case of

the lead chain only, fits that (Balsevich et al. 2006), at a cost of 800 dollars a year of assistance per farm, about 10 times the public budget for farm extension and assistance!

Finally, farmers in the supermarket-channel tend to earn substantially more (from 10% to double) in net terms, so the payoff to making the "threshold investments" is substantial.

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