ECOWAS COMMISSION
COMMISSION DE LA CEDEAO
COMISSÃO DA CEDEAO

IMPLEMENTATION OF THE REGIONAL STRATEGY TO SUPPORT YOUTH EMPLOYABILITY IN THE AGRO-SYLVO-PASTORAL AND FISHERIES SECTOR

TRAINING FORM

TITLE: CAPACITY BUILDING IN GREEN AGRIBUSINESS

1. **Objective : Make the participants professionals in green agribusiness having a profile of :**

- an entrepreneur, capable of initiating and managing a diversified circular agricultural or agri-food business, whether production, processing or distribution.
- an entrepreneur capable of identifying market opportunities and developing innovative products or services to meet consumer needs.
- an entrepreneur capable of collaborating with other agricultural producers, businesses and organizations to create synergies and strengthen the sustainability of their project.

2. **Expected results :**

- Participants able to develop a solid business plan with innovative practices and technologies in responsible circular agriculture and implement it including financial projections and growth strategies;
- Participants have the ability to manage their business, with an ability to plan, execute and evaluate business initiatives in addition to their area of specialization;
- Participants are equipped as entrepreneurs to ensure the planning, programming, day-to-day monitoring of farm activities, organization of marketing activities and monitoring of the financial flows of their farm;
- Participants acquired attitudes and skills to adequately fulfill the roles of versatile agricultural entrepreneurs.

3. **Training content:**

- Practical work in the fields of crop production (market gardening, food crops, agroforestry, etc.), bio fertilizer techniques (Ramial Chipped Wood (RCW) /compost production, Bokashi , etc.), management in integrated biological pest control, implimentation of irrigation systems, etc.;
- Practical work in animal and fish production
- Practical work in food and non-food processing
- The implimentation of agricultural developments/irrigation systems/implementation of layout and other livestock infrastructure
- Planning/programming techniques
- Results oriented Management from business plans

- Marketing approaches for agricultural products and networking with producers
- Technical and economic management tools for decision making

4. The different areas of specialization offered by the training program with the modules to be taken into account and their contents :

No.	MODULES	ACTIVITIES	TECHNICAL CONTENT
1	**CROP PRODUCTION**	**❶Organic market gardening**	▪ The place of market gardening in a sustainable and integrated production; ▪ Basic notions on an intensive market gardening production: good agricultural practices / technical route; ▪ The production and use of bio fertilizers (compost, RCW, effluents, straw/ mulch); ▪ Effective Microorganisms (EM) in production; ▪ Phytosanitary protection in market gardening: biological control; ▪ Some authentic production technologies: soil aggradation techniques, water control and irrigation systems, etc.; ▪ Technical and economic standards for the profitability of a market gardening unit; ○ Influence of the environment on the speculations choice; ○ Location factors for a market gardening business; ○ Production monitoring and technical and economic assessment standards; ○ Production planning; ○ Production cost factors and strategy for good competitiveness: Financial and investment aspects.
		❷Food crops: production of cereals, legumes and tubers	▪ The place of food crops in sustainable integrated production; ▪ Basic concepts of intensive food production: good agricultural practices / technical routes for the production of cereals and tubers; ▪ The production and use of biofertilizers (compost, RCW, effluents, straw/ mulch); ▪ Effective Microorganisms (EM) in the production of cereals and tubers;

			▪ Phytosanitary protection in intensive food crop: biological control; ▪ Some authentic production technologies: soil aggradation techniques, water control and irrigation systems, etc.; ▪ Counter-season production; ▪ Technical and economic standards for making an intensive food crop unit profitable; ○ Influence of the environment on the speculations choice; ○ Location factors of an intensive food crop business; ○ Production monitoring and technical and economic assessment standards; ○ Production planning; ○ Production cost factors and strategy for good competitiveness: Financial and investment aspects.
		❸Agroforestry: grafting, forest tree nursery, orchard establishment	▪ The place of Agroforestry in sustainable integrated production; ▪ Basics of Agroforestry: good agricultural practices / technical routes in Agroforestry; ▪ The production and use of biofertilizers (compost, RCW, effluents, straw/mulch); ▪ Effective Microorganisms (EM) in Agroforestry; ▪ Phytosanitary protection in agroforestry: biological control; ▪ Some authentic production technologies: soil aggradation techniques, water control and irrigation systems, etc.; ▪ Technical and economic standards for the profitability of an intensive agroforestry unit; ○ Influence of the environment on the speculations choice; ○ Location factors for an intensive agroforestry business; ○ Production monitoring and technical and economic assessment standards;

			○ Production planning; ○ Production cost factors and strategy for good competitiveness: Financial and investment aspects.
		❹Production and use of biofertilizers (compost, RCW, effluent, effective micro-organisms EM) and biopesticides, Production of super soil for soil aggradation	▪ The place of biofertilizers and biopesticides in sustainable integrated production; ▪ Inventory of biofertilizers; ▪ The different types of raw materials for the production of biofertilizers and biopesticides; ▪ Production process of biofertilizers and biopesticides; ▪ The use of biofertilizers and biopesticides; ▪ Packaging of biofertilizers and biopesticides; ▪ EM and their derivatives: production and use; ▪ Technical and economic standards for the profitability of a biofertilizer and biopesticide unit; ○ Influence of the environment on the speculations choice; ○ Location factors of a biofertilizer and biopesticide production business; ○ Production monitoring and technical and economic assessment standards; ○ Production planning; ○ Production cost factors and strategy for good competitiveness: Financial and investment aspects.
		❺ Installation and maintenance of agricultural irrigation systems	▪ The place of irrigation and water control in sustainable integrated production; ▪ California networks; ▪ Principle and constituents elements of the Californian network; ▪ Estimation of water requirements; ▪ Calculation of flow rates and choice of diameters; ▪ California network diagram and its implementation; ▪ Establishment of a quote;

			▪ Installation and maintenance of the Californian network; ▪ Implementation of a California network system; ▪ Drip irrigation; ▪ Golden rule in irrigation; ▪ The principles of drip irrigation; ▪ Benefits and limitations of drip system; ▪ Description of the drip system; ▪ Types, structure, operation and properties of drippers; ▪ Sizing a drip network; ▪ Installation of a low pressure drip irrigation system; ▪ Cost of installing a low pressure drip system; ▪ Irrigation management and control; ▪ Installation of a drip irrigation system.
		❻ Edible mushroom cultivation	▪ The place of mushroom production in sustainable integrated production; ▪ Some important mushroom species suitable for cultivation in West Africa o Nutritional value of mushrooms o Choosing a site for mushrooms cultivation o The different stages of growing edible mushrooms o Environmental conditions necessary for mushroom cultivation o Raw materials that can be used as a substrate for mushroom cultivation o List of equipment for mushrooms production o Mushroom cultivation methods o Buildings needed for mushroom cultivation ▪ Preparing the mushroom spawn ▪ Preparation of mushroom substrate ▪ Development, harvesting, preservation and marketing of mushrooms

2	**POULTRY FARMING**	**Breeding of:** **❶Improved chickens,** **❷quails** **❸Broiler chickens** **❹Laying hens** **❺Turkey & Guinea Fowl** **❻Ducks and Geese**	▪ The place of poultry farming in an integrated production system; ▪ Setting up a poultry farming unit: choice of site, orientation, necessary equipment; ▪ Livestock infrastructure: standards and management; ▪ Authentic techniques and technologies of profitable integrated poultry farming: o Identification of different species/strains and characteristics; o The different stages of breeding, technical norms and standards; o Feeding: nutritional needs, composition, ration, services; o Different types of diseases and prophylaxis; o Reproduction: choice of breeders, breeding standards, management of young and growth management; ▪ Technical and economic standards: o Influence of the environment on the species choice o Factors for locating a poultry farming business o Production monitoring and technical and economic assessment standards o Production planning o Production cost factors and strategy for good competitiveness: Financial and investment aspects.
3	**MAMMAL BREEDING**	**❶Cattle, sheep, goats** **❷ Rabbits** **❸Pigs** **❹Grasscutter**	▪ The place of mammal breeding in an integrated production system; ▪ Setting up a mammal breeding unit: choice of site, orientation, necessary equipment; ▪ Livestock infrastructure: standards and management; ▪ Authentic techniques and technologies for profitable integrated mammal husbandry: o Identification of different species/strains and characteristics; o The different stages of breeding, technical norms and standards; o Feeding: nutritional needs, composition, ration, services; o Different types of diseases and prophylaxis; o Reproduction: choice of breeders, breeding standards, management of young and growth management;

			▪ Technical and economic standards: o Influence of the environment on the species choice o Location Factors for a Mammal Breeding Business o Standards for monitoring and technical and economic assessment of production o Production planning o Production cost factors and strategy for good competitiveness: Financial and investment aspects.
4	**FISH FARMING**	**❶Production of Tilapia and Catfish in earthen pond, concrete pond and Tanks** **❷ Artificial insemination for fish reproduction**	▪ The place of fish farming in sustainable integrated production; ▪ Production infrastructure: earthen pond, concrete pond, hatchery, floating cages, etc.; ▪ The basics of setting up a fish farming unit: choice of site, necessary equipment; ▪ Identification of different fish species and characteristics; ▪ Fish management techniques following the different stages of breeding; ▪ Feeding: feed requirement, composition, ration, service, production and use of natural products; ▪ Management of fish farming waters; ▪ Reproduction: identification of male and female, breeding management and larval management; ▪ Technical and economic standards: o Influence of the environment on the species choice o Location factors of a fish farming business; o Production monitoring and technical and economic assessment standards; o Production planning; ▪ Production cost factors and strategy for good competitiveness: Financial and investment aspects.
5	**SMALL BREEDING**	**Snail farming**	▪ Description of external characteristics; ▪ The role of the snail in sustainable development;

			▪ Setting up a breeding unit: housing, necessary equipment; ▪ Identification of different species and there characteristics; ▪ Reproduction; ▪ association of earthworm and snail; ▪ Major challenges during production; ▪ The different types of feeds and services; ▪ Technical and economic standards for breeding: o Influence of the environment on the choice of species o Location factors of a snail farming business; o Production monitoring and technical and economic assessment standards; o Production planning; o Production cost factors and strategy for good competitiveness: Financial and investment aspects.
6	**ANIMAL NUTRITION**	**❶Design a feed formula for livestock** **❷Production of feed for livestock**	▪ Importance of a feed mill in sustainable integrated agricultural production ▪ Identification of a feed mill site setting up and characteristics ▪ Materials and equipment ▪ Feed formulation parameters ▪ Application of feed formulas ▪ Practical storage conditions ▪ Planning the supply of raw materials, importance of storage ▪ Cost of production of manufactured feed ▪ Data recording
7		**❶Processing of cereals (corn, soybeans, etc.) and tubers (sweet potatoes, cassava, etc.)** **❷Fruits and vegetables processing**	▪ Role and importance in integrated agricultural production; ▪ Basic infrastructure and equipment required: identification, installation, upkeep and maintenance; ▪ Processing concept : raw materials, processes, technical standards; ▪ Various products and their manufacturing diagram; ▪ Packaging and conditioning storage/preservation of finished products;

		❸Production of palm oil, soybeans oil, etc. **❹The different types of soaps and cosmetics**	▪ Hygiene in a processing unit; ▪ Marketing of products; ▪ Concept of profitability: technical and economic management of the unit; ▪ Influence of the environment on the choice of products ▪ Location factors of a processing business; ▪ Production monitoring and technical and economic assessment standards; ▪ Production planning; ▪ Production cost factors and strategy for good competitiveness: Financial and investment aspects.
8	**RENEWABLE ENERGY WITH BIOMASS MANAGEMENT**	**❶Production and use of biogas** **❷Photovoltaic solar energy** **❸The green purification system / wastewater treatment,**	▪ Role and importance in an integrated system; ▪ Biogas: definitions, infrastructure and equipment; necessary, production, treatment, possible uses; ▪ Possible organic materials for production; ▪ Valorization of by-products in the integrated system; ▪ The sizing for installing a photovoltaic solar production unit; ▪ Installation and monitoring of a solar PV unit; ▪ Biochar production: raw materials and equipment; production process.
9	**MARKETING AGRICULTURAL PRODUCTS AND MARKETS FOR MANAGING AGRICULTURE AS A BUSINESS FOR SUSTAINABLE DEVELOPMENT**	**❶ Steps to enter Markets and develop Sustainable Agribusiness: Marketing and Markets** **❷The key functions and skills that farmers need to acquire to successfully engage in markets in a sustainable manner**	▪ The concept of marketing; ▪ Marketing of agricultural products; ▪ Characteristics of basic agricultural products; ▪ The role of marketing; ▪ Types of markets: Farm sales, Assembly markets, Wholesale markets, Retail markets; ▪ Elements of Marketing (Marketing Research Issues); ▪ Marketing constraints and solutions; ▪ The different stages of product marketing; ▪ Evaluation of group sales/purchases;

		❸Skills for solid cooperative organization and management and experience with internal savings and credit	▪ Market research questionnaire: Market/end customer, Retailers, Competitors, transport, an action plan, etc. ▪ The key functions and skills of an agricultural entrepreneur producer; ▪ The organization and management of a successful agricultural producers' cooperative; ▪ The contractual system for the development of sustainable markets for agricultural products; ▪ Mobilization of financial resources in an agricultural production cooperative; ▪ The savings and credit system: a lever for the activities of a sustainable agricultural cooperative. ▪ Influence of the environment on the species and speculations choice ▪ Factors for locating a business ▪ Factors influencing the location factors of the business ▪ Standards for monitoring and technical and economic assessment of production ▪ Production planning ▪ Production cost factor and strategy for good competitiveness: Production cost factor / Strategy for good competitiveness / Financial and investment aspects
10	**AGRICULTURAL ACCOUNTING AND BUSINESS CREATION**	**❶Agricultural accounting** **❷Business plan**	▪ The various logs for monitoring the farm's financial flows (cash book, general ledger, etc.) ▪ Calculation of production costs for different activities ▪ Farm inventory management tools ▪ Development of a farm business plan
11	**TECHNICAL AND ECONOMIC MANAGEMENT OF AGRICULTURAL MICRO ENTERPRISES**	**The technical and economic management of an agricultural and para-**	▪ Influence of the environment on the species and speculations choice ▪ Factors for locating a business ▪ Influencing elements on the location factors of a business ▪ Production monitoring and technical and economic assessment standards

		agricultural production unit	▪ Production planning ▪ Production cost factor and strategy for good competitiveness: Production cost factor / Strategy for good competitiveness / Financial and investment aspects

5. Prerequisites (profile and criteria eligibility) :

a. Be a young man or woman aged 18 to 35;
b. Be a national and resident of one of the ECOWAS countries and demonstrate a firm desire to settle in their country of origin to develop activities in the value chains and domains of activity learned;
c. Not having other stable sources of income
d. Having identified your business project and having a certain idea of how to make it happen and bring it to fruition;
e. Have an exceptional passion for agricultural entrepreneurship ;
f. Have endurance for farm work;
g. Have the skills to develop versatility to drive synergy between the three production sectors in the logic of the added value chain;
h. Have a work ethic and discipline to serve as role model for dependants and their community.
i. Be totally available and free from any commitment (academic or professional) for the entire training duration;
j. Comply with the internal regulations governing the training.

6. Training venue:

i) Songhai Center of Porto-Novo (Benin)
ii) Songhai Center of Parakou (Benin)
iii) Songhai Center of Savalou (Benin)
iv) Songhai–IGRC: Songhai Imo Green Community (Nigeria)
v) Songhai– Moniya (Nigeria)
vi) Songhai– MOF: Songhai Mbara Oziona Foundation (Nigeria)

7. Training duration : 03 months