

Protecting biocultural diversity

Christian R Vogl, Gary Martin and **Christoph Schunko** are members of a project supporting indigenous management of biocultural diversity in conserved areas. Here, they discuss the importance of local participation, and the difficulties of integrating different forms of expertise



The project has 10 partners, but how many people are actively involved?

About 35 people are funded by the project full or part time, therefore, each partner

institution employs three or four people. Besides strengthening research capacities in Research and Technical Development (RTD) organisations in Europe and Latin America and the collaboration between them, a great deal of the foundational research is carried out by the Bolivian, Brazilian and Mexican CSO staff and by individuals we call 'community researchers'.

What role do the community researchers fulfil?

The COMBIOSERVE team is committed to a research process in which CSOs and community members in Indigenous Community Conserved Areas (ICCAs) identify local research needs and interests, which form the core of the research carried out. Moreover, we seek to move beyond the classic model of research in which external academics implement research methods in a 'receiving' or 'subject' community. Effectively, not only do the community members and CSOs decide the object of their research, they are also highly involved in implementing research methods, analysing data and writing up the results.

What are the strengths and limitations of such a complex interdisciplinary project?

We appreciate the EC taking into account the need to support indigenous peoples in Latin America as they manage their ICCAs. Such management requires expertise from various fields, and COMBIOSERVE seeks to provide that diverse expertise. We feel that the

involvement of local stakeholders in the design and implementation of projects of this kind is indispensable.

Nevertheless, the dynamics of local development processes do not coincide with academic research dynamics – both progressing at different paces. In addition, the rationale behind decision-making processes in indigenous communities is very different from the academic and publication-driven logic of short-term funded projects. In order to bridge these differences, time and effort must be invested in intercultural communication, mediation and learning. We hope that the EC issues more of these calls so that this work does not remain a single opportunity but rather the beginning of a long-term successful learning experience, both for the institutions involved and EC institutions that design and monitor such projects.

The COMBIOSERVE conference will be held on 6-9 November 2014 in Xalapa, Mexico. What will be on the agenda and who can attend?

The COMBIOSERVE conference is intended to provide a space where academics and community-based experts can exchange knowledge and learn from each other on the topic of community-based conservation. It will host a variety of forums, including academic paper panels, a methods dialogue, a participatory video dialogue, methods workshops and keynote speeches. The conference will conclude with a facilitated panel dialogue between academic experts and community researcher experts. All are welcome to attend: academics, community experts, practitioners, and anyone else with an interest in community-based conservation in Latin America. At this stage, we no longer accept abstracts, but registration for participation is still open. To register, please visit www.combioserve.org/en/project/conference-registration.

Could you begin by introducing your respective research interests and roles within the COMBIOSERVE project?

CRV: I am the COMBIOSERVE Project Coordinator. With a background in agronomy, my research focuses on the traditional ecological knowledge of indigenous peoples, as well as knowledge and innovation in organic farming.

GM: As co-Coordinator of the project, I ensure that the perspectives of civil society organisations (CSOs) are fully taken into account. My research interests include ethnobotany and biocultural diversity.

CS: Alongside my role as Project Manager, I am responsible for the Synthesis Work Package. I am interested in local knowledge systems, biocultural diversity and organic farming.

How was the consortium put together?

Most of the project partners have many years of research experience with indigenous peoples in Latin America; and many knew each other before the project was developed. We benefited from these established relationships, which are based on trust, knowledge of each other's competences, and friendship, as they ensured rapid and successful development of the project proposal. A number of the partners also had previous experience of collaborating with CSOs, ensuring easy inclusion into the consortium.

Indigenous integration

A cohort of 10 institutions, **COMBIOERVE** is working together to assess and support community-based strategies to manage diversity and develop novel research methods based on co-enquiry. This work is benefiting local communities in Latin America and creating innovative methods to facilitate collaboration between academics and indigenous peoples

THE ROLE OF local communities in conservation research is increasingly being recognised. Involving indigenous people in this research provides them with a vested interest in the design, implementation and outcome, helping to ensure the relevance and success of the work. Indeed, in the past 10 years, new models of governance have emerged that recognise community-based contributions to conservation, aiming to prevent and resolve the tensions that can arise from conventional conservation approaches that often exclude local people. However, these new models involving co-management and Indigenous Peoples' and Community Conserved Areas (ICCAs), can themselves generate new sources of conflict. They clash with established policies, power structures and ideas about conservation.

'Assessing the effectiveness of community-based management strategies for biocultural diversity conservation' (COMBIOERVE) is a project that addresses these tensions by evaluating and actively supporting what makes community-based management strategies effective. Led by Christian R Vogl, Project Coordinator (University of Natural Resources and Life Sciences Vienna, BOKU) and Gary Martin, Co-Coordinator (Global Diversity Foundation, GDF) and Christoph Schunko, Project Manager (BOKU), this research is conducted in the context of biocultural diversity, an emerging concept of life that embraces and joins together biological, cultural and linguistic diversities rather than separating them out.

COMBIOERVE

Given control of their own resources, local communities can create and implement rules that generate successful and sustainable models of economic and ecological governance. In recognition of this, the EC is encouraging partnerships between research organisations and civil society organisations (CSOs) to enhance local governance of natural resources and resolve tensions resulting from environmental changes. COMBIOERVE is one such collaboration, funded by an EU Seventh Framework Programme (FP7) call for research involving communities in Latin America.

The COMBIOERVE consortium involves communities, CSOs and research institutions, operating in four case-study regions in Mexico, Brazil and Bolivia. Developing a set of pioneering research methods, the consortium, which involves 10 different institutions, will together

assess the effectiveness of, and support, community-based management strategies. In order to identify the conditions needed for successful conservation initiatives, the team applies a multidisciplinary and participatory research approach. Members work together on research covering many different aspects of community-based management systems to address issues such as land use change and community priorities, and establish knowledge systems and policy networks. They are currently conducting a cross-country study to identify and analyse the factors and processes that impact community conservation initiatives.

INVOLVING THE COMMUNITY

At the heart of COMBIOERVE is the involvement of indigenous community members. In all project field sites, community researchers work alongside academics, utilising their deep ecological knowledge to develop, adapt, and implement collaborative social and biological research methods.

FIELD SITES

Within COMBIOERVE, academic and community researchers are working together to identify the conditions conducive to successful community-based conservation, working alongside local civil society organisations and indigenous communities in several locations

In **Bolivia**, research is being conducted with Tsimane communities in the Pilón Lajas National Park

In **Mexico**, COMBIOERVE is working with Maya communities in the Yucatan peninsula and with Chinantec communities in Oaxaca to carry out fieldwork

In **Brazil**, the team is collaborating with the Pataxó of the Jaqueira Reserve and Monte Pascoal National Park in southern Bahia.

This participatory research is conducted through an innovative co-enquiry approach, which places community members in control of the research process and outcomes. Within this approach, traditional research methods are adapted to produce community-based protocols. "The term



Indigenous people indicating research needs to academic scientists in Mexico.
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participatory is used frequently in a variety of ways, and understood by different actors in a number of ways," the researchers explain. "We believe a participatory research project in an ICCA should be based on local research needs, as expressed by local people."

MAKING DECISIONS

What this means in practice is that local people have a significant and important role in decision-making processes, whereby decisions regarding research questions and methods are taken jointly by the research team, CSOs and community research teams, and – with external facilitation and support – research is implemented, analysed and presented by community researchers. Such participatory approaches ensure project activities are community-owned, secure the effectiveness and longevity of community-based conservation initiatives, and promote knowledge transfer from and to local communities.

The proposed methods are adapted and further developed in a field site in Mexico. "In Chinantla, communities agreed to test 'classic' research methods used in the project and to give feedback on their appropriateness for an indigenous context," the team elucidates. "The outputs of these adaptations are protocols for carrying out social and natural science research with communities using our co-enquiry approach."

PROTOCOLS

Indeed, the Community Research and Co-enquiry protocols are an important aspect of COMBIOERVE, enabling formal engagement with research teams in each of the field sites. The Community-Based Plant Monitoring Protocol, Fauna Monitoring Protocol and Protocol for Research on Livelihoods, Wellbeing and Change have already been produced, while a protocol for using innovative approaches to examine governance of natural resources and solve community problems is under development.

INTELLIGENCE

COMBIOSERVE

ASSESSING THE EFFECTIVENESS OF COMMUNITY-BASED MANAGEMENT STRATEGIES FOR BIOCULTURAL DIVERSITY CONSERVATION

OBJECTIVE

To identify the conditions and principles of successful community-based conservation in selected locations in Latin America, based upon a collaborative research process between civil society organisations, research organisations and local people in Indigenous Peoples' and Community Conserved Territories and Areas.

PARTNERS

University of Natural Resources and Life Sciences Vienna, Austria • Global Diversity Foundation, UK • Associacao Nacional de Acao Indigenista, Brazil • Centro Boliviano de Investigacion y Desarrollo Socio Integral, Plurinational State of Bolivia • Consejo Regional Indigena y Popular de X Pujil SC, Mexico • Institute of Environmental Science and Technology of the Autonomous University of Barcelona, Spain • STICHTING VU-VUMC of the VU University Amsterdam, The Netherlands • Instituto de Ecología, AC, Mexico • University of San Simon, Plurinational State of Bolivia • Universidade Estadual de Feira de Santana, Brazil

KEY COLLABORATOR

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CHRISTIAN R VOGL is Professor and co-Head of the Department of Sustainable Agricultural Systems at BOKU. His research and teaching focuses on traditional ecological knowledge, ethnobiology and organic farming.

GARY MARTIN has been involved in conservation and ethnobotanical work for over 30 years, in more than 45 countries.

CHRISTOPH SCHUNKO has an MSc in Organic Farming and is currently Doctoral Student, Project Manager and Assistant Professor at the Division of Organic Farming, BOKU.



Indigenous people mapping the resources of their territory in Mexico © Christian R Vogl

The Community-Based Plant and Fauna Monitoring Protocols were created to provide flexible research conventions to implement a co-enquiry approach to plant and fauna monitoring, in the context of community-based natural resource management. They represent the first step-by-step protocols specifically designed for this context. The protocols function as adaptive management tools, emphasising community priorities and goals. Their design means that, following training, community researchers are themselves able to implement the monitoring processes, taking local conservation decisions based on the results. Because they are focused on community-led investigation and data collection, these protocols can also be adapted to take into account changes in community needs and environmental conditions.

By contrast, the Protocol for Research on Livelihoods, Wellbeing and Change provides an adaptable research protocol to implement a co-enquiry approach for social science research. A multifunctional tool, it helps communities to assess the socioeconomic impacts of their natural resource management systems, and reflect on their current socioeconomic and wellbeing conditions, how these may change, and how they can adapt to meet possible future changes.

REPLICABLE TOOLS

Through COMBIOSERVE's analysis of community conservation initiatives, the project is identifying the ecological, institutional, political, economic and socio-cultural factors that contribute to the success or failure of community-based monitoring efforts – providing vital information for future research in this area.

But the benefits extend far beyond this. COMBIOSERVE will also improve outcomes for communities, and inform policy making on community resource management locally, nationally and internationally. Furthermore, it will lead to the development of a toolkit of methods to assess community-based biocultural diversity management and conservation strategies. Replicable and community-owned research protocols can be adapted and used by other CSOs in local and indigenous communities facing similar challenges.

RESEARCH HIGHLIGHTS

Biodiversity Analysis and its Implementation for Community-based Monitoring

The Institute of Ecology AC (INECOL), Mexico

This part of the project uses a co-enquiry approach to identify the factors needed to assess the success of community conservation initiatives at each field site. Collaborating with local researchers, one project theme is establishing community-based monitoring of biological resources and ecological processes considered important by local people.

Impacts of Change in Land Use and Traditional Knowledge on Natural Resource Management

State University of Feira de Santana, Brazil

Another theme of COMBIOSERVE is assessing changes to land use using satellite images, geographic information systems (GIS) modelling and participatory cultural mapping. Through interactive methods of documenting the local landscape, this project is revealing the criteria used by communities to measure the success of conservation initiatives.

Conditions and Threats for Community-based Natural Resource Management

Institute for Environmental Studies, VU University of Amsterdam, The Netherlands

This work package is concerned with the interface between the community and its wider institutional and socioeconomic environment and how this influences cooperation at a community scale. The research assesses the relationship of the community with formal and informal governance actors and the impact this has on the willingness and capacity of the community to self-enforce sustainable resource use.

Conservation for Resilient Livelihoods

Autonomous University of Barcelona, Spain

Simultaneously, this project theme analyses the dependence of community livelihoods on natural resources and ecosystem services, and their ability to adapt. The researchers here will also explore individual and collective resilience in different conservation and policy scenarios.

