

Life in the balance

Issues concerning biodiversity protection are often deeply linked to issues involving human population and quality of life. **Professor Geoffrey Gooch** offers an insight into the work of his team, looking to address that very challenge



Can you outline the aims and objectives of the LiveDiverse project? What are the primary issues that it seeks to address?

Many of the world's most biodiversity-rich regions are to be found in poor and remote areas in developing countries. Protected areas such as national parks and reserves, created to preserve biological diversity, are often located in places where local populations also face major challenges to their livelihoods. The challenge is to protect biodiversity in these areas while at the same time increasing the livelihoods of the local populations. High poverty levels and growing populations often lead to increased pressure on forests, wetlands and other protected areas. The LiveDiverse project formulates strategies, together with local people, that help to alleviate poverty and improve livelihoods while at the same time protecting biodiversity.

What are the challenges of ensuring that the protection of biodiversity is not at the expense of rural livelihoods or quality of life?

The livelihoods of rural populations living in and around protected areas are often based

on a combination of agriculture, fishing (where possible), hunting and the collection of edible and medicinal plants, fruits and herbs. Illegal hunting and fishing and the excessive collection of natural products all have negative impacts on biodiversity. In order to protect biodiversity and increase livelihoods, people need alternatives to the overuse of products from the protected areas. More productive agricultural methods can increase crops and provide more food, but it is also necessary to develop new sources of income. They might include the managed and sustainable collection and sale of plants, fruits and herbs, the development of ecotourism, sale of traditional handicrafts and the development of small-scale tourist accommodation as well as paid involvement in the protection of biodiversity.

The study takes in four riparian and aquatic sites in Costa Rica, India, South Africa and Vietnam. How does your set of considerations differ for each of the four regions?

Within each of the case areas we have further selected specific villages and communities with which to work more closely, in order to develop in-depth cooperation with local people, especially in the formulation of the participatory scenarios and policy recommendations. The choice of these communities was based on the need to obtain a variety of places in and around the protected areas, as well as the expressed interest of local people to participate in the project. As project resources are also limited, we selected places where the local partners already had established trust with the communities.

To what extent is the dissemination of findings and research activities an important part of the project? Through what channels are you raising awareness of the issues

surrounding poverty and biodiversity, and who is your target audience?

It is not only the dissemination, but more importantly the dissemination of activities and results that are a vital aspect of the project. We have formulated a special communication strategy based on the identification of our target audiences and the specific means to reach each of those audiences. We have combined an interactive website and printed information materials with information in local languages and presentation of the project at domestic and international meetings. However, in many cases we have prioritised personal meetings with local authorities, stakeholders and community members. Our target audience is both the scientific community and the stakeholders and decision makers in our case areas. Through the formulation of development alternatives we also aim to include international organisations in the continuation of our work after the end of the project.

How has the involvement of various groups and regional stakeholders complemented the study, and do you see it contributing to the fulfilment of the project's goals?

The project communication strategy is based on the active involvement of policy makers, stakeholders and the public. Through the use of participatory scenario development and the identification of alternative development plans for the case areas, these groups are a vital part of the project. We see them more as our partners than as a complement, as when we look to what will happen when the project ends, we see that it is these groups that will need to continue our work, hopefully through the implementation of development and conservation projects funded by governments or development organisations.

A new approach to livelihood

By identifying the relationship between vulnerability factors and developing new methods that take them all into account, the FP7-funded project **LiveDiverse** proposes a model that is visionary and sustainable

MUCH IS BEING done to protect biodiversity-rich regions, but these regions are also often areas in developing countries that are poor and remote, and consequently have their own set of human challenges. LiveDiverse takes an innovative and integrated approach that takes into account not only ecological vulnerability, but socioeconomic and cultural-spiritual vulnerability too. Project leader, Professor Geoffrey Gooch and his team selected four cases in riparian areas in developing countries, based on the need to find places that each represented different physical, political, cultural and economic conditions.

Physical conditions in the case areas range from the semi-arid northern part of South Africa, the rain forests of Costa Rica, the Western Ghats in India and the mountains of northwest Vietnam. Politically, the countries represent the largest (India) and one of the most vital (South Africa) democracies, as well as a country without an army (Costa Rica) and a socialist state (Vietnam). Despite their differences, all of the case areas represent similar situations of communities and ecosystems, as Gooch explains: "They all follow a common theme – that of people living in poverty in or around protected areas".

A MULTI-PHASE APPROACH

The first phase of LiveDiverse involved a case-by-case assessment of existing conditions, including governance systems, in the project case areas. Through this work, a vast amount of information about the case areas has been collected and organised in a database that will be accessible after the project ends in 2012. The first phase also involved the development of methodologies to understand public beliefs, values and attitudes to biodiversity and livelihoods, and ways in which to develop and increase public participation. The second phase of the project focused on measuring different forms of vulnerability (ecological, socioeconomic and cultural-spiritual) and the interactions between them. Here the LiveDiverse team both employed existing methods which were modified for their specific case areas, and also developed new methods, especially for measuring cultural-spiritual vulnerability.

Over two-thirds of the way into the project, the third phase is now being completed and this will result in a Geographic Information System (GIS) database and maps showing the type and distribution of the different forms of vulnerability as well as physical and administrative attributes of the case areas studied in LiveDiverse. Here LiveDiverse has developed innovative methods that allow others to access their data and results online through a simple user interface. The fourth and final phase will involve the construction of

scenarios for each case area, and the formulation of policy recommendations.

ACCOUNTING FOR BELIEFS AND PRACTICES

The integration of the study of local people's spiritual beliefs and cultural practices into LiveDiverse is integral to the team's understanding of the case areas they are studying. Spiritual beliefs and values have been studied in a number of ways; a survey of households in all the case areas looked into the interactions between spirituality and customs, providing a basic matrix of information. Furthermore, members of the project team have visited households in the communities for in-depth discussions of traditional ceremonies around birth, marriage and death, and also of how beliefs and customs influence agricultural practices and other forms of livelihoods. They have also collected details of specific spiritual sites, and where this information is not considered sensitive or confidential, it will be included in the LiveDiverse GIS mapping.

LIVE SCENARIOS

One of the methods being employed by LiveDiverse is the development of biodiversity and livelihood 'scenarios', which combine aspects of biophysical, socioeconomic and cultural-spiritual vulnerability. They are devised in a way that reflects their integrated and sustainable approach, as Gooch elucidates: "The scenarios are being constructed through a participatory process involving three rounds of stakeholder meetings". In the first of these meetings, people were free to talk around issues of livelihoods and the protection of biodiversity, as in a focus group. In the second round of meetings, the main drivers of change in a 10 to 15 year perspective were identified. In the final round of meetings, which are now underway, community members have been presented with the project team's formulation of drivers for discussion and modification. The final scenarios will be used for discussions on which types of future are

RUNNING WATER! A VILLAGE PUMP IN THE GREATER KRUGER REGION, SOUTH AFRICA © GOOCH



COLLECTING FIREWOOD IN THE WARNA RIVER BASIN, INDIA © GOOCH



considered desirable or undesirable, feasible or unfeasible. The project will also use these scenarios to formulate concrete proposals for development and protection.

OVERCOMING CHALLENGES

Being in remote parts of developing countries, LiveDiverse's case areas are often only accessible over rough roads, and not at all accessible at certain times of the year such as the rainy season. Having eight project partners who have visited the case areas to conduct research has meant that the logistical challenges faced have been significant, but LiveDiverse has used local guides and translators during the fieldwork, which they have found to work well. Gooch points out that apart from overcoming the logistical challenges of conducting fieldwork, researchers have also needed to spend time discussing the meaning of project concepts, as the project team represents different countries and cultures. Key to this aspect of the project is trust and respect, as Gooch is keen to emphasise: "We have put considerable effort into trust-building in our communities and making clear that this is a research project, and local people in all case areas have been very receptive and willingly shared their experiences with us," he says.

MAPPING SUCCESS

The most significant scientific developments of the project so far are that the LiveDiverse team have developed methods for examining and analysing different forms of vulnerability and combining these in a GIS mapping system. They have also conducted considerable fieldwork across the four case areas and gathered their results in a project case area database, much of which will be available for other researchers after the project's end. But LiveDiverse also has another aim, to formulate strategies for combining the improvement of livelihoods with the protection of biodiversity. Here they are now working with local communities to formulate new projects that would achieve these aims. These strategic advances are already manifesting, as Gooch illustrates: "In South Africa we are working with one of the communities to produce a development plan, and in Vietnam we have been asked to contribute to the formulation of a plan for ecotourism".

LOOKING FORWARD

Looking to the future, the LiveDiverse team are forging alliances with their case communities in order to formulate new projects that will build upon the results of LiveDiverse. In keeping with the LiveDiverse project, these will take into account both livelihoods and biodiversity, and address the major challenges facing the communities. These challenges include lack of capital for small-scale, community-based investments, insufficient knowledge of new agricultural methods and ways of marketing handicrafts, and the question of training local people as ecotourism guides. It is the hope of Gooch and the LiveDiverse team that they will be able to contribute through the formulation of new projects, to sustainable development in the countries that they've worked in, as well as in other parts of the world.



INTELLIGENCE

LIVEDIVERSE

SUSTAINABLE LIVELIHOODS AND BIODIVERSITY IN RIPARIAN AREAS IN DEVELOPING COUNTRIES

OBJECTIVES

The LiveDiverse project formulates strategies, together with local people, that help to alleviate poverty and improve livelihoods while at the same time protecting biodiversity.

PARTNERS

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Society for Promoting Participative Ecosystem Management, India
Council of Scientific and Industrial Research, South Africa
Escuela de Relaciones Internacionales de la Universidad Nacional, Costa Rica
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