The Trees on Farms Project

HONDURAS

Hondura's cattle farms need more trees, here's why:

Livestock farming is a lifeline for many Hondurans – it is estimated that 200,000 direct jobs and 400,000 indirect jobs are generated from a round 100,000 farms operating in the country. Contributing 13% of the country's agricultural sector GDP, livestock farms cover approximately 2.5 million hectares of land area and have, over time moved into forest areas that provide the country with valuable ecosystem services. **48% of Honduras, approximately 5.4 million hectares, is forest.** These forests are home to 8,900+ species of plants and 1,700+ species of animals. According to Terra-i, a monitoring platform, 7,000-41,000 hectares of forest have been lost per year in the last five years. **The National Directorate of Climate Change says that 31% of the country's greenhouse gas (GHG) emissions are the result of forest loss, and at least 80% of this deforestation is caused by the advance of the agricultural frontier.**

The Trees on Farms for Biodiversity (TonF) project offers a way forward for this catch-22 between livelihoods and forest conservation. TonF are proven useful for conserving biodiversity, fixing carbon, reducing GHG emissions, conserving soil and water, and diversifying incomes on livestock farms.For example, live fences and trees scattered in pastures, if properly managed, increase biological connectivity in the landscape, provide habitat and food for wildlife, and provide valuable livelihoods for the household.

Recent droughts have prompted the Honduran cattlemen's guild to flag the urgent need to adapt to and mitigate climate change. The TonF approach can also contribute to Honduras goal to reforest and afforest 1 million hectares of degraded land by 2030, as described in its Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC).

This brief outlines the interventions cattle farmers can deploy to transform their farms into more economically, socially and environmentally sustainable production systems.

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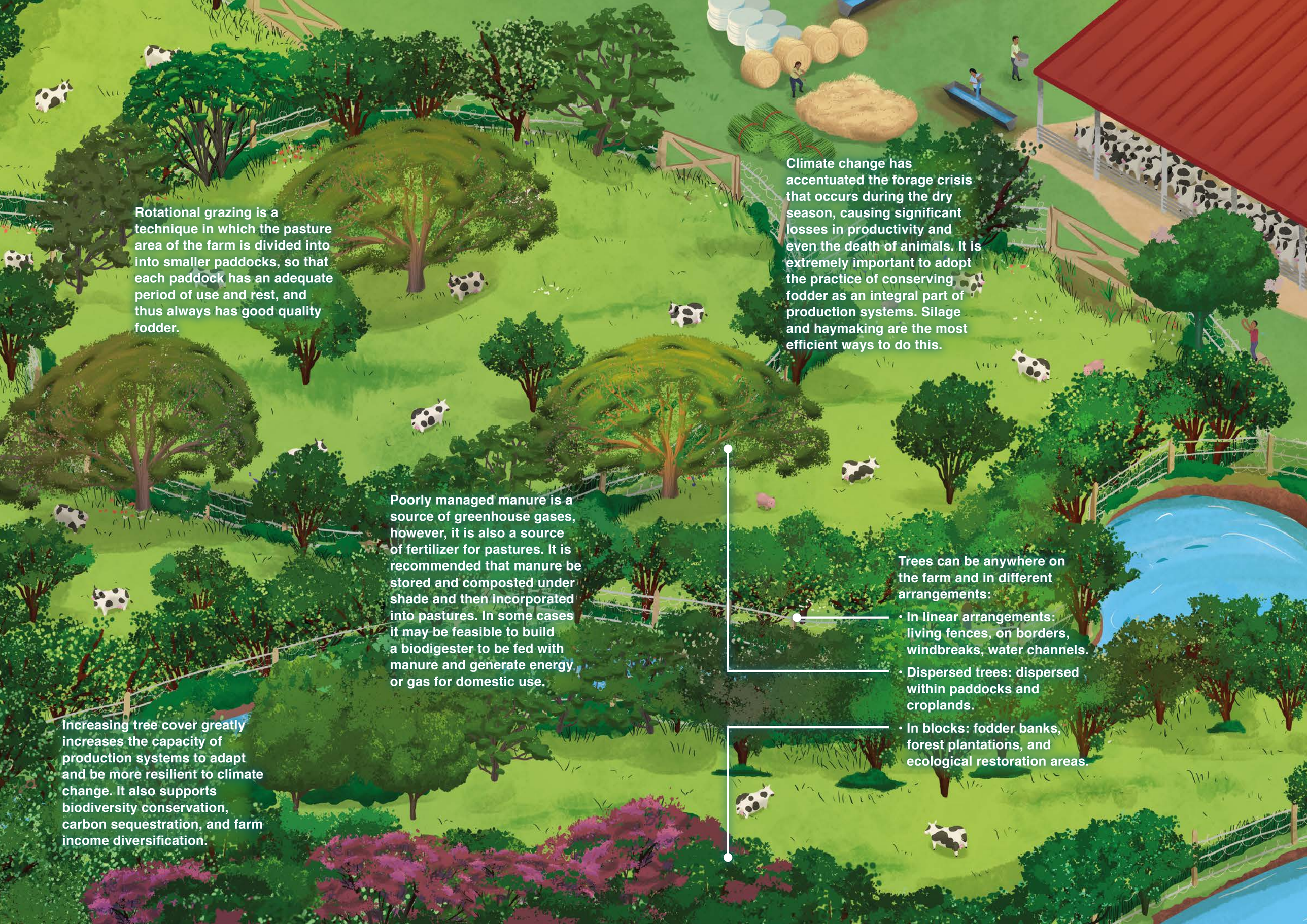
Rotational grazing is a technique in which the pasture area of the farm is divided into into smaller paddocks, so that each paddock has an adequate period of use and rest, and thus always has good quality fodder.
Climate change has accentuated the forage crisis that occurs during the dry season, causing significant losses in productivity and even the death of animals. It is extremely important to adopt the practice of conserving fodder as an integral part of production systems. Silage and haymaking are the most efficient ways to do this.
Poorly managed manure is a source of greenhouse gases, however, it is also a source of fertilizer for pastures. It is recommended that manure be stored and composted under shade and then incorporated into pastures. In some cases it may be feasible to build a biodigester to be fed with manure and generate energy or gas for domestic use.
Trees can be anywhere on the farm and in different arrangements:
• In linear arrangements: living fences, on borders, windbreaks, water channels.
• Dispersed trees: dispersed within paddocks and croplands.
• In blocks: fodder banks, forest plantations, and ecological restoration areas.
Increasing tree cover greatly increases the capacity of production systems to adapt and be more resilient to climate change. It also supports biodiversity conservation, carbon sequestration, and farm income diversification.

What benefits will Honduras farmers see?

Implementing the interventions described in the preceding graphic can:

- **Result from 10 to 30% in animal production** as trees in pastures provide a more favourable microclimate for livestock.
- **Improved pastures with scattered trees** can capture 2-12 tC/ha/year (tons of carbon per hectare per year).
- **Live fences with trees increases biological connectivity in the landscape,** in situ conserve ecologically valuable species, and produce valuable goods to support household livelihoods. Trees in live fences can also store significant amounts of carbon in tree biomass.
- **Rotational grazing can triple the efficiency of pastures.**
- **Providing the right amount of clean water** can increase animal production by up to 10%.

Next steps

- The TonF project will generate evidence of **the importance of trees on livestock farms**, from a social, economic and environmental point of view.
- TonF will generate **proposals and analyse intervention scenarios** to be included in the development plans of state and non-governmental institutions, at the local and national level.
- **TonF can support** the National Strategy for Low-Greenhouse Gas Emissions Livestock
- **A nationwide inventory** of TonF in all agro-ecological zones of the country is needed to help recommend national interventions.
- The contribution of TonF to **national efforts to conserve biodiversity** included in reports to the international convention on biological diversity.

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Trees on Farms for Biodiversity

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