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

<table>
<thead>
<tr>
<th>SECTORS</th>
<th>DAMAGE AND LOOSES TOTAL (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>187,214,635</td>
</tr>
<tr>
<td>Education</td>
<td>8,702,188</td>
</tr>
<tr>
<td>Energetic sector</td>
<td>101,961,827</td>
</tr>
<tr>
<td>Protection of flooding</td>
<td>49,237,408</td>
</tr>
<tr>
<td>Healthcare</td>
<td>52,923,823</td>
</tr>
<tr>
<td>Urban sector</td>
<td>453,209,123</td>
</tr>
<tr>
<td>Economy and Employment</td>
<td>793,044,385</td>
</tr>
<tr>
<td>Public sector</td>
<td>27,415,471</td>
</tr>
<tr>
<td>Transport and Communications</td>
<td>347,698,931</td>
</tr>
<tr>
<td>Water supply system and Drainage</td>
<td>7,510,878</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,028,918,669</td>
</tr>
</tbody>
</table>
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 centar 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°)
- 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)

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