Empowering women through mechanisation: Where are the opportunities?

So far, development projects in rural mechanisation have mainly addressed the productivity and profitability of smallholder farmers, with little attention paid to the involvement of women in the mechanisation value chain, not just as beneficiaries, but also as controllers or owners of machinery. Here, this article aims to act as a conversation starter.

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While interest is growing in Africa in research on mechanisation and especially on farmers’ access to mechanisation services, less attention is given to occupations and entrepreneurship opportunities, particularly for women. In 2017, 68 per cent of the people in developing countries were engaged in agricultural activities, with women comprising an average 43 per cent of the agricultural labour force. But at 16 per cent (as of 2018), the proportion of women in the plant and machine operator and assembler profession remains very low, resulting from barriers such as negative stereotypes about the profession, short-sightedness or lack of awareness on the part of the industry and training providers regarding the needs of women and cultural beliefs of what a woman can or cannot do in society and in the economy. Hence there have never been projects or programmes aimed at training women in tractor operation, maintenance and management specifically to deal with this gap. Based on research done as part of a master’s thesis looking at women tractor operators in Ghana, with this article, we would like to put more attention on agricultural mechanisation from a gender inclusive perspective, also looking at how women can help address some of the challenges faced by this industry.

First steps towards a mindset shift ...

Like in many other countries of the Global South, women constitute the bedrock of agriculture in Ghana. While forming just over half of the labour force in the sector, they produce 70 per cent of the country’s food stock. In order to sustainably drive women participation and leadership in the operation of agricultural machinery, the Women in the Driving Seat (WiDS) project was established in 2018 (see Box on page 42). It provides five weeks of intensive training on both theory (20 %) and practice in field sessions (80 %). After the training, the trainees are placed with commercial farms to undergo four months of intensive workplace experience learning, which they would otherwise have found hard to acquire for gender reasons. And before the trainees exit the project, they are assisted in developing a business plan in tractor operation, a measure aimed at boosting their entrepreneurial drive so that they can start their own tractor business.

In 2018, the project had 60 places available and attracted 133 applications. A year later 120 young women were trained. It was surprising to have such a high number of applications, given that tractor operation is considered a male occupation. This was an indication that
When the opportunities are created with intent and purpose, young women are willing to take them even if they are in the fields dominated by men or considered unattractive for youth. The women in tractor operation, maintenance and management training has been the first of its kind in terms of the training design and implementation approach tailored for women. The outcome of the project to date has challenged the existing status quo hindering women participation in this male dominated profession and created a new political awareness and commitment to/ for women in tractor operation and gender-sensitive trainings.

Out of the 180 participants in 2018 and 2019, 60 per cent have found employment in various commercial farms, training institutions and agricultural mechanisation service enterprise centres etc. The project revealed that most men who saw or heard about the women tractor operators had different views. Some believed that women were there to complement their efforts on the farms whilst others thought it was an approach to create competition between men and women in tractor operation.

What opportunities have not yet been explored?

Many African countries, including Ghana, Nigeria, Rwanda and Ethiopia, have developed Agricultural Mechanisation Service Enterprise Centres (AMSECs) to enable their farmers to acquire tractors and other machinery. However, these programmes have largely benefited commercial farmers. Consequently, as part of Ghana’s accelerated Agricultural Modernisation Policy to address the challenges of mechanising agricultural production in a timely and affordable manner, by 2017, the Ministry of Food and Agriculture (MoFA) had imported and sold on a hire-purchase basis about 6,200 agricultural tractors and other implements to Ghanaians keen to establish AMSECs. This also included imports of two-wheel tractors to address smallholder farmers’ challenges regarding access to tractor services. AMSECs grew from 12 in 2008 to 201 in 2019. Yet, the involvement of women in such structures remains very low. Often, men conduct commercial transactions of agricultural mechanisation services addressing the use of farm machines and implements at farm level and make decisions and control the resources required to invest in mechanisation (especially capital).

Ghana’s MoFA is expected to import about 3,000 tractors between 2018 and 2022 in line with the modernisation strategy to improve food security by reducing food imports from foreign countries. It is also aimed at enhancing agricultural production by reducing drudgery and minimising human labour. The number of women benefiting from the tractor programmes has once again remained very low in terms of employment and ownership. The traditional roles of women have restricted their participation in agriculture mainly to manual labour, which restrains them from using or managing farm machinery. In addition, lacking access and skills regarding farm machinery operation and management, women are often unable to make decisions on purchasing farm machinery for their family farms. Hopefully, however, increasing women capacity in tractor operation, which the WiDS project seeks to achieve, will result in more women operating and owning machinery and in training them in this area will lead to the creation of further encouraging role models.

Where is the potential breakthrough for women empowerment in mechanisation?

Interventions and programmes by MoFA have been challenged greatly by the frequent breakdowns resulting from mishandling and improper use of agricultural machines, partly due to the low skill levels of the machine operators, mechanics and technicians. A survey by MoFA revealed that almost all the AMSECs were operated by tractor operators who lacked the knowledge in safety of agricultural machinery and proper handling of the various machinery and equipment. While machinery may pass the international standards under a particular environment, under the African environmental conditions, and with operators lacking sufficient technical knowhow, the same machinery may break down prematurely. This is a challenge that gives a window of opportunity for...
the development of the industry and the inclusion of women.

The involvement of women in mechanisation could help create a mindset-shift not only for women, but also for practitioners, employers and society. Involving women in this field could help them acquire a new dual self-identity as professionals and homemakers. It would enable them to contribute to the security of a stable home environment and make critical decisions in the household about resources and income, changing how they view themselves and the perceptions they have about what is possible in the future, and thus promoting gender equality at home and in the workplace.

Through developing women empowerment projects in mechanisation, practitioners are challenged to think with, not for, the people they are helping. In addition, they gain direct experience of what is possible, which helps them perceive situations with a new awareness that leads to the discovery of newly-found actions. This could include looking at the challenges women face beyond the training, such as cultural beliefs and gaining trust from employers as capable operators, and helping them deal with those challenges.

Hiring women as operators means that employers have to change the way they operate in order to be more inclusive of women in the workplace. Society is also challenged to reimagine what the role of women is at home, at the workplace and in society itself. Myths held at different levels of the social structure are dispelled, inspiring the younger generation of women to test new opportunities.

Still a long way to go

While the agricultural sector provides a critical source of employment for about 300,000 to 350,000 new workers who enter the Ghanaian labour force each year, there is still lack of knowledge about how women can capitalise on the opportunities this sector presents. Along with this trend, the number of tractors continues to rise in Ghana with a deficit reported in 2017 of more than 10,000 tractors needed to mechanise land preparation of about 2.4 million hectares. More research on women empowerment programmes in mechanisation is needed, especially with the changing nature of the future of work and given the need to provide women with decent work (see Box).

The need to push for mechanisation in Africa calls for the need to investigate opportunities for women by doing things differently when it comes to gender equity in agriculture, zooming in on gender-transformative skills development opportunities for women in agriculture, especially young women. Mechanisation is one of the few fields that can change not just the economic status but also the social status of women in rural communities, where gender stereotypes are often a challenge. The inclusion of the gender and women empowerment dimension in the world of agricultural mechanisation is a potential game changer. It can open this industry to new customers, create new awareness and new possibilities of broadening occupations – provided it is undertaken with enabling support, giving new perceptions and perspectives about women for women.

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