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FLOODS OBSERVED IN NAMANGAN REGION AND THEIR FORECAST

Annotation: In the article, the regions of our Republic where floods occur as a result of the intensity of rain are observed. Units of measurement of rain intensity. In the regions, the technologies of targeted warning of floods have been analyzed.

Key words: emergency, risk, threat, monitoring, forecast, targeted warning, rain intensity, information exchange.

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СЕЛЕВЫЕ ПАВОДКИ, НАБЛЮДАЕМЫЕ В НАМАНГАНСКОЙ ОБЛАСТИ, И ИХ ПРОГНОЗ

Аннотация: *В статье наблюдаются регионы нашей Республики, где происходят наводнения в результате интенсивности дождей. Единицы измерения интенсивности дождя. В регионах проанализированы технологии адресного предупреждения о наводнениях.*

Ключевые слова: *чрезвычайная ситуация, риск, угроза, мониторинг, прогноз, целенаправленное предупреждение, интенсивность дождя, обмен информацией.*

Introduction: Namangan region, like many other regions with a high risk of natural disasters, requires a careful approach to the planning and

implementation of measures to reduce the risk of natural disasters. Cooperation between the government, local authorities, emergency management is important to create a sustainable risk management system that improves the safety and well-being of all settlements and agricultural fields in the region. A flood is a flow of water mixed with solids that flows down the mountain at high speed and can destroy everything in its path. Such a disaster not only destroys various communication equipment, buildings, devices, water facilities and irrigation drainage systems, but also causes great material damage to the country's economy, and often destroys houses and sometimes even people's lives. The material damage caused by the flood is huge, but its damage is not limited to this.

Research Methods: In order to protect agricultural crops from hailstorms in the foothills of Namangan region (Chust, Kosonsoy, the northern part of Toraqorgon district, Yangigorgon, Chortoq and Uychi districts), convective clouds are created by MRL - using 5 weather radar stations to carry out daily meteorological observations during the "season of combating hail" (from April 1 to August 31) and to prevent hail and prevent hail when there is a danger of hail in convective clouds monitoring was carried out to stop it.

In the process of providing comprehensive monitoring and forecasting of the risk of occurrence and development of hydrometeorological emergency situations by applying these data, the automated radar system "Merkom" within the radar station MRL-5 (the scientific production center "Ecotechnology" of the Russian Federation) is included in the meteorological observation program, including the northern Fergana Valley river and large stream basins in the meteorological observation map, monitoring the occurrence of floods from the developed, low-moving, and stationary rain clouds in the river and large stream basins, and forecasting a few hours in advance in order to make and provide a warning, meteorological observations were carried out.

The research (2018-2021) showed that strong, intense (intense) and persistent atmospheric precipitation (rain) from the moving, low-moving and stationary clouds observed by the GJTK MQ B stations along the river and stream basins of the northern Ferghana Valley It became known that it is possible to predict and warn about floods caused by rain, hail, and hail several hours in advance, and the conducted meteorological observations have been repeated several times. found evidence of z (with the exception of floods caused by the melting of perennial snow and glaciers in the mountains as a result of the temperature rise).

Results. On July 13, 2020, from 14:30 to 16:30, a stationary low-moving strong rain-hail cloud was observed in the Govasoy river basin of Chust district of Namangan region (Jalalabad region of the Kyrgyz Republic). At 18:25, a flood of 60 m³/sec came to the Govasoy hydroelectric facility (hydrowel) as a result of the rain that fell from the cloud (according to the locator - heavy rain, small hail and hail).

On the basis of the warning given to the duty unit of FVB of Namangan region and the duty officer of G'ovasoy hydro-structure (hydroelectric) on time "About the possibility of flooding" Kosonsoy GJTK MQ BS head, engineer-hydrologist K. Kh. Meliyev, G'ovasoy The flood of 60 m³/sec, which came to the hydroelectric facility, was accidentally missed by the employees of the regional FVB.

Weather information: July 13, 2020. Uzgidromet gave short-term rains in mountain and sub-mountain areas. Uzgidromet did not provide information about the flood. FVV - did not issue a flood warning. On July 13, 2021, from 11:45 to 13:35, a heavy rain-hail cloud was observed in the basin of the Kosonsoi River, Kosonsoi District, Namangan Region (Jalalabad Region of the Kyrgyz Republic). As a result of rain from the cloud (according to real and locator data - heavy rain, small hail and hail), at 13:30 the water consumption in

the Teshiktosh hydro-structure (hydrausel) of the Kosonsoy river was 60 m³/sec. up to

Since the Teshiktash hydrostructure (hydroelectric dam) falls on the area of the river basin where precipitation (heavy rain, small hail and hailstones) accumulates and forms a flood, the flood from the Teshiktash hydrostructure (hydroelectric dam) formed below and the water consumption exceeded 60 m³/sec.

It was said that the floods that occurred in Kosonsoy district of Namangan region on July 13, 2021 were caused by heavy rainfall observed in southern Jalalabad region of Kyrgyzstan. Some local publications also wrote that before the flood, there was heavy rain mixed with hail the size of stones in the district. They also noted that such hail had not been observed in Kosonsoy before. They also attached photos of the consequences of the natural disaster to their messages. During these hours, Uzgidromet also officially confirmed the occurrence of short-term hailstorm. The fact that this natural disaster is observed in the middle of summer is not a reason for special concerns. Flooding and heavy rainfall, on the other hand, followed several days of anomalous heat observed in Uzbekistan. On the same day, the Ministry of Emergency Situations of Uzbekistan shared primary information about the situation in the district. As a result of the natural disaster, 8 people were killed and another 6 were injured, it was officially confirmed.

Discussions: In the Central Asian region, the scope of emergency situations is not limited to the border of one country, but is increasingly becoming transboundary. Monitoring and forecasting of risks and threats that may arise in such situations, as well as regulating cooperation with neighboring countries in providing information is considered one of the most important issues. After all, Uzbekistan today gives priority to the Central Asian region in its foreign policy. This is a carefully chosen path. Located in the heart of Central

Asia, Uzbekistan is directly interested in the transformation of this region into a region of stability, consistent development and good neighborliness.[1]

The ninety-second goal of the Decree of the President of the Republic of Uzbekistan dated January 28, 2022 PF-60 on the development strategy of the new Uzbekistan for 2022-2026 is defined as the creation of an effective system of prevention and elimination of emergency situations. In the fourth and fifth paragraphs of this objective:

Systematization of measures for the prevention and rapid elimination of emergency situations in the tourist zones of the Republic.

The tasks of modernization of the system of informing the population in emergency situations are defined.[2]

Currently, almost all mountainous and sub-mountainous areas of Uzbekistan are areas with a high flood risk. Fergana Valley is especially at risk of this event. In addition, Namangan, Fergana regions, followed by Surkhandarya, Tashkent, Samarkand and Kashkadarya regions were recognized as relatively high flood risk regions.[3] In the foothills and adjacent plains of our republic, there are more floods that occur as a result of heavy rains. In the mountainous region where large snow and ice sheets are scattered, the piledated type is more common. The torrential type of flood poses a great danger to the population and regions and causes a lot of economic damage. Timely detection, recording and informing the population of the factors that cause danger play an important role in the correct behavior of the population located in dangerous places, especially in areas prone to landslides and floods. A large number of factors involved in the formation of a flood makes it difficult to predict it in time. However, the timing of the flood season can be predicted. According to this approximate information, special walls, levees, dams and other protective structures will be built to protect against floods in places with a high risk of flooding. Residents in flood-prone areas should be warned within ten minutes, at

most within 1-2 hours. Usually, an alarming situation occurs as a result of overflowing river and stream water, strong roaring in their upper part, large stones hitting each other in the stream. It is necessary to strengthen the banks of riverbeds, reservoirs, and canals in flood-prone areas, and in places where there are no such structures, it is necessary to build flood traps or networks that direct the flow to places where it will not harm the population. It is to significantly improve and improve the quality of emergency monitoring and forecasting, systematize hydrometeorological and seismic monitoring, and implement tasks aimed at early detection of emergency hazards in large hydrotechnical structures and water bodies.

Conclusion. According to the decree of the President of the Republic of Uzbekistan "On measures to fundamentally increase the effectiveness of the system of prevention and elimination of emergencies", in order to ensure comprehensive monitoring and forecasting of the risk of occurrence and development of hydrometeorological emergency situations, the current "Merkom" within the MRL-5 radar station for forecasting and warning several hours in advance about the floods that may occur in the rivers and streams of the northern Fergana valley during the season of combating hail ” automated radar system (Ecotechnology Scientific Production Center of the Russian Federation), weather monitoring, using modern information and communication technology programs, the "Test-Experiment" group and the organization of scientific research works in the field, comprehensive monitoring of the risk of occurrence and development of hydrometeorological emergency situations and predicting and timely warning and informing the population about hydrometeorological dangers that may occur, ensuring the safety of the population in water bodies, protecting the population and territories from emergency situations, hydrotechnical facilities aimed at stable operation, prevention of natural and man-made emergency situations and elimination of their consequences.

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