

Boumango

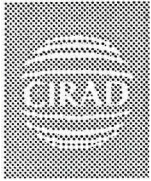
An agricultural challenge

Under the joint direction of the Gabonese Société industrielle d'agriculture et d'élevage de Boumango (SIAEB), and the Société d'organisation, de management et de développement des industries alimentaires et agricoles (SOMDIAA) since 1978 the agro-industrial complex of Boumango in Gabon cultivates 2 200 ha of equatorial forest land. Maize and soybean are the staple crops, produced as feedstuff for the chickens reared for Gabonese markets. The complex was established in response to concerns of the national government:

that Gabon should be self-sufficient in food, and that efficient land management should stimulate farm production.

In an effort to overcome the serious agronomical constraints of this equatorial region, Boumango's research and monitoring unit was created in 1984 with sponsorship from the Gabonese government, the Caisse française de développement, and the French Ministry of Cooperation and Development. The Centre de coopération internationale en recherche agronomique pour le développement (CIRAD, France) was assigned to manage the unit.

As equatorial regions have been considered unsuitable for annual crops, research into the creation of high-performance equatorial farm units has been limited. With classical techniques, the highly acid soils are only suitable for short-term cultivation. The contrasted climate provides high temperatures but only limited sunshine. Forest clearing transforms the protective and apparently unchanging forest environment, exposing the denuded land to flood rains. In this part of the world sustainable agriculture has always seemed an unattainable goal.



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This challenge was, however, taken up as a result of research conducted by CIRAD's scientists in Boumango, on a complex where significant investments had already been made. The research and monitoring unit especially benefitted from CIRAD's experience of similar conditions over much larger areas in Brazil. The research effort has achieved impressive results: alarming levels of erosion have been controlled; very poor crop yields have been enhanced and now increase regularly; and soils reputedly unfavourable to annual crops can support intensive farming. Consequently, research into innovative cropping systems has been granted priority in equatorial regions.

Four lessons drawn from the Boumango experience are fundamental to the success of similar agricultural ventures.

1. The new cropping system requires high-level knowledge of crop physiology.
2. Environment-friendly cropping systems are required to deal with the hostile natural environment and associated degradation of cultivated fields.
3. As transport costs are very high when the venture is far from the centres of production and consumption, raw produce must be transformed as far as possible into high value added products.
4. Whereas "land" capital is largely accessible, venture capital poses great difficulties: more economical cropping systems and the intensification option must therefore be considered on the basis of analysis of financial margin per ha.

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