Disaster politics in the South of Russia

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Abstract. The article considers a number of characteristic features of the mutual connection between dangerous natural phenomena and their catastrophic consequences on the disaster policy-making. A revision of existing studies on this topic is being conducted. It is argued, that disaster politics in the South of Russia is almost completely ignorant, situation-based and does not lead to significant changes in the field of early disaster awareness strategy. A number of several characteristic features of the region are outlined directly affecting the disaster policy-making. Based on the data of the SSC RAS expeditionary work, a number of the most destructive hydrometeorological phenomena in the South of Russia (2012-2018) is identified.

The case of the flood crisis in Krymsk 2012 is considered. It should be concluded that the flood crisis of 2012 did not lead to the long-term disaster policy strategy for implementation regular preventive measures.

1. Introduction

Global climate change took a key place on the agenda of many developed countries. In 2006, the 3rd International Conference on Early Warning Systems for Natural Disaster Reduction was convened with the goal to provide policy instruments for a global natural disaster alert system. The activity of such systems in all countries aimed at the life risk reducing in society, increasing its socio-political stability, as well as mobility against threats of natural disaster. At the same time, a stable feedback between society and these systems is to be provided as one of the guarantees to reduce the risk of large human and economic losses. In 2019, world leaders demanded a turnaround. This is because a record increase in greenhouse gas concentrations exacerbates the effects of climate change, the concomitant rise in sea level and extreme weather events. In turn, combined with urbanization, environmental degradation and water stress, it leads to interconnected crises.

In Russia, the frequency and intensity of natural phenomena are growing in Russia by 6-7% per year, respectively, and losses from natural disasters are growing. Annually, more than 500 emergencies are recorded in the country [1], hail and drought including, tornadoes have become more frequent. Knowledge of the dynamics of the number of natural disasters in each region (especially in the south of Russia) allows developing a policy to protect the population and economy from large losses in case of dangerous natural phenomena.

2. Research methodology

The research used qualitative method with data analysis of a case study to obtain understanding about disaster politics in the South of Region, to obtain data in this research the author did interview,
literature analysis, program/local government policy, official document, relevant constitution and enactments. The article aimed at reviewing the key issues of disaster politics in southern Russia, which is in infancy, as well as identifying a number of the main characteristics of modern disaster politics in this region of Russia. As a rule, many studies of natural disasters and dangerous phenomena in the south of Russia are not provided with a socio-political description of the consequences, including only the extent of damage. The disaster policy formation in the south of Russia should be based on the consideration of selected resonant cases of the catastrophic consequences of natural disasters. The materials of the expeditionary work of specialists of the Southern Scientific Center of the Russian Academy of Sciences (SSC RAS) might be used as an empirical basis for policy studying of dangerous natural phenomena in the region.

3. Politics and disaster
The research into the topic was carried out mainly by foreign authors, including T Birkland [2], L K Comfort [3], D A McEntire [4], D E Alexander [5], and others. A relatively small number of studies in this field have been identified in the Russian scientific space: Vorobyov Yu. L. [6], Shulenina N.V. [7] and others.

Analysis of foreign sources allows us to highlight a number of synergies between politics and natural disaster. 1. Natural disasters often affect peripheral regions, most emphasizing the uneven response to disasters (compared to the center). This may give a regional dimension to political tension. 2. Disasters provoke the study of technical, political and institutional support systems in the location of the event. 3. The effects of disasters can exacerbate economic exclusion and political marginalization. The likely political conflict after the disaster often manifest around attempts to redistribute property rights or use actual land rights. 4. The political realities “before” a natural disaster have the greatest impact on the political course “after” a natural disaster. It can lead to a socio-political crisis. Subsequent political reactions to the natural disaster are due to the policies that prevailed prior to the disaster. 5. The spontaneous collective action of the non-governmental sector after a natural disaster is a routine occurrence and usually perceived as a threat by the state. The state should have a monopoly on the settlement of the consequences of natural disasters (the consequences are too sensitive for the socio-political sphere and may even cause the interest of out-state actors). 6. After a natural disaster, political leaders can restore or even increase their legitimacy in society. Moreover, British scholars M Pelling and K Dill discover the nature of the regime (democratic / authoritarian) probably does not affect this model [8]. The key is that political leaders can successfully manipulate events during and immediately after a natural disaster in order to maintain or increase their legitimacy. 7. The reshuffling after the disaster takes place on several scales. Local as well as national politicians use disaster relief and recovery to expand their influence on regional development policies and programs.

It can also be assumed, that natural disasters serve as a verification mechanism for the political regime stability. Events can become symbolically important for politically marginalized groups and can catalyze political organization and dissent as a social protest. Moreover, disaster politics is closely associated with risk reduction. It is important to recognize that meteorological and other research findings alone cannot reduce disaster risk if the government does not have a structure and does not understand what measures it can take.

4. Findings and discussions
Regarding the situation in the South of Russia, it is possible to single out several characteristic features of the region directly affecting the disaster policy-making. 1. Disaster policy is a relatively new research sphere for the region and does not have a sufficient theoretical and methodological base. The disaster policy is tightly bound to safety and security arrangements in a strategic area, since the South of Russia consists of the Crimea, the Don and the North Caucasus. Therefore, the Russian government pays special attention to the development of Ministry of the Russian Federation for Civil Defence, Emergency Situations and the Rectification of the Consequences of Natural Disasters and its units in
the south of Russia. Firstly, in the South there is a rather complicated natural landscape of the area, including the Caucasian Mountains with increased risks of emergencies. Secondly, the difficult geopolitical situation in Transcaucasia, in the neighboring Middle East, as well as neighboring the East of Ukraine (Donbass) challenged the Ministry of Emergency Situations to keep units in the south of Russia in standing alert. Among other things, the Ministry of Emergency Situations of Russia in the South has repeatedly taken part in resonant cases of political instability and conflict. In 1994-2005 employees of the Don Rescue Center EMERCOM of Russia participated in humanitarian operations in Ingushetia and the Chechen Republic, in South Ossetia in 2008, and the aftermath of the floods in Krymsk in 2012. In 2014-2015 in the Rostov region, refugees from Donetsk and Lugansk were housing.

In the South of Russia, the most important factors of natural disasters are: the probability of a dangerous natural phenomenon; geographical features of the region; social background of the development of a dangerous natural phenomenon (ethnic, historical and political characteristics of the region); population's vulnerability determined by the level of economic development; subjective perception by the population of a natural hazard threat [9]. The geographical features of the region affect both the composition of the disasters in the region and the nature of their history [10].

Consequently, disaster politics might be determined by these characteristics. For instance, the North Caucasus and southern Russia are most prone to natural disasters due to geographical features. The greatest risk of natural disasters in Russia is described by the North Caucasus. A third of all natural emergencies in the country occur in this region [11]. In 1967, 10 militarized services were created in the USSR to actively influence meteorological and other geophysical processes, including the Krasnodar, North Caucasus, and later the Stavropol service units in the North Caucasus. The area of anti-hail protection in the Russian Federation is 2.52 million hectares, and 40% of the total agricultural land in the Southern and North Caucasian Federal Districts. Including in the Krasnodar Territory and the Republic of Adygea - 880 thousand hectares, in the Stavropol Territory - 839 thousand hectares, in the republics of the North Caucasus - 801 thousand hectares [11].

However, today there is a tendency to reduce funding for hail protection significantly affects the effectiveness of protection in the southern regions of Russia. Over the past three years, hail protection of the territory along the Caucasus Range has been carried out intermittently, and hail clouds are reanimated and again pose a threat (2.65 million hectares versus 6 million hectares). At the same time, Roshydromet undertakes attempts to participate in the disaster policy-making aimed at preventing the destructive consequences of dangerous natural phenomena in the region. Roshydromet proposed amending measures to protect crops from hail in article 7 of the “Main directions of state support for agricultural development” of the federal law [12]. It is likely that anti-hail measures not only reduce direct damage from hail clouds, though also minimize the effects of appendant natural phenomena - flash floods, tornadoes, earth flows in the mountains, and it means that the damage from natural elements can be significantly reduced.

Hydrometeorological observations at the posts of the Southern Scientific Center of the Russian Academy of Sciences (SSC RAS) in Donskoy khutor and Kagalnik village and the results of mathematical modeling of hydrological processes [13], as well as open databases of meteorological observations provided by All-Russian Research Institute of Hydrometeorological Information - World Data Center (meteo.ru) revealed nine major cases of flooding in southern Russia:

July 6-7, 2012 - hazardous floods on rivers, including floods on the river Adagum in the Krasnodar Territory [14],
August 21-22, 2012 - flooding in the Tuapse district of the Krasnodar Territory,
March 23, 2013 - flood as a result of surge in the Sea of Azov, delta of the river the Don,
September 24, 2013 - flooding within the city of Sochi.
December 10, 2013 - flooding due to the storm of the Imereti Lowland led to the partial destruction of the Olympic embankment on the eve of the Winter Olympics 2014 in Sochi,
September 24, 2014 - the so-called “surge wave” as a result of a storm in the Sea of Azov,
June 25, 2015 - the flooding in the Adler region (the Kherota river) and the village of Kudepst of the Khostinsky district as a result of a leash in Sochi.

November 20, 2015 - flooding in the delta of the river the Don due to surge,

October 24-25, 2018 - heavy rains in the Tuapse and Absheron regions of the Krasnodar Territory.

One of the most resonant cases is the Kuban flood crisis of 2012. As a result of severe flooding, the floodplain of the city of Krymsk was destroyed, Gelendzhik and Novorossiysk were affected. 7.2 thousand residential buildings are flooded. About 400 buildings were not subject to restoration. 29 thousand citizens completely lost property, partially - more than 5.5 thousand people, at least 171 people died. 1550 houses are included in the emergency category, and 640 houses are demolished in Krymsk only. 3.8 billion rubles were allocated from the federal budget to the Krasnodar Territory. At the same time, the total amount of financial resources for the restoration of life was estimated at 30 billion rubles [15] [16].

5. Conclusions
Disaster politics is heavily involved in safety and security arrangements in a strategic area. Moreover, in the political context, the flood in Krymsk was the result of the negligence of local authorities. The trial revealed that local authorities were aware of the impending flood, but did not give warning to people. The long-lasting consequence of the flood is the permanent rotation of administrative personnel [17]. Moreover, the project on bank protection of the river Adagum was carried out with suspensions [18]. It should be also concluded, that the flood crisis of 2012 did not lead to a long-term policy strategy for regular preventive measures. Urban planning regulations should focus on extreme rises in the river.

The economic risk of flooding on the coast of the Krasnodar Territory is one of the highest, estimated at approximately $ 13.2 million [17]. Preventive measures in this case should include comprehensive work involving several areas simultaneously, including river systems of the region: clearing the fairway and deepening river channels and bottom [19]. Another important introduction to disaster politics in the south of Russia should be flood insurance aiming at reduce the risk of emergency opening of state budget reserves in the event of a natural disaster. Big commitments are being taken in this area, not without a significant delay. In particular, a bill has been just passed in first reading on exemption from income tax for citizens affected by emergency received in cash or in kind. Therefore, it is important to aggregate data on natural disasters in southern Russia in order to disaster policy-making elaboration, as well as development of practical recommendations for local authorities.

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Acknowledgements

The study was supported by the Russian Foundation for Basic Research (project 18-05-80043).