

**Journal of
Geography, Environment
& Planning**

ISSN: 1595 - 4373



Volume 6, No. 1, March, 2010

Copyright © The Department of Geography and planning Science,
Faculty of the Social Sciences,
University of Ado-Ekiti, Ekiti State, Nigeria.

Journal of Geography, Environment and Planning
(JOGEP)

Volume 6. No. 1 March, 2010.

ISSN:- 1595 - 4373

Editorial

Editor-in-Chief

Prof. Afolabi, F.I.
Dept of Geography and Planning Science
University of Ado-Ekiti,
Ekiti State, Nigeria.

Managing Editor

Dr. Ogundele, J.A.
Dept of Geography and Planning Science
University of Ado-Ekiti,
Ekiti State, Nigeria.

Editorial Advisers

Prof. Bola Ayeni
Department of Geography
University of Ibadan, Nigeria

Prof. Samuel Akin Aguda
Department of Geography
Obafemi Awolowo University (OAU)
Ile-Ife

Prof. Richard Akanni
Department of Geography
University of California,
Los Angeles, C'A 90024
LK 01 U.S.A.

Printed by

Graams Prints

7A, Mushin, Lagos.

TABLE OF CONTENTS

URBAN TENANTS' PERCEPTION OF NEIGHBOURHOOD SECURITY AND THE IMPLICATIONS ON RENTAL VALUES OF RESIDENTIAL PROPERTIES IN MINNA, NIGERIA	1-7
Namiso B. Udoekanem, <i>Department of Estate Management, Federal University of Technology, Minna, Niger State, Nigeria</i>	
CLIMATE CHANGE & WATER RESOURCES MANAGEMENT IN THE CHAD BASIN	8-12
Peter Eje Adakayi <i>Department of Geography and Environmental Management, Faculty of Social Science, University of Abuja.</i>	
PARTICIPATORY RURAL APPRAISAL: POTENTIAL APPLICATIONS IN LOCAL FIELDWORKS AND RURAL DEVELOPMENT STUDIES	13-24
Olawepo, R.A. & Tunde A.M. <i>Department of Geography, University of Ilorin, Nigeria</i>	
OPPORTUNITIES & THREATS OF TOURISM INDUSTRY TO BIODIVERSITY CONSERVATION IN DEVELOPING COUNTRIES	25-30
Bola Olusola Adeleke, <i>Department of Transport and Tourism Studies, College of Management Sciences, Redeemer's University, Redemption City, Ogun State, Nigeria</i>	
SPATIAL STRUCTURE OF HOUSING QUALITY IN ILORIN, NIGERIA	31-40
A.J. Aderamo & D.F. Ayobolu, <i>Department of Geography, University of Ilorin, Ilorin, Nigeria</i>	
ENVIRONMENTAL AUDITING OF SELECTED PETROL STATIONS IN OJO LOCAL GOVERNMENT AREA, LAGOS STATE	41-49
Leke Oduwaye & Olayinka O. Agunloye <i>Department of Urban and Regional Planning, University of Lagos, Akoka, Yaba, Lagos State, Nigeria.</i>	
AN EVALUATION OF ENTROPY MAXIMIZATION MODEL IN ESTIMATING THE QUANTITY OF HOUSEHOLD WATER SUPPLY AND UTILIZATION IN IKERE-EKITI, SOUTHWESTERN NIGERIA	53-54
Olatunji, A.J. <i>Department Of Geography and Planning Science, University Of Ado-Ekiti, Ekiti State, Nigeria.</i>	
THE STRUCTURAL CHARACTERISTICS AND LINKAGE PATTERNS AMONGST WOOD-BASED INDUSTRIES IN AKURE, ONDO STATE, NIGERIA	55-65
Fagbohunka, A., and Fatusin, A.F. - <i>Geography and Planning Sciences Department, Adekunle Ajasin University, Akungba-Akoko, Ondo State, Nigeria.</i> G.A. Adetula - <i>Psychology Department, Adekunle Ajasin University, Akungba-Akoko,</i>	
CULTURAL TOURISM: A SUSTAINABLE DEVELOPMENT STRATEGY FOR NIGERIA RURAL AREAS	66-72
Aina Olayinka Christopher, <i>Department of Transport and Tourism Studies, Redeemer's University, Redemption City, Ogun State,</i>	Babatola Olatunji, <i>Department of Geography, University of Lagos</i>
CULTURAL FESTIVAL IN EKITI STATE: PROSPECTS AND CHALLENGES ON TOURISM DEVELOPMENT, A STUDY OF ADO EKITI	73-75
Kolawole G.T., <i>Department of Leisure and Tourism, Federal College of Wildlife Management, New Bussa, Niger State.</i>	Adebayo W.O <i>Department of Geography and Planning Science, University of Ado-Ekiti, Ekiti State, Nigeria.</i>
A DECADE OF PHYSICAL PLANNING ACTIVITIES AND THE FUTURE CHALLENGES IN EKITI STATE	

PARTICIPATORY RURAL APPRAISAL: POTENTIAL APPLICATIONS IN LOCAL FIELDWORKS AND RURAL DEVELOPMENT STUDIES

Olawepo, R. A. and Tunde .A.M.*

ABSTRACT

Over the last few years, there has been an explosion of interest in participatory methodologies as a planning option and as a method of data collection strategy. This has been supported by the realization that involving people more actively in setting priorities and determining needs can make a difference in fieldwork and Rural Development studies. Participatory Rural Appraisal is presented here as a strategy that has potentials over other forms of data collection strategies. It is not only a data collection strategy but also a form of planning strategy wherein the local people are recognized in every stage of action. The advantages are numerous but not without its short comings. This paper describes further, the potentials of farmers in identification of farm problems in Afon District in Kwara State, using Participatory Rural Appraisal as a tool of change among them. The results showed that farmers are aware of their local environment. This has also proved that through participatory strategies, participants can be drawn together to teach and lead outsiders in the ways of their daily life pattern as a method of data gathering and proffering solutions to problems within their local environments.

Key words: Participation, Development, Appraisal, Learning, Reversals, Planners.

INTRODUCTION

Modern geographic researches rely on various sources of information in order to generate reliable data. These sources range from published information from various outlets to gathering of first hand information through field work and local survey, often referred to as primary sources. One of the main criteria of any geographic researches is the ability of the researcher to collect and collate reliable data for necessary generalization. However, the reliability of such research findings depends on the quality of data collection as well as the procedure adopted by the researcher.

One of the most widely used options in the past in developing planning strategies and researches is the compilation of data through questionnaire administration, but as good as the option is, it is not without its problems as observed in double counting of facts, unreliability of data, incompetence of experts and leading answers in many occasions. Chambers (1994:1443) reiterated that the suitability of large questionnaire surveys as mode of investigations is not difficult to explain. Academics, officials, researchers, consultants and donors find in them a common language and understanding. It is also evident that questionnaires are only a single, peculiarly fallible, method; in their application, both local people and enumerators tend to be poorly motivated, and complex casualty can be put dimly discerned.

Apart from this, there has been various research and planning methods often used in field works and rural geographic researches. Such methods are laudable and found useful in generating data in the social sciences. They include:

- (i) Information gathering through rhetorical questioning and oral interview.
- (ii) Physical measurements through field work experimentation and on the field assessment.
- (iii) Pilot survey of existing problem through direct visitation, observation, and on the field data collation by doing it yourself approach.
- (iv) Data collection, analysis and interpretation from published works and secondary sources.
- (v) Laboratory Experimentation and control experiments; and
- (vi) Land survey and measurement.

All these are good on their entirety in the development of procedure and analysis in rural researches and fieldworks. The contention is this: the rural geographer should interact with the rural people in order to obtain more acceptable and reliable data and results. One of the means to attaining this is on the application of methodologies that would allow for effective participation. In the same vein, Chambers (1994b) indicated that the past decade has witnessed more shifts in the rhetoric of

rural development than its practice. These shifts include the now familiar reversals from top-down to bottom up, from centralized standardization to local diversity, and from blue print to learning process of the

The move here is away from extractive questionnaire and towards new approaches and outside methods for participatory appraisals and analysis in which one of the activities previously carried out and liveli by local or rural people themselves.

This has thus led planners and researchers to put on trial different 'participatory methodologies' to gather data as well as planning strategies (Binns 1995, Chambers, 1999, and Olawepo 1999, 2009). One of the means to attaining this is in the application of methodologies that people would allow for participation. They are generally referred to as Participatory Research and project Approaches. In the 90s, there was the development of a participatory idea through the focus on parti different disciplines for participatory research and development. Such idea and plan of action is tech referred to as Participatory Learning and Action (PLA). liveli

According to International Institute for Environment and Development (IIED) (1999), Participatory Learning and Action (PLA) is an umbrella term for a wide range of similar approaches and their methodologies, including Participatory Rural Appraisal (PRA), Participatory Learning Method idea (PALM), Participatory Action Research, (PAR), Farming Systems Research (FRS), Method Active de find Recherché et de Plantification (MARP) and many others. The common theme to all these approaches is the participation of people in the process of learning about their needs, capabilities,, visions, and in and the action to address them IIED, 1999:2). flex

The aim of this paper is two folds; firstly it is to explore the 'goodness and advantages' of dec Participatory Rural Appraisal (PRA) techniques over other forms of planning and data collecting fun strategies. Secondly, it is to discuss the potential applications of PRA in local field works and rele highlight the salient application and findings from an experimental study using the techniques in a agr rural Nigerian environment. live

PARTICIPATORY RURAL APPRAISAL: DEVELOPMENT AND FOCUS

It is on record that a growing awareness of the failures of conventional development ide approaches in meeting the needs of resource-poor people has led to the exploration of alternative rol methodologies for investigating resource management issues, and planning, implementing and 19 evaluating development activities (IIED, 2000, Olawepo, 2008). Prior to the 80s, the commonest form of development approach was mainly top-down wherein development originates from the planners, (1 government etc and then flows down to the people being planned for. The failure of these methods and other development procedures has led to the development of a broad based approach which (2 allows for participation of the people you are planning for. This also extends to the generation of data (2 about the rural people being planned for.

According to Chambers (1994:953) Participatory Rural Appraisal (PRA) describes a growing (C family of approaches and methods to enable local people to share, enhance, and analyze their knowledge of life and conditions, to plan and act. In another way, it can be defined as methods and (C approaches that allow the rural people to participate in defining, fashioning out, evaluating and implementing of development options that affect them right from the grassroots. This therefore means (C a way of appraising with the rural people, their ways of life and using their ideas to plan with them and for them. The background foundation for such appraisal stems out from the fact that the local people are knowledgeable with local technologies and ways of lives, and with tools to carry out their (C daily living in their own ways.

The more significant principles of Participatory Rural Appraisal (PRA) concerns the (C behaviour and attitudes of outsider facilitators, including not rushing "handing over the stick" and being self-critically aware. The power and popularity of PRA are partly explained by the unexpected analytical abilities of local people when catalyzed by relaxed rapport, and expressed through sequences of participatory and especially visual method. Evidence to date shows high validity and reliability of information shared by local people through PRA compared with data from more traditional methods. This brings in the discovery that the local people have a great capacity to map, model, observe, quantify, estimate, compare, rank, score, and diagram than outsiders have generally supposed them capable of especially on matters relating to their affairs and environment.

Participatory approaches such as PRA offer a creative approach to information sharing, and a challenge to prevailing biases and preconceptions about rural people's knowledge.

The difference between this and other approaches in research and planning is seen in the roles of the outsiders (planners, researchers, NGOs, government agencies, etc) and the rural people. The *outsiders stay as 'learners and facilitators of the local people's ways of life while the people 'teach'* and share their ideas, knowledge of life, technical know-how, conflict resolution, process of livelihood and evaluating capabilities among others.. Thus they fully partake in decision making about their own development.

Three things emanate from these assertions. Firstly, it is a planning strategy, wherein, the people you are planning for effectively participate in the planning, implementation and evaluation of projects affecting their lives. This ranges from *information gathering, choice of action, to discussion*, partnership, implementing and evaluation of research or development projects. Secondly, PRA is a technique of collecting and collating reliable information and data from the rural people about their livelihood and with them effectively and fully involved in information sharing. Thirdly, it is a tool where the local people share their knowledge of livelihood, thus teaching researchers and planners their experiences within their environment. Researchers here will act as facilitators and thus using the idea of the rural people to plan with them and for them could guarantee successful development and findings.

The methods used in PRA approaches range from field based visualization to interviewing and group work. The common theme is the promotion of interactive learning, shared knowledge and flexible yet structured analysis (IIED, 2000:1) Various works sponsored by IIED in the last two decades indicate that these methods have proven valuable for understanding local people of the functional value of resources, processes of agricultural intervention and social and institutional relations. Further more, participatory approaches can bring together different disciplines such as agriculture, geography, health and community development to enable an integrated vision of livelihoods and wellbeing. It also offers opportunities for mobilizing local people for joint action (IIED, 2000:2).

Unlike earlier methodologies, PRA recognizes that indigenous people are capable of identifying and expressing their needs and aspirations themselves and in their own way, such that the role of the researcher is reduced to that of a listener, learner, catalyst and facilitator (Chambers et al, 1987, Chambers 1993, Binns, Hill and Nel 1997, Olawepo, 2008).

A selection of the more useful PRA techniques include:

- (1) Group discussion - this is usually casual or organized brain storming workshop among the local people, they talk about their problems, environment and felt need objects and various solutions.
- (2) Transect Walks - The researcher or planner walks with the people through an area of interest, observing, listening and asking questions from the local people. They can identify various problem areas, structures and findings can be mapped on the field for planning purposes.
- (3) Force Field Analysis - This is a technique, to visually identify and analyze forces affecting a problem situation character, simplicity, suitability for group work and applicability in planning for change makes it a potential tool with wide application in PRA (Kumar 1999).
- (4) Participatory planning, budgeting, implementation and monitoring, in which local people present their own plan, felt needs, budgets and schedules, take action, and monitor and evaluate progress.
- (4) Sequences; the use of methods in sequence- for example participatory mapping leading to the identification of key informants, or analysts, or -leading to sequence ; household list, wealth or well-being, matrix scoring or preference ranking.
- (6) Direct Observation and 'do it Yourself' - Detailed observation and probing questions are asked as the people 'teach' the planners or researchers the way they do their things such as fishing, farming or food preparation as the case may be.
- (7) Matrix Scoring and ranking - A wide range of matrices can be drawn using local materials with opportunities for participants or groups to change their opinions on issues. This is mostly used in taste preferences, satisfaction with a provision or conflict resolution.
- (8) Estimates and quantification: often using local measures, judgments and materials such as seeds, pellets, fruits, stones, or sticks as counters, sometimes combined with participatory maps and models, matrices, card sorting and other methods.

- (9) Participatory Mapping and Modeling, in which local people use the ground, floor or paper to make social, demographic, health etc.

Apart from the above, other techniques include Daily time use analysis, oral histories and ethno-biographies, Livelihood analysis, Key process and participatory planning, budgeting, implementation and monitoring among others.

There are some potential applications of PRA in local fieldworks and rural development researches. Over the last few years, there has been increased attention in participatory methodologies. Thus far, PRA can be used on local fieldwork and rural development researches in the following ways among others, to:

- (i) collect, collate and analyze household surveys and data within the rural environment;
- (ii) map and analyze local resources on the field with the rural people participating;
- (iii) evaluate and monitor rural development projects within a rural environment and with the rural people;
- (iv) develop and implement rural research and projects using the rural peoples, ideas on the field;
- (v) draw with the rural people development stages, conflict resolutions and agenda for socioeconomic development;
- (vi) identify and seek solutions to rural environmental problems on the field;
- (vii) bring together for planning and implementation, the inputs of stakeholders in rural development policies and development;
- (viii) seek rural communities' idea for development and learn from them ways of solving local problems within a specified time frame, and
- (ix) identify with the rural people on the field, their ways of lives, efforts and strategies of production within the local environment for specific problem solving situations.

All these approaches can be adopted directly on the field or during fieldwork exercises, and information gathered can be analyzed with the involvement of the local residents. This in a way makes data gathering secure and more reliable.

THEORIES OF PARTICIPATION AND PRINCIPLES OF PARTICIPATORY RURAL APPRAISAL

There have been various theoretical frameworks for explaining issues of participation. One fundamental dimension of difference between traditional and participatory research is the issue of 'who controls and makes decisions' about this process (Lilja and Ashby, 2000). Biggs (1989) offers a well-known four-tier framework for understanding this range of control. Other typologies of participation that researchers are likely to find useful include those of Arnstein (1969), Pretty (1994) and Ingles et al (1999). Biggs' typology of participation contains four levels in participatory approaches. This ranges from contractual participation, consultative participation, and collaborative participation to collegiate participation, with each explaining the strength of participatory influence.

In contractual participation, one social actor has sole decision making power over most of the decisions taken in an innovation process. Others participate in activities defined by that stakeholder group. Consultative participation on the other hand, sees most of the key decisions as being kept with one stakeholder group, but emphasis is put on consultation and gathering information from others, especially for the identification of constraints and opportunities, priority-setting and/or evaluation. Similarly, in collaborative participation, different actors collaborate and are put on a more equal footing, emphasizing linkage through an exchange of knowledge, different contributions and a sharing of decision making power during the innovation process. In the same vein, collegiate participation sees different actors work together as colleagues or partners. Ownership and responsibility are equally distributed among the partners, and decisions are made by agreement or consensus among all actors. While the first two forms of participation could be linked to the 'old school' of participatory actions which hitherto could fix in with the ageing 'bottom up approach in planning, the last two (collaborative and collegiate) can easily fix in with the principles of participatory methodologies in which PRA is a major player. Here the people you are planning for play major roles and planners or researchers are stakeholders that 'step aside' to learn and receive information from the local residents for effective planning and research purposes.

The theory of Participatory Rural Appraisal and other Participatory approaches according to Lu Xing (2000) is based on assumptions which imply that, given the opportunity, one would participate

in discussions or actions that affect ones' interests. Being concerned with ones' own interests, one also participates in collective initiatives and hopes to achieve gains during the process. The theory further implies that as the subject (not object) of development, development beneficiaries (not others) should make decisions about their own destiny (Olawepo, 2009). Lu Xing (2000:8) indicated further that some regard participatory approaches as a method which is of great use in conducting surveys or assessments. But an increasing number see PRA as a philosophy and an important part of development theory. It is therefore necessary that as the subject of development (not object like other models of data collection) development beneficiaries (not others) should make decisions about their own development.

In essence therefore, participation must be seen as a dynamic process where initiatives are taken by the local population, guided by the local population, guided by its own experience and using the means and resources (institutional and mechanisms) over which it can exercise effectiveness (Olawepo, 2009: 177). Chambers (1994c:961) indicated that most of the known applications of PRA can be separated into four types of processes. These are participatory appraisal and planning, participatory implementation, monitoring and evaluation of programmes, topic investigations and training and orientation for outsiders and villagers.

As put by Chambers (1994c:1254) effective PRA has been found to require practitioners and facilitators to follow basic principles. Mostly adhered to principles of PRA involves a reversal of learning rapidly and progressively, offsetting biases and optimizing tradeoffs. Others are seeking diversity; the rural people do it themselves, self critical awareness, personal responsibility and sharing. Similarly, Busza, et al, (2001) indicated that successive participatory activities rely on community interest and enthusiasm. The key involvement of participants is assumed to demonstrate their consent and the number of activities or rates of attendance often serve as process indicators for forming a project.

In order to attain the purpose of PRA in data collection and planning strategy, it should be noted that stakeholders of PRA need to have proper knowledge of the subject matter before embarking on the use on field work or rural geographic researches. There is therefore the need to follow specific guidelines; such guidelines may include:

- a training programme- to expose the researchers and planners to various methods or approaches of PRA techniques. For example, Nigerian Participatory Rural Appraisal Network (NIPRANET) organized training sessions between 1997-2000 in conjunction with IIED to train researchers and scholars;
- an action fund programme to help facilitators and members to learn action skills in addition to research skills;
- an information exchange programme focusing on meetings and organization of pre-study interactive session before actual fieldwork;
- a systematic review of PRA practitioners' experience with applying and promoting participatory approaches; and,
- publication and co-operation programme to promote members in the development field.

Through these various activities and others, practitioners and researchers will be better equipped to practice and develop procedures for promoting participatory approaches in ways suited to different communities.

THE ADVANTAGES OF PRA AS A DATA GATHERING TECHNIQUE AND RURAL PLANNING PROCEDURE.

Over the last few years, there has been an explosion of interest in Participatory Rural Appraisal methodologies. Various scholars and researchers have demonstrated the use of PRA for fieldworks and rural geographic studies, and found that the method has various advantages over other data gathering techniques. Some these advantages are:

- (i) PRA techniques as participatory process can empower focused group by involving them in decision making process and raise their expectation of information availability for them.
- (ii) PRA can be used to effectively combine quantitative and qualitative approaches to community and rural development as well as in data accumulation and utilization.

- (iii) Through PRA reliable information can easily be collated, analyzed and returned to stakeholders on the field, it is thus seen as a time and cost saving research procedure for social science development.
- (iv) PRA can help to combat social isolation and exclusion through provision of appropriate training opportunities with stakeholders.
- (v) PRA techniques offer a creative approach to information sharing and a challenge to prevailing biases and preconceptions about rural peoples' knowledge.
- (vi) The visual, open and flexible methods and tools in PRA could help researchers access the required information from villagers and check it immediately after thorough discussion. This would not only make such data collected reliable but secure for necessary generalization which will definitely not mislead researchers and planners.
- (vii) Participation in basic PRA training can provide increased self-esteem and confidence; participants would have confidence to lead consultation as relying on professionals and this will enhance commitment in data gathering.
- (viii) The extensive and creative use of local materials and representations encourages visual sharing and avoids imposing external representational conventions.
- (ix) PRA could provide a useful method of user-led consultation as against the conventional approach of 'just asking question and listing on paper' methods of questionnaire administration.
- (x) PRA encourages sharing of knowledge and skills. Additional knowledge that service users have gained through their involvement in various projects can be brought back to share with others, thereby increasing local capacity for change and development.
- (xi) Researchers who have demonstrated the use of Participatory Rural Appraisal in data collection strategies have also showed that it saves time. Most Participatory Rural Appraisal techniques are often used at micro levels of researches involving smaller sampling frames which could be used in making generalizations.

PARTICIPATORY RURAL APPRAISAL: LIMITATIONS AND RISKS

As good as the PRA techniques are, there are lots of limitations, risks and disadvantages. Scholars have pointed to them as guidelines that can be avoided if care is taken. However, they can undermine the suitability and usages of the techniques during fieldworks except proper training ethics are adhered to. Some of these limitations are:

- (i) if the participatory process is not well constructed, PRA can distance the focused group from decision making process. Many times, it is often hijacked by the elites at the expense of the real rural participants.
- (ii) there is also an increased potential of information generated being mis-used, and also it encounters difficulties when stakeholders have differing opinions.
- (iii) the quality of a survey using PRA is highly dependent on the researchers' subject knowledge and levels of facilitators' skills and villagers' skills and knowledge it is therefore opened to user errors.
- (iv) PRA is time consuming and involves high level of input and overhead cost. This is also time and human resources wastage, especially before rural communities are brought together for discussion, high level of facilitator qualification, finance and logistic resources are required.
- (vi) the size of respondents and participants are usually small. This may therefore lead to wrong representation of ideas. Such proportion may not be representative enough for the usually acknowledged generalization.

Despite all these, it should be noted that PRA has been adjudged by researchers and planners as the 'final word' for efficient rural development planning and one of the most reliable source of data collection especially when it involves rural communities. Past studies on the field using Participatory Rural Appraisal showed that only when fieldworkers appeared ready to learn from local residents did they get more in depth information about their environment and development.

FARMERS' POTENTIALS: AN EXPERIMENTAL STUDY USING PRA TECHNIQUES IN AFON DISTRICT, ILORIN, NIGERIA

In order to explain the implicit use of PRA, a mini project was carried on in the last quarter of 2009 to demonstrate the use of some PRA techniques. The farmers' potential project was an attempt to apply methods of Participatory Rural Appraisal (PRA) to assess farmers' ability in identifying and finding solutions to farming problems in a rural setting in Afon, Ilorin, Nigeria. The study took place in four selected farming communities of Odo-ode, Igboaran, Oniyere and Laduba, where farmers farm through out the year. The prominent PRA tools used are brain storming/group discussion, Seasonal calendar, sunburst diagramming and wealth index techniques. These were used to assess farmers' potentials and perception within a farming year. The researchers with four other facilitators visited these communities three times in a week for a period of five weeks. 80 farmers were selected using purposive sampling techniques in selection, with each community giving us 20 farmers. During the brain storming exercises, farmers were brought together in each community to discuss on farming programmes within a farming year, family median income, and constraints to increased food productivity and farming problems. At the end of the discussion sessions, a subset of 20 farmers were brought together (out of the 80 initial farmers) to compare findings and merge their reports to produce a single report.

FINDINGS FROM THE STUDY

(i) Farming Programmes

The group discussion and brain storming sessions showed that farmers in the study area had a wealth of experience. More than 70% of the local farmers have been farming in the area in the last twenty years and thus could say a lot on farming issues. It was further observed that they have adequate knowledge of farming and their environment. A seasonal calendar for a farming season produced by the merged group is presented in Table 1 (see appendix).

Usually, farming season starts in January, when most of the farmers would have started land clearing through bush burning and cutting in preparation for rain and subsequent farming. At this same time, harvesting of irrigated or fadama maize is done. This is supplemented with harvesting of sheer butter and molding till around March of the year when planting of grains especially maize and soya beans, depending on the coming of rain. Other activities on the farm by their periodicity are as shown on Table 1 (see appendix).

(ii) Wealth Index

At times during conventional fieldworks, it is difficult to obtain accurate data on personal incomes and family issues. However during the brain storming session at Odoode, local farmers participated freely to give information on their family income, assets and expenditures. A sort of wealth ranking procedure was adopted and Table 2 (see appendix) shows several information relating an average farmer's wealth index. In order to assess the level of incomes, the gross sales from previous agricultural years and farmers income by settlement were collated. Income generally is low from agricultural production as a result of low capital input into production, low level of education, low price level of farm produce, and poor accessibility to credit facilities among others. Farmers' assets are fairly distributed over years; such assets include farm utensils, land, buildings and household materials accumulated overtime. Similarly, expenditure especially on food and labour cost on farm is relatively high. Most of the farmers who participated in our discussion agreed that cost of labour has increased more than 300% in the last five years. This they have attributed to the rather attractive, less strenuous gratuity-oriented benefits which the urban centers offer the farm deserters. The farmers thus have to pay higher for services rendered through hired labour. This has in a way affected income generation overtime and thus pulls a negative impact on farmers' income.

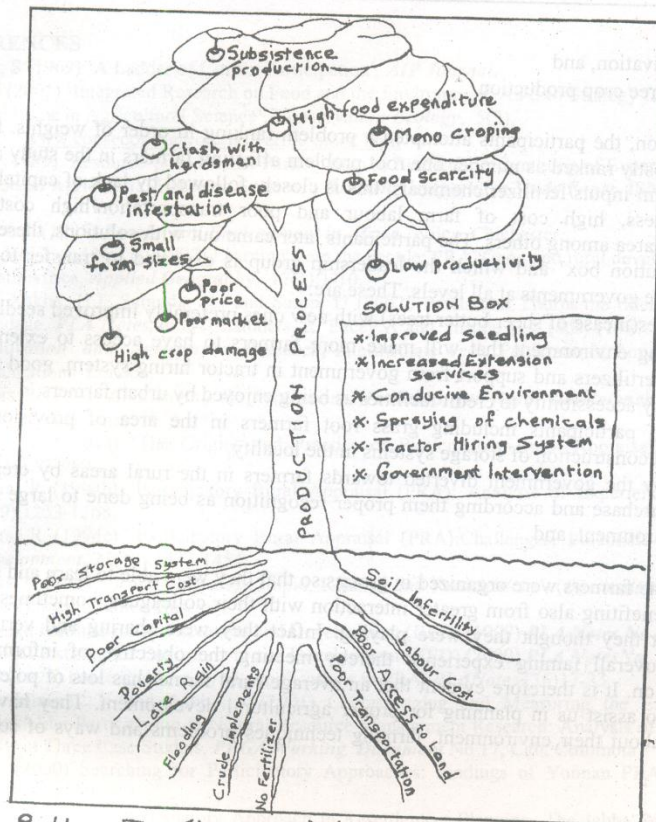
(iii) Farming Problems

When it comes to problems relating to farms, farmers take them seriously especially when they see outsiders who they feel are interested in bailing them out. They are therefore eager to discuss the issues, especially when our facilitators were ready to listen and learn from them. In each of the four communities, our facilitators brought the farmers together to discuss farming problems in a way they know it best, using an analogy on the farm.

In assessing farmers' potential especially in identifying farm problems, the method of 'Community trait' in PRA was adhered to in order to enable local farmers produce a 'sunburst' diagram depicting the 'problem tree' on the farms with visual expression. A 'Community trait' approach is a method using a common trait or land mark in a community well known to the people to explain specific problem and finding solutions. Such trait could be a river, mountain, a popular animal or local game or even a cultural artifact among others (see Olawepo, 2009). In this study, a popular community trait in Afon district is the Sheer butter Tree. This is the commonest tree in the study areas where farmers' families produce local butter and other medicinal products.

During the brain storming session, farmers were assisted to discuss and visualize problems affecting farmers' productivity and constraints for expanded food productivity in a farming session. Participants in the four communities 'grew 4 problem trees addressing both the "root cause" and "fruits" and relating them to farming related problems. Together with our facilitators and the 'leadership' group at Odoode, the 'problems trees' were restructured to produce a unified tree which represent the opinions of every group. The 'problem tree' in Figure 1 shows that an average farmer can identify and proffer solutions to farming problems. Through a 'sunburst' diagram on cardboard, farmers were able to identify two categories of problems. Category 1- the root cause problems and constraints to food productivity. These are shown as forming the 'roots' of the problem tree, and basically 'under ground' problems. Those identified as forming the 'roots' include

- lack of capital for expanded farming business,
- high cost and poor transportation,
- poor accessibility to farm inputs/fertilizer/chemicals,



Problem Tree (Shea Butter) drawn by Participants during group discussion in Odo-Ode village.

- poor climatic conditions (flooding/late onset of rain /draught)
- crude implements and lack of tractors,
- high cost of labour,
- poor accessibility to land/crude land right policy,
- poor storage facilities and local barn damage,
- soil erosion and poor soil fertility,
- poverty/poor farm income, and
- government neglect/politics and low extension services.

Category 2 problems. These are the fruit problems resulting from the 'root cause' problems. They include;

- high cost of food in local markets,
- high crop damage and wastages during dry/rainy seasons,
- poor markets,
- subsistence production,
- food in security and occasional famine,
- low productivity,
- clashes with herdsmen and nomads,
- pest and disease infestation,
- mono cropping production,
- high expenditure on food

- small acreage cultivation, and
- competition with tree crop production.

After the discussion, the participants attempted a problem ranking in order of weights. It is interesting to note that mostly ranked as number one root problem affecting farmers in the study area is poor accessibility to farm inputs/fertilizer/chemicals, this is closely followed by lack of capital for expanded farming business, high cost of farm labour and poor transportation/high cost of transportation in the rural area among others. The participants later came out with solutions, these are carefully 'kept' in a 'solution box' and which the leadership group is expected to transfer to the 'planning body' mainly the governments at all levels. These are:

- replacing the farm trees (in case of sheer butter trees) with new ones preferably improved seedlings,
- create an enhancing environment that will make more farmers to have access to extension services, chemicals, fertilizers and support from government in tractor hiring system, good road transportation and easy accessibility to credit facilities as being enjoyed by urban farmers,
- the empowerment of participants including grass root farmers in the area of provision of marketing boards and construction of storage systems in the locality,
- increased attention by the government diverted towards farmers in the rural areas by creating direct government purchase and according them proper recognition as being done to large scale farmers in urban environment, and

From this study, the farmers were organized in groups so that they were able to learn and share more enthusiastically, benefiting also from greater interaction with their colleagues; sometimes they enjoyed it so much that they thought they were playing. Infact they were sharing and verifying information related to overall farming experience thereby meeting the objective of information provision and participation. It is therefore evident that an average rural farmer has lots of potentials that can be developed to assist us in planning for proper agricultural development. They have the indigenous knowledge about their environment, farming techniques problems and ways of solving such problems.

CONCLUSION

This work examined the use of Participatory Rural Appraisal as a useful method of data gathering during local fieldworks and rural development researches. This has proved that through participatory strategies, participants can be drawn together to teach and lead outsiders in the ways of their daily life pattern as a means of data gathering and methods of proffering solutions to problems within their local environments. This process also makes data gathered more reliable and secured than other forms of research methodologies. More than eclectic situational style (the humble, learning outsider) than a method, it is distinguished at its best by the use of local graphic representations created by the community that legitimize local knowledge and promote empowerment.

Although the use of PRA itself can cause difficulties: Participatory Rural Appraisal need not be rural, and sometimes is not even participatory as it can distance the focused group from decision making process. Despite its limitations, the concentrated power of formalization of community knowledge through participatory techniques can generate an impressive amount of information in a relatively short space of time, leaving time for more selective structured formal surveys where they are necessary and of value.

A report from an experimental field study indicates some relevant potential applications of PRA. Our experience on the field shows that PRA has been helpful and useful in generating first hand information from local residents through participation. The experience also revealed that field workers' ability to listen and learn from local farmers was a critical factor in collecting in-depth information that could be used rural researches and rural community planning.

REFERENCES

- Arnstein, S (1969) 'A Ladder of Citizen Participation', *AIP Journal*.
- Ashby, J (2001) 'Integrated Research on Food and the Environment: An Exit Strategy from the Rational Food Syndrome in Agricultural Science', *Conservation Ecology*, 5(2), <http://www.consecol.org/vol5/iss2/art20/index.html>
- Biggs, S (1989) 'Resource-poor Farmer Participation in Research: A Synthesis of Experiences from Nine National Agricultural Research Systems', *OFCOR Comparative Study Paper*, ISNAR, The Hague, pp3-37
- Binns T. (ed) (1995) *People and Environment in Africa*. Wiley, Chichester.
- Binns T. Hill T and Nel E. (1997) Learning from the people: PRA, Geog and rural development in the 'new' South Africa, *Applied Geography*, 17(1):1-10.
- Busza, J.,Xakha, H.E.,Saranda, L. and Saron, U (2002) Petals and Thorns:the dilemmas of PLA and Debt bondage, *PLA Notes*,40:8-1Chambers, R. Pacey A and Thrupp L.A (eds) (1987) *Farmer First: Farmer Innovation and Agricultural Research*, Intermediate Tech. Publications, London. Intermediate Tech. Publications, London.
- Chambers R (1993) *Challenging the Professions: Frontiers, for Rural Development*, London: Intermediate Tech Publications.
- Chambers, R (1994a) 'The Origins and Practice of Participatory Rural Appraisal', *World Development*, 22(7):953-969.
- Chambers, R (1994b) 'Participatory Rural Appraisal (PRA): Analysis of Experience' *World Development*, 22(9):1253-1268.
- Chambers, R (1994c) 'Participatory Rural Appraisal (PRA):Challenges, Potentials and Paradigm', *World Development*, 22(10):1437-1454.
- Chambers, R (1999) 'Rural Appraisal: Rapid, Relaxed and Participatory', (*Discussion Paper 311*, Institute of Development Studies, Sussex).
- International Institute for Environment and Development (IIED) (1999) *PLA Notes*,No 36.
- International Institute for Environment and Development (IIED) (2000) *PLA Notes*No 38.
- Kumar S (1999) Force Field Analysis. Applications in PRA, *PLANotes* (36)17-23
- Lilja, N, Johnson, N and Ashby, J (2001) Characterizing and Measuring the Effects of Incorporating Stakeholder Participation in Natural Resource Management Research: Analysis of Research Benefits and Costs in Three Case Studies, *PRGA Working Document* No 17, Cali, Colombia
- Lu, Xing (2000) Searching for Participatory Approaches: Findings of Yunnan PRA Network', *PLANotes* (37):4-8.
- Olawepo R.A (1999) Participatory Approach in Resettlement Planning, The Jebba Scheme Experience, *Geo Studies Forum*. 1(1&2):100-109.
- Olawepo, R.A. (2008) Using Participatory Rural Appraisal to Explore Fishing in Badagry Villages, Nigeria *The Environmentalist*, 28(2):108-122.
- Olawepo, R.A. (2009) 'Participatory Rural Appraisal: A technique to enhance Data security for Rural Development Researches', *Lapai International Journal of Management and Social Sciences*, 2(1):173-187 A. Publication of IBB University, Lapai, Niger State.
- Pretty, J (1994)'Alternative Systems of Inquiry for a Sustainable Agriculture' *IDS Bulletin*, 25:37-48

APPENDIX

Table 1. Farming Activities using seasonal Calendar.

Month	Activities on the Farm	Communal View
January-March	Preparation of land for planting, bush burning, locust bean harvest, harvesting of irrigated or fadama maize, market gardening, weeding in preparation for maize planting	Women are involved in locust bean, early rain is expected
April-June	Stalking of yam, planting of cassava, planting of maize, vegetables, beans guinea corn and groundnuts, fresh maize harvesting and fadama yam harvesting	Men plant and weed while women and children harvest maize and carry them to the market
July-September	Harvesting of new yam, planting of dry season maize, heap making for next season yam, harvesting of sweet potatoes	Women are involved in gari production and molding of local butter
October-November	Planting of yam, harvesting of guinea corn, soya beans, cassava and locust bean, sheer butter nut harvesting, oil palm nut harvesting, molding of local butter	Prices of yam high in all market due to yam seedling purchase, family labour often intensified
December	Yam planting, harvesting of dry maize, cassava and guinea corn, mulching of yam in heaps, stalking preparation using corn stalk for yam, yam flour making and drying, cassava harvesting and removal of yams stored in large heaps and barns	Farmers sell in large quantities farm products, the land is dry most harvesting is done and labour cost is often high

Source: collated by farmers during brainstorming and group discussion.

Table 2. Wealth Index of Farmers.

	Below N10,000	N10,000- N30,000	N30,000- N60,000	N60,000- N100,000	N100,000- N200,000	Above N100,000
Farm Income	4 (5%)	10 (12.5%)	25 (31.25%)	21 (26.25%)	15 (18.75%)	5 (6.25%)
Farmers Asset	1 (1.25%)	4 (5%)	5 (6.25%)	10 (12.25%)	20 (25%)	40 (50%)
Farm input &labour cost	4 (5%)	20 (25%)	40 (50%)	11 (13.75%)	3 (3.75%)	2 (2.5%)
Expenditure on food	-	1 (1.25%)	6 (7.5%)	28 (35%)	42 (52.5%)	3 (3.75%)
Other Expenditures	1 (1.25%)	4 (5%)	10 (12.25%)	40 (50%)	20 (25%)	5 (6.25%)

Note n= 80, and percentages are in parentheses. Source: Combined group discussion on the field, 2009.