

ANALYSIS OF UKRAINIAN CITIES ENGAGEMENT IN MITIGATION AND ADAPTATION TO CLIMATE CHANGES

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In the face of changing climate urban areas become hotspots of various environmental problems. The most urgent in terms of Ukrainian climate are urban heat island formation, reduction of water resources quantity and quality, degradation of air quality and weakening of green infrastructure.

Adaptation can mitigate the adverse impacts of climate change, but cannot prevent all damage. Adaptation actions include supporting measures, aimed at maintaining the existing structure or transformational measures to change properties of urban ecosystems and make them more resilient.

The Covenant of Mayors initiative aims to engage and support cities and towns to commit to reaching the EU climate mitigation and adaptation targets. Signatory cities have made a commitment to reach the EU 40% greenhouse gas-reduction target by 2030 by implementing complex actions. It also involves separate complex of actions aimed at adaptation to climate changes.

Currently, 311 cities have joined the initiative since 2009, which makes up over 67% of all cities in Ukraine (according to official information Ukraine includes 461 cities, accounting those located at temporary occupied territories).

In the context of key commitments (Fig. 1) municipal authorities were more willing to take proximal or middle term targets. At the same time most of the cities have limited their commitments to only one target, thus, putting under risk consistency and continuity of implemented actions. The most prominent issue is that only one city (Kamyanets-Podilsky) has taken the commitment on adaptation, which is based on energy sector. Under such conditions it is hard to make conclusions about the efficiency and even progress of the proposed action plans.

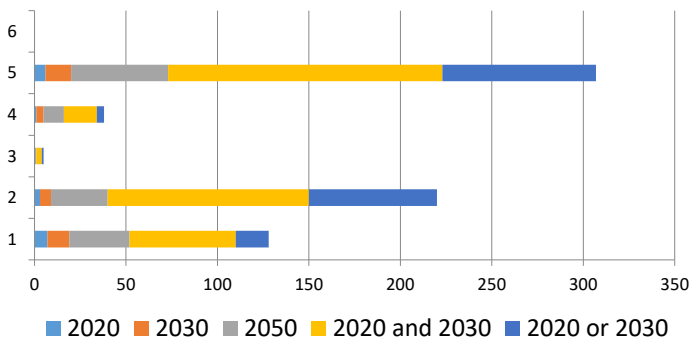


Figure 1 – Climate change commitments by Ukrainian cities

However, cities which have progressed from just political decision to join the initiative to development and submission of action plans (the next milestone) amount slightly more than a half – 164 cities (53% of signatory cities and 36% of all cities in the country). Unfortunately, none of these cities have reached the stage of the action plan monitoring. Moreover, applications, submitted by 115 cities (34% of signatory cities) are on hold or suspended due to incomplete data submitted and lack of active actions aimed at implementation of commitments.

Actions for adaptation of cities to climate changes should be planned in the following dimensions:

1) Regulatory – development and implementation of special regulations and laws. In particular, Ukraine has adopted a range of documents, settling the background for adaptation measures in agriculture, forestry and fisheries, as well as in protected areas and separately for the Dnister basin. However, it still lacks specified policies and action plans for urban areas, in spite of joining the Covenant of Mayors on Climate and Energy in Ukraine. In this field it is recommended to facilitate the development of custom action plans for cities and towns of Ukraine.

2) Managerial – implementation of organizational practices and business operations to fit the world with changing climate. This, among other things, involves maintenance and development of green infrastructure of cities and implementation of nature-based solutions as they are able to provide ecosystem services, supporting the environmental balance within the cities. Here it is important to highlight the need to maintain and improve not only the areas occupied by plant communities, but also develop their biodiversity as a key to quality provision of ecosystem services.

3) Technical – equipment and materials more suitable in times of rising temperature. It is reasonable to account these issues when planning new districts of cities, but it is also expedient in retrofitting of existing infrastructure. Among the most cost efficient measures is introduction of individual power and heat generating equipment using renewable sources of energy.

4) Education – distribution of information about climate change and raising awareness about its consequences. Being informed about both threats and opportunities created by climate change, population is more positive about investing budget and personal resources in adaptation activities.

Thus, it is necessary to raise the question of adaptation to a widely discussed issue, included into resource management agenda at local and regional levels. The cities of Ukraine aiming at taking active position towards mitigation of climate changes should invest their efforts in networking and raising engagement in common projects at the level of regions and sectors of economy.