Helping women farmers to succeed through improved access to basic infrastructure

CATALYSING ACTIONABLE KNOWLEDGE TO MAKE NEXT-GENERATION ACP AGRICULTURE WORK FOR WOMEN

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Much greater focus is needed on infrastructure development in rural farming communities, to help modernise the equipment that women use to farm, relieve some of the drudgery of the tasks that they undertake, lower the risks to which they are exposed, and reduce the post-harvest losses that significantly affect their overall earnings as primary agricultural producers.

Significant strides have been made in terms of developing innovative ways to use smartphones in supporting farmers – both women and men – in rural communities, with applications in savings, payments, weather information, market intelligence, insurance, soil analysis, accounting, messaging, communication and extension information. But despite the

advances secured by these and other ICT tools, some basic aspects of rural farming remain arduous and create risks for the millions of women smallholder producers who comprise the majority of Africa's farming community.

Specifically, most women smallholder farmers do not have access to irrigation technology. With climate change phenomena having a growing impact on weather patterns – more drought, more floods – this is having a particularly negative effect on women farmers. Drip irrigation is a solution that is relatively inexpensive and, when coupled with a solar powered pumping system, also allows for the securing of sub-soil water, even if the farm is not located close to water sources.

The power of solar energy

Given the rapid decline in the overall cost of solar photo-voltaic (PV) technology, there are numerous ways in which access to solar energy systems, such as embedded power generation and/or mini-grid systems, can significantly improve the revenue that women smallholders generate from their labour.

As well as pumping water, powering irrigation systems and providing the electricity that is needed to charge mobile phones, solar electricity can help women farmers and agripreneurs to increase their revenues in a number of other ways. It can be used to:

- dry their produce, to preserve and give it a longer shelf-life;
- run various types of equipment that can be used to process and grade their produce, adding value as a result;
- power cold storage facilities, to preserve their harvests for longer.

In the case of traders, electricity enables them to do business for longer, from earlier in the morning till later in the evening. Lighting also helps to improve safety, a particularly important issue for women farmers. Electricity allows rural farmers to automate their farm management, especially effective when coupled with coaching in electronic record-keeping using tablets and computers.

Beyond solar PV, other ways that energy infrastructure can be developed to help reduce post-harvest losses and add value close to the farmgate include using bio-digesters to produce biogas – particularly useful in farming communities where animal faeces can be used as feedstock – and mini-hydro turbines, in the case of smallholder farming communities located near waterways.

The development of shared processing facilities – pack houses, packaging facilities, mechanisation service centres and storage facilities – are all examples of infrastructure that is extremely useful to rural smallholder women farmers.

Public-private partnerships

Fortunately, a number of African countries are starting to encourage public-private partnerships to develop more of these types of facilities. Nigeria (staple crop processing zones); Ethiopia (agricultural industrial parks); Cote d'Ivoire (agricultural hubs); South Africa (agricultural hubs); and the Democratic Republic of Congo (agriparcs) are just some of the countries recognising the value of encouraging the development of infrastructure oases that can provide women smallholder farmers with technology, machines and equipment to reduce their post-harvest losses and increase their income from farming.

Meanwhile, development partners such as the Food and Agriculture Organization of the United Nations, the International Trade Center, and the US African Development Foundation are funding initiatives aimed at designing and developing these shared infrastructure resource centres, to help women smallholders become more profitable and sustainable farmers.
In urban areas, there is also an increasing focus on the value of using hydroponic, aquaponic and vertical soil-less farming systems to reduce soil related and pest risks, increase water efficiency, and produce fast growing crops that can be harvested every two weeks (year-round), thereby increasing cash flow for the farmer. While these technologies are being promoted as 'urban farming' techniques, and are seen as a potential way of attracting youth to agriculture, they can also be incorporated in rural areas, and many are especially suited to women.

Only through interventions that harness improved rural infrastructure can the concept of promoting farming 'as a business' become truly meaningful – especially for the millions of African women for whom farming is currently a strenuous endeavour, aimed principally at securing subsistence, rather than a livelihood with real prospects for growth.
This article was created through a CTA-led process to document and share actionable knowledge on 'what works' for ACP agriculture. It capitalises on the insights, lessons and experiences of practitioners to inform and guide the implementation of agriculture for development projects.