

Knowledge-based participatory action research

Better
Evidence
in Action

In brief

This approach seeks to maximise the use of local and traditional knowledge and strengthen local knowledge systems, while also enabling communities to lead conventional research to generate qualitative and quantitative knowledge that is scientifically credible. It empowers communities by recognising the value of their own knowledge and strengthening their capacity to produce knowledge that is useful to others, such as governments.

The approach is inspired by mixed methods research, which brings together different techniques and methods — both quantitative and qualitative — in a single study. Mixed methods research recognises that qualitative and quantitative approaches are complementary, each with their own strengths and limitations, and that combining them provides a more complete understanding of reality. Qualitative methods enable active community participation, are open-ended and provide an understanding of context, which might more easily be missed if we used quantitative methods alone. There are some issues and aspects of causal relationships that we cannot measure in quantitative terms without artificially forcing or simplifying results.

Knowledge-based participatory action research thus combines quantitative and qualitative surveys with modern participatory approaches and indigenous research methods and concepts to strengthen traditional knowledge and cultural identity (and hence social cohesion) through the process. Communities are enabled to participate in shaping key research concepts and qualitative approaches can generate the understanding needed to identify 'closed' questions for subsequent quantitative surveys.

This approach seeks to empower communities, strengthening their capacity for research by actively engaging them in designing, facilitating and analysing the research. This generates strong local ownership. Local partners hold capacity building workshops to co-design the research with local community researchers. This ensures the research reflects community values and norms, and strengthens community capacity to facilitate research processes and collect data themselves. Research findings are translated into the local language and presented back to the communities for joint validation and analysis.

Monitoring, evaluation and learning; natural resource management

Keywords:

Smallholder Innovation for Resilience (SIFOR), traditional knowledge, biocultural heritage, climate change adaptation, food security

When can we use it?

Knowledge-based participatory action research is concerned both with answering specific questions and with development outcomes, notably strengthening community capacity and links between local communities and policymakers. It is a useful approach when communities have important traditional or local knowledge on a topic, but do not have the ready ear of decision makers. It is valuable for generating data on local or regional conditions and trends for a range of indicators and for helping communities engage with issues that affect them. For example, it can help show the rapid loss of landrace diversity with the spread of a few modern varieties, or generate data on local climatic trends to complement scientific data and models. We can use it to bring to the fore essential local knowledge on a topic and then present this knowledge in a manner that decision makers deem more credible.

Strengths for gathering better evidence

Like any mixed methods research, knowledge-based participatory action research triangulates data well, using qualitative and quantitative methods to explore the same indicators or topics. It is based on the understanding that there are multiple forms of knowledge and that any single perspective or approach has multiple limitations and biases. By including evidence that is processed through local and collective experience, as well as more conventional household survey data, it brings the voices of local communities, so often excluded from policy dialogue, to the fore.

Unlike conventional research, where external researchers come in, collect data and then leave, participatory action research (PAR) enables community members to collect, analyse and present the data themselves in various forums. This ensures the research addresses local needs, strengthens communities' capacity to conduct research themselves, generates strong local ownership of the research findings and related development initiatives, and strengthens community influence on policymaking at various levels with hard data on local needs and contexts.

By highlighting the importance of considering local perceptions and knowledge alongside established scientific data and trends, this approach seeks to raise the validity of traditional knowledge and challenges the belief that only modern, science-based approaches are useful for tackling the challenges that affect local communities.



Quechua farmers in the Potato Park who act as research facilitators

Credit: Krystyna Swiderska/IIED

Aspects to keep in mind

Applying PAR to quantitative surveys means giving community researchers and authorities an active role in designing the survey methodology. This could prove a limitation for what we would consider to be good evidence from a conventional perspective — for example, focusing on rigour of sampling and methods. While researchers might wish to use random sampling (or another specific sampling strategy), it may not always be appropriate in the context of traditional communities.

For example, our partner ANDES in Peru uses a decolonising methodology designed to empower indigenous peoples to lead research themselves, which combines indigenous graphics and research methods and tools with participatory rural appraisal. According to customary Andean laws, the Community Assembly should decide on the study participants. Although academic researchers might regard this as a limitation on study findings, development practitioners might not, because the approach respects and thereby re-enforces customary Andean governance, which promotes sustainable and equitable development based on customary laws such as reciprocity, equilibrium and duality. Such flexibility is in line with the decolonising philosophy of the PAR approach developed by ANDES.

Considering power, inequality and gender

Issues of power and inequality are automatically incorporated because PAR gives voice to the realities of people who are not normally asked to participate in research and policy dialogue. It also seeks to empower local community researchers, including indigenous peoples, to lead the research process. Information and communication technology such as tablets, global positioning software and audio-visual tools can enable illiterate community members to collect quantitative data and facilitate group discussions.

Gender can be incorporated into the approach by making sure that the surveys are designed and analysed in a way that brings to light any gender differences in the understanding of the research topic, and that any different understandings are followed up on through the action research. For example, gender can be mainstreamed into survey questions and surveys can target both women and men as key informants. Researchers also need to be sensitive to gender dynamics in terms of who collects the data and whether there is a need for male and female focus groups for the qualitative research.

Many indigenous communities are quite progressive when it comes to gender equality. It is vital that external researchers respect customary laws and traditions, and that we do not impose our own values on our partners. The indigenous worldview of the communities we work with is considered to be well advanced in terms of equity and gender equality.

Knowledge-based participatory action research in action

IIED has supported the use of knowledge-based participatory action research for a baseline study conducted as part of our five-year project 'Smallholder innovation for resilience (SIFOR): strengthening innovation systems for food security in the face of climate change' (2012–2017). Through PAR, SIFOR seeks to actively engage communities in the project's research design, facilitation and analysis to address community needs, strengthen their research capacity and traditional knowledge, and generate strong local ownership. Its goal is to improve food security and resilience by enabling smallholder innovation and traditional knowledge systems to thrive in developing countries.

SIFOR carried out a comprehensive baseline study in 64 indigenous communities in Peru, China, Kenya and India with rich but declining agrobiodiversity and traditional knowledge. The baseline study involved qualitative and quantitative surveys at household and community level to collect data on the local situation and trends in various indicators and on the traditional knowledge-based innovations that communities have developed to respond to climatic and socioeconomic challenges. Also known as biocultural innovations, these are new ways of doing things — based on traditional knowledge alone or combined with science — that are

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Knowledge Products

Toolkit

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generating better outcomes in a specific place or context. The baseline study sought to be as scientifically rigorous as possible to provide credible evidence for influencing policy, and as participatory as possible to generate direct benefits for communities. As well as establishing baseline data for monitoring and evaluation purposes and exploring key trends, it also served as the key method for conducting research on biocultural innovation.

The process started with a qualitative study (involving focus group discussions and semi-structured interviews) to get an understanding of the local situation, trends and biocultural innovations. The baseline study explored key trends related to: livelihoods and migration, food security and agricultural systems, agrobiodiversity and seed systems, social capital and traditional knowledge, and farmers' perceptions of climate change. Importantly, it also identified communities' biocultural innovations in responding to climate-related and socioeconomic challenges, as well as the factors and conditions that support these innovation systems.

The qualitative survey complemented and informed the design of the quantitative survey, which also followed PAR principles as far as possible. Our local partners ran capacity building workshops where they worked with community researchers to co-design the research according to their own values, culture and worldview. The community researchers then collected qualitative and quantitative data at community and household levels through focus group discussions and key informant interviews, led the data analysis and presented the findings through various forums.

The results of our survey show that indigenous communities are already experiencing significant climatic changes — such as decreased rainfall, increased pests and diseases, and shorter growing seasons — that are adversely affecting production. It also highlights common trends between the four research areas, such as out-migration, reduced farm income and crop diversity loss. In Peru and China, we found responses that build on traditional knowledge have been effective in enhancing yields, incomes and resilience, while reversing the loss of crop diversity and out-migration.

The study brought to the fore essential indigenous knowledge on resilient production systems in the face of uncertainty. The project partners were able to present this knowledge in a manner that was deemed more credible to decision makers, complementing existing scientific literature on climate trends and agricultural production in the areas studied. Knowledge-based participatory action research strengthened the farmers' and communities' capacity to conduct research and their confidence to negotiate with policymakers to ensure that their priorities and needs are addressed.

This document is part of the 'Better Evidence in Action' toolkit.

Further reading

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