### Participatory rural appraisal (PRA) as new method for Research

Morteza Azizi and Ali Rahdar

Damavand Branch, Islamic Azad University, Damavand, Iran E-mail: mortezaazizi49@yahoo.com

**Abstract:** Promising potentials include farmers' own farming systems research, alternatives to questionnaire surveys, monitoring, evaluation and lateral spread by local people, empowerment of the poorer and weaker, and policy review. Changes in personal behavior and attitudes, and in organizational cultures, are implied. PRA parallels and resonates with paradigm shifts in the social and natural sciences, business management, and development thinking, supporting decentralization, local diversity, and personal responsibility. Much of the spread of participatory rural appraisal (PRA) as an emerging family of approaches and methods has been lateral, South-South, through experiential learning and changes in behavior, with different local applications. Rapid spread has made quality assurance a concern, with dangers from "instant fashion", rushing, formalism and ruts. Promising potentials include farmers' own farming systems research, alternatives to questionnaire surveys, monitoring, evaluation and lateral spread by local people, empowerment of the poorer and weaker, and policy review.

[Morteza Azizi and Ali Rahdar. **Participatory rural appraisal (PRA) as new method for Research.** *Academia Arena* 2013;5(4):46-52] (ISSN 1553-992X). http://www.sciencepub.net/academia. 6

**Keywords:** Participatory Rural Appraisal (PRA).

#### **Introduction:**

There exist different methods of data collection and analysis, each with its own strengths and weaknesses. Through time, more appropriate and refined methods have been developed. In the context of development. information regarding communities, their livelihoods, their beliefs, the physical environment in which they live, and their resource endowments need to be gathered and interpreted in a manner that identifies their priorities with a view of developing better understanding of their status and designing appropriate intervention projects directed at resolving their problems. The different ways of data collection and interpretation can be seen under two perspectives(IUCN, 2001): qualitative versus quantitative, and participatory versus top down. While the quantitative methods generate information that can be captured numerically, the qualitative methods generally do not generate specific numbers. Qualitative methods are concerned with exploring meanings, processes, reasons, and explanations(lnglis, 1992).

RRA was criticized for being extractive and highly dependent on expert interpretation. It was thus found useful to replace it with PRA which involves a process of learning from, with and by rural people about rural conditions. PRA shares much with its parent, RRA, but is distinguished from it in practice by correcting two common errors: roles of investigation are reversed; and rushing is replaced by relaxation and rapport. At the heart of all these developments was Robert Chambers, although Paulo Friere has also had strong influence especially in similar developments in education circles (Provention Concertium).

PRA has evolved and spread from beginnings in Ethiopia, India, Kenya, Sudan and elsewhere, and in early 1994 is known to be being quite widely practiced in parts of Bangladesh, Botswana, Ethiopia, francophone West Africa, India, Indonesia, Kenya, Nepal, Nigeria, Pakistan, the Philippines, Sri Lanka, Sudan, Uganda, Vietnam, and Zimbabwe, while starts have been made in at least a score of other countries in Latin America, Africa and Asia. Hundreds of nongovernment organizations (NGOs) have adopted PRA and developed applications, as have a number of government departments. The use of PRA methods is being increasingly explored by students and faculty in universities for research, and by training institutes for fieldwork. Spread appears to be accelerating.

There are six popular techniques/methods that are used to facilitate PRA exercise that enables the community to develop and compile a detailed profile of themselves and their situation.

### • Venn Diagram

Venn Diagrams are drawn to help understand the current formal and informal institutions in the area under study and the nature of relationship between the communities and these existing institutions and structures. The community is led to identify their needs, analyze these needs and assess the **cause and effect** relationship. This process provides an opportunity for the community to arrive at the most pressing or priority need utilizing a logical format and this often culminates into a problems tree(Clayton, 1997).

#### • Time line

This technique describes chronologies of events, listing major remembered events in a village with approximate dates. The process involves elderly people in a village to narrate their life history, summarizing major events and changes that have taken place over a period of time. Major events and political regimes including their significance and influence to the change in the lives of the community over time are recorded. Time line shows a broad movement of different aspects in a village during the community's lifetime(Chambers, 1994).

#### • Time trend

This is a technique where people given an opportunity to account about their past and discuss how things close to them have changed. Issues such as ecological history, changes in land-use, cropping patterns, changes in customs, practices & trends in population, migration, education, health, prices, yields, etc. This technique is more precise in giving indication of change (increase or decrease) about a particular item/activity (KGVK, 1991).

### • Mapping

This is where people use ground, floor or flip charts to map and draw the different aspects of their village e.g. social issues, demographic, resources, health, wealth, literacy, livestock, economic activities, water resources, trees, housing layout etc. This technique portrays the image dwellings in a village(Hollandand and Blackburn, 1998).

## • Transect Walk

This is a systematical walk with the Community members through the village observing, discussing, identifying different forms, local techniques, introduced technologies, seeking their uses, problems, solutions and opportunities. It is done to ensure that the team fully explores the spatial differences in the community, assessing the infrastructure that exists and any possible activities that might be taking place within the village.

# • Matrix

Matrix is a ranking & scoring technique that is used to discover local attitudes and perceptions about a particular resource. This may be about the land use, water conservation measures, seasons, weather conditions, rainfall pattern or rainfall distribution, intensity and efficiency. These are assessed to determine the extent they affect and influence the way of life within the community. This helps to provide a better understanding of constraints and opportunities for possible development interventions. A graph is usually drawn in a matrix format displaying these constraints and opportunities.

Since PRA seeks to assist local people to plan, implement, monitor and evaluate their own action plans, in theory PRA should be used only during the implementation of a project. Since PRA aims at people taking action themselves it is most suited for the community level.

PRA presents a major step forward from RRA. Local people do the analysis and plan for the future. Their own values, needs and priorities are the point of departure. They themselves develop criteria to classify aspects of their life. This not only leads to a better understanding of the situation (for both the in- and the outsiders) and therefore increases the chance for realistic plans, it also generates a much higher commitment of the people to the planned activities (Scrimshaw, 1992).

The many different perspectives on daily reality and the visualisation offer good opportunities to go beyond the most obvious and dominant points of view in the community. The only warning here should be that too much attention to group discussions/-activities might enable some groups to dominate the discussion(Cornwall, 2008).

The methodology is open to modification; everybody can develop new tools and new ways of organising things. This makes PRA applicable in a very wide range of situations. Indeed, it has been used in both rural and urban areas, both in developing countries and industrial countries, in agriculture, in health care and in social programmes. PRA can also be used to collect data; local people are able to generate and/or collect reliable data which they themselves analyze and use for planning(Mukherjee, 1992).

# Steps in participatory planning

PRA has steps of planning:

- 1. Defining the objective of PRA
- 2. Site selection and clearance form local administrative officials. Fro programmed implantation (or) problem solving purpose. For site selection, use-ranking methods with local people and outsiders; then select the sites for intervention(Ekins, 1992).
- 3. Preliminary visit
- Survey team visit
- Extended discussion with local leaders
- Agreement to do a PRA
- Sharing responsibilities with the people
- 4. Data collection
- Local people and survey team collect information
- The data includes:
- Spatial data
- Time related information
- Data on institutions and social structures
- Technical information
- 5. Data analysis
- PRA team spends days organizing information

- Make large charts and tables of trends, maps transects etc
- Compile a list of all the problems mentioned
- Summarized the problems
- 6. Ranking problems
- Present to the community data collected in a large meeting
- Include line department staff DA s etc
- Rank the problems by discussion and voting
- 7. Formulate and rank opportunities
- From discussion groups on the solutions of the problems
- Obtain advise from the technical officers on:
- Feasibility
- Sustainability
- Productivity
- Equity of the solutions
- Rank opportunities
- Set an action plans
- 8. Adoption of action plans
- Look for technical information to develop a comprehensive plan
- Specific expert join PRA team
- Line ministry departments take part in the implementation
- 9. Implementation
- All partners in development contributes to activities as:
- Manpower allocation
- Materials needed
- Time needed
- Funds required(Pretty, 1993)

### PRA are good for:

- Providing basic information in situations where little in known
- Identifying and assessing problems
- Appraising, designing, implementing, monitoring, and evaluation programs and projects
- Getting a better picture of needs and organizations' ability to meet them
- Developing and transferring appropriate technologies
- Appraising emergencies
- Planning projects that are more relevant, restructuring administrations, assisting in decision-making and policy formation
- Generating hypotheses, ruling out inappropriate ones
- Providing guidelines for survey designs and assessing the applicability of their results to other places.
- Fleshing out complementing, interpreting, or giving depth and context to information obtained through other methods.

### 7.5 PRA is not very useful for:

Working in situations in which the problem is not usefully addressed at the local or group level, for

example, in situations where large-scale structural reorganization is necessary (but even then, local views may help to shape the change).

### PREPARATIONS BEFORE THE PRA:

Proper preparations determine the success of PRA for it involves learning-by-doing and depends on team contributions. In addition to selecting the site where PRA is to be conducted and collecting secondary information regarding the specific sites and their neighborhoods, it is necessary to:

- Establish a PRA Team;
- Establish a Kushet PRA Committee:
- Conduct Preliminary Visits to the Community;
- Developing PRA Schedule.

### 1. The PRA Team:

The PRA Team consists five faculty members of the faculty of business and economics.

Note that other member(s) already involved in development activities in or near the specified areas shall be included if found necessary, for in PRA, the Team is expected to have the necessary technical know how in different areas (agriculture, health, education, infrastructure, credit, marketing, culture, etc.). It also needs to have a fair gender composition.

Although every team member should be familiar with all aspects of the PRA, each team member is also designated for specific tasks which are described as follows(NCAER, 1993):

- **a. PRA team leader**: One of the PRA Team members will be designated as a leader in each of the four PRAs. That is one team leader will be assigned for each of the four villages. The team leader will be selected in such a way that four members will alternatively serve as team leaders for each of the four PRAs. The role of the team leader is to(Scoones, 1993):
  - Play the leading role in the formation of the village PRA committee;
  - Ensure that all preparatory work has been done;
  - Make sure that the objectives of each session are achieved;
  - Coordinate preparation of the PRA report;
  - Resolve any problems which may arise;
  - Assign facilitators and note-takers for each session:
  - Organize the reports from the note-taker/s into a coherent whole;
  - Work as the principal editor of that particular PRA report.
- **b. Facilitator**: For each PRA session, one individual should be designated as the lead facilitator (note that the

team leader may also serve as a facilitator in some of the sessions). As a key objective of the PRA is to promote active community participation, the role of the facilitator is very important and includes:

#### **Before the Session:**

- Knowing the contents of their session very well in order that they rarely have to look at the manual for guidance
- Ensuring that the site is well prepared that there are enough places to sit, that there is not too much noise close by, that the area is well shaded, etc.
- Ensuring that the seating arrangement is good

   and that participants can be seated in a circle so that they can see the facilitator, other participants, as well as any flipchart or blackboard which may be used. Important: if participants are not properly seated, have everyone get up and rearrange the meeting place. During the Session
- Ensuring that all participants understand and contribute to the discussions.
  - 1. If one participant is talking too much, thank him/her for his/her comments and ask another opinion;
  - 2. If some participants are not contributing at all, ask them directly what they think;
  - Do not let only one person or a small group of participants dominate the discussions:
  - 4. Pay special attention to women and the poor who may not feel comfortable contributing.
- Ensuring that team members share their ideas only after the community members have provided their own, and that the team members avoid influencing the community's decisions.
- Managing the time available for the session to ensure that all objectives are achieved.
- At the end of the session, thank participants for their contributions and explain to them the next activity(Drummond, 1992).
- **c. Note taker**: Because much information is generated throughout the PRA, the task of taking notes is very important to the program's success. One person shall be assigned as a note-taker for each session. The role of the note taker includes(Uphoff, 1992):
  - Sitting among participants and take notes (it may preferably be done in such a way that the participants are not so aware that someone is taking notes);

- Noting all main discussion points, and paying special attention to the comments of participants concerns:
  - 1. What they feel are problems;
  - 2. What they believe are the causes of these problems;
  - 3. Possible solutions, and especially how the community has solved these problems in the past;
  - 4. Special beliefs, customs and religious practices.
- Asking participants to repeat comments if they are not well understood;
- Assisting the facilitator by reminding if some important things are left out or not properly taken care of;Copying information presented on big paper into a notebook;
- Reviewing the notes with the facilitator to make sure that they are complete and correct;
- Copy the notes to a laptop at the end of each day's work.
- **d.** Technical Resource Persons: Specific team members should be designated to serve as resource persons for key technical areas. If appropriate technical persons are not available with the team, the support of government bureaus or NGOs will be sought(Swift, 1991).

These individuals may serve as facilitators for sessions related to their technical area, or may simply assist the PRA team, the PRA committee or other participants in identifying community problems, causes and possible solutions. Note that even though Technical Resource Persons may have much expertise, they should share their ideas only after community members have discussed their own, and avoid influencing the community's decisions. In addition to focus group discussions, technical persons could be used during transect walk(Appleyard, 1998).

## 2. Preliminary Visits to the Community:

After selecting the specific areas where PRA is to be conducted, the PRA Team (all members need preferably attend) needs to conduct a visit to meet members (local leaders), development workers in the area, government workers, health workers, teachers, and religious leaders with the following duties:

- Introducing the PRA approach to local administrators and community leaders and explaining the objectives of the PRA;
- Explaining the contents and schedule of the PRA program;
- Requesting that a Village PRA Committee be established;

- Deciding on the dates for the PRA;
- Making necessary logistical arrangements, including:
  - 1. Identifying sites to conduct large and small group meetings;
  - 2. Discussing lodging arrangements for the PRA Team (if the PRA team decides to stay in the area during the PRA work).

#### **CONCLUSION:**

The main objectives of the current PRA are:

- 1. empowerment of rural communities by assisting them to systematically utilize their local knowledge to identify problems and strengths, develop skills of analysis, and design appropriate mechanisms for intervention by themselves and/or by development agents;
- 2. advancement of understanding by academicians/researchers of local knowledge and acknowledgement of the capacity of communities to gather data, conduct analysis, and identify as well as prioritize problems and solutions;
- 3. utilization of the research questions/problems identified during the PRAs for further investigation;
- 4. documenting and presenting the outcomes of the PRAs to development agents (governmental and non-governmental) and other stakeholders so that they could undertake interventions in line with the findings.

PRA consists of a series of participatory exercises which help community members better assess their history, resources, and overall situation as concerns agriculture, health, marketing, credit, coping mechanisms, education, and other important areas. During the conduct of the PRAs, rural communities in the selected villages will gather information on the resources they already possess; organize their knowledge; share experience among themselves; learn from each other; identify and prioritize local development needs; and develop action plans which respond to these needs.

The many different perspectives on daily reality and the visualisation offer good opportunities to go beyond the most obvious and dominant points of view in the community. The only warning here should be that too much attention to group discussions/ activities might enable some groups to dominate the discussion. The methodology is open to modification; everybody can develop new tools and new ways of organising things. This makes PRA applicable in a very wide range of situations. Indeed, it has been used in both rural and urban areas, both in developing countries and industrial countries, in agriculture, in health care and in social programmes. PRA can also be used to collect data; local people are able to generate and/or collect reliable data which they themselves analyze and use for planning.

#### References:

- 1. Chambers Robert, Notes for Participants in PRA/PLA Familiarization Workshop in 2004.
- 2. Clayton, A., P. Oakley and B. Pratt. Empowering People A Guide to Participation. UNDP, 1997.
- 3. Cornwall, A. Making a difference? Gender and participatory development. IDS discussion paper 378, 2008.
- 4. Drummond, and Nontokozo Nabane, "The use of indigenous trees in Mhondoro District" (Harare: Centre for Applied Social Sciences, June 1992).
- 5. Dunn, A. M., "New challenges for extensionists: Targeting complex problems and issues," Paper for the 10<sup>th</sup> European Seminar on Extension Education, Universidade de Tras-os-Montese Alto Douro (Vila Real, Portugal: September 1991).
- 6. Ekins, P., Wealth Beyond Measure: An Atlas of New Economics (London: Gaia Books, 1992).
- 7. Gibson, Tony, "Planning for real: The approach of the Neighbourhood Initiatives Foundation in the UK," RRA Notes, No. 11 (1991) pp. 29-30.
- 8. Hahn, H., Apprendre avec les yeu, s'exprimer avec les mains: des paysarts .se, fiument ir la gestion du terroir (Switzerland: AGRECOL. Oekorentrum, Langenbruck, 1991).
- 9. Holland, J. and J. Blackburn. (eds). Whose voice? Participatory research and policy change, London, UK. IT Publications, 1998.
- Inglis, Andrew Stewart. "Harvesting local forestry knowledge: A field test and evaluation of rapid rural appraisal techniques for social forestry project analysis," Dissertation presented for the degree of Master of Science (Edinburgh: University of Edinburgh, 1990).
- 11. IUCN. Seek... and Ye Shall Find: Participatory Appraisals with a Gender Equity Perspective. Module 2 of the ORMA modules towards Equity, 2001.
- 12. KGVK. Mancrjiemrnf Training Mnnuul (Bihar, India: Krishi Gram Vikas Kendra, Ranchi, Bihar, 1991).
- 13. Mukherjee, Neela, "Villagers' perceptions of rural poverty through the mapping methods of PRA," RRA Nores, No. IS (1992). pp. 21-26.
- 14. NCAER. Comparatil'e Study of Sample Survey and Ptrrticipatotyv Rurtrl Apprnisul Methodologies (New Delhi: National Council for Applied Economic Research, I1 Indraprastha Estate. November 1993).
- 15. Pretty. Jules N., "Participatory inquiry and agricultural research" (London: BED, 1993).
- 16. Scoones. Ian. and John Thompson, "Challenging the Populist Perspecti\">e: Rurcd People's Knor~'ledge. Agricultural Research and E,uensio,l

- Practice. "Di.scusvion Paper 332 (Brighton: IDS. University of Sussex. December 1993).
- 17. Scrimshaw, Nevin S., and Gary R. Gleason (Ed.), RAP Rapid A,ssessment Procedures: Qualitative Methodologies .ji>r Planning and Evaluation of Health Related Programmes (Boston MA: International Nutrition Foundation for Developing Countries, 1992).
- 18. Swift, Jeremy, and Abdi Noor Umar, Participertory Pustortrl De!vlopment in Isiolo Di.ytri(.t: Sorio-reonornic Rrsenrch in the Isiolo Livestock Development Project (Isiolo. Kenya: Isiolo Livestock Devjelopment Project, EMI ASAL Programme. 1991).
- Cornwall, A. Making a difference? Gender and participatory development. IDS discussion paper 378, 2008.
- Drummond, and Nontokozo Nabane, "The use of indigenous trees in Mhondoro District" (Harare: Centre for Applied Social Sciences, June 1992).
- 3. Dunn, A. M., "New challenges for extensionists: Targeting complex problems and issues," Paper for the 10<sup>th</sup> European Seminar on Extension Education, Universidade de Tras-os-Montese Alto Douro (Vila Real, Portugal: September 1991).
- 4. Ekins, P., Wealth Beyond Measure: An Atlas of New Economics (London: Gaia Books, 1992).
- 5. Gibson, Tony, "Planning for real: The approach of the Neighbourhood Initiatives Foundation in the UK," RRA Notes, No. 11 (1991) pp. 29-30.
- Hahn, H., Apprendre avec les yeu, s'exprimer avec les mains: des paysarts .se, fiument ir la gestion du terroir (Switzerland: AGRECOL. Oekorentrum, Langenbruck, 1991).
- 7. Holland, J. and J. Blackburn. (eds). Whose voice? Participatory research and policy change, London, UK. IT Publications, 1998.
- Inglis, Andrew Stewart. "Harvesting local forestry knowledge: A field test and evaluation of rapid rural appraisal techniques for social forestry project analysis," Dissertation presented for the degree of Master of Science (Edinburgh: University of Edinburgh, 1990).
- IUCN. Seek... and Ye Shall Find: Participatory Appraisals with a Gender Equity Perspective. Module 2 of the ORMA modules towards Equity, 2001
- 10. KGVK. Mancrjiemrnf Training Mnnuul (Bihar, India: Krishi Gram Vikas Kendra, Ranchi, Bihar, 1991).
- Mukherjee, Neela, "Villagers' perceptions of rural poverty through the mapping methods of PRA," RRA Nores, No. IS (1992). pp. 2 1-26.
- NCAER. Comparatil'e Study of Sample Survey and Ptrrticipatotyv Rurtrl Apprnisul Methodologies (New Delhi: National Council for

- Applied Economic Research, II Indraprastha Estate. November 1993).
- 13. Pretty. Jules N., "Participatory inquiry and agricultural research" (London: BED, 1993).
- 14. Cornwall, A. Making a difference? Gender and participatory development. IDS discussion paper 378, 2008.
- 15. Drummond, and Nontokozo Nabane, "The use of indigenous trees in Mhondoro District" (Harare: Centre for Applied Social Sciences, June 1992).
- 16. Dunn, A. M., "New challenges for extensionists: Targeting complex problems and issues," Paper for the 10<sup>th</sup> European Seminar on Extension Education, Universidade de Tras-os-Montese Alto Douro (Vila Real, Portugal: September 1991).
- 17. Ekins, P., Wealth Beyond Measure: An Atlas of New Economics (London: Gaia Books, 1992).
- 18. Gibson, Tony, "Planning for real: The approach of the Neighbourhood Initiatives Foundation in the UK," RRA Notes, No. 11 (1991) pp. 29-30.
- 19. Hahn, H., Apprendre avec les yeu, s'exprimer avec les mains: des paysarts .se, fiument ir la gestion du terroir (Switzerland: AGRECOL. Oekorentrum, Langenbruck, 1991).
- 20. Holland, J. and J. Blackburn. (eds). Whose voice? Participatory research and policy change, London, UK. IT Publications, 1998.
- 21. Inglis, Andrew Stewart. "Harvesting local forestry knowledge: A field test and evaluation of rapid rural appraisal techniques for social forestry project analysis," Dissertation presented for the degree of Master of Science (Edinburgh: University of Edinburgh, 1990).
- 22. IUCN. Seek... and Ye Shall Find: Participatory Appraisals with a Gender Equity Perspective. Module 2 of the ORMA modules towards Equity, 2001.
- 23. KGVK. Mancrjiemrnf Training Mnnuul (Bihar, India: Krishi Gram Vikas Kendra, Ranchi, Bihar, 1991).
- 24. Mukherjee, Neela, "Villagers' perceptions of rural poverty through the mapping methods of PRA," RRA Nores, No. IS (1992). pp. 21-26.
- NCAER. Comparatil'e Study of Sample Survey and Ptrrticipatotyv Rurtrl Apprnisul Methodologies (New Delhi: National Council for Applied Economic Research, I1 Indraprastha Estate. November 1993).
- 26. Pretty. Jules N., "Participatory inquiry and agricultural research" (London: BED, 1993).
- 27. Cornwall, A. Making a difference? Gender and participatory development. IDS discussion paper 378, 2008.
- 28. Drummond, and Nontokozo Nabane, "The use of indigenous trees in Mhondoro District" (Harare: Centre for Applied Social Sciences, June 1992).

- 29. Dunn, A. M., "New challenges for extensionists: Targeting complex problems and issues," Paper for the 10<sup>th</sup> European Seminar on Extension Education, Universidade de Tras-os-Montese Alto Douro (Vila Real, Portugal: September 1991).
- 30. Ekins, P., Wealth Beyond Measure: An Atlas of New Economics (London: Gaia Books, 1992).
- 31. Gibson, Tony, "Planning for real: The approach of the Neighbourhood Initiatives Foundation in the UK," RRA Notes, No. 11 (1991) pp. 29-30.
- 32. Hahn, H., Apprendre avec les yeu, s'exprimer avec les mains: des paysarts .se, fiument ir la gestion du terroir (Switzerland: AGRECOL. Oekorentrum, Langenbruck, 1991).
- 33. Holland, J. and J. Blackburn. (eds). Whose voice? Participatory research and policy change, London, UK. IT Publications, 1998.
- 34. Inglis, Andrew Stewart. "Harvesting local forestry knowledge: A field test and evaluation of rapid rural appraisal techniques for social forestry project analysis," Dissertation presented for the degree of Master of Science (Edinburgh: University of Edinburgh, 1990).
- 35. IUCN. Seek... and Ye Shall Find: Participatory Appraisals with a Gender Equity Perspective. Module 2 of the ORMA modules towards Equity, 2001.
- KGVK. Mancrjiemrnf Training Mnnuul (Bihar, India: Krishi Gram Vikas Kendra, Ranchi, Bihar, 1991).
- 37. Mukherjee, Neela, "Villagers' perceptions of rural poverty through the mapping methods of PRA," RRA Nores, No. IS (1992). pp. 21-26.
- 38. NCAER. Comparatil'e Study of Sample Survey and Ptrrticipatotyv Rurtrl Apprnisul Methodologies (New Delhi: National Council for Applied Economic Research, I1 Indraprastha Estate. November 1993).
- 39. Pretty. Jules N., "Participatory inquiry and agricultural research" (London: BED, 1993).
- 40. Cornwall, A. Making a difference? Gender and participatory development. IDS discussion paper 378, 2008.
- 41. Drummond, and Nontokozo Nabane, "The use of indigenous trees in Mhondoro District" (Harare: Centre for Applied Social Sciences, June 1992).
- 42. Dunn, A. M., "New challenges for extensionists: Targeting complex problems and issues," Paper for the 10<sup>th</sup> European Seminar on Extension Education, Universidade de Tras-os-Montese Alto Douro (Vila Real, Portugal: September 1991).

- 43. Ekins, P., Wealth Beyond Measure: An Atlas of New Economics (London: Gaia Books, 1992).
- 44. Gibson, Tony, "Planning for real: The approach of the Neighbourhood Initiatives Foundation in the UK," RRA Notes, No. 11 (1991) pp. 29-30.
- 45. Hahn, H., Apprendre avec les yeu, s'exprimer avec les mains: des paysarts .se, fiument ir la gestion du terroir (Switzerland: AGRECOL. Oekorentrum, Langenbruck, 1991).
- 46. Holland, J. and J. Blackburn. (eds). Whose voice? Participatory research and policy change, London, UK. IT Publications, 1998.
- 47. Inglis, Andrew Stewart. "Harvesting local forestry knowledge: A field test and evaluation of rapid rural appraisal techniques for social forestry project analysis," Dissertation presented for the degree of Master of Science (Edinburgh: University of Edinburgh, 1990).
- 48. IUCN. Seek. and Ye Shall Find: Participatory Appraisals with a Gender Equity Perspective. Module 2 of the ORMA modules towards Equity, 2001
- 49. KGVK. Mancrjiemrnf Training Mnnuul (Bihar, India: Krishi Gram Vikas Kendra, Ranchi, Bihar, 1991).
- 50. Mukherjee, Neela, "Villagers' perceptions of rural poverty through the mapping methods of PRA," RRA Nores, No. IS (1992). pp. 21-26.
- 51. NCAER. Comparatil'e Study of Sample Survey and Ptrrticipatotyv Rurtrl Apprnisul Methodologies (New Delhi: National Council for Applied Economic Research, I1 Indraprastha Estate. November 1993).
- 52. Pretty. Jules N., "Participatory inquiry and agricultural research" (London: BED, 1993).
- 53. Dunn, A. M., "New challenges for extensionists: Targeting complex problems and issues," Paper for the 10<sup>th</sup> European Seminar on Extension Education, Universidade de Tras-os-Montese Alto Douro (Vila Real, Portugal: September 1991).
- 54. Ekins, P., Wealth Beyond Measure: An Atlas of New Economics (London: Gaia Books, 1992).
- 55. Gibson, Tony, "Planning for real: The approach of the Neighbourhood Initiatives Foundation in the UK," RRA Notes, No. 11 (1991) pp. 29-30.
- 56. Hahn, H., Apprendre avec les yeu, s'exprimer avec les mains: des paysarts .se, fiument ir la gestion du terroir (Switzerland: AGRECOL. Oekorentrum, Langenbruck, 1991).
- Holland, J. and J. Blackburn. (eds). Whose voice? Participatory research and policy change, London, UK. IT Publications, 1998.

9/23/2012