

INRM2001 Workshop
**“Integrated Management for Sustainable Agriculture,
Forestry and Fisheries.”**
August 28-31, 2001 at CIAT, Cali, Colombia.
CGIAR Center Directors’ Task Force on INRM
Chair: CIAT

What is INRM research?

INRM is an approach that integrates research on different types of natural resources into stakeholder-driven processes of adaptive management and innovation to improve livelihoods, agroecosystem resilience, agricultural productivity and environmental services at community, ecoregional and global scales of intervention and impact.

Integrated natural resource management research is fundamentally about the need to balance individuals’ and society’s competing interests in multiple uses for any natural resource. For this reason INRM is strongly concerned with the way people use natural resources to support livelihoods, and the institutional and ecological requirements for long-term sustainability. As a research approach, INRM combines a flexible set of integrative frameworks, methods and tools aimed at capturing synergies among specialized research areas, each of which deals with a natural resource on its own.

Which Centers are involved in INRM research?

Centers engaged in INRM research are CIAT, CIFOR, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IFPRI, IITA, IPGRI, IRRI, ILRI and IWMI. The CGIAR is not the center of INRM work globally but is contributing to advances in the field.

Why are the CGIAR centers meeting about INRM research?

The CGIAR INRM meetings, now in their third year (INRM1999, Bildeburg; INRM 2000, Penang; and INRM 2001, Cali) are convened by the center Directors Committee Task Force on INRM, on which CIAT, CIP, ICARDA, ICLARM, ICRAF, ICRISAT, IITA, ILRI, IRRI, IWMI, WARDA serve, and which is currently chaired by CIAT. The objective of the workshops is to facilitate integration of research by the CGIAR International Agricultural Research Centers on the management of different natural resources—such as soils, water, forests, plant genetic resources and other biodiversity,—with crop improvement research. Participants in the INRM2001 meeting summed up their objectives in the following words: “to develop tangible programs across institutional barriers”; “to highlight good cases of successful INRM”; “to establish a clearing house for working together”; “to influence the CGIAR agenda to support INRM”; “to strengthen partnerships for INRM research.

INRM2001 meeting

1. Objectives

- Mainstream INRM to a broad audience in the CGIAR by showing how INRM can improve the relevance and impact of the CGIAR to major human and environmental problems
- Consolidate the results of INRM2000 in reaching a shared framework for research with a set of clearly articulated goals, operational models, guiding principles and success cases
- Organize to encourage knowledge sharing, publication of papers and proceedings

2. Program

The program was organized around small group sessions that were proposed and organized by INRM listserv members (Box 1) Plenary sessions were devoted to exchange of results from the small group sessions, and small number of key note speakers who addressed issues of resilience and adaptive management, genetic resources in ecosystem management, knowledge management, and the sustainable livelihoods approach. The international steering committee formed in March 20 2001 and the workshop process steering group together guided the meeting’s organization. Participants evaluated the meeting positively, agreeing that there was a high level of enthusiasm, trust and collegiality; that it provided an important opportunity to obtain new tools and concepts, and to rub shoulders with diverse people of various kinds of expertise

3. Participants

There were approximately 95 participants, 55 from 12 CG Centers, and 40 from several NARs and NGOs from Asia, Africa, Latin America, North America, Europe and Australia. Financial support was provided by BMZ, Germany for facilitation; DFID, UK for keynote speaker and IDR Canada for participation of non-CGIAR and NARS resource persons.

Box. 1 Small Group Sessions at INRM 2001 Workshop

Organizational frameworks for INRM	Policy
Resilience and Adaptive Management	Knowledge management: building communities of practice for INRM
Climate Change	Innovative Tools
Scales of Analysis	Participatory Research
Agrobiodiversity	Impact assessment
Water	Integrated Nutrient management Social organization, participatory watershed management and sustainable livelihoods

4. Workshop Conclusions

Mainstreaming

The steady rate of increase in participant numbers in the INRM meetings – all self-financed from the CGIAR—is a good indicator that the objective of mainstreaming INRM is being met. The numbers have doubled for each workshop; 20 in Bilderberg; 40 in Penang; 95 in Cali.

Participants agreed on a definition of INRM (Box 2)

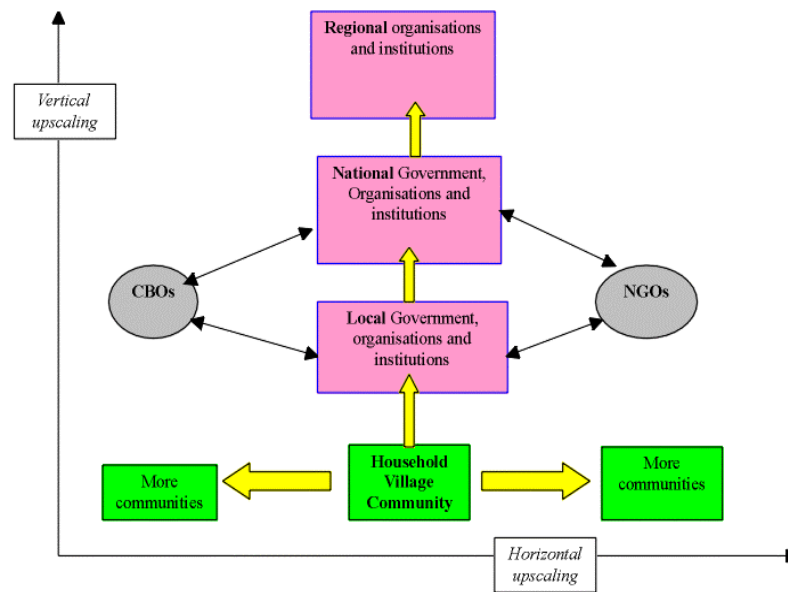
Box 2 The workshop's definition of INRM.

INRM is an approach to research that aims at improving livelihoods, agroecosystem resilience, agricultural productivity and environmental services. In other words, it aims to augment social, physical, human, natural and financial capital. It does this by helping solve complex real-world problems affecting natural resources in agroecosystems. Its efficiency in dealing with these problems comes from its ability to:
• empower relevant stakeholders
• resolve conflicting interests of stakeholders
• foster adaptive management capacity
• focus on key causal elements (and thereby deal with complexity)
• integrate levels of analysis
• merge disciplinary perspectives
• make use of a wide range of available technologies
• guide research on component technologies
• generate policy, technological and institutional alternatives

Impact of INRM

INRM impacts are increased productivity in association with enhanced ecosystem resilience and human well-being. Success must include scaling up and participants agreed on a concept for scaling up INRM impacts. The difficulty of measuring INRM research impacts on highly aggregated development indices, such as poverty is a serious problem. Conventional impact assessment will probably not work, and other approaches in the field of evaluation need to be tapped, and will need the skills of ecologists and social scientists. Participants agreed that effective monitoring and evaluation is the feedback mechanism for adaptive management, also essential to establish accountability among stakeholders in INRM.

Box 3. Scaling up INRM



Agrobiodiversity, INRM and the Convention on Biodiversity

Participants developed an operational model to show how Agrobiodiversity determines agroecosystem resilience and so ensures productivity and adaptive capacity. They agreed that Agrobiodiversity improvement and management is integral to INRM, and should be approached as such in the CGIAR. Participants determined that the Memo of Understanding recently signed by the Center Director's Committee INRM taskforce with the Secretariat of the Convention on Biodiversity (CBD) deserves wider attention because it provides a framework for INRM and Agrobiodiversity research to interact in the CGIAR, and for the CBD to link better with the other major Agenda 21 conventions on climate and desertification.

Operational Models for INRM

Managers of natural resources—farmers, fishers, foresters—do so with the objective of supporting and improving their livelihoods. INRM research should be organized both administratively and scientifically to match livelihood objectives.

- Structure and management must operate at several scales: community; benchmark “area”; ecoregional; global.
- At each scale CGIAR Centers have responsibilities: as champion ensuring research products are applied in community-based adaptive management; to integrate component research; to engage in strategic research and dialogue about the implications of INRM innovations; to catalyze scaling up, and resource mobilization; and as mouthpiece for the interests of the poor in INRM research agenda
- INRM requires an area-based (ecoregional) approach for which a reasonable number of communities, watersheds or benchmark sites must be included to achieve a reasonable and cost-effective sampling of ecoregional variability to give confidence in extrapolation for scaling up horizontally and vertically.
- Scaling up pathways and chains of partners should be identified with early inclusion of stakeholders in these
- Integration is essential at benchmark sites and at the ecoregion scale of interventions. Professional facilitation may be needed to ensure integration at benchmark sites since cross-center, and multi-partner collaboration is needed.
- CGIAR INRM research should link to policy makers at each sale and throughout any INRM process.
- A participatory social and experiential learning paradigm should be adopted to guide operations (in contrast to a prescriptive or blueprint approach)
- An oversight body with independent chairperson and a program manager are needed for INRM in the CGIAR.

Next steps

Building communities of Practice for INRM

The question of how to organize to encourage and ensure knowledge sharing within a large and diverse group was a recurrent theme throughout the Cali meeting addressed in key note presentation, small group session and plenary discussion. Communities of practice were adopted as a way to diffuse the best practices, cross-fertilize ideas, develop a common language, help people keep up to date, and foster innovation in INRM. Five COPs were formed (Box 4)

Box 4 INRM Communities of Practice formed at the INRM2001 Workshop

Impact. Monitoring and evaluation especially of indicators for success. Boru Douthwaite (B.Douthwaite@cgiar.org)
Learning to work together. Forging partnerships for stakeholder involvement in research; bridging scientific and local knowledge. Contact: Pending to be confirmed
Advocacy. Spreading the message to top CGIAR decision-makers and members. Anne Marie Izac (a.izac@cgiar.org)
Mainstreaming implementation promoting and facilitating the adoption of INRM principles and participatory approaches into existing programs. John Poulsen (j.poulsen@cgiar.org)
Learning from cases. Documenting and sharing failures and successes to identify entry points for INRM. Frits Penning de Vries (f.penningdevries@cgiar.org)

Proceedings and Publications

Proceedings including “*Integrated management for Sustainable Agriculture, Forestry and Fisheries: workshop documentation*”, together with approximately 70 abstracts and papers presented is available in CD and on the INRM <http://www.ciat.cgiar.org/inrm/workshop2001/index.htm>

The journal Conservation Ecology produced a special edition with the papers from INRM2000, Penang.

The editorial committee is preparing a journal special edition for selected papers from INRM2001.

Integrated Natural Resources Management Research in the CGIAR. A Brief Report on INRM Workshop Held in Penang, Malaysia. 21-25 August 2000.

INRM2001 Aleppo will be hosted by ICARDA