

Leveraging Success

Honduras

Factsheet for WFD session Smart Dialogue for Sustainable Livestock

Heifer International - Honduras is implementing the project "Leveraging Success Phase II" since 2023. It aims to strengthen the market links for farmers through strengthening intermediary businesses and startups in dairy and honey chains. This way, the project seeks to enhance income opportunities for families living in poverty across four regions: Olancho, Yoro, Atlántida, and Colón. It aims to close the poverty gap identified in these regions, supporting 12,000 producers on a pathway to a sustainable living income (from a current income of \$189/month to \$403/month) by increasing their production levels (i.e. more calves from their cows, more milk, and access to better prices for the milk they produce).

Sustainability assessment at regional level

Olancho, in eastern Honduras, is a major agricultural region with fertile valleys and a subtropical climate ideal for crops like coffee, corn, beans, and tropical fruits, as well as cattle ranching. Its economy is heavily based on agriculture and livestock, with the latter being a fundamental pillar for many rural families. Extensive livestock farming is primarily practiced, but in some areas sustainable practices are being adopted with support from *Leveraging Success Phase II* project to improve productivity and reduce negative environmental impact.

Challenges in Olancho include:

- i) expanding agricultural and livestock frontiers, leading to deforestation and soil degradation, affecting the long-term sustainability of livestock production;
- ii) climate change, with variations in rainfall patterns, is impacting water and forage availability, potentially leading to substantial losses in livestock productivity and affecting household economies;
- iii) many livestock producers lack access to lucrative markets due to a lack of infrastructure and commercial connections. To offset these challenges, this project promotes sustainable livestock practices, including pasture rotation, agroforestry integration, and waste management to reduce negative environmental impact.

Training is provided to producer families, organized into field schools, implementing a technical curriculum for holistic livestock management.



Soil health: In Olancho, intensive agriculture (particularly the cultivation of crops such as corn and beans) often involves practices that disturb the soil, like frequent tillage. These practices expose the soil to erosion and oxidation, leading to a reduction in **organic matter**. Farmers in the region are heavily involved in livestock production, and overgrazing by cattle is a common issue. Overgrazing reduces vegetation cover, which normally protects the soil and contributes to soil organic matter through plant litter and root biomass. Significant areas in Olancho have been cleared for agriculture and cattle ranching. Deforestation reduces the input of organic matter from trees and other vegetation, and exposes soil to erosion, further depleting its organic matter content. Due to the loss of vegetation cover, reduced water infiltration, and the use of heavy agricultural machinery (e.g. tractors and plows) **compacted soil**, specifically topsoil compaction is a challenge.

Water management: Olancho experiences distinct wet and dry seasons, with **water availability** varying significantly throughout the year. During the rainy season, water is abundant, but in the dry season water scarcity can become a significant challenge, impacting both crop yields and livestock production. Many agricultural activities rely on rainfall rather than irrigated water systems. The lack of reliable irrigation infrastructure exacerbates the dependence on seasonal rainfall. There is limited infrastructure for capturing and storing water during the wet season for use during the dry season (e.g. lack of reservoirs and ponds).

Biodiversity: A combination of farming activities – crop cultivation, livestock rearing, and agroforestry, combined with a wide range of genetic diversity, contribute to the high **agro-biodiversity** observed in the region. Despite this, there are concerns about **biodiversity loss** and natural habitat around dairy farms. The expansion of dairy farming often leads to the clearing of natural habitats, such as forest and wetlands, to create pastureland. This can result in the loss of native plants and animal species.

Resource use & environmental impact:

In Olancho, **manure management** is suboptimal because of the limited access to equipment, high costs of proper manure management practices (i.e. biodigesters, composting systems), and lack of prioritization of immediate needs (i.e. veterinary care of livestock, over long-term investments in manure management infrastructure). In many cases, farmers accumulate manure in a specific area, leading to environmental pollution because during rainfall harmful pathogens can easily contaminate water sources. Air pollution can also be caused through ammonia emissions and greenhouse emissions (methane production due anaerobic decomposition of manure in large piles). By sampling farms where agroecological practices are being implemented to reduce emissions, we measured 5.49 kg CO₂ eq/kg FPCM **GHG emissions** (CO₂ equivalent) per kg milk.

Animal care: Poor health care and husbandry practices result in diminished **animal health**. In addition, lack of access to veterinary services, high prices for veterinary medicines, and long distances in the territory further complicate the possibility of caring for convalescent animals. When it comes to **animal welfare**, the animals have access to shade, water and forage, nevertheless animal management may be considered inadequate in some farms, where facilities are not appropriate (e.g. handling pens, or (squeeze) chutes), and employees have not received proper training for dignified treatment of animals.

Livelihood opportunities and working conditions in the sector:

Livestock farming in Olancho is often centred on traditional practices that may not require a large, diverse workforce. This limits the variety of jobs available, particularly those that might appeal to younger people who are often interested in more modern, technology-driven roles. Low wages are also a reason why young people prefer to work in other activities or migrate in search of better **employment opportunities**. Cultural norms are hindering women's participation in the livestock sector, the current **gender balance** becoming clear by the limited participation of women in certain activities (i.e. labour, decision power, income, access to training).