

Smart designed, mechanized large-scale cocoa plantations as a forward-looking component of sustainable cocoa production

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ForestFinest Consulting (FFC) is a German consultancy service provider with more than 20 years of experience in planning, implementing and managing sustainable agroforestry projects and assets, with a special focus on cacao.

For his clients, **FFC** provides technical advice to evaluate cocoa value chains, to increase sustainability, and prepare certification processes.

In spite of the current low cocoa prices, the cocoa production is expected not to be able to meet the rising demand for cocoa products in the future. This scarcity is estimated to grow due to persistent low yields in traditional cocoa smallholder systems and in general due to soil degradation, soil mismanagement, scarcity of arable land and effects of climate change.

Large-scale projects are of increasing importance in the cocoa agriculture. It is our objective to harmonise them with nature conservation, sustainable management and the specific regional, national and international conditions.

In our core project in the centre of the Dominican Republic we currently prepare 800 hectares of a former sugar cane plantation.



What does it mean to implement and manage a „smart designed, mechanized large-scale cocoa plantation“?

Smart designed:

- Location factors: climate, soil, topography, land use history, pests and diseases, costs and availability of workers, plant material and equipment, accessibility, land tenures
- Site selection
- Design based on up-to-date scientific findings and practical experience
- Adapted to each specific site
- Planting scheme
- Cocoa varieties
- Management plans
- Harvest and postharvest strategies

Mechanized:

- Improvement of farm work from the very beginning
- Soil preparation
- During maintenance
- Harvest and post-harvest procedures
- Storage and transport

Large-scale:

- There is no “scale-up” of traditional farming
- Mechanized farming comprises different approaches and solutions
- New opportunities , e.g. soil preparation via physical soil amelioration (loosening) and chemical amelioration (liming, fertilisation), drainage and irrigation and optimised shade tree management (pruning machines and planting scheme)

Cocoa plantation:

- The core interest to produce high quality cocoa
- A large-scale plantation does not have to be a monoculture
- Focus on sustainable processes through-out the farm management to support profitable long-term investments, nature conservation and climate change mitigation e.g. than 100 shade trees per hectare
- Avoidance of use of herbicides and pesticides by focusing on integrated pest management
- Reduction of input and optimization of resource use
- Increase of production through optimized initial position, harmonised work flow and up-to-date management
- Monitoring via drone services and proven quality control system