

Financing Nearshore Windfarm Projects

This case study is based on two nearshore windfarm projects ('Project' or 'Projects') in receipt of Climate Investor One (CI1) financing. CI1 is a blended finance facility delivering renewable energy infrastructure projects in emerging markets. One of these Projects is a 48 MW wind farm with 12 wind turbines, the other is a 78 MW wind farm with 18 turbines.

These Projects applied the [Sustainable Blue Economy Finance Principles](#) ('SBE Finance Principles' or 'Principles') as a lens through which to view and measure their positive impact. The Principles have also been embedded in the ongoing management and mitigation of potential adverse impacts.

Key facts:

- **Blue economy sectors targeted:** Marine renewable energy
- **Project:** Near shore wind farm projects
- **Timeline of the project:** 2019 – 2021/2022 (construction phase); 2021/2022 – 2041/2042 (operating phase)
- **Geography:** Mekong Delta, Vietnam
- **Key words:** climate change mitigation; climate change resilience; alignment; biodiversity; animal welfare; coastal and marine habitats; inclusive livelihoods

Who?

[Climate Fund Managers](#) (CFM), an investment manager contributing towards mitigating and building resilience to climate change in Africa, Asia and Latin America, as co-investor with [ST International](#).

Where?

The Mekong Delta, where both Projects are located, is home to one of the most abundant

biodiversity systems, which has been described as a [biological treasure trove](#) that contains one of the most productive and diverse river systems on Earth. It includes a large number of Important Bird and Biodiversity Areas (IBAs) and has been subject to years of scientific research efforts by organisations including the IUCN and Worldwide Fund for Nature. As a result of climate change (sea level rise, coastal erosion and saltwater intrusion) and human factors (e.g. clearing of mangroves and draining of land for farming), however, the biodiversity and resilience of the Mekong Delta is deteriorating. This deterioration threatens not just the lives and livelihoods of the people living and working there, but also the myriad species of flora and fauna that rely on the delicate balance of the natural environment. This has been recognised by the countries through which the Mekong river passes, and it has become a [key priority for Vietnam](#).

Birds, bats and marine mammals were identified as potential sensitive receptors. This location and integration of mitigation and management of biodiversity has presented both a challenge and an opportunity to the success of the Projects and to external stakeholders.

What?

Over the operating lifetime of the two projects, it is expected that 400 gigawatt hours per year of clean energy will be generated, resulting in 170,000 tonnes of carbon dioxide equivalent emissions being avoided every year, and more than 300,000 people will benefit from improved access to renewable energy.

A long-term programme of work is underway to support the coastal communities living and working in the area. This Community Development Programme forms part of CFM's strategy for long-term community development and is designed to lay the foundations for improving wellbeing and resilience to future climate and economic shocks. Working with [SNV Netherlands Development Organisation](#), the programme will focus initially on improving access to clean drinking water, with a longer-

term goal being to improve livelihood resilience through climate smart aquaculture and agriculture. The programme seeks to promote gender equality and social inclusion through its interventions which will promote women's economic empowerment in the development of value-chains and prioritise marginalised Khmer communities and households. The Community Development Programme aims to improve local livelihoods through a market-based approach that promotes climate smart, sustainable and inclusive agriculture and aquaculture.

An IFC-compliant Livelihood Restoration Programme (LRP) is also being developed for each Project. The LRP will put in place a process to restore the livelihoods of all project-affected persons (PAPs) to their conditions prior to the Project; and positively contribute to the local community to ensure that long-term sustainable economic and social development can be derived from the Project. The LRP includes people involved in farming and nearshore fishing.

How?

Three of the Principles are directly relevant and have helped to shape a programme of activities:

- *Principle 1* (Protective): CFM wants to achieve a long-lasting positive legacy. In relation to biodiversity, although the environmental and social impact assessments determined that the Projects are unlikely to have an adverse impact on shorebird populations, the Projects are committed to a net gain in biodiversity value during a 20-year management period.
- *Principle 2* (Compliance): Both Projects are required to comply with the relevant legal requirements for environmental protection; as well as CFM's requirements for adherence to adopting good international industry practices in relation to sustainable development. For example, during the piling works required to establish the turbine foundations, the Projects had to establish

rigorous arrangements to align with best practice for biodiversity protection so that species such as the rare Irawaddy dolphin (*Orcaella brevirostris*) would not be harmed.

- *Principle 14* (Science-led): Supported by CFM, both Projects have elected to enter into a programme with [BirdLife International](#) to fund research and ongoing conservation efforts in relation to the two migratory bird species and IBAs in the Mekong Delta. Knowledge regarding the biodiversity of the area is limited but growing, and the Projects will help to further strengthen our collective understanding. The initial two-year programme with BirdLife International will involve a comprehensive re-assessment of key wetland sites, including selected IBAs identified on the coastline of the Mekong Delta to determine the present importance of these sites for migratory shorebirds and their associated threats. The output of the programme aims to provide the basis for a follow-up phase to undertake prioritised conservation actions for shorebird conservation in southern Vietnam.

Looking back...

The disturbance to wildlife was a key consideration during the construction of the two projects and will continue to be during the operation of the assets. A key challenge was to make sure that the risk of disturbance to marine mammals was minimised during the construction phase. To do this, the Projects were required to obtain passive acoustic monitoring equipment. Unfortunately, such equipment was not available in Vietnam and arrangements had to be made to import it from Hong Kong. This in itself was a challenge which was compounded by the COVID-19 pandemic which disrupted transportation of the equipment. In addition, remote training had to be organised, and the large data sets generated by the PAM had to be downloaded daily and sent to Hong Kong for review. None of these challenges had been previously identified and plans needed to be adapted to accommodate them.

In relation to biodiversity, a notable success of the project was that it commissioned the first known nearshore bat survey in Southeast Asia to establish baseline data for bats at the project sites. The results of the surveys will help to support knowledge regarding bat populations in the area.

“Using the indicators, verifications, actions and recommendations, included in the [\[Turning the Tide’s\]](#) criteria annex can help projects at an early stage to identify opportunities to reduce risk and plan for environmental and social benefits to be realised. The guidance document provides a comprehensive list of indicators that can be used from the outset of investment-decision making through to project design, construction and operation. Building the Principles and the indicators into each stage of the project lifecycle will facilitate an integrated approach to protecting the blue economy alongside achieving other objectives.”

- Spokesperson from Climate Fund Managers