

Linking conservation and livelihoods

Raising community awareness and improving livelihoods are key to the sustainable development of the Cibodas Biosphere Reserve in West Java, Indonesia

by Herry Subagiadi¹ and Harianto Arifin²

¹ Director of Gunung Gede Pangrango National Park (hsubagiadi@gmail.com)

² ITTO project coordinator (hari.bid3@gmail.com)



The community and the forest: They should benefit each other. Photo: Anggia Ananda, GGPNP

ITTO project TFL-PD 019/10 Rev. 2 (M): *Developing collaborative management of Cibodas Biosphere Reserve in West Java, Indonesia*, which spanned 2010–2013, was part of ITTO's Thematic Programme on Forest Law Enforcement, Governance and Trade. Implemented by the Gunung Gede Pangrango National Park Authority under the Indonesian Ministry of Forestry, the project's strategic objective was to promote the conservation and sustainable use of biodiversity and environmental services of the Cibodas Biosphere Reserve (CBR), specifically by strengthening forest law enforcement and governance in the reserve.

The Cibodas Biosphere Reserve

The CBR is one of eight biosphere reserves in Indonesia; the Gunung Gede Pangrango National Park (GGPNP) functions as its core area. The CBR covers an area of 118 000 hectares, of which the GGPNP comprises 22 851 hectares. The CBR, which was formally adopted as a UNESCO Man and Biosphere World Monitoring Site in 1977, is located in the densely populated province of West Java and consists of the GGPNP, recreation and nature reserves, and community settlements.

The CBR is an important source of water for surrounding cities, such as Bekasi, Bogor, Cianjur, Jakarta, Sukabumi and Tangerang; more than 60 rivers flow from it. In 2010, the spring water debit of the GGPNP was estimated at 40–500 litres per second, and the annual economic value of the water for surrounding communities was Rp 4341 billion (US\$370 million at the exchange rate current in July 2014). The CBR yields about 231 billion litres of surface water per year in four watersheds—those of Ciliwung, Cimandiri, Cisadane and Citarum. More than 20 million people in the Jabodetabek area of Bekasi, Bogor, Depok, Jakarta and Tangerang use this water.

The CBR is under pressure from encroachment and illegal land occupation, however. Sixty-six villages surround the core area of the CBR, and they pose a serious threat to sustainable management due to the prevalence of illegal agricultural activities, wood pilfering and hunting. Over time, such activities lead to forest degradation, which in turn contributes to flooding, soil erosion and irregular water supplies and perpetuates the poverty of the villagers themselves. If no action is taken, considerable negative impacts are inevitable, including flood disasters in Jakarta and other urban areas.

The project proposal defined the key problem as the poor implementation of good governance practices and ineffective law enforcement in the conservation and sustainable use of biodiversity and environmental services in the CBR. This key problem has at least three underlying causes: 1) a lack of stakeholder commitment to the sustainable management of the CBR; 2) the absence of an integrated strategic management plan for the CBR; and 3) limited community awareness of the need for the sustainable use of biodiversity and environmental services.

Cibodas Biosphere Reserve concept

The biosphere reserve concept is about harmonizing conservation—be it on land, in coastal areas or at sea—with economic development. In the CBR, the ambition is to harmonize biodiversity conservation with sustainable development to achieve a balance between human need and nature. That is the vision that CBR managers strive to achieve, and it functions as the underlying value of day-to-day management operations.

Applying the biosphere reserve concept in the core area of the CBR (i.e. the GGPNP), therefore, is not solely about protecting the conservation area; it also requires an

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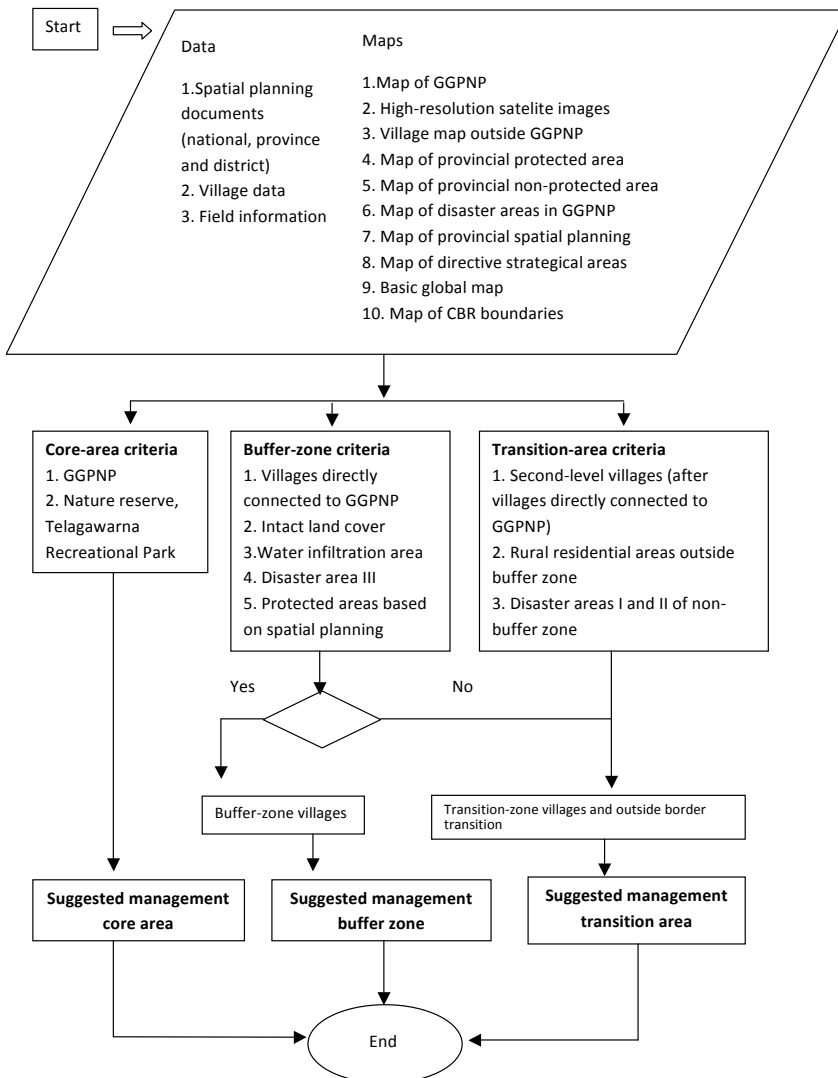
integrated and unified effort to develop the surrounding area. Under the biosphere reserve concept, there is a close relationship between conservation and development, and realizing sustainable biodiversity conservation requires sustainable community development.

Improved governance and law enforcement is needed in the CBR to prevent encroachment, illegal logging and poaching. At the same time, the local community needs to understand the CBR concept and the benefits they gain from it. Proponents of the CBR have a responsibility to convince communities in the area that the implementation of the biosphere reserve concept can benefit them.



The Cibodas Biosphere Reserve: A management concept that balances conservation and development. *Photo: Anggia Ananda, GGNP*

Figure 1: A proposal for rezoning the CBR



Community awareness on improving forest law enforcement

Law enforcement efforts in the CBR would achieve greater success with community support. If local people value the conservation outcomes supported by law enforcement, they will assist law enforcement by avoiding law violations and by actively cooperating with local law-enforcing institutions to prevent or uncover violations.

Awareness of the benefits of the CBR needs to be raised among local people. One of the project strategies was to develop a cadre of local trainers and extension workers with knowledge of the CBR. The project held training-of-trainers workshops involving primary stakeholders among community groups in the districts of Bogor, Cianjur and Sukabumi. Through these workshops, trainees were equipped with knowledge of the CBR and its management, its significance in supporting local sustainable development, the value of its biodiversity, and various aspects of strategic planning. The trainers now have the capacity to assist their own communities and others in the CBR, and local people have greater capacity for self-empowerment. This is important because the project aimed to build capacity in the communities to pursue sustainable economic development opportunities.

Having trained the trainers, the next step was to deploy them in the communities. The project facilitated a promotional campaign aimed at local people, assisted by 65 trainers who had been equipped with the necessary extension skills. These trainers met with local community groups, such as farmers, students and community leaders; they had direct dialogues with a total of 2639 people over a two-month period. As a result, there is now greater understanding in local CBR communities of the crucial role those communities can play in managing the CBR by limiting their environment-based livelihood activities to the buffer and transition zones outside the core area of the CBR.

Given the large area of the CBR, the project took a strategic approach in its choice of activities and implementation. While the aim is to realize sustainable development in the

CBR in the long term, the aim of this pilot project was to provide a learning laboratory and a model of sustainable development that could be replicated in other areas and further developed for wider application. During the project, three sustainable development activities were developed:

- ecotourism, and crafts (such as lanterns and handbags) using waste plastics, in Pasir Buncir Village, Bogor Regency;
- renewable energy (biogas and fertilizer) using cow manure in Langensari village, Sukabumi Regency; and
- organic farming in Ciputri, Cianjur Regency.

These activities also involved the participation of the local private sector and non-governmental organizations (NGOs) in establishing links with local markets for selling the products.

The development of environmentally friendly and environment-based livelihood activities is part of achieving a balance between humans and nature in the CBR. The project demonstrated such activities among communities and amplified the learning through training involving local communities in three districts. By these means, the local communities gained not just knowledge but also skills, and they now have a greater range of options for augmenting their incomes while not breaking the law through, for example, encroachment, illegal logging and poaching.

Other factors contributing to effective law enforcement

Other factors that contribute to effective law enforcement are the legal framework that regulates the CBR and the human-resource capacity to implement it. The project conducted training on forest laws and regulations that apply in the CBR through multistakeholder workshops involving law-enforcement officers (e.g. civil-service police, the justice department, public prosecutors and forest rangers in Bogor, Cianjur and Sukabumi districts) and other stakeholders, including NGOs. Through their representatives, law-enforcement agencies in the three districts received insights into the relevant regulations and policies. Open discussions, experience-sharing and hypothetical crime case methods were used to improve understanding among law-enforcement officers and to provide them with insights into effective law-enforcement operations and the use of the right regulations in the right circumstances. The policies and regulations were disseminated more widely, too, mainly by reproducing them and distributing them to various parties and stakeholders.

The project was unable to have an impact on sectoral policies and programs, but it initiated certain actions that will ultimately have positive effects, as follows:

- A proposal to rezone the CBR to encompass a larger land area and a larger number of villages (Figure 1), if adopted, would help improve the efficiency and effectiveness of development policies and programs at the district level of government.
- Adoption of the integrated strategic management plan, a final draft of which was produced by the project, would influence the development of policies and programs at the central, provincial and district levels, especially the prioritization of programs and actions, as well as state budget appropriation.
- The drafting of a PERDA (Indonesian regional/district regulation) on CBR development initiated by the project will be continued by a work group composed of district government institutions in three districts. When adopted, it will change the development policy and program at the provincial and district levels.

The capacity to grow, and the future

One of the main conclusions made at project completion was that the support of local stakeholders was easily obtained because of the inclusion in the project of a major component aimed at improving livelihoods, thus increasing the likelihood that both conservation and poverty-alleviation efforts would be successful and mutually supportive. The importance of the project is that it has nurtured a seed of sustainable development by: improving the capacity of the communities and law-enforcement agencies; generating improved data; initiating policy development initiatives such as the integrated strategic management plan; introducing new livelihood opportunities; and generating other tangible outputs. The increased knowledge, skills and experience will enable continued progress, with community awareness of the benefits of sustainable use providing the driving force. Through the project, ITTO has contributed to sustainable development and conservation in the CBR.



Law enforcement officers: Community support, human resources and the quality of the legal framework are contributing factors to efficient law enforcement. *Photo: Anggia Ananda, GGPNP*