

# COMMUNITY PARTICIPATION IN FOREST REGENERATION FOR ENVIRONMENTAL SUSTENANCE

*Amadi D.C.A.; Dishan E.E. and Jatau D.F.*

## Abstract

This paper reviews the present level of community participation in forest regeneration as a step towards rural development in Adamawa State. Taking cognizance of the low level of the present government's commitment to forest regeneration, degradation and desert encroachment through tree planting as a means of sustaining the environment for rural development.

However, the role of the government in mobilizing the populace towards this goal cannot be overemphasized. New emerging approaches to participatory forest management need to be considered considering that Adamawa State is characterized by harsh environmental conditions. Successful public participation in forest regeneration will not only change the microclimate of the state, but will also boost the availability of wood and wood product which are in high demand and stabilize the rural population for the much desired rural development.

## Introduction

These presence of very few private forest plantations and woodlots across Adamawa State reveals unexplored and poor public participation in forest regeneration and management in the state. It is disturbing that forest regeneration pace by government agencies had tremendously declined over the years against the high rate of exploitation of trees for fuel, poles and construction materials (Tables 1 and 2). This has noticeably resulted in drastic shrinkage of forest resources in the state accompanied by serious environmental degradation.

True developments include the ability of the present population to satisfy their needs without compromising the ability of the future generation to meet their own needs. This then calls for serious concern on the inability of government to invest in forest regeneration programmes and views as important to community participation in forest restocking as the only immediate alternative and insurance for a healthy environmental tomorrow and sustainable rural development, presently, the only notable private forest plantation in the state is the Lamido Plantations consisting of mainly Eucalyptus Species of about 124km<sup>2</sup> located in Yola South Local Government Area.

Table 1: Plantation Establishment in Adamawa State 1990- 1993

| Year         | Size of plantain Established(KM2) |
|--------------|-----------------------------------|
| 1990         | 204                               |
| 1991         | 207.09                            |
| 1992         | 186                               |
| 1993         | 140                               |
| <b>Total</b> | <b>737</b>                        |

Source: Jatau and Amadi

Table 2 Forest Plantations and their Stockings in Adamawa State

| Name of Plantation<br>Location | Area (Ha); | Year Established | Species Composition  |
|--------------------------------|------------|------------------|--|
| Sebore Yola South              | 1.62       | 1969             | <i>Eucalyptus spp</i>  |
| Namtari “                      | 99.33      | 1960             | <i>Eucalyptus spp</i>  |
| Yola CFA “                     | 3.03       | 1961             | <i>Dalbergia sissor</i>                                      |
| Furai - Demsa                  | 18.11      | 1965             | <i>Gmelina/Eucaptus</i>                                      |
| Imbru - Numan                  | 28.08      | 1969             | <i>Dalbergia/Azadirachta</i><br><i>Indica</i>                |
| Demsa                          | 39.4       | 1969             | <i>Cassia/Eucalptus</i>                                      |
| Toungo                         | 2.02       | 1969             | <i>Dalbergia Gmelina arborea</i>                             |
| Digil - Mubi North             | 3.66       | 1969             | <i>Eucalyptus spp</i>  |
| Baza - Michika                 | 49.29      | 1970             | <i>Azadirachta indica/ Eucalyptus spp</i>                    |
| Mugulba Mubi South             | 29.21      | 1970             | <i>Eucalyptus spp</i>  |
| layo Belwa                     | 34.94      | 1970             | <i>Eucalyptus spp</i>  |
| Bilkire Mayo Belwa             | 128.14     | 1972             | <i>Eucalyptus spp</i>  |
| Mbulu Jada                     | 4.86       | 1973             | <i>Eucalyptus /Gmelina arborea</i>                           |
| Lamurde                        | 18.47      | 1973             | <i>Eucalyptus spp/ Azadirachta indica</i>                    |
| Song                           | 25.09      | 1974             | <i>Azadirachta indica</i>                                    |
| Kurmi Mararaba                 | 26.05      | 1975             | <i>Azadirachta indica</i>                                    |
| Bodda - Jada                   | 7.7        | 1975             | <i>Gmelina, arborea Cassia spp,</i><br><i>Eucalyptus spp</i> |
| Kona - Biyu                    | 2.02       | 1975             | <i>Eucalytus spp</i>   |
| Gombi                          | 52.8       | 1976             | <i>Azadirachta indica, Eucalytus spp</i>                     |

Source: Jatau and Amadi 2003.

### The Concept of Participation

According to Butchy and Hoverrma (2002), most literature concerned with participatory natural resource management stems from developing countries. While various countries have tried out different models, participatory forest regeneration for environmental sustenance should ensure that the people have greater control of regeneration, management and exploitation of forest resources and at the same time increase the awareness of collective responsibility within the community for forest development, here participation refers to equal responsibility in decision-making process and power to determine the outcome and decisions (Pateman 1970). In other words, this means to give the rural communities the opportunity to contribute their input to natural resource policy formulation and implementation for their benefit and improved living standards.

Power plays a central role in participatory process. In Adamawa State, for example the case with which fuelwood and other forest products are exploited is an indicator that the state forest development authority has tactfully relinquished her power over forest resources control; contrary to Snowdown and Slee (1996) who observed that forestry agencies are reluctant to relinquish their control over the resource. This situation will encourage participation in the state. Hence, Warburton (1997) maintain that participation is a positive and welcome change, delivering efficiency and effectiveness with little (if any) drawbacks. In participation, communities and individual acknowledge being taken into account, feel a sense of ownership, and hence will be more ready to bear costs, (Rahman1993). Moreover, Pretty (1995) had stated that the greater the control by outsider agencies, the less local communities tend to be involved

### Community Participation in forest Regeneration for Environmental Sustenance

at critical decision making. On the other hand, increase in the involvement of local communities change the nature of their role from being subjects to directors in the process of forest development. Therefore, Adamawa State government can encourage local government councils who will in turn encourage their communities to promote community forest development at each level for both climatic amelioration and the harvest of wood products for rural development achievement.

However, consultations where people's opinions are sought before the preparation of any new project should be made to enable incorporation of the local opinions on the design and implementation of the project. This is important because as different people get involved in consultations, discussions and negotiations, they start to know, understand each other and some level of trust is established, thereby fostering harmony among people. For instance, Taconi *et al* (1998) reported that after six years of participatory forest project in Sri-Lanka, one of the major positive outcomes commented upon by all parties was the improved relationship between the forestry staff and the wider communities.

In Ghana, timber industry (which has been the country's third largest export behind cocoa and gold) had virtually collapsed during the 1970's and early 1980's under the burden of economic recession. However, in the period of 1983 -86, the World Bank and United Kingdom government provided more than \$42 million to private-sector companies in Ghana. The problem encountered in the utilization of the loan forced the government during the early 1990's to turn their attention to building the capacity of the forest service. In Ghanaian law today, timber is recognized as the property of the chief who exercises authority over the land. Farmers have no right to sell trees on the land, and receive no royalty from the exploitation of timber. Instead, timber royalties are divided between paramount chiefs, local chiefs and district councils. Hence, the adoption of participatory forest management in Ghana was a response to the problem of regulating farmland.

Cameroon was one of the fastest growing economies in Africa between 1960s and 1970s with exports from cocoa, coffee, cotton, aluminum and petroleum. Poor management and unfavourable international trade relations however led to budgetary crisis, forcing the country to accept Structural Adjustment Programme (SAP) in 1988. The World Bank targeted forestry sector reform as a criterion for good governance in Cameroon and as a condition for disbursement of SAP loans. In 1994, a draft Forestry Law was introduced. This law made provisions for local communities to acquire exclusive rights to management of up to 5,000 hectares as community forests and to gain revenues from logging these forests.

In Adamawa State, which is characterized by indiscriminate and uncontrolled exploitation of trees, the participatory approach to forest regeneration and management for sustainable environmental and rural development as practices in Ghana is being recommended as necessary and preferable due to the realization that other approaches used in the recent past have failed to deliver. This is very clear in development literature where examples of failed development projects, misused resources and disillusioned communities abound, (Rahman, 1993; Warburton, 1997 and Chambers, 1997).

### **Peoples Empowerment for Participatory Forest Development**

The empowerment of the grassroots is a pre-requisite in participatory forest project. Empowerment here means equipping the grassroots with the resources, tools and skills for forest regeneration. However, empowerment can also mean that power is decentralized making people have more effective say in running their affairs. Chamber (1997) also referred to empowerment as a state of mind through which people engage in a learning process, increase their self-esteem, confidence and are better able to use their own resources. Hence, for a successful public forest regeneration programme, state, local government and community forest nurseries are to be established for steady supply of subsidized seedlings. When seedlings are readily available and are within reach, people will readily be involved in tree planting than when they are asked to travel long distances to procure seedlings.

Secondly each community could be asked to select few individuals who are to receive training in Silvicultural practices, nursery technology and tree-planting techniques, who will in turn act as extension agents to their communities, while the protection and utilization of the local forest is also fully vested in the local people, for sustainable utilization and rural development.

### **Strategy for Implementation**

First, an enabling law should be put in place, either at local or state or at national level, which will clearly define responsibilities and interests. The government should also provide the basic infrastructures that will encourage the communities to take up their responsibilities.

Benefits of good ideas and projects will be lost if there is a mistake between the theory and implementation. Since the government may undertake the initial mobilization of the grassroots, Government staff involved in implementation should be paid appropriately for the extended and usual hours of work to sustain their morale. In addition, selected local government staff should be trained to handle and maintain regenerated forestry projects. It is also important to identify the obvious potential stakeholders without ruling out any group. In all the processes, selection must be open and transparent.

### **Benefits of Community Participation in Forest Regeneration**

Foresters in the past being wedded to conservation, confined themselves traditionally to the officially gazetted forest boundaries, little realizing that such an attitude was not only inadequate in the fast changing environment, but was also counter productive in the long run for rural development purposes. In addition, the training and research programmes designed over a century ago underwent little changes. This is largely because forestry being mainly in the public sector has been the preserve of foresters only. The public, the administrators, the planners and the economists took little interest in the development of forestry. Thus, there was no exposure of the forestry sector to the environment outside (Shah 1996).

Even where forests were managed, the management was largely for the production of industrial wood. There was hardly any conscious management design for meeting exclusively or even substantially, the day-to-day needs of tire rural people. It has however become obvious that farms need trees for protection against wind and water erosion, roads need avenues for shade and beauty, canal banks need trees for reducing evaporation losses, rural area need village forests for meeting their needs for fuel wood, fodder, construction and hunting materials, etc. Urban areas need trees for abating noise and air pollution as well as for beautification and recreation, industrial estates need trees for pollution control, schools, colleges; hospitals, office compounds etc. need trees for education, aesthetics, climate amelioration and salubrious purposes. Shah (1996), aptly put it that forestry has a place everywhere. Think of any situation and there is always a place for trees. There cannot be excess of trees in this country. Thus growing trees on farmlands, community waste lands, roads, canals, railway sides any other land set aside for similar purposes is necessary. Hence, forestry in whatever form practiced; social forestry, environmental forestry, community forestry, rural forestry or people's forestry-involve the people (Society or Community) individually or collectively for creation, management, maintenance, protection and utilization of forest for their mutual benefits and rural development (Gerald and Geoffrey 1984). Forest regeneration in the rural areas can be conveniently classified under social or environment forestry and its aim is to help solve the society's own wood supply problems and preserve the environment in which they live by planting trees on their farms and around their villages, homes etc. and this is the primary aim of most rural development projects. The objectives of an environmental forest programme will thus include production, rural development and ecological management depending on the mode of practice. These modes of practice include:

- Road Sides, Railway and Canal/banks Forestry
- Farm Forestry
- Rural Forestry
- Urban Forestry .
- Community Forestry etc. (Shah 1996)

Benefits derivable from the practice of environmental forestry are many and vary from one form of practice to another (Peace, 1984). The practice of rural or community forestry has among its benefits the production of poles, fuel wood fodder and climate amelioration.

Participatory Forestry Regeneration System (PFRS) is best suited for the populace of Adamawa state because it is multipurpose in problem solving. Apart from encouraging tree planting, it will also to a large extent ameliorate the persistent harsh climatic conditions, stabilize the ecosystem as well as provide the much needed wood and other wood products / services for rural development. Some of these benefits and services include shades, amenity forests, erosion control, air purification, fruit and nuts, mulch, firewood (which is in high demand and provides avenues for employment as dealers), wind breaks, fencing poles and-income supplement (Fred, 1977).

Suitable species are abundant which include already thriving exotic species as *Azadirachta indica*,

### Community Participation in forest Regeneration for Environmental Sustenance

*Gmelina arborea*, *Senna siamea*, and *Eucalyptus species*. A number of local tree species considered to be extremely useful to the local population can also be utilized for the purpose of participatory forest regeneration. These include *Prosopis africana*, *Parkia biglobosa*, *Acacia species*, *Adansonia digitata*, *Anacardium occidentale*, *Anogeissus leiocarpus*, *Balanite aegyptiaca*, *Borassus aethiopum*, *Vitellaria paradoxa*, and *Tamarindus indica* etc.

### **Conclusion**

This paper has stressed that rural stakeholders can enhance development through participation forest regeneration here is considered as both a means to an end as well as a management tool. Managers of forestry projects must not ignore the fact that issues of power of control, representation and social change have to be either addressed or at least anticipated by the process put in place before meaningful achievement could be recorded, (Buchy and Hoverman, 2002).

### **References:**

- Buchy, M and Hoverman, S.L.S. (2000). Understanding Public Participatory in Forest Planning: A Review. *Forest Policy and Economics* Vol. 1 of 2000 New York EL Sevier.
- Chambers, R. (1997). Whose Reality Count? Putting the Last First. London: *Intermediate Technology*. Pp 4 - 10.
- Fred, R.W.(1977). Reforestation in Arid Lands. *Volunteers I Technical Assistance, U.S.A* pp 34 -49.
- Gerald, F. and Geoffrey, B. (1984). *Farmers and Community Forestry*. Teach Re No.3 Energy International Institute for Environment and Development Earthscan. Pp 16-21.
- Jatau, D.F. and Amadi, D. C.A. (2003).. An Appraisal of Forestry Resource Management Options in Adamawa State. *Nigeria Journal of Tropical Agricultural*, Vol.5 2003 pp 29 - 36.
- Pateman, C. (1970) *Participation and Democratic Theory*. Cambridge University Press. Cambridge, pp 5-7.
- Peace, C. (1984). Agro forestry. *Service Training Manual*. Peace Corps Information Collection and Exchange. Training Manual T.016 U.S.A pp 22- 27.
- Pretty, J. (1993). *Regeneration Agriculture. Policy and Practice for Sustainability and Self Reliance*. Washington National Academy London. Pp 9-11.
- Rahman, A. (1993). *People's Self Development. Perspectives on Participatory Action*. Research London Zed Publications. Pp 23-31.
- Shah, S. A. (1996). *Forestry for People*. Indian Council of Agricultural Research Krishi Anusandhan Bhavan, Pusa, New Delhi pp 29.
- Snowdon, P. and Slee, B. (1996). Community Based Action. *Forest Management*. Paper Present' the Rural Economy and Society Study Group Annual conference Bangur, U.K. p31.
- Tecconi, L., Buchy, M. and Gamini, H. (1998). *Review of the Participatory Forest Project Sri-Lanka and Project Identification in the Forestry Sector*. A Mission Report for AUSAID, November. Pp 4-7.
- Warburton, D. (1997). *Participatory Action in the Countryside*. A Literature review, Countryside Commission. Pp4 -11.