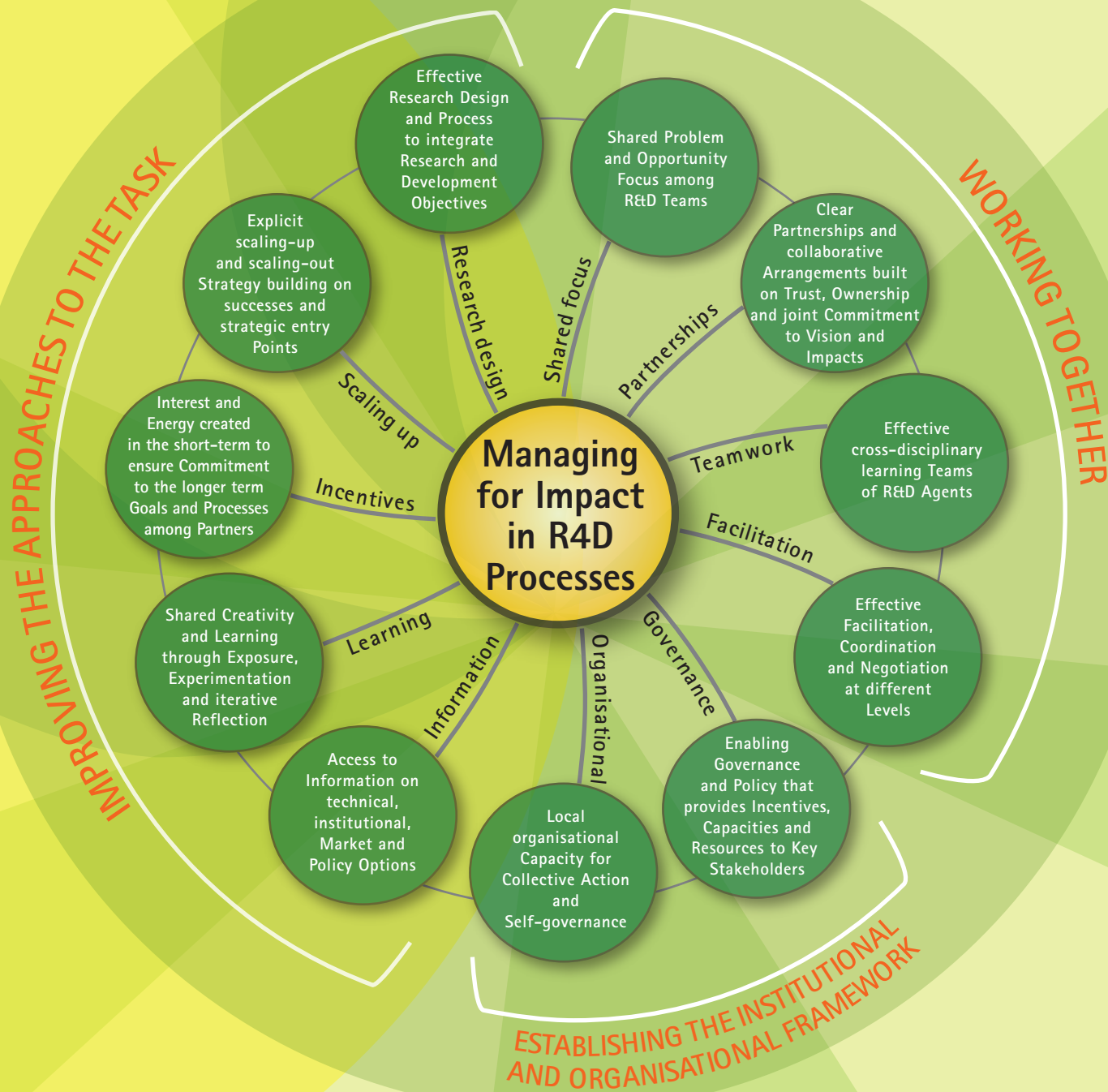




# INRM: Navigating amidst complexity

An approach to implementing effective research and development to improve livelihoods and the environment



Challenges in Natural Resource Management (NRM) have mainly been tackled by technically oriented approaches. Due to the complex interactions between environmental, economic and social dimensions, these approaches often failed in solving those multi-faceted socio-ecological problems. Approaches to Integrated Natural Resource Management (INRM) build on these experiences and focus on improving the resource users' adaptive capacity in a continuously changing environment - markets, ecosystem behaviour or social settings - in order to enable them to manage the NRM-system's complexity.

'Navigating amidst Complexity' provides an operational framework for facilitating research for development (R4D) interventions in natural resource management and conservation. The 11 'Cornerstones' are fundamentals which need to be put in place for an effective process towards integrated NRM. The framework supports a systemic analysis of bottlenecks and entry points among stakeholders which strengthens their key competences like negotiation of interests, exchange of experience and information, experimentation and learning from implementation. Its development built on the experience of numerous practical cases.



# PICOTEAM

Institute for People, Innovation and Change in Organisations

facilitation, coaching, consulting for change

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Natural Resource Management (NRM) challenges have been tackled mainly through reductionist component approaches. Since NRM-systems encompass complex interactions between policy, institutional, social, economic and technical dimensions, these approaches failed in solving social-ecological problems. INRM promotes approaches to Integrated Natural Resource Management (INRM) which build on lessons learnt from a range of positive experiences. It focuses on improving the resource managers' adaptive capacity in a continuously changing environment – markets, ecosystem behaviour or social settings – in order to enable them to manage the NRM-system's complexity.

INRM is an integrated process approach for managing natural resource programmes (research and development). It provides an operational framework for facilitating interventions in natural resource management and conservation which integrate multiple scales of interaction and response, embrace a high frequency of non-linearity, uncertainty, and time lags, and involve multiple stakeholders with often contrasting objectives and activities. INRM describes natural resource management as a comprehensive systemic process involving a number of key functions ('cornerstones') which need to be in place or developed if interventions are to be successful. INRM and conservation have been at the core of PICO's field interventions in a range of countries in Africa, Asia and Latin America as well as at international level.

There are no standardized solutions for NRM. Even though there could be generalised common principles for sustainable resource use, natural resource management remains complex and specific to the (local) context and therefore requires tailor-made R&D approaches. We support key actors at various levels in order to strengthen their competences for managing natural resources, with a clear and strong focus on the rural poor in negotiation of their interests, exchange information, work together, experiment and learn from implementation. Besides NRM process management, PICOTEAM has vast experience and engages in the following dimensions of INRM:

**1. Integrated and sustainable productivity enhancement (at farm level):** Small-scale farmers' livelihoods have been affected severely by declining soil fertility, pests and genetic deterioration of seeds. Conservation agriculture, enhancing soil productivity, integrated pest management, establishing farmers own seed banks and diversification of the production at farm level etc. are crucial strategies for sustaining agro-based rural livelihoods.

**2. Landscape-level management and integration of NRM:** To generate impact at large-scale requires more than a limited focus on the farm or plot level. Water management (quantity and quality) or common resource management, for instance, call for the integration of NRM into a wider framework at the landscape-level – e. g. watershed, forest or biosphere.

**3. Conservation and protected area management:** The conservation of particular landscapes – e. g. biospheres, mountainous areas or bio-corridors – as well as conservation practices and sustainable management interventions in productive areas are all cornerstones within a framework for managing social-ecological systems. Challenges for the management of protected areas arise from conflicting interest between government institutions, neighbouring populations and environmental NGO or civil society groups.

**4. Approaches and competences for collective action:** The efficient implementation of INRM approaches calls for collective action. Most undertakings, in particular with respect to the landscape-level, common resource management or joint commercialisation of agricultural products require actors working together.

**5. Knowledge management for INRM:** There are numerous experiences and case studies around INRM but this knowledge is often not well organised, or not accessible and therefore often not utilized. By knowledge, we mean the technical knowledge about technologies and experiences as well as knowledge about approaches and methodologies for INRM. By knowledge management we refer to more than setting up databanks. Cutting edge knowledge management is a process of actively nurturing knowledge in an organisation by linking the right people, providing platforms for sharing and processing knowledge and packaging into useful products in the public domain.

PICOTEAM has developed interesting methodologies and experiences in these areas so that we can offer insights and solutions – mostly in a facilitative way to build internal capacities in projects and programmes.

More Information

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