



## ***Yacouba Sawadogo*** (Burkina Faso)

*“for turning barren land into forest and demonstrating how farmers can regenerate their soil with innovative use of indigenous and local knowledge”*

### **Short bio**

Yacouba Sawadogo is known as “the man who stopped the desert”. Starting around 1980 during a phase of severe drought, he has successfully created an almost 40-hectare forest on formerly barren and abandoned land. Today, it has more than 60 species of trees and bushes and is arguably one of the most diverse forests planted and managed by a farmer in the Sahel.

Sawadogo’s remarkable success builds on experimenting with traditional planting pits for soil, water and biomass retention (“zai” in local language). He has continued innovating the technique over the years, increasing crop yields and successfully planting trees. Despite facing resistance from locals in the beginning – Sawadogo was called a “madman” and saw his forest set on fire – he never considered giving up. Over time, people came to admire his work. Sawadogo has always been eager to share his knowledge, and has received thousands of visitors from the region and beyond. By organising trainings, he has empowered farmers to regenerate their land. As a result, tens of thousands of hectares of severely degraded land have been restored to productivity in Burkina Faso and Niger.

Those who adopt Sawadogo’s techniques often become food secure, as zai help to conserve rainwater and improve soil fertility. This allows farmers to produce crops even in years of drought. Trees planted together with the crops serve to enrich the soil, produce fodder for livestock and create business opportunities like bee keeping. This helps farmers adapt to climate change, reduce rural poverty and prevent local resource and water related conflicts. Together with other farmer-managed natural regeneration techniques, Zai could become an important tool to counter forced migration and build peace.

*“If you stay in your own little corner, all your knowledge is of no use to humanity.”*

Yacouba Sawadogo

## Long bio

### Creating a forest on barren land

Yacouba Sawadogo was born sometime around 1946 in the province of Yatenga in Northern Burkina Faso. After attending Koranic school in Mali, Sawadogo returned to Yatenga to work as a salesman at a local market. At this time, he did not know that his world was about to change drastically: Severe droughts in the region around 1980 marked a turning point in Sawadogo's life. When agricultural yields dropped and people died from famine, many left the rural areas to find income opportunities in the cities. But Sawadogo chose the opposite direction – moving back from the city to his rural village, determined to find a solution to the crisis.

Ever since returning to his home village, Sawadogo's vision was to cultivate the barren land and make it fertile again. The key to Sawadogo's success lies in experimentation with traditional Zaï techniques. Despite facing serious opposition from locals – from being called a “madman” for breaking with Zaï traditions to his forest being set on fire – Sawadogo never considered giving up. And he was proven right: his techniques were successful and he has since created a forest of about 40 hectares on what four decades ago was barren and degraded land that no one wanted to farm. The forest now has more than 60 species of trees and bushes as well as a variety of wildlife, and is arguably one of the most diverse forests created and managed by a farmer in the Sahel.

### Sawadogo's agricultural innovations

By experimenting with traditional techniques from the region, Sawadogo has developed a set of best practices that have made this miracle possible. The methods require a lot of manual work and supreme patience. They include:

#### Planting:

- Digging Zaï holes at regular intervals. Bigger holes are dug for bigger plants/trees like the baobab.
- Filling the holes with organic fertiliser or compost before planting seeds.
- Using agroforestry methods and cultivating millet, sorghum and corn along with the trees.

#### Soil and water conservation:

- Constructing stone bunds to slow down run-off water during rainfall. This helps the soil to absorb more water and retain nutrients.
- Constructing a small dam on a barren patch in his forest to store water.



#### Animals:

- Placing water pots in trees for birds, and water troughs on the ground for animals. Birds then bring seeds from other locations.
- Keeping bees for production of honey. The bees also serve the purpose of cross-pollination.

#### **A ripple effect from farmer to farmer**

*“Yacouba’s impact on restoration in the Sahel has been greater than that of all national and international experts taken together.”*

Chris Reij, Senior Fellow, World Resources Institute

In 1984, Sawadogo began organising “zaï markets” on his land to share his experiences. These started as small events, but steadily grew so that each market day involved representatives from more than 100 villages. The events were organised twice a year: the first market day was held shortly after the harvest, and he requested the farmers to bring samples of the crop varieties they cultivated in their zaï. Sawadogo then stored the seed in a special seed bank at his homestead. The second market day was organised just before the rainy season. Farmers could then select the species and varieties they would like to plant in their zaï, taking into account the improved growing conditions.

Today, Sawadogo receives many visitors from Burkina Faso and abroad who want to see for themselves what he has achieved. The visitors include fellow farmers, researchers, policy-makers and journalists. Besides that, he continues to train other farmers, mainly young men and women, in so-called "zaï master classes".

#### **Impact and international attention**

Farmers adopting Sawadogo’s techniques have managed to significantly improve food security. Even during drought years, trees in the agricultural land provide numerous benefits: They enrich the soil, retain water and protect against erosion, block the direct sunlight and slow down windspeeds. They provide firewood, fodder, nutrition, medicine, timber, ecosystem services like pollination, and business opportunities, e.g. bee keeping. The reforestation of land inspired by Sawadogo has triggered essential social and economic transformation processes, which continue to improve the livelihoods of the local population.



*“Yacouba Sawadogo vowed to stop the desert – and he made it. If local communities and international experts are ready to learn from his wisdom, it will be possible to regenerate large areas of degraded land, decrease forced migration and build peace in the Sahel.”*

Ole von Uexkull, Executive Director of the Right Livelihood Award Foundation

Due to the success of these methods, authorities in Burkina Faso, local NGOs, and farmers’ associations are now encouraging other farmers and communities to adopt similar techniques to recover degraded land and to improve crop yield. By 2016, it is estimated that the zaï technique has helped to restore the productive capacity of tens of thousands of hectares in Burkina Faso’s Yatenga and Gourcy provinces alone. In 1989, 13 farmers from Niger’s Tahoua region visited Yacouba’s fields and upon returning, they started to restore degraded land using zaï. 1990 was a drought year and only farmers who had used zaï had a reasonable harvest. Since that year the technique has also spread to Niger.

The zaï collects and concentrates rainfall and runoff, many examples are known where this has helped to locally recharge groundwater. In some cases water levels in wells have increased by 5 – 17 m. As a result, villages which used to have serious problems with drinking water for 8 months per year, now have water in their wells during the entire year. The zaï method and farmer-managed natural regeneration, which is championed by Sawadogo’s fellow Laureate Tony Rinaudo, can be a key tool to build peace, fight poverty and food insecurity, and combat desertification.

*“This project is for future generations. I don’t want to eat today and leave future generations with nothing to eat. The work I do is to create the seeds for wealth – not only for Burkina Faso but for many other countries.”*

Yacouba Sawadogo

In 2010, Sawadogo’s achievements and his extraordinary life story became the subject of a documentary film, entitled ‘The Man Who Stopped the Desert’, which received numerous awards in 2011. In 2013, the United Nations Convention to Combat Desertification (UNCCD) honoured him as one of its first ever Global Dryland Champions. 2014 saw the publication of a book by journalist Andrea Jeska portraying the achievements of Sawadogo (“Der Mann, der die Wüste aufhielt”). Articles about his work have also been published in The Scientific American (USA), The Nation (USA), Die Zeit (Germany) as well as National Geographic. He has participated in the Conference of the



Parties to the UN Convention to Combat Desertification in South Korea (2011) and in Namibia (2013).

In Burkina Faso, Sawadogo's life's work is threatened by the expansion of the nearby city of Ouahigouya. Sawadogo does not own the land that he has regenerated, and some houses have already been constructed in the edge of his forest. Yacouba may still lose the forest, which has been his crowning achievement.