

Research on typical food baskets of agroecological versus conventional farmers in Pongola and Ingwavuma

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EXECUTIVE SUMMARY

South Africa is food secure at a national level while, simultaneously, large sections of South African households are food insecure. An indicator of this food and nutrition insecurity is the high level of child stunting. The 2016 South Africa Demographic and Health Survey showed that 27% of children under 5 are considered short for their age or stunted, and 10% are severely stunted. Stunting, a condition reflecting the cumulative effect of chronic malnutrition, is higher among male children (30%) than among female children (25%). The survey also reveals that only 23% of toddlers age 6–23 months are fed a diet considered adequate for infants and young children.¹

Statistics South Africa reported that in 2017 almost 20% of South African households had inadequate or severe inadequate access to food while KwaZulu-Natal was one of two provinces with the highest proportion of households that experienced hunger.² Household agricultural activities play a critical role in reducing food insecurity, and contribute to nutritional diversity within households whilst laying the foundation for numerous socio-economic and development outcomes.

Biowatch supports smallholder farmers, mainly women, in rural northern KwaZulu-Natal to develop sustainable agriculture through the practice of agroecology and to increase their household food security. Biowatch contracted the Pietermaritzburg Economic Justice and Dignity Group (PEJDG) to conduct participatory research to explore whether agroecological farming practice improves the food security, nutrition and/or socio-economic circumstances of smallholder farming households compared to smallholder farming households practicing conventional agriculture.

Utilising participatory focus group discussions and focusing on the lived experience of the farmers, four focus groups were conducted between 30 September and 5 October 2019 in Pongola and Ingwavuma, in northern KwaZulu-Natal. In each community we conducted two focus groups, one group consisting of Biowatch-supported women farmers using agroecological farming methods and another group of women farmers who are not supported by Biowatch and use conventional agricultural methods. This was necessary in order to make comparisons between the Biowatch-supported farmers and the other group in the same locality.

¹ STATSSA (2017). **South Africa Demographic and Health Survey 2016: Key Indicator Report**. Statistics South Africa. Pretoria. P27-30. See link: <http://www.statssa.gov.za/publications/Report%2003-00-09/Report%2003-00-092016.pdf>

² STATSSA (2019). **Towards measuring the extent of food security in South Africa. An examination of hunger and food inadequacy**. See link: <http://www.statssa.gov.za/publications/03-00-14/03-00-142017.pdf>

The conversation included discussions on the demographics of the participants' households; the foods they buy, grow or forage (their food basket); the diversity of foods on their plates; their sense of whether their household is food secure; and what they consider as benefits of growing their own food.

The main findings that emerged from the research are:

- Participants' households access food from three sources: they buy food on a monthly basis at retail stores; they grow food for household consumption and for sale; and they harvest wild foods, especially fruit, while these are in season. A difference between the Biowatch-supported farmers and the non-Biowatch-supported farmers is that the Biowatch-supported farmers considered agricultural activities as primarily for household food security and only sell produce if they have more than they need for their household. In Pongola, the non-Biowatch farmers were more interested in sales and markets, and their mind-set is more informed by an entrepreneurship model.
- The research was conducted at a time when northern KwaZulu-Natal was in the grip of a severe drought. As a result of the drought the non-Biowatch farmers were not farming at all while the Biowatch-supported farmers were still able to engage in some agricultural production. According to the Biowatch-supported farmers this is linked to the use of agroecology. One of the Biowatch-supported farmers was living in the same geographical area and affected by the same environmental conditions of the non-Biowatch farmers and yet she was still planting vegetables for household consumption. We therefore conclude that agroecology is a more resilient form of agriculture in these areas. It is therefore not only that agricultural activities contribute towards household food security but also that the kind of agricultural practices used are important in ensuring long-term resilience for households.
- The household food baskets the participants constructed during the focus groups show a similarity of foods purchased at retail level, such as maize, cooking oil, rice, sugar, flour and meat. The difference between the two groups of farmers is that the Biowatch-supported farmers were still producing (though limited by the drought) for household consumption and thus do not need to purchase all their food from retail stores, as do the non-Biowatch groups. The average spent by the households on food purchased at retail stores is R1577.23. This is much lower than the R4060.59 monthly cost of a nutritional basket of food as calculated by the Pietermaritzburg Economic Justice and Dignity Group for a Household Nutritional basket. The households do not have enough income to purchase the nutrition required by the household from retailers and they therefore supplement their food intake through the foods they grow or forage. Household agriculture is therefore a critical part of ensuring nutrition at household level for the participants of this research.
- Regarding savings to the households from growing food: In Pongola, the Biowatch farmers' retail food basket consists of two vegetables which total R91.98 while the non-Biowatch group has 8 vegetables in their retail basket costing R354.86. This is a saving of R262.88 to the Biowatch-supported farmers. In Ingwavuma, the Biowatch group saves R162.62 from the use of vegetables produced and not bought. The data on savings due to growing their own food is impacted by the drought because the non-Biowatch farmers were not growing vegetables at that time. If there was no drought the comparison between Biowatch-supported farmers and non-Biowatch-supported farmers might reveal a different picture.

- Our research showed that the Biowatch-supported farmers showed a greater and more sophisticated understanding of the value of nutritional diversity and the connection between nutrition and health. Frequent comments were made about this such as: “using agroecology means the food is healthier because we do not use pesticides” and “we always try to have greens (vegetables, herbs, etc.) on our plate”.
- It was understood that this research project constitutes a “pilot” or first phase inquiry to more deeply understand agroecology’s impact on household food, nutrition, and economic security. During the research process we encountered several difficulties from which we can draw learnings. The data obtained during these focus groups was based on the memory of the participants who were quite elderly. They found it difficult to remember exact quantities and frequencies of household consumption of food they grow and harvest. It seems to us, after undertaking these focus group discussions, that to achieve the goal of this research project, several data sources might have to be mined. A farming diary could contribute by providing those details in a clear and consistent manner.
- Growing food and foraging are dependent on the season as well as rainfall received in the area. This research was conducted during the winter vegetable growing season and during a drought. We would recommend that another phase of research be undertaken when the climatic situation changes and in the summer grain and legume season. This will allow Biowatch to compare the results of this research with further research and gain a proper annual picture of the quantities of food that farmers consume, as related to food farmed and foraged, and the savings and health benefits agroecology provides to these farmers.

The research outcomes show that households that practice agroecology can plant and some are still able to sell even during the drought. The Biowatch farmers have grown an incredible variety of vegetables and these must make a huge difference on the plate. Financially, although there is not a major difference, these small savings are a benefit. Beyond the financial calculation, it is in nutritional diversity, food on the plate and a feeling of greater security amongst Biowatch-supported farmers’ that they are less likely to starve in periods of drought that makes the difference. Even though both sets of farmers are vulnerable, the Biowatch-supported farmers are more resilient because they believe they are able to secure food more consistently through the use of agroecology.