

# 6<sup>th</sup> Global summit on Climate Change

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## **Flood and inundation space monitoring assessment on Akmola region based on KazEOSat-1, 2 Kazakhstan spacecraft remote sensing data usage**

Situation distance control after flood and inundation is one of the main problems to be solved by space monitoring of emergency situations, developed in Kazakhstan since 2001. There is an acute security issue during spring time inundation, till nowadays there is no science-based methodology for predicting and modeling of flood and inundation using modern methods of GIS- projecting and update remote sensing data. The ongoing development of own space remote sensing system, usage of KazEOSat-1, 2 space craft data for inundation modeling and predicting, authenticity models studying, and DEM construction are the basis for scientific research in hydrological modeling of inundation. Dynamics of terrain flooding and the identification of areas for evacuating the population and moving cattle can be shown in the program. Flat relief models of flooding have been developed similar to the relief of Northern Kazakhstan. Created DEMs are filled with a filling step of 1 meter in height colors due to spatial resolution of the original DTM and the step of the relief heights for every 1 meter in the cartesian coordinate system from KazEOSat-1, 2 spacecraft remote sensing data.

### **Biography**

Dana Tuleukulova has completed her Bachelor's and Master's degrees from Karaganda State Technical University. She has been working at Kazakhstan Gharysh Sapary, since November 01, 2017 as the Major Specialist at Geo-services department in geo-products bureau of Geo-informationData and Services Center. She has published one paper in a reputed journal.

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