

Ministry of Education
University of Mali

Republic of Mali
One People, One Goal, One Faith

**Presentation of the Rural Polytechnic Institute for Training and Applied Research
IPR/IFRA Katibougou**

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1. Background

The Rural Polytechnic Institute for Training and Applied Research (IPR/IFRA) of Katibougou is located about 70 kilometers from Bamako, the capital of Mali, and 3.5 kilometers from Koulikoro, seat of the second administrative region in Mali. Spanning an area about 380 hectares along the banks of the Niger River, it is one of the oldest institutions for training rural development agents in the area. It has been successively:

- An agronomic research station in 1897
- School for farmers' instructors in 1902
- Center for agricultural training in 1913
- Agricultural Technical College in 1952 doubling as a teachers training college(CTA)
- Rural Polytechnic Institute in 1965
- Rural Polytechnic Institute for Training and Applied Research in 1996

2. Status and Mission

IPR/IFRA is a higher education institution for public instruction with the following mission:

- Training of agricultural engineers, agricultural economists, zootechnicians and technicians for water and forests.
- Training of upper level technicians in the areas of agriculture, livestock, water and forests, and rural engineering
- Promotion of scientific and technological research.
- Continuing education programs for recent graduates, rural development professionals and farmers' organizations.
- Training for rural communities.

Since its inception, IPR/IFRA has had a regional mission. It has trained and still trains students from more than 10 African countries: Burkina Faso, Niger, Ivory Coast, Gabon, Senegal, Mauritania, Chad, Central African Republic, Comoros, Benin and Togo.

3. Administrative Organization

IPR/IFRA is one of the University of Mali's large colleges under the supervision of the Ministry of Higher Education. An Institute Assembly and a Director General of Services administer IPR/IFRA. The Institute Assembly functions as advisor and controller for the activities of the institute. In this capacity, IPR/IFRA is responsible for following issues:

- questions relating to the organization of the courses and the implementation of teaching programs
- budget plans presented to the University Council
- the Director's administrative accounts

- the acceptance of donations and legacies to the Institute
- the use of revenue, donations, legacies and subsidies
- the assignment of teaching posts and leave of absences
- all other questions pertaining to the running of the Institute

The Institute Assembly is composed of the Director, representatives from the different hierarchies of the teaching body, representatives from administration and technical personnel, and students.

The Assembly meets at least once a semester at the request of Director. The Assembly can meet for special sessions on the written demand of two-thirds of the members or at the request of the Director.

The Director General is the first in command at IPR/IFRA. He is nominated by order of the Ministry for Higher Education from among the professors and teachers of the conference. Two adjuncts assist him and serve as a substitute in his absence or in case of impeachment. The first adjunct is appointed to Katibougou while the second is appointed to the IPF/IFRA annex at Bamako.

The Director's services include:

- A main secretariat
- An accounting agency

4. Infrastructure

IPR/IFRA contains:

- About thirty classrooms with a seating capacity of between 25 and 100
- An auditorium with 300 seats
- Laboratories
 - Agro-physio-genetics and vegetal biotechnologies
 - Soil Sciences
 - Arthropode biology and integrated pest management
 - Entomology
 - Ethno-botany
 - Animal Nutrition
 - Forestry and Forestry output
- A workroom for processing and conserving animal and plant products
- An agro-sylvo-pastorale farm
- An arboretum
- Fish breeding pond
- Agro forestry demonstration plots
- A library
- A computer room
- A photo copy room
- A boarding school with capacity for 800 people
- A sports complex with a soccer field, a basketball court, a volleyball court and a cultural center

The IPR/IFRA also has an annex in Bamako assure the proper training of the students specializing in animal husbandry with:

- Eight classrooms
- A veterinary clinic
- An computer room
- A library

In 1998, IPR/IFRA opened a Center for Continuing Education (CFC) for the continued training of graduates, rural development agents and rural producers.

6. Human Resources

- A teaching staff composed of:
 - 2 Professors
 - 17 lecturers
 - 7 assistant lecturers
 - About sixty assistants of which ten hold Doctorate degrees and some are still in training
- Administrative Personnel
- Technical and Support Personnel

7.. Training and Research

The Department of Studies and Research (DER) is the foundation of IPR/IFRA's teaching and research. The DER deals with all the questions regarding the functions of the department, notably the organization of the courses, research projects, monitoring of course content, and recruitment of personnel. The department is in charge of the pedagogic training of the instructors. The DER is run by a head of department, named as the Director of Education after election by the members of the department

There are 4 DERs and they are:

- DER of Science and Agricultural Technology
- DER of Science and Animal Husbandry Technology
- DER of Science and Technology for Forestry and Rural Engineering
- DER of Economics and Social Sciences

On the academic level, the Council of Professors, composed of the Director General, the Adjunct Directors, the Head of Development and all the conference instructors, have the decision-making authority. The council examines all proposals for pedagogical innovations, introduction of new administrative channels, and new teaching programs before their presentation to the Institute Assembly. It also evaluates the execution of teaching programs, and fixes the dates and modalities for exams and pedagogic tests.

Training

IPR/IFRA has two levels of training:

- The Superior Technician level
This program trains high school graduates for a two year Superior Technician University diploma. The program covers the following fields:

- Seed production and plant improvement
- Food and Industrial Crop Production
- Horticulture
- Meat production
- Poultry Production
- Food and industrial crops production
- Hydro-agricultural land planning
- Planning and Management of Forestry and Halieutical resources

This program has approximately 160 students

- The engineering level
This program lasts for three years and accepts students with a general university diploma. Students are training in the following specialties:
 - Agronomy
 - Zootechniques
 - Waters and Forests

There are approximately 220 students in the engineering level of which 25% are foreign. Even though the curriculum is in place for agricultural economics program, it hasn't been implemented yet due to a lack of personnel.

Agricultural Extension Training

In responds to rural development needs, IPR/IFRA, in collaboration with the technical services of the Ministry for Rural Development, and with the financial and technical support from Sasakawa Global 2000, Winrock International, and the University of Cape Coast in Ghana, expect to initiate two training cycles for agricultural extension agents targeted at agents in the field.

- The Master's programs will last for four years beginning in October 2002
 - The Technical Certificate program will last two years beginning in October 2003
- The IPR/IFRA graduates will have employment opportunities in the state, para-state and private rural development organizations, and the territorial collectives. They could also go into private practice.

The difficulties encountered at the training level so far are many, notably:

- The need for retraining instructors
- The need for doctoral training for instructors in certain areas
- Insufficient equipment and materials

Research

University research in Mali has been ignored for a long time. The IPR/IFRA, like other institutions, has suffered the consequences. Nevertheless, in the last few years, research at our Institute has seen a rapid expansion and resurgence in popularity. This research has lead to:

- Crop biotechnologies
- Variety selection
- Integrated pest management
- Fertilization

- Development
- Renewable energy sources (biogas)
- Medicinal plants
- Animal nutrition
- Agro-forestry
- Economics and social sciences etc.

IPR/IFRA collaborates with national institutions such as the Institute of Rural Economy (IER), the National Center for Scientific and Technical Research (CNRST), the National Institute for Public Health Research (INRSP), certain international institutions such as the International Agency for Atomic Energy (AIEA), the International Center for Cereal Research in Tropical zones (ICRISAT), the International Center for Research in Agro-forestry (ICRAF), the Center for International Center for Cooperation in Agronomic Research for Development (CIRAD) and many more.

The researchers at the Institute have obtained convincing results in certain areas: the creation of new varieties of sorghum, production of the potato micro- tubercle, production of biogas, methods for rapid inventory of savannahs etc. Insufficient funding, the lack of laboratory equipment, and poor communications are the major constraints faced by the researchers.

7. Production Activities

IPR/IFRA's agro-sylvo operation is a working farm that is not only didactic, but truly productive. The production activities are conducted in different sectors:

- Agronomy:
 - * Large-scale production and production of fodder: millet, sorghum, maize and cotton
 - * Cultivation of mango, banana and citrus fruit trees
 - * Market gardening cultivation of cabbage, lettuce, green beans, onions, potato, tomato, okra and peppers.
 - * Nurseries
- Livestock
 - * Animal production of bovines, ovine, pork, poultry
 - * A veterinary clinic
- Forestry
 - * Forest nurseries
 - * Control of forest plots
- The rural engineering sector: benefit of diverse services

Despite the existing potential, the agro-pastoral farm has a low level of production due to the poor regulation of water and production costs, poor mechanization and insufficient investment methods.

8. Institutional support

It is difficult to underestimate the role that IPR/IFRA plays in Mali and in the sub-region: it has been and remains a springboard for rural development managerial personnel who have continually proven their worth. As the only agricultural training establishment for higher-level executives in the country, IPR/IFRA has

been called upon to play a role that continues to increase within the context of the struggle for food self-sufficiency, the fight against poverty and the degradation of natural resources. In the effort to reach these goals, the institute needs institutional support.

In the area of training and research, IPA/IFRA needs:

- Donations of teaching material
- Training of higher-level specialists in agricultural economics, agribusiness, agricultural extension, biotechnology, mechanization, animal health and animal production etc.
- Laboratory equipment and products
- Production of teaching material
- Development of new information technologies and communication technology
- Creation of a technology village

In the area of production

- Water regulation and acquisition of pumping equipment
- Equipment for the processing of animal and crop products
- Equipment of materials for the agro-sylvo-pastoral farm

Exchanges

This involves the instructors in areas of training, research, language-learning as well as apprentices.