



A Guide to Biodiversity for the Private Sector

www.ifc.org/BiodiversityGuide

Holcim Vietnam Ltd.: Cement manufacturing in a critical ecosystem

The Bottom Line

You need to continually reassess and re-evaluate biodiversity, as situations change (development progresses, species behavior changes). Biodiversity issues that may not have seemed like a problem in the beginning can become a big risk as time passes and the project evolves.

A Project Rises

The Ha Tien Plain is situated in the south-western corner Vietnam, adjacent to the border with Cambodia. Part of the Mekong Delta, it is an area of seasonally flooded grasslands, wetlands and, on its coastal strip, mangrove forests. It is also the only location south of Ho Chi Minh City where limestone is available — a range of karst formations rise out the Plain at the Hon Chong peninsula and continue to the north and south. A number of sandstone hills also contribute to the landscape of the area.

In 1993, the Swiss-based cement company Holcim (formerly Holderbank) approached IFC about a proposed greenfield cement plant at Hon Chong. Vietnam had recently opened up to foreign investment and its economy was growing rapidly, outstripping the supply of cement available from the two operators already established in the region. The greenfield plant would be a joint venture with the Vietnamese National Cement Company, designed to the highest international standards and with a production capacity of 1.4m tonnes of cement per annum. Limestone would be sourced from two karst formations adjacent to the plant site: Ba Voi and Cay Xoai.



A group of eastern Sarus crane feeds on remaining fragments of disturbed grassland, Hon Chong. Photograph courtesy of Hoa Doan.

The proposed site was highly scenic with a fledging tourism industry, but did not appear to meet IFC's natural habitat standard, given the degree of disturbance. It had been bombed during the Vietnam War, and was classified as unproductive and therefore subject to various improvement schemes, including rice cultivation and forestry. The government-appointed consultants who undertook the Environmental Impact Assessment (EIA) focused primarily on technical aspects (e.g. emissions) and paid only modest attention to existing biodiversity, noting that “very little wildlife has been seen in the area — only a few monkeys and...a remarkable lack of birdlife.”

Just before Board approval, IFC received a letter from a French biologist who questioned the lack of attention paid to the biodiversity of the limestone hills. After discussion with the consultants who undertook the EIA, it was concluded that his views overstated the case for conservation and failed to recognize Vietnam's critical need for cement. In September 1995, the IFC Board approved a \$97m investment (\$30m for its own account and \$67m syndicated to other banks).

Managing Change

From the outset, the Hon Chong project was faced with the management of change. The northern half of the Ba Voi limestone concession was designated a cultural monument and therefore an alternative karst — Khoe La — was agreed in exchange. Construction and costs were higher — and initial production volumes lower — than anticipated. The Asian crisis drastically reduced the demand for cement. And more information regarding the biological value of the area was coming to light.

As the plant became operational in May 1998, IFC began revisiting the adequacy of the EIA. A US-based non-governmental organization had put Hon Chong on its list of the world's most threatened karst landscapes. Other organizations and academic researchers were highlighting not just the limestone, but the grassland, wetland and mangrove habitats in the region. It seemed that mosaic of habitats in the Hon Chong region generated much of its biodiversity value.

In 1999, the World Bank and the World Conservation Union had held a workshop on limestone biodiversity, and later the Bank published a report on the impact on biodiversity of limestone quarrying in East Asia. The same year, Birdlife International released "The Conservation of Key Wetland Sites in the Mekong Delta" [www.birdlifeindochina.org/report_pdfs/report12.pdf] which put the grassland area immediately south of the Holcim Vietnam plant first on its list, due to its importance for large, endangered waterbird species.



The plant site in 1992, prior to development. Cay Xoai to the right, Ba Voi to the left and seasonal wetland in the foreground. Photo courtesy of Louis Deharveng.

Alongside this recognition of biodiversity value, the development of the area continued. Shrimp farming expanded rapidly across the entire region, permanently converting the freshwater grassland and mangrove ecosystems into brackish ponds. Rice agriculture also expanded. As grassland habitats were lost throughout the Delta, the endangered eastern Sarus Crane — the world's tallest flying bird — started to congregate in larger numbers in the fragments which were left, including those close to the Holcim Vietnam site.

IFC and Holcim Vietnam recognized the need to take action, but the way forward was not clear. The government priority was economic development. Holcim did not want to jeopardize the mineral rights they had been given to the limestone. The economics of the plant compounded the situation further: all parties were focused on how to keep the plant viable.

A Way Forward

In 1999, IFC commissioned a biodiversity assessment of the Hon Chong region, supported by donor funds from the Australian

government. Several factors delayed the [final publication of the report](#) (in 2002) but its conclusion was clear:

"The presence of a globally threatened species [eastern Sarus Crane] in conjunction with the high and previously unrecorded endemism of the limestone mammals makes a compelling case for an integrated conservation initiative, encompassing the adjoining limestone, wetland and sandstone habitats."

The question of how to implement the report's recommendations remained. It was clear to the company that addressing biodiversity issues would be an important part of doing business in the Ha Tien Plain. Holcim Vietnam's new Managing Director, a biologist by training, recognized the issue was not just of local concern: Holcim's corporate reputation could also be affected by the outcome in the area, even for those issues where Holcim Vietnam had no direct control (e.g. habitat loss outside its plant fence).

Although part of the larger global corporate structure, the Managing Director had the autonomy needed to make local decisions. His approach was supported by Holcim's corporate policies on sustainable development, which provided him with the confidence and framework needed to proceed.

Holcim Vietnam and IFC approached the International Crane Foundation [www.savingcranes.org] and formed a partnership to identify viable sites to conserve. The goal was to demonstrate that maintaining the habitat in its natural state was more economically valuable than converting it to either shrimp farming or rice production.

Two candidate sites were identified — one immediately south of the Holcim Vietnam plant and a second at Phu My, approximately 30 miles to the north. The intervention came too late for the first site, as aquaculture continued to expand. Phu My remains under



The Holcim Vietnam plant in 2003, taken from the Cay Xoai mining area. Another karst designated for exploitation - Khoe La - is in the background.

conservation management and, further, is currently demonstrating its economic viability. The villages surrounding the site are sustainably harvesting the long grasses which grow seasonally in the reserve and converting them into handicrafts. The project has won financial support from several sources (including the World Bank Development Marketplace) and local government support (a critical component for its current and future success).

Significant Challenges Remain

At the end of 2003, Holcim Vietnam paid off the IFC loan and therefore IFC's contractual leverage ended. IFC could no longer directly influence difficult decisions that would have to weigh environmental mitigation against operational needs and growth plans. Nevertheless, Holcim Vietnam, IFC and the International Crane Foundation continue to discuss the biodiversity challenges.

The eastern Sarus Crane now roosts within the Holcim site boundary — in a wetland area scheduled to be consumed by the company's clay pit in due course.

In 2004, the Holcim Vietnam board agreed to undertake a new biodiversity study of the Ba Voi karst and, in doing so, delay its exploitation — a particularly challenging decision given that the extraction license was about to expire. The study revealed that the population of the endangered silver-backed langur would be adversely impacted by the quarrying activities, as the habitat remaining after quarrying would not be sufficient to support the current population. In addition, relocation of the monkeys would not be an option, because of difficulties in capturing them. Ba Voi also remains important for a range of endemic and rare invertebrates. How to address the biodiversity impacts arising from extraction activities remains a major management issue for Holcim Vietnam.

Learning Lessons

This is the story of Holcim Vietnam and IFC learning from ten years of engagement on a project where the biodiversity management has been difficult and largely unsuccessful to date. It is also the story of how a project evolves and must respond to a changing situation on the ground and emerging scientific knowledge.

The case shows the **value of a partnership** between the private sector, an international financial institution and a specialist NGO. The IFC encouraged Holcim Vietnam to become involved in biodiversity issues, leveraging the work as part of its loan conditions and facilitating contacts with the International Crane Foundation, which provided expert advice and credibility. Holcim Vietnam provided the development context within which the studies were carried out and the motivation for the studies.

Critically, **the engagement of a private sector entity initiated a change in attitude at the provincial government level.** While academics and conservation NGOs spent years promoting action on the issues identified in the studies, they saw scant response from the government. As the most visible private sector enterprise in the region, Holcim Vietnam's involvement catalyzed the interest of the authorities. While it may be late for effective conservation measures in the Ha Tien plain, more enlightened attitudes towards sustainable development could benefit management in other areas.

The case also illustrates the value of **adaptive management.** The initial environmental impact assessment did not identify biodiversity as an issue (which reinforces the need for careful consideration of the scope of assessments and consultants selected). However, further studies did identify critical biodiversity issues, and the company was able to adapt its approach over time.

Ongoing monitoring and adaptive management will be required for Holcim Vietnam to manage these and other emerging biodiversity issues. It is important not to assume that situations present today will remain the same in the future; ongoing monitoring will enable more sensitive management measures to be put into place. Time and place usually dictate what needs to be done—the response should be both pragmatic and responsible.

While each investment has specific characteristics, IFC's new **Performance Standards (PS)** address many of the lessons of the Holcim Vietnam project.

PS 6 on Conservation of Biodiversity and Sustainable Natural Resource Management:

- speaks of biodiversity rather than the more restrictive “natural habitats”
- recognizes habitat destruction as the major threat to the maintenance of biodiversity, irrespective of whether the habitat is classified as natural, modified or critical
- specifies the client's responsibilities toward modified habitat
- speaks in terms of the project's area of influence, rather than just the physical boundaries of the project.

PS 1 on Social and Environmental Assessment and Management System:

- emphasizes the importance of having adequate business systems for managing environmental (and social) risks throughout the life of a project. Biodiversity is not a static concern. Ongoing and adaptive management is required to deal with emerging biodiversity issues
- Speaks in terms of the project's area of influence, rather than just the physical boundaries of the project.