Finger millet is a crop native to East Africa and cultivated in Uganda, Kenya, Tanzania, Ethiopia, Rwanda, Burundi, Zambia, and Malawi. This millet is a staple food grain to a large population in the region where many rural livelihoods depend on it for their income. Finger millet is highly nutritious - rich in Calcium (344mg/100 g which is 5-30 times more than in most cereals and 3 times that of milk, making it the richest plant source), Iron, and Zinc. This has unique property of slower digestibility making it a food for long sustenance.

Wide adaptability, drought tolerance, higher nutritional quality, higher multiplication rate and longer shelf life makes finger millet an ideal crop for use as a staple food and for famine reserve. However, the cultivation of the crop is declining in the region, mainly due to its high labor requirements especially in planting, weeding and harvesting operations.

During germplasm missions in western Kenya and eastern Uganda, finger millet cultivars whose stalks “snap” upon sudden bending were discovered, however they were poor agronomically and farmers were not adapting them. ICRISAT-ESA decided to improve them and reintroduced them to the farmers.

Cultivation of this crop demands high labor requirements especially in planting, weeding and harvesting. These agronomic activities are usually done by hand and by women and children. Due its labor-intensive operations, the cultivation of this crop has been on the decline.

A cultivar with a “snapping trait” with a stalk that snaps when suddenly bent beyond an angle of 45º was discovered, improved, and released. The cultivar with this trait is now being harvested by hand easily and faster compared to when using a knife and is less tiring for the workers.

The release of improved ‘snapping’ finger millet varieties is a key milestone in reducing labor costs at harvesting and will ease the burden on women farmers and children who mostly perform this activity.

Very little work has been done in the mechanization of the different agronomic operations in the production of this millet as it is geographically confined to Asia and Africa.

EUFM 05 the ‘Snapping finger millet green’ variety released in Kenya was the first ‘Snapping finger millet variety released. Post-launch of this innovative cultivar, response has been very positive with adaptation rate of almost 100% in the Bomet county of Rift valley in Kenya.

During an agricultural show in 2018, in the rift valley of Kenya, the exhibition area where ‘snapping finger millet variety’ was showcased received the highest number of visitors.

It takes 20 women to harvest one acre of finger millet a day, each harvesting a bag of un-threshed finger millet at Kshs 200 (USD 2) totaling USD 40 an acre, compared to 4 women each harvesting 5 bags each at Kshs 100 (USD 1) for the snapping variety totaling USD 20 an acre.

This innovation contributes to SDG 2 “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”, SDG 1 “To end poverty in all its forms, everywhere”, SDG 5 “Achieve gender equality and empower all women and girls” and SDG 8 “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”.

As a Stage 4 and a Maturity level 3 innovation, this cultivar has been taken up by users and are contributing to nutrition and food security goals, poverty reduction, livelihoods & jobs, gender equality, youth & social inclusion. Policy and/or practice changes influenced by these innovative business models have led to adoption or impacts at scale or beyond the direct CGIAR sphere of influence. Among others, this is evidenced by the farmers in Bomet county, Rift valley in Kenya having adopted the variety for cultivation, with an adoption rate of almost 100%.

http://gldc.cgiar.org