

# The consequences Climate Changes in Bosnia and Herzegovina

# Climate Changes - problems in developing countries

- The people who live there mostly depend on the local environment
- Have the fewest resources to deal with the consequences of climate change
- are not prepared for climate changes
- Agriculture, forestry, energy, and tourism are sectors that are most affected

# Frequent natural disasters in the region



- **Windstorms in Serbia, flooding on the Croatian territory, Bosnia and Herzegovina and Serbia,**
- **Drought, high temperatures, lots of snow during the winter months are some of the natural disasters that regularly affect all the Balkan region.**



# 2014. Floods in Bosnia and Herzegovina

- Its severest floods in the last 120 years
- Huge amounts of rainfall of 250 to 300 meters per square meter
- Urban, industrial and rural areas were completely submerged under water, cut off without electricity or communications and roads and transport facilities were damaged.
- 81 administrative units suffered losses and adverse consequences for society and the environment.
- Around 950,000 people temporarily displaced from their homes
- destroyed more than 100,000 house units and buildings.



SECTORS	DAMAGE AND LOOSES TOTAL (€)
Agriculture	187.214.635
Education	8.702.188
Energetic sector	101.961.827
Protection of flooding	49.237.408
Healthcare	52.923.823
Urban sector	453.209.123
Economy and Employment	793.044.385
Public sector	27.415.471
Transport and Communications	347.698.931
Water supply system and Drainage	7.510.878
<b>TOTAL</b>	<b>2.028.918.669</b>

In sum, Economic impact of the disaster is estimated to have reached 2.03 Billion EUR or 15% of BiH's GDP in 2014

# 2013 - The second warmest year in this century in B&H

- the largest deviations were recorded in the summer, when the individual cells outnumbered and absolute maximums
- (Mostar – in the center of city 41°)
- A large amount of rain (Mostar 2188 mm)





# February 2012

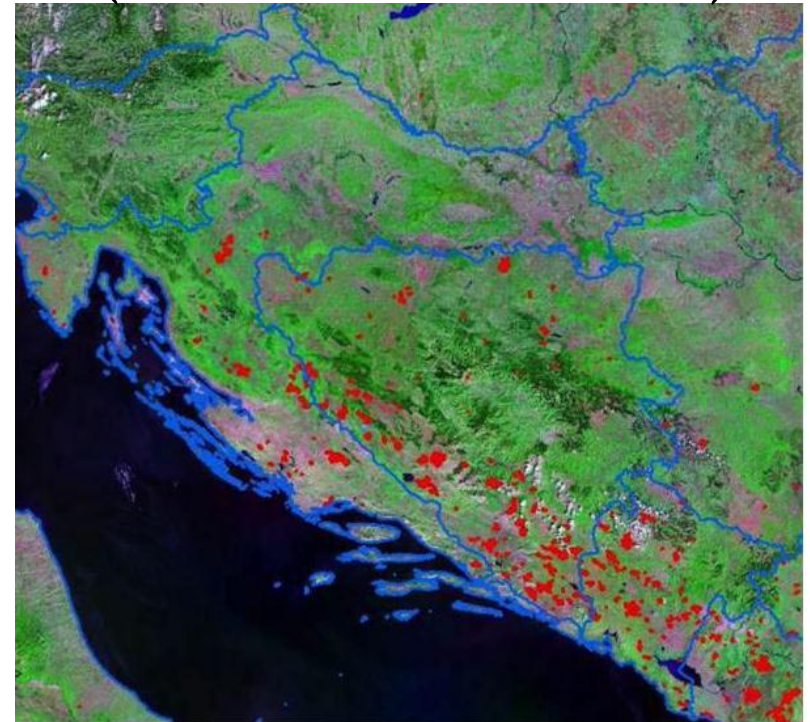
- a series of extremely cold and freezing days at lower altitudes ( $-25^{\circ}$ )
- extreme snow height in cities (up to 100 cm)
- great damage in agriculture



# Fires

- Increased number of fire
- Karst surface - permeable
- Undeveloped hydrological network
- Special threat to protected areas (Nature Hutovo blato)

Years	No. of fire	Total area (ha)
2010	1.117	1.913,41
2011	3.104	16.766,54
2012	5.870	67.226,52
<b>Total</b>	<b>10.091</b>	<b>85.906,47</b>





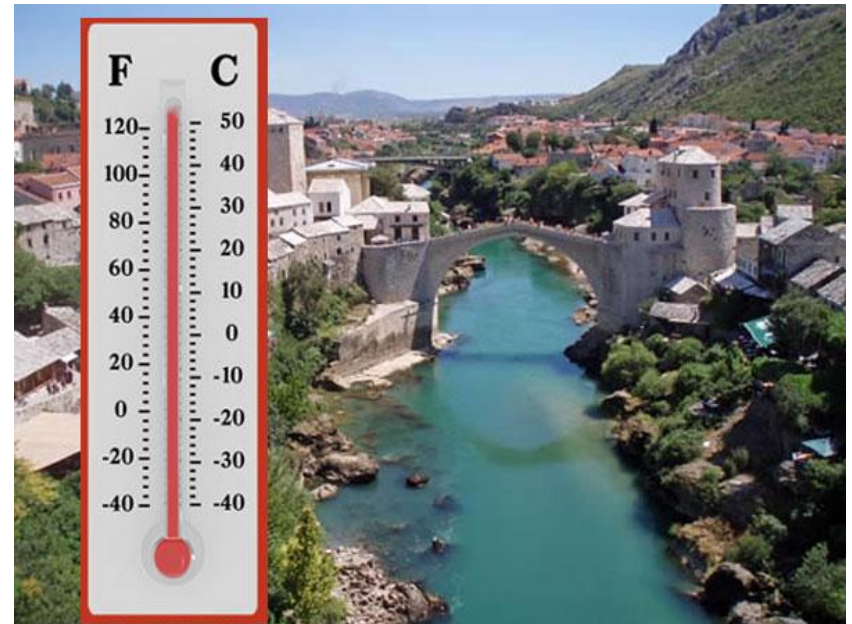
# Problems in urban regions - high intensity rain

## Flooded streets in Mostar



# Problems in urban regions - often high temperatures

- 07/28/2013. in Mostar recorded 470 interventions because of the heat (mostly elderly)
- Basically it is a collapse that people experience which occur at home.



# THE IMPACTS OF CLIMATE CHANGE ON HEALTH

- Insufficient research but there was an impact on health:
  - Increased cardiovascular risk due to heat waves
  - An increase in allergic reactions and increased frequency of heat stroke
  - An increase in infectious diseases carried by mosquitoes, birds and other organisms.

# Steps to improvement

- **2014.** - Bosnia and Herzegovina is in the public network of European Meteorological Services, within the World Meteorological Organization (METEOALARM)
- A regional early warning system is established on forest fires, heat waves, storms, floods, droughts and other disasters
- harmonization and preparation of the Action document for IPA 2014 funds (national component) for flood protection in the amount of 15 million euros.
- Implementation of the project Environment and Climate Accession Regional Network (ECRAN) - Environmental and climatic regional network for accessing
- Memorandum of cooperation in the field of sustainable development of underdeveloped areas between Bosnia and Herzegovina, the Republic of Serbia and Montenegro

# Suggestions for improvement

- Bosnia and Herzegovina needs to reduce energy consumption and introduce renewable energy sources to reduce emissions and cut costs
- It takes extensive and valuable information for adaptation to current climate variability and future climate changes

Thank you for  
your attention