Workshop 2: "Analysis of changes in Les Diablerets"

(CHANGES meeting, Lausanne, 8th April 2014)

Introduction

Les Diablerets is a mountain village settled at the confluence of the Dar and Grande Eau rivers. Surface processes such as landslides, debris flows and floods have taken place since the glacial retreat around 10,000 years ago. Although the Dar and Grande Eau are relatively small watersheds, they can carry significant amounts of sediments during the flooding events, because of the short hydrologic response.

Several Natural hazards (floods, debris-flow, landslide, snow avalanches) occurring in the area have affected the village in the past, with the last important flood event in 2005 causing severe damages and economic losses.

Aim of the workshop

The purpose of the workshop is to analyze the changes in natural, human and political factors taking place in Les Diablerets, a mainly touristic economy with some rural areas, in the context of natural hazards and management.

Structure of the workshop

The workshop is organized into two sessions:

1. Morning session with the presentations of the invited speakers (local stakeholders and scientific experts)
2. Afternoon session with the short field visit in the area and a four-hour practical exercise to be carried out by the participants in three groups.

Based on data provided and during the field visit in Les Diablerets, the participants should observe the past and potential future changes (population, land use, etc.) of the area by considering the contributing factors such as economics, politics, global climate change and the local situations. The participants are asked to image several different scenarios.

During the practical session, with the initial observation obtained from the field visit and a GIS-analysis of provided data and materials, the participants are expected to answer the following questions:

- Give a brief explanation of natural processes occurring in the area and the factors of vulnerability of the village.
- What are the significant changes in the area?
- What is the trend of the changes and growing fast in which direction, and why?
- What are the significant influential factors contributing to these changes?

- Develop the scenarios by taking into account these potential changes and factors.
- Considering the factors of changes and the current situation on land use, what are the potential solutions and recommendations (for developed scenarios) in terms of land use planning, mitigation measures, and prevention to reduce the impacts of natural hazards?

At the end of the day, the groups have to perform a presentation of the results. They also have to provide a flyer explaining to the population of the future changes expected and the future strategy of the municipality.

Supporting Data and Materials

1. Topographic map
2. Aerial photos (1942-1992)
3. Satellite imagery
4. Buildings maps distribution (1942-2006)
5. Buildings registry
6. Road maps (1942-2004)
7. Hazard maps (floods, debris flows, landslides and snow avalanches)
8. Construction status of the area
9. Land use plan (Plan d'affectation)
10. Protective forest