

This study evaluated the impact of the extension services of Green River Project (GRP) on fishfarmers in Niger Delta, Nigeria. Specifically, it sought to ascertain fishery technologies received by GRP fish farmers; determine adoption of fish farming technologies by fish farmers; determine impact of extension services of GRP on socioeconomic condition of the fish farmers as at the year 2012; ascertain farmers' perceived constraints to adoption of GRP fish farming technologies; ascertain constraints to effective performance of extension services of GRP and determine perceived strategies to improve effectiveness of the extension services of GRP. The study was carried out in Niger Delta, Nigeria. Multi-stagesampling technique was used to select 120 fish farmers and 20 GRP personnel. Data were collected through the use of questionnaire and interview schedule. Descriptive statistics (frequency, mean statistic, percentage) were used to present data while t-test, regression, chi-square and factor analysis with varimax rotation were used to analyze the data. Mean age of GRP fish farmers and personnel were 50 and 41.70 years, respectively. Majority (76.7% of fishfarmers and 65% of GRP personnel) of respondents were male. Also majority (77.5%) of the fish farmers and all (100%) the GRP personnel were married. The respondents were literates. Majority (70.0) of the fish farmers also engaged in other income generating activities. Average household size of the fish farmers and GRP personnel were 6.0 and 4.0 persons, respectively. Average years of participation in GRP for the fish farmers was 8.00 years while the mean years of working with GRP of the personnel was 12.65 years. The farmers' average number of contact with GRP was 4.0 times per month. GRP personnel used different types of teaching methods such as the use of contact group (100%), T&V system (90%) and SPAT (85.0%). Majority (86.7%) of the fish farmers belonged to social organisations. Majority of respondents received most of the technologies disseminated. Adoption index of fish farm management technologies, feeding techniques, fish culture management technique, water quantity and quality management techniques and liming techniques were 0.79, 0.77, 0.77, 0.88 and 0.52 respectively. Extension services of GRP had impact on quantity of fingerlings stocked ($t=6.398$; $p < 0.05$) and quantity of fishes harvested ($t=6.279$; $p < 0.05$); income from fishes produced ($t=7.390$; $p < 0.05$) among others. Constraints to adoption of GRP technologies were grouped into technology dissemination constraints; project implementation and sustainability constraints among others. Some socioeconomic characteristics of the respondents (age (years), years spent in formal education and years of participation in GRP) influenced the adoption of the fish farming technologies. Therefore, the null hypothesis was rejected for these variables. There was significant difference between the average quantities of fish stocked and average quantity of fish harvested by the fish farmers in Imo and Rivers States after participation in GRP hence the null hypothesis was rejected. The null hypothesis was rejected while the alternative hypothesis was accepted. It further revealed that there was no significant difference between the average income earned by the fish farmers in Imo and Rivers States after participation in GRP and the null hypothesis was accepted. Implementation constraints to effective performance of extension services of GRP according to GRP personnel included: climatic uncertainties and flooding ($M= 1.55$) and delay in input supply ($M=1.20$). It was recommended that there is need to increase youth involvement in the project (90.0%), increase farmers' participation in decision making (90.0%) and increase the number of trained extension personnel (85.0%).

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CHAPTER ONE INTRODUCTION

1. BACKGROUND INFORMATION

The development of state ministry of agriculture in Nigeria changed in political structure after independence. The three regions structure in 1960 gave way to four regions in 1963 and this equally gave way to states creation from 1967 up to 1996 (Ayoola, 2010). The roles of the ministry of agriculture include the following: – Organizing of short duration seminars and workshops to farmers. Providing farmers credit, subsidies and other incentives to boost total output in the various special programmes undertaken by the state government, Agricultural Development Programme (ADP), International Fund for Agricultural Development (IFAD), World Bank, Food and Agriculture Organization (FAO) and other support programmes. Conduct market surveys to determine current prices of agricultural inputs and products. Carry out the technical implementation of all agricultural loan schemes. Pest control services. Overseeing the activities of all agriculture related Parastatals and

Companies (www.riverstate.gov.ng).

Agriculture in Nigeria has witnessed drastic changes in government programmes ranging from administration, funding, manpower and learning skills, and infrastructural facilities to creation of research institutes (Madukwe, 2008). The first postcolonial development era of 1962-1968 period emphasized the introduction of more modern agricultural methods through farm settlements, co-operative plantations, supply of improved farm implements and a greatly expanded agricultural extension service. Some specialized development schemes initiated during this period include: the National Accelerated Food Production Programme (NAFPP), 1972; The World Bank-funded Agricultural Development Projects (ADP) 1975; River Basin and Rural Development Authorities (RBDA) 1976; Operation Feed the Nation, 1976; and Green Revolution Programme, 1980; among others (Jibowo & Ajayi, 2011).

Agricultural Development Programme (ADP) was a bilateral agreement between the World Bank and the Federal Government of Nigeria in 1975. ADP idea is an offshoot of the concept of integrated agricultural and rural development (Jibowo, 2005). The objective is to improve the levels of living and welfare of farmers. It started as an enclave in some states to a multi-stage ADP. The ADP is the implementation organ of the state ministries of agriculture and natural resources (Jibowo and Ajayi, 2011). ADP programmes consist of adaptive research, extension transfer, input supply and rural infrastructure.

Operation Feed the Nation (OFN) (1975) was designed to mobilize the general public into participating in agricultural production using mass and individual extension methods (Iwuchukwu and Igbokwe, 2012). Some of these strategies included subsidized production inputs, increased bank credit to farmers, establishment of commodity boards and fixing of attractive prices for agricultural produce (Daneji, 2011). Its main aim was to greatly reduce the cost of living particularly in the urban areas with everybody being able to wholly or partly feed himself (Adebayo and Okuneye, 2011).

River Basin and Rural Development Authorities (RBDA) was launched in 1976. Primarily, the schemes were to harness the country's water resources by providing employment opportunities through intensified crop, livestock and fisheries production with the hope of improving the standard of living of the rural population (Williams, 1981). Their functions were to facilitate land development and ensure efficient water resource management. Even though the project has succeeded several regimes, irrigated land in Nigeria stood at 0.7% (Adebayo and Okuneye, 2011).

The Directorate of Foods, Road and Rural Infrastructure (DFRRI) was established in 1987 with a mandate to open the rural areas through the construction of access roads, and provision of basic amenities of modern living but due to the following reasons, the programme was not sustainable: The programme was inevitable because it has long been realized according to Otubanjo (1992) that the economic future of Nigeria depends on the development of rural areas. Therefore, the potentials of rural areas were seen to be both immediate and long term (Daneji, 2011). The idea of opening up of rural areas with feeder roads and integrating it with other parts of the country provided basis for food that could be evacuated to enhance the quantity of food and raw materials consumption. During the period of 1980-1988, 30,000 km roads were constructed from the targeted 60,000 km estimated by DFRRI. The poor quality of infrastructures provided by the directorate probably due to mismanagement of fund made the impact of the programme almost insignificant. However, the directorate had been criticized in the past for lack of proper focus and programme accountability (Idachaba, 1988).

National Poverty Eradication Programme (NAPEP) (1999) mode of operation is tailored towards (subsidized) credit to farmers. The programme consists of four schemes namely, youth empowerment scheme which involves capacity acquisition, mandatory attachment, and credit delivery; Rural infrastructures development scheme which involves the provision of portable water, rural electrification, transportation and communication development; Social welfare Services Scheme which is involved with

qualitative education, primary health care, farmers empowerment and provision of social services, provision of agricultural input and credit delivery to rural farmers; and Natural Resources Development and Conservation Scheme which contains programmes for environmental protection through conservation of land and space, development of agricultural resources, solid minerals and waters resources.

National Fadama Development programme (1999) is aimed at increasing income of beneficiaries by at least 20%. It is a major instrument for achieving the government's poverty reduction objective in rural areas of Nigeria. The programme empowers the association with resources, training, and technical assistance support to properly manage and control the resources for their own development.

Apart from those initiated by federal government and implemented in the state, there were some programmes and projects initiated by Anambra state government which include; Grain Production Agency 1991; Poverty Alleviation Programme 2002; Volunteer Service Agency (VSA) 1991; Anambra State Tractor Hiring Company (ASTRAC) 1991; Small Holder Management Unit 1991; State Agricultural Credit Scheme (SACS) 1991; State Loan Implementation Committee (SIC) 2006; National Programme for Food Security (NPFS) 2007. However, the scope of activities in various programmes mentioned among others, are similarly implemented in areas of policies, funding, manpower training, recruitment and that forms the essence of the problem of this research.

TRENDS IN THE ACTIVITIES OF THE MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT ANAMBRA STATE

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