

Del campo al plato



Investing in the future: Creating biological corridors in banana and pineapple sourcing regions

Investing in biological corridors in the Dominican Republic and Costa Rica

The project „From Farm to Fork“, financed by the IKI Programme of the BMUV, has developed a practical system to protect and create biological corridors in areas with banana and pineapple plantations in the Dominican Republic and Costa Rica. These corridors will help to reduce the barrier effect of such plantations to fauna and flora. Many species will be able to move between habitats and disperse between populations.

Three biological corridors investments from companies in the food sector will be established here:

- Biological corridor along the “Río Jura” in the Dominican Republic.
- Biological corridor “Los Malecu” in Costa Rica.
- Biological corridor along “Río Parismina” in Costa Rica.

The measures foreseen will lead to:

- Conservation, restoration and protection of rivers, wetlands and alluvial forests.
- Connection of habitats.
- Protection of biodiversity on plantations along the biological corridors.

Two catalogues were prepared to present the options to invest in the establishment and maintenance of these corridors. We invite companies along the supply chains of banana and pineapple to make a significant and effective contribution to the protection of biodiversity and ecosystem services. Each individual measure will contribute to the effect desired. The more of the measures can be implemented, the more comprehensive the protection of biodiversity on the ground becomes.

Loss of biodiversity - loss of basic ecosystem services for agriculture

Biodiversity and the associated ecosystem services are the basis of human well-being and prosperity and thus also the economic basis for almost all businesses. In order to stop the loss of biodiversity and to achieve the global biodiversity and climate goals, the support of the private sector is indispensable. Agriculture directly depends on biodiversity. This applies also to banana and pineapple production: bananas are pollinated by birds and bats and pineapples benefit from fertile and biodiverse soils. They belong to the most popular tropical fruits in Germany. Many of the sourcing regions in Latin America are in biodiversity hotspots. Expansion and intensification of plantations threaten the habitats of animals and plants. Yet biodiversity is the most important basis for good fruits!

Many regions where bananas and pineapples are grown, still experience the destruction of ecosystems and the loss of biodiversity. In the long term, this poses high risks to the entire supply chain with some obvious consequences: depleted and eroded soils, water scarcity, unbalanced microclimate that cannot buffer between droughts and extreme rainfalls.



RIO JURA BIOLOGICAL CORRIDOR IN AZUA, DOMINICAN REPUBLIC



Leading banana cooperatives have committed themselves to implement a „Corredor Verde de Azua“. As a first step to bring that into life, they founded an association named “COVIDA”. The farmers want to invest both financial resources and labour in the Corredor Verde in order to realise a comprehensive corridor that provides indispensable ecosystem services.

The Farm to Fork project selected the „Rio Jura“ – biological corridor as one component of the „Corredor Verde de Azua“. The corridor shall have a length of 14 kilometres along the Jura River. The measures target valuable mangrove forests at the river mouth, gallery forests along the riverbanks and the river itself. The measures also encompass the protection of emblematic species in the region. We include solutions for pollution by waste and untreated sewage, as well as practical conservation measures to re-establish gallery forests, which disappeared in the past.

Positive impacts on biodiversity

- » Restoration and protection of ecosystems connecting pathways, and safeguarding food sources for wildlife.
- » Reduction of pollution of soils and water bodies > Improvement of the water quality of the river and the sea.
- » Minimize threats to terrestrial and marine fauna > Increased resilience of ecosystems.
- » Contribute to the maintenance of the hydrological cycle in the river basin.
- » Protect climate by reducing greenhouse gas emissions and storing CO₂ in gallery forests and mangroves.
- » Provide natural solutions for climate change adaptation, erosion control, increase of microorganisms present in the soil.

Overview of the measures (implementation, maintenance and coordination)

- Cleaning of the lower bank of the river Jura from waste at a distance of 5 km.
- Extension of a composting plant and production of organic fertilizer.
- Recycling of plastics from banana cultivation and communities in the region.
- Establishment of dikes along the Jura River over a length of 4.8 kilometers.
- Reforestation of gallery forests on the lower course of the Jura River.
- Protection of the mangrove forest in the estuary delta of the Jura River.
- Protection of the emblematic species “Rhinoceros” iguana and “Yarey” palm tree.
- Monitoring of biodiversity in the biological corridor.

Costs of the measures range from 13,000 € to 75,000 €.

You can find a detailed catalogue and information in the brochure „Investments in Biodiversity in Banana and Pineapple Crops – A catalogue for companies to invest in Biological Corridors in the Dominican Republic“.



LOS MALECU BIOLOGICAL CORRIDOR IN COSTA RICA



The “Ruta de los Malecu” Biological Corridor is located in northern Costa Rica, at the border with Nicaragua in the middle of the internationally recognized “Caño Negro” wetlands. Widespread pineapple cultivation and cattle ranching led to logging of single trees from pastures and along plantations. In the meanwhile, agro-pastoral sites and small woodlands form a fragmented landscape and lack pathways for animal movements.

In the Farm to Fork project, we plan measures to improve significantly the function of this corridor. Trees along pineapple fields and on cattle pastures will enhance the biological corridor and strengthen agro-forestry systems. The measures include replanting of small forest lots and gallery forest. With this, we can re-establish the buffer zones to protect water bodies and link typical forest habitats. With trainings, we will teach farmers integrated pest management and other positive practises to counteract contamination of rivers and soils.

Positive impacts on biodiversity

- » Forest structures on farmland connect habitats.
- » Vegetation stores CO₂ and creates a microclimate that mitigates the effects of climate change.
- » Rivers and creeks in agricultural areas are better protected with intact buffer zones, reduced pesticide inputs and sedimentation, and balance the severe consequences of more frequent heavy rainfalls.
- » Connectivity provides nesting, feeding, and resting sites for birds of prey, toucans and macaws, monkeys, felines, bats and rodents, amphibians, and reptiles.
- » The fruits of the trees serve as food sources for many bird species – as well as for the monkeys that come from the densely forested areas.

Overview of the measures (implementation, maintenance and coordination)

- Planting of trees along agricultural areas and creation of silvo-pastoral areas over a length of 5 km.
- Extension and improvement of buffer zones along rivers and wetlands over a length of 4 km.
- Extension, afforestation, connection of small forest patches over a length of 12 km.
- Training of farmers in integrated pest management and implementation of biodiversity action plans.

The costs for the measures range between 7,500 € and 30,000 €.

You can find a detailed catalogue in the brochure „Investments in Biodiversity in Banana and Pineapple Crops – A catalogue for Companies that want to invest in Biological Corridors, Costa Rica“.



PARISMINA BIOLOGICAL CORRIDOR IN COSTA RICA

Parismina is located in the eastern, the Caribbean part of Costa Rica and is known as the „Blue Biological Corridor“. A huge number of rivers flow through this corridor and makes the area particularly valuable. The part we selected for the Farm to Form project intervention is intensively used and affected by pineapple and banana plantations and cattle farming. The area used to be fully forested, but in recent decades, much forest has been cleared. To enhance and complete the biological corridor, we want to connect the remaining forest areas and other forest ecosystems. Measures include to reforest set aside areas of farms and plots not used for plantations, to re-establish buffer zones along rivers, streams, wetlands, and springs with native trees, shrubs, and other vegetation. In addition, we plan more tree cover in pasture areas. The current handling of pesticides provokes severe negative impacts on biodiversity. We will organize training courses for integrated pest management for farmers in the biological corridor to significantly reduce the impact of pesticides on soil and aquatic ecosystems.

Positive impacts on biodiversity

- » Vegetation re-established along rivers and wetlands reduce pesticide inputs into water bodies.
- » Forest corridors reduce the risks of erosion; they prevent the loss of fertile soils and sedimentation into streams and wetlands. Sediments with high pesticide load will not reach valuable habitats.
- » Trees and shrubs contribute to the establishment of agroforestry systems and mitigate the effects of climate change, improve soil quality and lead to favourable microclimate.
- » Connected habitats provide food and nesting sites for insects, birds and mammals.
- » Habitat connectivity is improved to allow animal migration and dispersal.

Overview of the measures (implementation, maintenance and coordination)

- Planting of lines of trees along agricultural land and implementation of silvo-pastoral areas over a length of 5 km.
- Expansion and densification of buffer zones along rivers and wetlands over a length of 4 km.
- Training of farmers on Integrated Pest Management and implementation of Biodiversity action plans.
- Sensitization and training of the local population and establishment of a participatory monitoring system.

The costs for the measures range between 7,500 € and 30,000 €.

You can find a detailed catalogue in the brochure „Investing in Biodiversity in Banana and Pineapple Crops – A Catalog for Companies wishing to Invest in Biological Corridors, Costa Rica“.



Responsibilities and coordination

We invite and encourage companies along the entire supply chain to invest in the Biological Corridors! Companies can protect ecosystems and biodiversity and can improve ecosystem services, which are essential to grow banana and pineapple. We carefully selected, planned and budgeted all measures proposed. Companies have also the option to share the financing of a certain measure.

This innovative activity to mobilize private funds for biodiversity and ecosystem services are supported by the IKI project „Del Campo al Plato“ (From Farm to Fork), implemented by the German Cooperation GIZ, the Global Nature Fund and the Lake Constance Foundation. Experienced local organisations will implement the measures and will guarantee long-term maintenance. Companies investing here, will receive annual progress reports on measures, maintenance, monitoring results and funds spent. The regional organizations will provide footage to document the measures and the further development of the biological corridor. GIZ staff will visit the project areas at least once a year to verify implementation and development. GIZ will support companies in communicating this commitment to the biological corridors.

Request detailed information about the biological corridors and the measures:

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Further information on the IKI project „Del Campo al Plato“:

www.delcampoalplato.com

