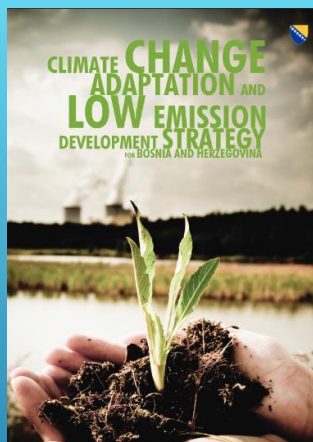
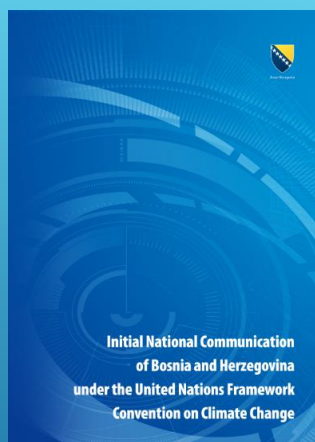


BOSNIA AND HERZEGOVINA

5 minutes presentations of position paper on climate modelling



ALL
PREPARED BY THE
CLIMATE
CHANGE
PROGRAMME OF
UNDP

In all these reports Vulnerability and Adaptation Chapters consist of climate change scenarios, impact analysis of current and expected climate changes, assessment of adaptation measures and actions.

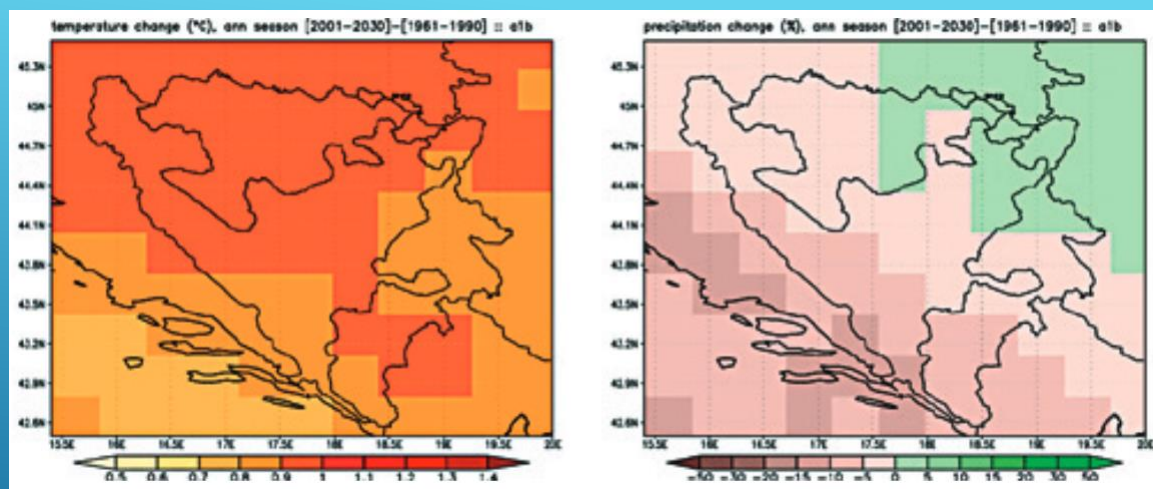
The Third National Communications to UNFCCC is under preparation (SEP. 2015)

METHODOLOGICAL APPROACH

THIS REPORTS DESCRIBES ONLY THE METHODOLOGICAL APPROACH USED IN THE PROJECT IMPLEMENTED BY THE CLIMATE CHANGE PROGRAMME OF UNDP.

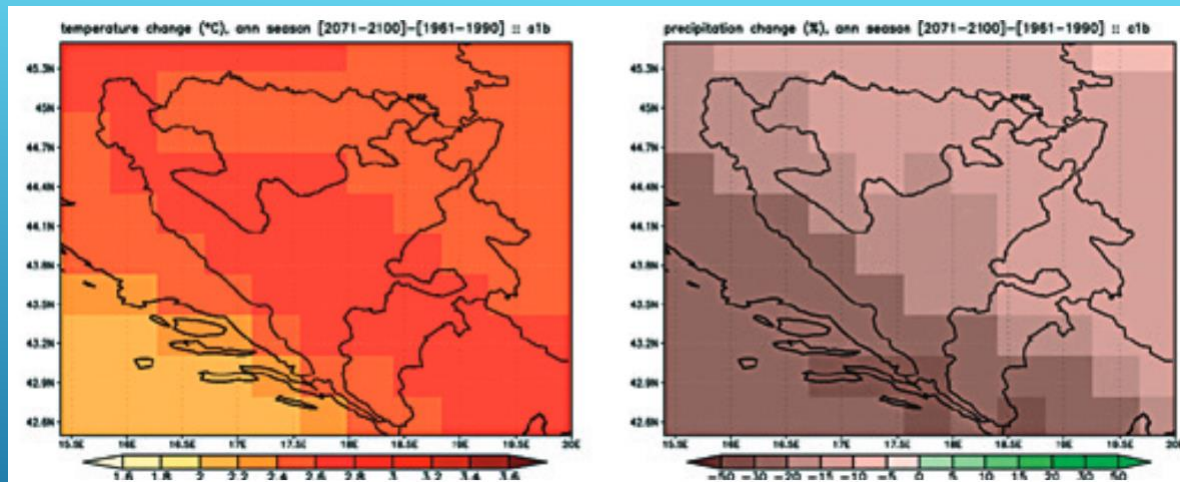
- ▶ Results from two global climate models: **SINTEX-G** and **ECHAM5** indicate a mean seasonal temperature increase averaging +1°C by 2030 compared to the base period 1961 – 1990 over the whole Bosnia and Herzegovina. The largest increase of +1.4°C is expected during summer time (June – August).
- ▶ Models indicate, a slight increase precipitation in mountain and central areas is expected, while negative precipitation anomalies are projected for the other areas.
- ▶ Results from the several regional climate models, in accordance with the SRES scenarios of future climate A1B and A2 (Nakicenovic and Swart, 2000), **will be used in the process of development of the Third National Communication of B-H**. These models are defined by Fourth Report of IPPC/AR4, and RCP8.5 scenario of future climate (Moss et al., 2008), as defined by the Fifth IPPC Report (IPCC – AR5).
- ▶ Results of the regional climate model **EBU-POM** (Djurdjevic and Rajkovic, 2010) will serve as a basis for future changes of extreme precipitation regime which may cause possible risks of landslides, floods and other natural disasters. Results of this models were used as a basis for impact analyses and vulnerability of socio-economic sectors to the climate change in the Second National Communication to the UNFCCC (Trbic et al., 2015)
- ▶ Horizontal resolution of these results is 25 km, and time resolution span is 6 hours, that will enable improved insight in the possible changes of short-term extensive precipitations that in the most cases cause the natural disasters. As an additional data source, the non-hydrostatic regional model NMMB (Janjic and Gall, 2012) will be used, due to its high horizontal resolution of 8km and time resolution of 6h, for the period 2011-2100 obtained by regionalization of scenario RCP8.5.

SUMMARY OF SCENARIOS



Average annual temperature change in °C (left) and precipitation change in % (right)

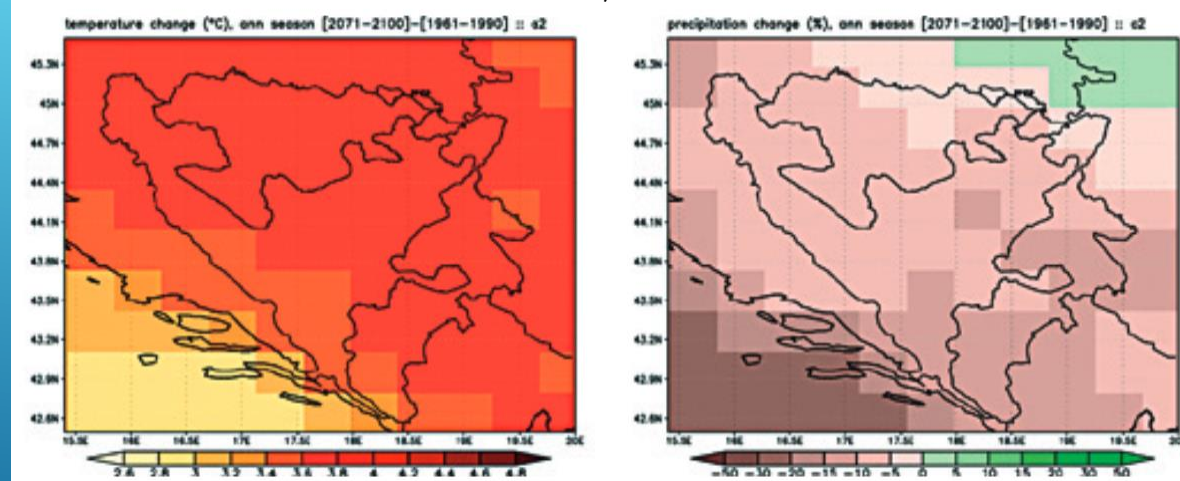
A1B scenario, 2001-2030



Average annual temperature change in °C (left) and precipitation change in % (right)

A1B scenario, 2071-2100

A2 scenario, 2071-2100



Temperature change (°C), annual season (left) and precipitation change (%) (right)

For the A2 scenario (2071-2100), the rapid temperature increase of +4°C yearly average is expected, while the expected increase in temperature during summer time will go up to +4.8°C.

According to the A2 scenario for the period 2071-2100, negative precipitation is expected across the whole B-H territory. The largest precipitation deficit of up to 50% compared to the base period 1961-1990 is expected during summer months.