

Linking city development and adaptation to climate change

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Abstract

Climate change is happening, projected to continue and poses serious challenges also for cities' development. Extreme weather events resulting in hazards such as heat waves, floods and droughts are expected to happen more frequently in many parts of Europe. The United Nations Intergovernmental Panel on Climate Change (IPCC) predicts global temperatures to rise an additional 2-4°C by the end of this century and graduation of weather extremes.

While urban areas will generally experience the same exposures to climate change as surrounding regions, the urban setting can alter these local impacts. The replacement of natural vegetation with artificial surfaces and buildings creates unique microclimates altering temperature, moisture, wind direction and rainfall patterns. Moreover cities forms difficult dynamic systems with high density of people, hub of services and infrastructure so the climate change impacts have and will have potentially serious consequences for human health, livelihoods, and assets and ultimately influence the development of the entire city and its surroundings.

However, many city managements are still inactive in this field. It is caused mainly by lack of information, low awareness and knowledge and absence of positive good examples. On the other hand an increasing number of cities around the world have begun to plan for climate change by developing stand-alone climate plans or incorporating climate considerations into existing plans, policies, and projects to become more resilient towards existing and future climate impacts, thereby limiting their magnitude and severity.

City of Kosice, Slovakia namely, its largest city district West in cooperation with the research institution Carpathian Development Institute had implemented (as one of the first in Slovakia) the process of climate change adaptation in order to be better prepared and adjust proactively for the heat waves as the critical climate change impact on the city borough residents. The

adaptation strategy is built on the principle “low cost quick win” based on assumption that increasing resilience requires not only robust decision making and big investments, but also a strong web of institutional and social relationships that can provide a safety net for vulnerable populations. Through both formal planning activities and concrete measures preparations, city is building their capacity to adapt effectively to existing and future climate impacts, while also experimenting and innovating in policy making and planning. The paper highlights key lessons learned from planning and implementing climate adaptation process as a part of innovative and integrated city development policy.

Key words: climate change impacts, city development, adaptation process

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