Conclusions from Climate Proofing

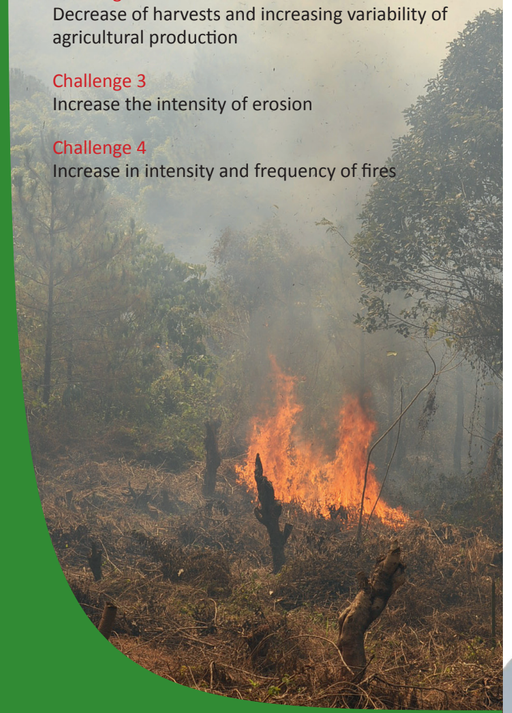
Main challenges were identified on the base of the potential threat they pose for the Buffer Zone of the PNKB National Park:

Challenge 1
Increase in intensity and frequency of flooding

Challenge 2
Decrease of harvests and increasing variability of agricultural production

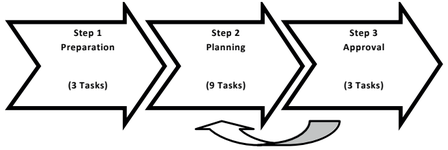
Challenge 3
Increase the intensity of erosion

Challenge 4
Increase in intensity and frequency of fires



Steps for CP4Dev

Making a Climate Proofing for Development (CP4Dev) proposal, three steps for action planning are suggested: (1) Preparation Step; (2) Planning Step and (3) Approval Step. In each step, there are some tasks for implementation as schemed in the figure



Preparation Step 1

For preparing an integrated climate change adaptation to the local socio-economic development plans, it is needed as the first step to push the leading roles of both communities and provincial level by conducting them in particular capacity building and institutional strengthening in making their own action plans. In this step, three tasks are proposed including (i) formulating a technical planning team, (ii) training the CP4Dev methodology and (iii) organizing the workshop for considering the CP4Dev activities.

Planning Step 2

This is the most important stage with

1. defining the main goal and objectives for development planning
2. collecting data and disaster or abnormal weather event reports

Steps for CP4Dev

3. analyzing impacts of climate change in relevant sectors
4. finding the local adaptation in the past and present in different sectors
5. finding the gaps in currently adaptation and future
6. suggesting a new adaptation planning for the future
7. drawing the plans into projects and sub-projects
8. analyzing available projects combined or trade-off

In this step, a list of possible adaptation options will be proposed for helping the local government and PNKB region project to decide which of the possible adaptation options would be best on the local criteria such as cost effectiveness will be considered. The output of step 2 is a prioritized list of feasible adaptation options integrated into the BZDP.

Approval Step 3

The technical planning team has to write a draft CP-4Dev integration action plan for development project. In the draft, the precise stages of implementation measures will be presented. Once this has been done, an open stakeholder workshop will be organized for presentation the output and receiving the mass comments and revision. Then, the team may go back to step 2 for modifying and completing their draft report. A final approval for the CP4Dev will be an end task for the team.

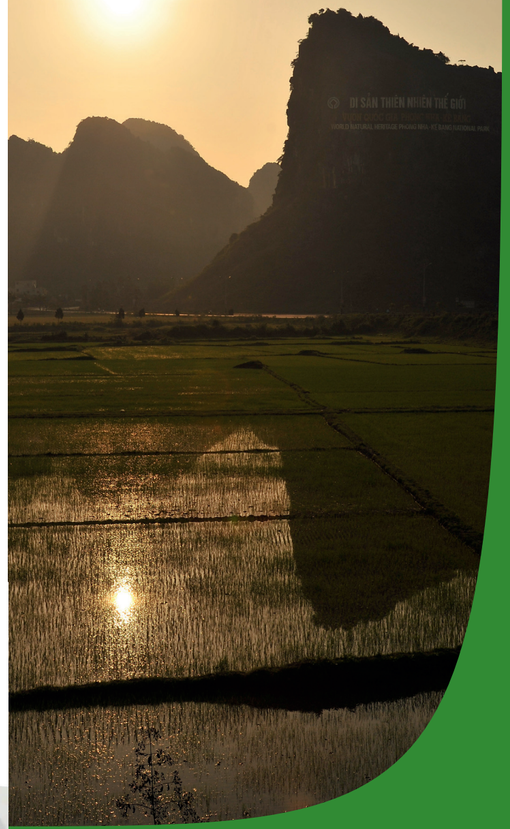
Recommendations

It is recommended to integrate climate change consideration into the strategy and the development plans of the province. Measures adapting to climate change will be considered in approval of the socio-economic development plans in the province.

- **revise and renovate the design standards for building, transportation, water conservation construction and hydropower considering the climate change impact assessment**
- **consider the increasing migration from the coastal zone to the higher places and to the buffer zone due to sea level rise**
- **make infrastructure development adaptive to climate change**
- **consider climate change during reservoir management regulation and river integrated management**
- **raise awareness and community participation**
- **commit to strategic environmental assessment**
- **establish a natural disaster early warning system**
- **enhance the weather forecast system and**
- **encourage less greenhouse gas emission technology**

Climate Proofing

Integrating Climate Change into Development Planning



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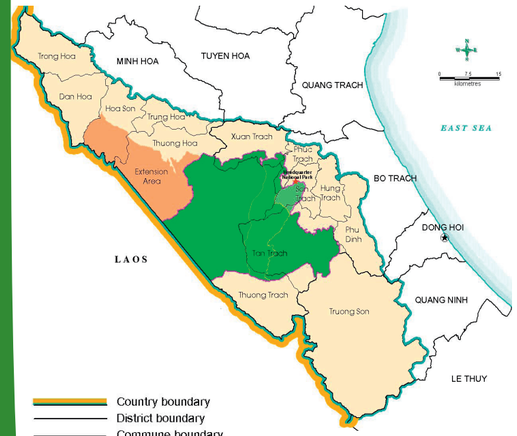


Climate Change Effects

Vietnam is considered as one of the countries most adversely affected by climate change. During the last 50 years, Vietnam's annual average surface temperature has increased by approximately 0.5 - 0.7°C, while the sea level along its coastline has risen by approximately 20 cm. Climate change has resulted in more severe and/or frequent occurrences of natural disasters, especially cyclonic storms, floods and droughts becoming more extreme. In general, the impacts of climate change are heavy on the agricultural sector and water sources of Vietnam.

The central coastal area with its complex geography will be one of the areas, which are most effected by climate change. The topography of Quang Binh is very narrow and slope from west to east, mountains and hills are concentrated to 85 percent in the west. The south west wind blows strongly through the Truong Son Mountain Range, the natural border between Vietnam and Laos, leading a hot and dry weather in the summer time.

In addition to the impacts of climate change the biodiversity of the Phong Nha-Ke Bang National Park, (recognized as an UNESCO World Natural Heritage) suffers from logging and poaching. It is expected that higher temperature and erratic rainfalls will most likely lead to longer and more extensive dry periods and to an increase of forest fires. This could affect the development and conservation of the National Park's biodiversity and the natural resources of the area and the livelihoods of its local people.

Objectives

The project "Nature Conservation and Sustainable Management of Natural Resources in the Phong Nha-Ke Bang National Park Region" supports Quang Binh Province and the National Park region to formulate a Buffer Zone Development Plan (BZDP), which aims to harmonize sustainable economic development and biodiversity conservation. Impacts of climate change on the area and further actions to support development and conservation will be part of it.

The integration of climate change considerations in the BZDP of the PNKB National Park should achieve the following objectives:

- Analyze the relevance of climate change for the BZDP and raise awareness
- Analyze the risks climate change poses to the goals of the BZDP and other plans using the Climate Proofing for Development (CP4Dev)
- Provide recommendations on how the risks can be reduced and how targeted activities for adaptation to climate change can be planned in the buffer zone of the PNKB National Park, and how opportunities, which may arise through climatic change, can be capitalised on
- Provide recommendations on how climate change impacts can be considered systematically in buffer zone development and planning, also beyond the PNKB National Park in other GIZ projects in the fields of climate change and management of natural resources.

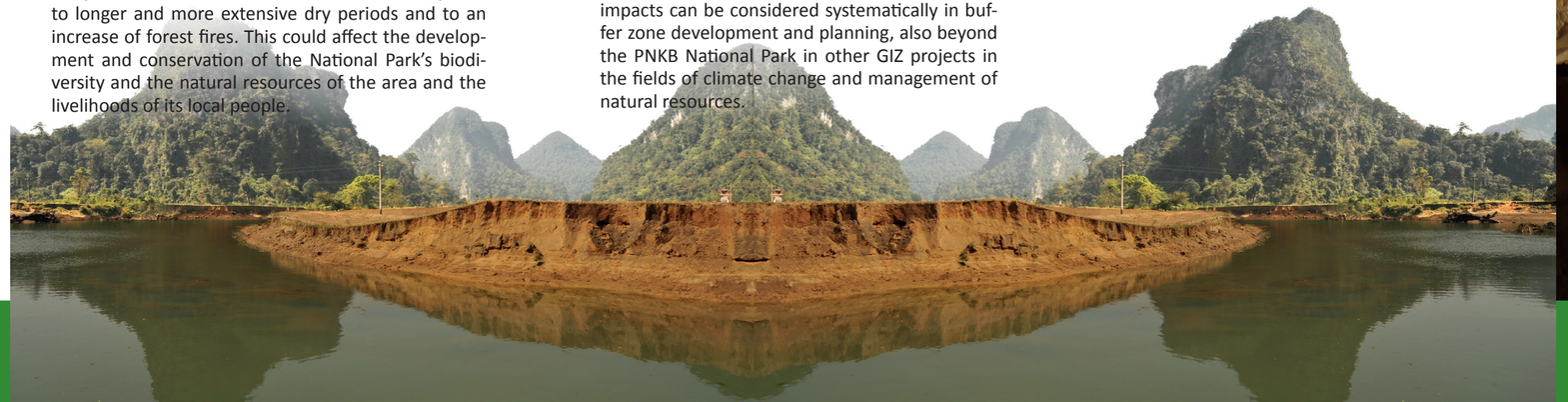
Approach

CP4Dev is an approach to integrate climate change aspects into development planning. It allows analysis of development measures with regard to current and future climate change opportunities and challenges. The approach can be applied at national, sectoral, local and project levels, in the initial planning phase or revising a plan. Properly implemented, it makes a given plan or investment more 'climate-proof'.

For the use in the context of Buffer Zone Development Planning in a biodiversity conservation context in the PNKB National Park it was slightly adapted ("conservation effect" instead of "bio-physical effect", "development effect" instead of "socio-economic effect").

The method consists of 3 steps:

1. **Analyze adaptation needs**
2. **Select feasible adaptation options**
3. **Integrate selected adaptation options into commune market-orientated planning and market-orientated socio-economic development plans.**



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