



# Success Stories

from Members of Machinery Rings in Kenya



The project of Machinery rings as a self-help organization targets smallholder farmers and small and medium enterprises (SMEs) in Kenya. The target is to generate more income with the help of innovative mechanization solutions for the 9000 members. The following examples illustrate how the project has contributed to the development and the increased prospects for the members of the Machinery Rings.

## Rose Makaa

The widow with four children faced many problems like nutrient-poor and hard soils and soil erosions. One result of shared knowledge through the training offered by her machinery ring was a new crop rotation such as the cultivation of maize in alternation with beans and soybeans. She also switched from disc ploughing to chisel ploughing and used water conservation techniques like soil mulching, intercropping and shading. Through this combination she harvested 65 percent more beans and soya than the previous year. With the higher income, she was able to pay her daughter's school fees.



## Margaret Wanyonyi

Before joining her local machinery ring, she kept free-range chickens. The economic knowledge and trainings about Indigenous Chicken breed, different rearing technologies and high quality low-cost feeds offered by the machinery ring showed her a way to make more profit. Now she keeps a local breed of chicken in an indoor housing system. This allows her to achieve a higher quality end product at a lower cost and it also means less damage on her cultivated land.

## Rosemary Wanjiru

Rosemary is a corn farmer from Weru. She practiced crop rotation with beans and brought good harvests. But lately the rains have eased and the pattern has changed. She had to look for alternative means to reserve the low moisture in the soil. Then she became aware of the machinery ring project and joined her local machinery ring. She learned and implemented climate smart farming practices. Rosemary is very happy with the benefits of the chisel plough. Since her corn was unaffected by the lack of rain, it ripened faster and she harvested a month before the others.





## Leonard Wanyama

The chairman of the Naitiri machinery ring practised maize monoculture before joining the machinery ring. Using the knowledge about conservation agriculture gained from the trainings, he started a crop rotation as a first step and planted beans instead of maize. He also used the chisel plough instead of the disc plough, which reduces soil erosion and plant diseases. With the increased yield and thus income, Leonard can now pay his children's school fees and feed his family.

## Christine Imo Due

The young woman left the capital Mombasa during the Covid 19 pandemic and returned to her rural home village. There she started farming, but lacked the knowledge to do so. On recommendation of other members she joined her local machinery ring and learned about climate smart farming and soil-conserving land management. Now she is an organic vegetable farmer with a growing income of 500 ksh a day. The profit was enough to renovate the house and maintain her family. For now, Christine does not dream of going back to Mombasa.



## Fridah Wanjiku Kamau

The young farmer struggled mainly with the difficult prices for her potatoes. Potato farmers plant and harvest at the same time. Brokers take advantage of this and lower the prices. With the help and advice of her local machinery ring, Fridah got the contact to a trader with Maki potatoes and planted the certified seed. The Maki potato has the advantage that it can be stored for up to six months. That is why she rented a few mud houses for storage since they are completely dark. This allowed Fridah to sell her potatoes in times when sales prices of potatoes were higher.



## Cleophas Mwangala

Before Cleophas joined his local machinery ring, he only planted maize and beans. He struggled with soil erosion, high fertiliser requirements and a low harvest. He was introduced to conservation agriculture and the benefits of using the chisel plough in breaking soil hardpan. He noticed an improvement of soil structure, less weeds and a reduction of soil erosion. Things like crop rotation and soil cover are now standard in his work in the fields. Due to improved efficiency, greater environmental sustainability and improved soils structure there is a higher agricultural productivity on his farm.



## David Namutali

The chairman of the Kimilili machinery ring used to focus only on traditional farming practices. He used the disc plough and only grew maize or beans, which gave him low yields. His main challenges during this time were soil erosion, crop diseases and soil disturbance. David even thought about quitting his job as a farmer. But the project changed his mind. Through the training, he became interested in conservation and practices of climate smart farming and changed his working methods. He also learned about agricultural economics and the importance of additional income opportunities and started producing honey. This gave him a second source of income especially in lean periods.

## Jane Ng'endo

Due to climate change, Jane was confronted with declining yields on her farm. She gave up teaching to focus on her farming but without much success. With the training courses about tractor and implements calculations through the machinery ring, Jane and her husband decided to buy a small tractor and a chisel plough. This will enable them to expand their cultivated area and thus increase their harvest through soil conservation farming. Now they generate additional income as a service provider for other members. This enabled them to provide employment for their son, who was jobless before.





## Paul Waithunguri

Paul is chairman of his local machinery ring. He motivated other farmers in his area to become members of the local machinery ring. Due to the increased memberships, the machinery ring could finance a motorized sprayer for the community. The possibility to borrow the new machine was a great advantage for the members. In addition, Paul himself also benefited from the trainings offered by the machinery ring. He expanded his own small farm. Now he has a crop rotation with maize and potatoes.

## Chege Peterson

Chege was trained on the use of climate smart farming practices to reduce soil water loss and have less soils disturbance. With the help of a MR trainer, he reduced the diseases in his maize plants like head smut, stalk borer infestation and leaf bright. He applied a new crop rotation with beans and potatoes instead of only planting maize, used clean and certified seeds and natural manure. The harvest of the first beans and potatoes was very productive. With this, he could clear his loan and pay his sons school fees. Also he bought another high producing dairy cow from it.



## Kenneth Kahuthu

Kenneth runs a two-acre maize and dairy farm with his family. The maize hasn't fared very well due to the stalk borer infestation and the head smut. As a result of the low harvest, he had to take a loan to cover his son's tuition fees. As part of the project, he learned how important it is to have a crop rotation with high value crops and certified seeds. Now Kenneth is able to harvest his beans and potatoes in the same year. This higher income of the additional products helps Kenneth to find new financial stability.

## Samuel Ndung'u

Retired policeman Samuel is now a modern and smart farmer. As a member of his local machinery ring, he minimizes tillage in his fields. He is now applying climate smart farming practices and the result of that is good. His maize is now growing much better and more stable. He also established a second source of income. With his new fish pond he can now increase his income for his family and even take care of his granddaughter.



## Stephen Waweru

Stephen is a young man who studied agriculture. With his knowledge from the university and the workshops in his machinery ring, he now conducts training courses for farmers himself. Through the machinery ring project he received extra money for the coaching job. Also, he planted kale as a feed for the dairy cows on his family farm. Their milk production increased through the extra feed and surplus kale was sold to the market. After increasing production, his mother gifted him 1 acre of land on which he could start his own business. He only uses organic fertilizers on his farm.

## Paul Kamau

Dairy and vegetable farmer Paul took part in machinery ring training courses on developing new business ideas. He then decided to buy a chaff cutter as his business idea. Paul offers the service to make silage as a feed for the farmers cows. Paul now has many customers who book his machines through the machinery rings. Thanks to the knowledge he has acquired, he also works as a trainer and leads training courses in the local machinery rings. He is proud to pass on the knowledge he has learned and thus help other farmers.





## Evelyne Taingi

For the past few years, Evelyne has been growing indigenous beans that could not even feed her family. With the help of the machinery ring, she learned about climate smart adaptable cropping varieties which can cope with climate change. She adopted the Nyota bean, a hybrid bean variety from a Kenyan seed company to her crop rotation. Furthermore she applied conservation agricultural methods and organic manure on her fields. She harvested 50 % more after the change. This extra income helps her to feed her family. Evelyne passes on the skills and knowledge she has learned to the rest of her community.

## Monicah Wangari

Monicah is a potato farmer with the same problem most of her colleagues struggle with. Potato yields declined year after year. Reason for this were diseases and the continuous use of fertilizer without soil testing. With the knowledge acquired about crop rotation and the use of soil conserving methods such as the chisel plow and needs-oriented fertilization, she decided to plant wheat and beans in her field for the first time. After harvesting, she found out that the harvest of the fields where she had made the changes were better than the other fields. Monicah is very happy about this and will now apply these practices to the other fields in order to increase the yields here as well.



