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Case studies on Remuneration of Positive Externalities (RPE)/ Payments for Environmental Services (PES)

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The Bikin Carbon Tiger project aims at preserving the valuable ecosystem of this region as well as ensuring the continuity of indigenous traditions through the creation of new income opportunities that are not in conflict with the objectives of environmental conservation.

Bikin Tiger Carbon Project - Permanent protection of otherwise logged Bikin Forest, in Primorye Russia

Overview

In 2009, WWF started to invest considerably in ecosystem preservation activities in the region in collaboration with the local population. A first step was to enable the Tribal Commune Tiger (TCT), the local project partner, to lease the NHZ area from the forestry department of Primorye in June 2009. The lease contract grants TCT the use the project area for its own (modest) wood demands and non-timber forest products (NTFP) but stipulates that the contractors must ensure that no commercial logging activities takes place. Subsequently, a management plan for the project area was developed and various protection activities implemented to avoid illegal logging, poaching and forest fires. Finally, a range of social development activities that includes the development of ecotourism infrastructure, facilitation of internet access, modernization of electricity generation, and improvement of local teaching were initiated.

The overall goal is to ensure permanence of these environmental and social improvements by making the project financially sustainable through carbon revenues in addition to the various NTFP revenues. In this context, WWF facilitated a carbon mitigation project that would be able to trade carbon offsets. With the support of the German and the Russian Government, the project owner TCT was able to sign a Memorandum of Understanding (MoU) in 2011 with Carbon Finance (CF) Partners (buyers of carbon credits) that includes an Emission Reduction Purchase Agreement (ERPA).

The project has been implemented by WWF Russia and WWF Germany, with financial support received from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and the German Development Bank (KfW) in partnership with the indigenous peoples' enterprise «Tiger». GFA Envest is project design consultant.

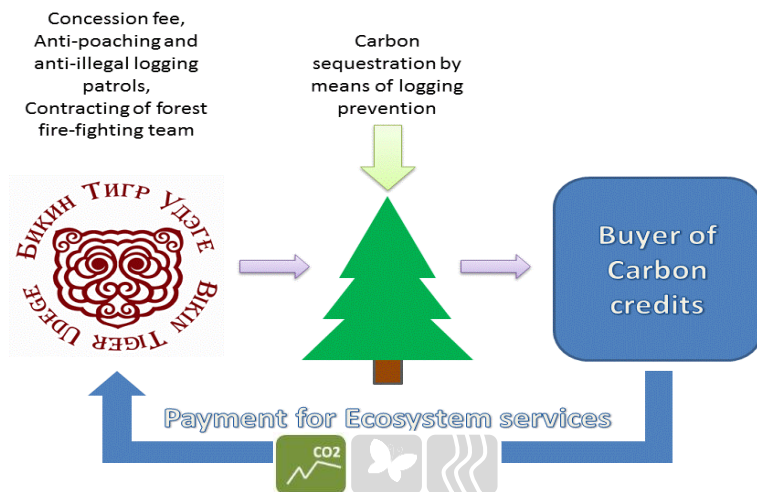


Figure 1: schematic diagram of the key roles

Background

The **Bikin Tiger Carbon Project** aims to mitigate climate change by investing in sustainable livelihoods in the **Bikin Nuts Harvesting Zone (NHZ)**, a High Conservation Value Forest according to WWF's inventory and one of the last intact large-scale watersheds not only in the Russian Far East but also in the Northern Hemisphere (see map in Figure 2). The vegetation of the Bikin NHZ is dominated by mature and virgin temperate coniferous broadleaved forests, which have a particularly high concentration of rare and relict plants. Apart from many other mammal species, Bikin NHZ also provides a habitat for the Siberian tiger (*Panthera tigris altaica*), listed in the IUCN Red List of Threatened Species and the Russian Red Book.

Rationale for investment in conservation

Wood and forest products are the fifth largest source of Russian export earnings and illegal timber harvesting in Russia is widespread especially in the remote regions of Russia. WWF estimates that it overall exceeds 30 percent of the total forest area harvested, reaching up to 50 percent in some areas. Illegal logging is considered to release a considerable size of Greenhouse Gas Emissions (GHG) and to be a threat to essential ecosystem services in the respective region. This is particularly true for the Russian Far East which represents an important forest area. WWF's inventory on High Conservation Value Forests in the Russian Far East estimates that only 15% of the most valuable forests for biodiversity and climate protection are under legal protection.

Of the unprotected areas about 26% are designated as nuts harvesting zones (NHZ). Therefore protecting these areas can considerably assist in securing valuable forest areas in the RFE. The project area (i.e. the Bikin NHZ and the related riparian zone, in total 461,500 ha) is located in the middle portion of the Bikin river area, in the Pozharskii District of the Primorskii Province, Russian Far East. Bikin River are dominated by mature and virgin temperate coniferous broadleaved forests, which have a particularly high concentration of rare and relict plants. This is the only large scale forest left of the once widespread Ussuri taiga. In addition the Bikin Nut Harvested Zone (NHZ) is home for 14 endemic species and 12 endangered species (in particular Amur Tiger – its population estimated to 30-35 animals within the project area). Besides its ecosystem functions the Bikin is also home to indigenous tribe of the Udege. The Udege have been living in the Bikin area for centuries. They follow a lifestyle, which is even today is deeply connected to nature and the tribe's original belief. Thus it was decided to establish a conservation concession and make it "self-supporting". On different stages many different organizations were involved in project design, but the first and main project participants are WWF-Russia Amur branch and tribal commune Tiger.

Driver for PES from carbon finance

In 2009 the organization started to secure the last virgin forests in RFE Bikin River valley as natural carbon storage. This was meant to be achieved by protecting the Bikin NHZ from large scale logging operations and by sustaining the traditional life of the local communities. The project activities comprised (a) efficient Project Management (establishing local project management capacities, (b) the development of a Carbon Finance Concept (developing and implementing a carbon finance concept to ensure the long term financing of the project activities), (c) the leasing of a land concession to be owned by the TCT, (d) the protection of the Project Area through a management plan to avoid illegal logging, poaching and forest fires, (e) the development of a Long Term Financing Concept, including revenues from various NTFP to be complemented by carbon revenues resulting from carbon mitigation activities.

The main stumbling block for realizing concept of conservation concession became annual fees for right of NHZ lease but also there several other activities that also make costs for tribal commune tiger. As it was decided to make the area self-supporting there several PES schemes were investigated, one of them is carbon financing. Conducted feasibility study showed the possibility of carbon financing partly or fully cover the cost for conservation activity thus it was decided to develop project under JI scheme.

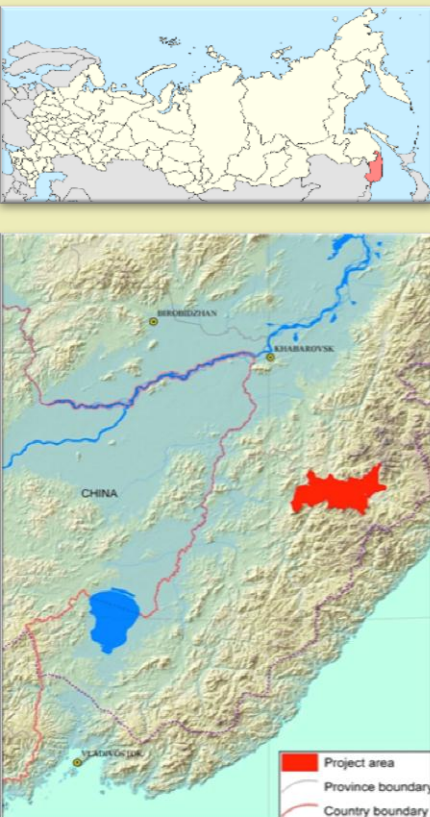


Figure 2. Location of the project area

Funding Mechanism

Bikin's official environmental service is carbon sequestration. However there are several more important aims and benefits that positively affect the local ecosystem functions such as the prevention of logging in the Bikin virgin forests (protecting native forest protection, securing the Amur tiger habitat with its unique fauna and flora, enabling sustainable livelihoods of indigenous people).

In order to achieve these goals, an area of 461 154 hectares was leased by the indigenous peoples' enterprise «Tiger» for 49 years for non-timber forest resources harvesting. As the leaseholder of Bikin NHZ and the owner of potential carbon credits, TCT is the Provider/Sellers of Environmental Service, assisted by WWF Russia and WWF Germany. The tiger carbon project started officially in June 2009 and is expected to end by December 2019. The lease agreement will end in June 2058. The first verification for the carbon crediting has been done in the period from June 2009 to October 2012.

Under the mediation of WWF Russia, Tribal Commune "Tiger" (carbon project owner) and CF Partners (buyer of carbon credits) signed MoU to be part of an Emission Reduction Purchase Agreement (ERPA). Behind it the project received great international attention and highest political support from the Russian and the German governments. This was demonstrated by a Memorandum of Understanding signed in July 2011 between the BMU and the Russian Ministry of Economic Development. The total budget of the project (comprising projecting of the territory, management plans and forest inventory, lease costs and protecting activities, monitoring and PES projecting and implementing (incl. PDD etc.) amounted to 2.5 million euros for the first 4 years. CF Partners are the buyers of carbon credits in the first crediting period (2009-2012).

Special brigades to patrol the territory in order to prevent poaching and illegal logging were formed and equipped and a firefighting group was set up, trained and equipped with firefighting equipment. Finally, the Air Forest Protection Service helps ensuring the proper enforcement of these protection measures. Sustainable forest management is ensured through the creation of a new forest inventory, development plans for forest plots, efforts to compile the documents necessary to make the Bikin River basin eligible for recognition under the UNESCO World Heritage Sites, support for business plans for non-timber forest resources use to generate revenues from NTFPs, a management plan for the hunting society, a project for the carbon credits use; assessment report on the Bikin River basin value for biodiversity conservation.

In terms of policy **embeddedness**, environmental regulation on the federal (Russian Federation) and the provincial level (Primorsky Krai) is supportive of carbon sequestration projects. However, there is considerable uncertainty regarding the possibilities of Annex 1 countries in the Kyoto protocol (those committed to returning to 1990 levels of greenhouse gas emissions) on how to make use of the Joint implementation (JI) mechanism to obtain credit for GHG abatement projects. The Bikin Tiger Carbon project is a first and unique project that seeks to benefit from LULUCF [1]. Also to ensure that the project's Emissions Reductions Units (ERU) are reliable and obtained in a transparent way, the project is implemented under Track 2 procedures that additionally involve accredited independent entity (AIE).



MRV



Ownership

[1]

The JI LULUCF PDD (projects in the land use, land use change, and forestry (LULUCF) sector LULUCF) are eligible for generating credits that are not eligible under the CDM (for example, avoided deforestation, forest and wetland management, sustainable agriculture), JI LULUCF projects have an important demonstration potential for the discussions of a post Kyoto. They are eligible for ERUs (Emissions Reductions Units) in return for GHG abatement measures including sustainable forest management. Yet, there is still substantial uncertainty how JI LULUCF will work in practice.

Lessons Learned

The "Bikin Tiger Carbon Project" was developed under the UNFCCC JI mechanism and is the first forest project of its kind worldwide.

The Bikin project is also unique as it can highly benefit to environment in different ways (Climate change mitigation, biodiversity conservation, avoiding commercial logging in area of 461 154 ha) but still produce great benefits to local people .

The main challenge from this perspective became instability of carbon market (during the project implementation Kyoto carbon market has collapsed and since Russia is unlikely to join the Kyoto 2nd phase, the future plan is to switch Bikin Carbon Project to voluntary markets, under the Verified Carbon Standard, with Climate, Community and Biodiversity Standards (CCB). Documentation for this purpose has already been by these new standards.



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References to the project:

http://ji.unfccc.int/JI_Projects/DB/ULD19J1N_DC2Q6A5GRW12C5C2A17CE0/Determination/TUEV-SUED1350992513.26/historicalDeterminationReport.html

References to other relevant projects and contacts:

<http://www.climate-standards.org/2012/01/12/bikin-tiger-carbon-project/>

<http://www.v-c-s.org/VCS-and-CCB>

Contacts

Remuneration of Positive Externalities (RPE) / Payments for Environmental Services (PES) in the Agriculture and Food Sectors
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