

**Academic Consortium
“International University of Kyrgyzstan”**

Potential Risk of Occurring Tropical diseases in Mountain regions of Central Asia



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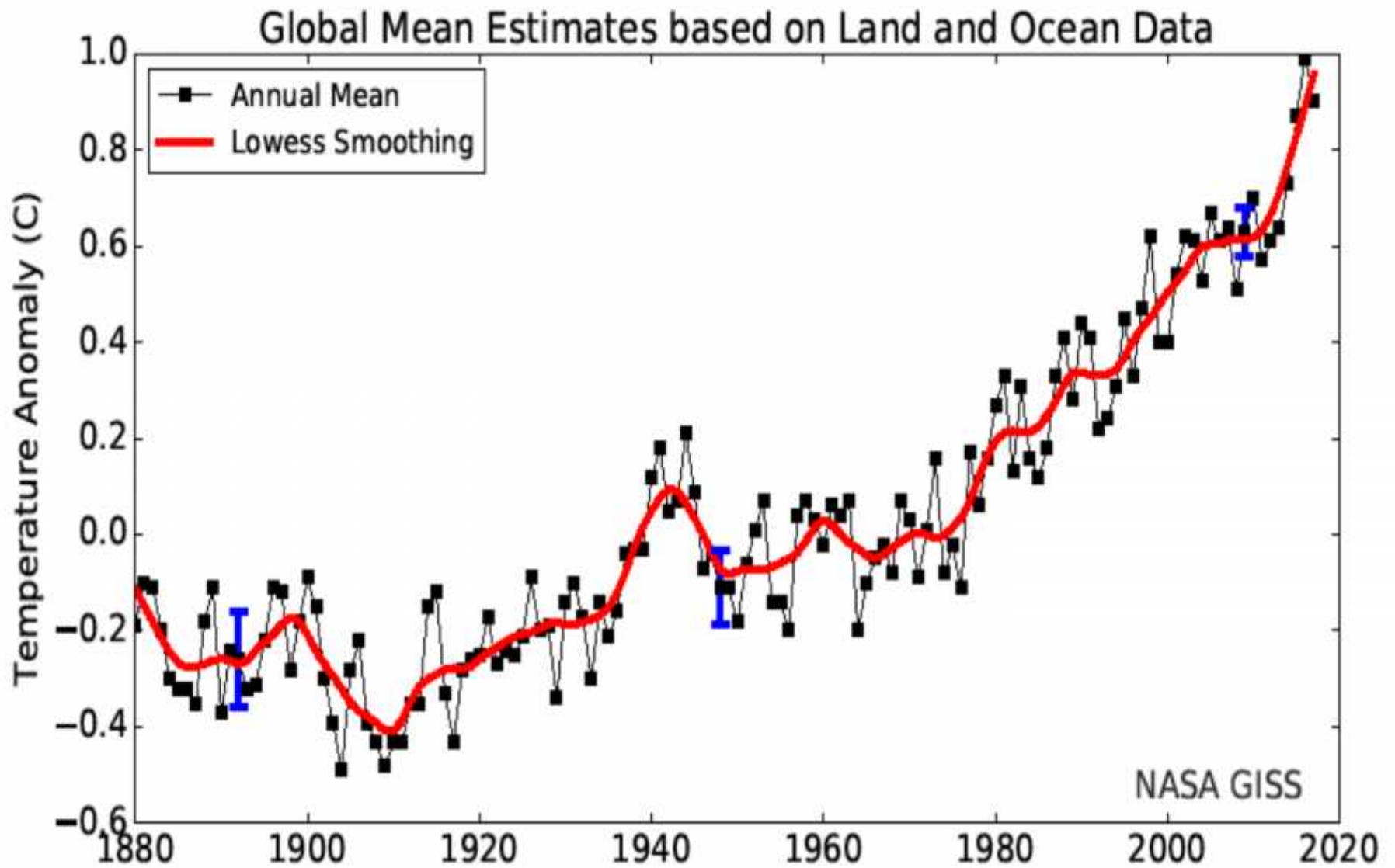


Figure 1. Forecast of climate change shows continuous increase of annual mean temperature anomalies until 2020 (NASA GISS observations).

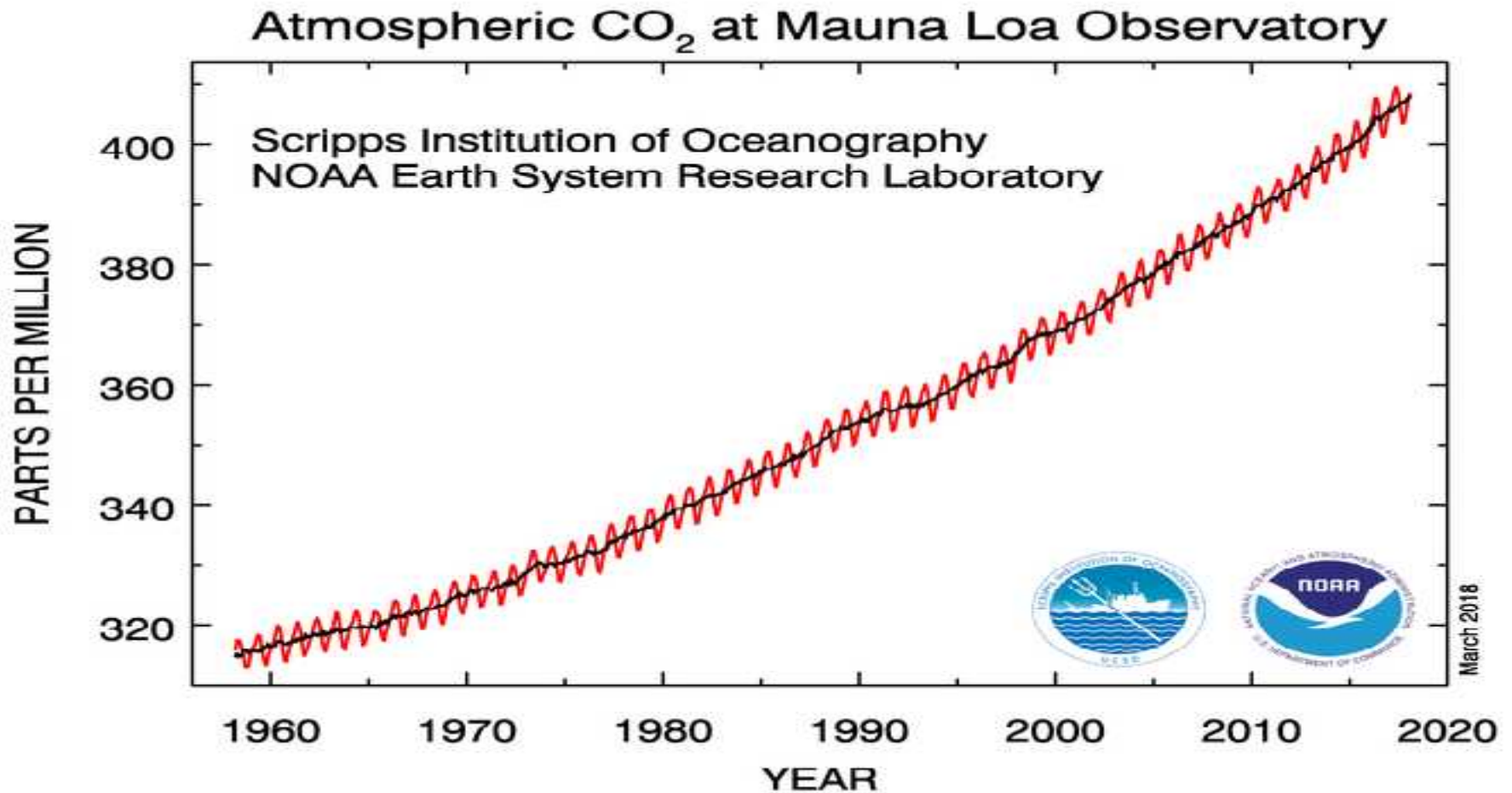


Figure 2. Forecast of glaciation coincides with the forecast of carbon dioxide content in the atmosphere based on the researchers of the SCRIPPS Institute of Oceanography (USA). Increase of CO₂ in atmosphere observed since 1960-s with continuation up to 2020

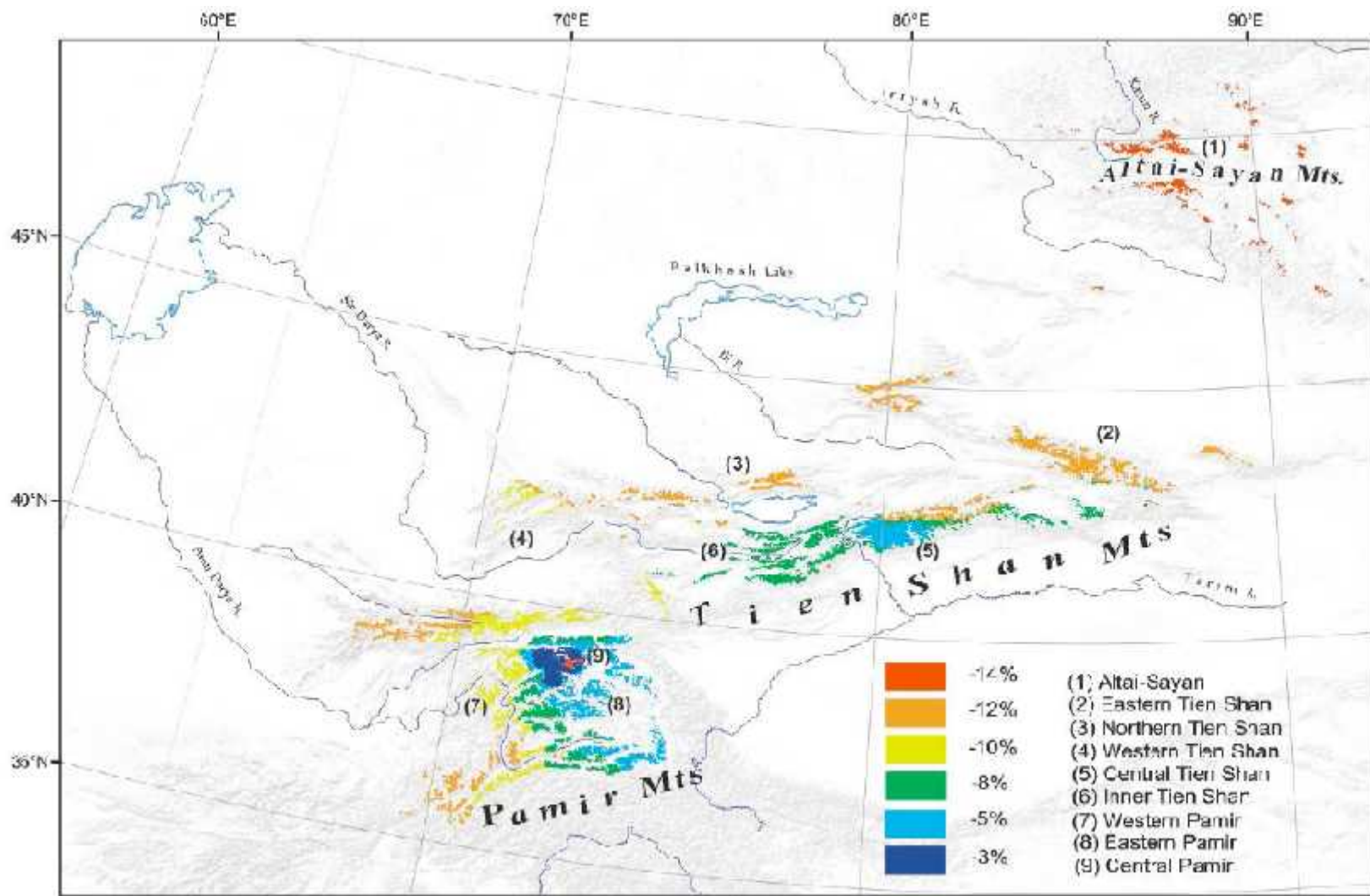


Figure 3. Forecast of glacial areas in Pamir, Tien-Shan and Altai-Sayan Mountains: about 14% reduce expected in Altay-Sayan mountains, 8% – in Central Asian Tien Shan and -3% - in the Central Pamir.

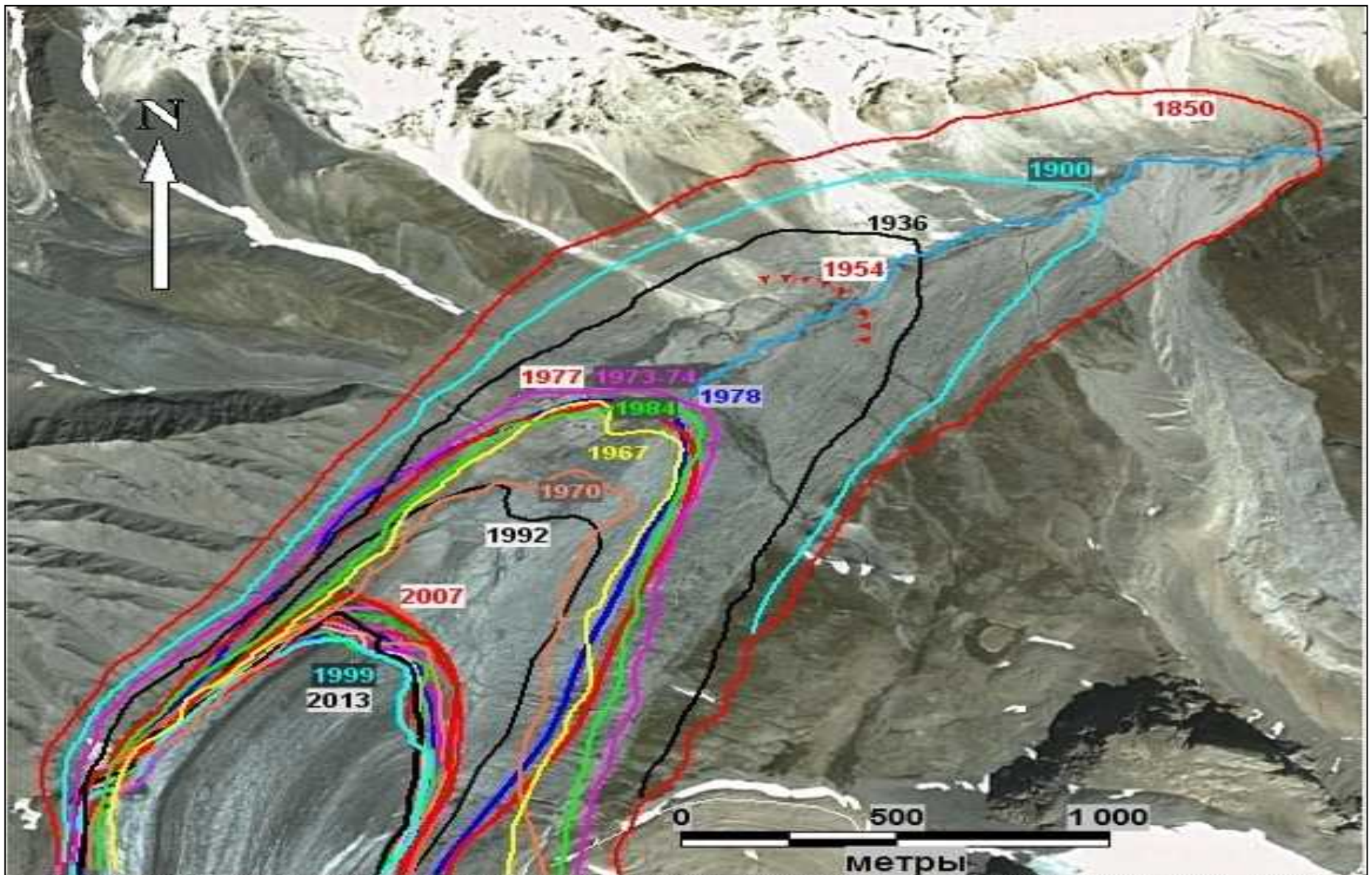


Figure 4. Change of the Abramov glacier in different years from 1850 to 2013, which show its melting and decrease for 13.8%.

Disease	Number of probable and confirmed, people	Number of suspected cases, people
Malaria	Kyrgyzstan - 4	Kyrgyzstan – 33,983
	Tajikistan - 165	Tajikistan – 165,266
	Turkmenistan – 0	Turkmenistan – 94,237
	Uzbekistan - 4	Uzbekistan – 916,839

Table 1. Distribution of Malaria (tropical disease) in Central Asia (after Hotez et al., 2011)

Conclusions

- Mountain are highly sensitive to global warming.
- Malaria may appear to be high among the poorest people living in high and middle mountain areas of Central Asia, therefore there is an urgent need to make preventive measures.
- The Academic Consortsium “International University of Kyrgyzstan” will be able through the studies and researches to implement the idea of adaptation to climate change, establishing trainings on adaptation to climate change.
- We believe, it is necessary to include the project “Development of the preventive measures against occurring of tropical diseases in mountain regions of Central Asia” into the program of the World Bank «Adaptation of Europe and Central Asia to Climate Change» and/or IPCC sub-chapters.