



# Preparing for Climate Change

## Scaling up community responses to climate change and coastal conservation in the Mekong Delta

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Kien Giang province in the Mekong Delta is one of the most vulnerable provinces to climate change in Vietnam.

The province has over 200 kilometres of coastline and 85 per cent of its land is less than one metre above sea level. Sea levels have already risen 20 cm in Vietnam, and are predicted to rise by one meter by the end of the century.

Up to 29 metres of Kien Giang's mangroves and coastline is lost each year to erosion, sea level rise and deforestation. Without mangroves and coastal forest as natural buffers, communities and their crops suffer from salt intrusion, storm surges and flooding.

Between 2008 and 2011 Australia partnered with Germany and the Government of Vietnam to help communities in Kien Giang to adapt to climate change and improve the management of coastal environments.

The Kien Giang Biosphere Reserve Project worked with the Kien Giang Provincial People's Committee and the Provincial Government to address climate change impacts through new technologies including building innovative fences to prevent erosion, rehabilitating coastal forests, promoting new mangrove planting techniques and improving dyke management.

Over three years, the Project:

- Planted over five hectares of mangroves and installed 650 meters of fences to improve the survival and growth of mangroves.
- Introduced new sustainable livelihood activities for communities, such as growing salt tolerant crops, which increased household income by between 50 and 150 per cent for 98 households.
- Increased community awareness of climate change impacts in the community - from just 3 per cent to 77 per cent after three years.
- Developed a teaching program and resources for primary schools on climate change, biodiversity and waste management which have now been incorporated into school curricula across the province.
- Introduced a new water management policy in U Minh Thuong National Park which led to a 30 per cent increase in bird populations and 9 new bird species being recorded.

The new coastal restoration techniques are now being up-scaled with funding from the Vietnam Government. The result has been a reversal of erosion, a build-up of silt and increased growth and survival rates of mangroves.



The impact of climate change is already being felt in Kien Giang. Communities are in danger from storm surges and flooding. Photo: GIZ



Local women growing new varieties of high value coconut through the Project. Photo: GIZ



Planting mangroves helps protect communities from erosion and flooding and provides a habitat for fish and shrimp. Photo: GIZ



Communities are undertaking sustainable farming practices and moving to alternative livelihoods that adapt to the effects of climate change.

The Project used a participatory approach and successfully brought together and provided capacity building to government, research institutes and community organisations such as the Youth and Women's Unions. The project management board included members from civil society, business, government and the community.

The Project also demonstrated effective donor coordination between Australia and Germany in line with the principles of the Paris Declaration on Aid Effectiveness.



The Pilot Program installed 650 metres of silt trap fences like the one above, which reduce wave energy by 60 per cent and prevent silt from stifling mangrove growth. Photo: GIZ

## Climate Change and Coastal Ecosystems Program

Based on the success of the Kien Giang pilot project, Australia and Germany have entered into an expanded partnership across five provinces under the Climate Change and Coastal Ecosystems Program.

This new five year program will bring German funded projects in Bac Lieu and Soc Trang, together with the AusAID-GIZ pilot in Kien Giang, and two new provinces (An Giang and Ca Mau) under a larger unified program. This will be supported by a national component that will promote the sharing of lessons and experience across provinces to inform a national response to climate change.

Under the program, communities will develop their own course of actions to deal with a changing climate and to protect their coastal ecosystems. These adaptation plans will include activities such as rehabilitating mangrove forests, improving dyke construction, development of alternative and adapted income opportunities for communities dependent on coastal forests, and alternative and adapted farming practices.

The program is being implemented under a Delegated Cooperation Arrangement between Australia and Germany by GIZ (Deutsche Gesellschaft fuer Internationale Zusammenarbeit) on behalf of the Federal Ministry for Economic Cooperation and Development, and will finish in 2016.



Targeted areas of the Climate Change and Coastal Ecosystems Program