



Background Note for Local Training Academy on Urban Climate Change Adaptation

Genoa (Italy), 26/11/2019

Purpose:

This note provides background information for the participants of the Local Training Academy on Urban Climate Change Adaptation taking place in Genoa (Italy) on 26 November 2019. Furthermore, it provides an outline of the training session, bio and contacts of the trainer and some information sources for suggested reading prior the training.

Background

Fighting climate change is a double challenge for our society. First, the future climate change impacts can only be prevented by early, deep cuts of greenhouse gas (GHG) emissions. The Paris Agreement, adopted in December 2015 and entered into force in November 2016, has set its main objective of reducing GHG emissions and land use change to keep global average temperature increase well below 2°C compared to pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. Beyond 1.5°C change, the risk of dangerous and unpredictable climate change increases significantly and costs of adaptation escalate (see *IPCC 1.5 Special Report, 2018*).

Second, with climate change already happening, societies face the parallel challenge of having to adapt to its impacts as a certain degree of climate change is inevitable throughout this century and beyond, even if global mitigation efforts over the next decades prove successful. In fact, the Paris Agreement further aims to strengthen the ability of countries to deal with the impacts of climate change by setting, for the first time in the UN climate change negotiations, a global objective for climate change adaptation.

Adaptation aims at reducing the risk and damage from current and future harmful impacts cost-effectively or exploiting potential benefits. Adaptation action has become an unavoidable and indispensable complement to mitigation action.

The impacts of climate change in Europe are already significant (see EEA Report '*Climate change, impacts and vulnerability in Europe 2016 - An indicator-based report*', 2017). Climate change affect and will affect Europe's natural environment and nearly all sectors of society and the economy. Among the most vulnerable areas in Europe are the following:

- Southern Europe/Mediterranean area;
- Mountain areas, in particular the Alps;
- Coastal zones;
- Densely populated floodplains.

In Europe, nearly 73% of the population live in urban areas and this is projected to increase to over 80% by 2050. Climate change affects almost all components of cities – their environment, economy and society. This

raises new, complex challenges for urban planning and management. For example, impacts such as heatwaves can produce in urban settlements a cascade of impacts: droughts, water shortage, increased pollution, degradation of ecosystems, thermal discomfort and premature death due to heat. Hence all quality of life in the cities can be affected from climate change impacts. Cities themselves can worsen the situation due to unplanned urbanization and location in high-risk prone areas.

The impacts of climate change, experienced by cities in Europe, differ based on their geographical location and their specific vulnerabilities, but in South Europe the cities in coastal areas, floodplains and mountains can be very vulnerable to several impacts.

At the EU policy level the following initiatives are relevant for the climate change adaptation at urban level:

1. the *EU Adaptation Strategy* - It includes Priority Action 3 'Promoting adaptation action by cities' in order to engage urban municipalities in taking action to adapt to climate change;
2. the *Covenant of Mayors for Climate and Energy* – It covers both adaptation and mitigation actions for municipalities. So far this it has been signed by hundreds of cities across the EU. This EU-funded initiative joined forces with the international *Compact of Mayors* and became *Global Covenant of Mayors for Climate and Energy* in 2016. It is an international alliance of cities and local governments with a shared long-term vision of promoting and supporting voluntary action to combat climate change and move to a low emission, resilient society.
3. The *Urban Agenda for the EU* – It calls for a better coordination between the numerous EU policies relevant to urban areas. Climate change adaptation is one of the priority themes addressed under this framework. The *Partnership on Climate Adaptation* under the Urban Agenda for the EU, consisting of cities, countries and EU-level institutions, have devised an Action Plan aiming at better regulation, better funding and better knowledge of adaptation to climate change in urban areas.

Furthermore, there are various city networks and associations active in Europe that provide capacity building and support on urban adaptation. The *Urban Adaptation Map Viewer* of the *European Climate Adaptation Platform (Climate-ADAPT)* provides an overview of European cities participating in various adaptation initiatives.

Finally, climate change adaptation at urban level is a complex crosscutting approach, which requires coherent governance, solid knowledge base and clear well-planned and implemented actions.

The Training session:

The duration of the training is 1.5 hour and consists of a presentation by the trainer and interactions with the audience. The Cities representatives in the room will be asked to briefly present, if available, their own experience in climate change adaptation.

The training offers information on:

- Key definitions (e.g. climate, climate change, resilience, vulnerability, risk, adaptation)
- Climate change impacts in cities in Europe and Italy
- European policy on urban adaptation
- Adaptation needs and benefits
- Examples of adaptation
- Success factors
- Financing
- Tools and information sources

Trainer:

The Trainer is Sergio Castellari (Istituto Nazionale di Geofisica e Vulcanologia – INGV, Bologna (Italy); now seconded at the European Environment Agency - EEA).

Sergio Castellari works as Seconded National Expert at the EEA (European Environment Agency) in Copenhagen (Denmark) on impacts, vulnerability, adaptation to climate change and disaster risk reduction. He is a senior scientist at the INGV (National Institute of Geophysics and Volcanology) in Bologna (Italy). He has been working at CMCC (Euro-Mediterranean Center on Climate Change) from 2006 until March 2015, where he was the Head of the 'Institutional Relations and Adaptation Policies Group'. From August 2006 to March 2015 he was the 'National Focal Point for Italy' of the IPCC (Intergovernmental Panel on Climate Change). He has been working as a climate science and policy expert for the Italian Ministry for the Environment, Land and Sea. He participated as Italian Delegate to IPCC, UNFCCC (UN Framework Convention on Climate Change), UNCCD (UN Convention to Combat Desertification), GEO (Group on Earth Observations) and UNEP (UN Environment Programme) sessions. From 2002 to 2012 he participated as Italian Expert at the EU Science Expert Group of the EU WPIEI-CC of EU Council. He has been co-chair/facilitator of Contact Groups and Informal Consultations at UNFCCC-SBSTA sessions for several years. He participated in international and national projects on marine science, climate science and adaptation policies. In particular, he was the Coordinator of the Italian national project SNAC (*Elementi per l'elaborazione di una Strategia Nazionale di Adattamento ai Cambiamenti Climatici*) and the chairman of the Scientific Board of the LIFE project BLUEAP (Bologna Local Urban Environment Adaptation Plan for a Resilient City). From 2008 to 2015 he was a contract professor of "Climate change and International Policies" for the "Science and Management of the Climate Change" Doctorate Programme of the Cà Foscari University of Venice. He was co-editor of the Italian book "*I cambiamenti climatici in Italia: evidenze, vulnerabilità, impatti*" published in April 2010.

Suggested reading:

General:

[IPCC report 1.5](#): on the impacts of global warming of 1.5 °C above pre-industrial levels (2018)

[Summary for Policymakers – IPCC report 1.5](#) (in ITALIAN)

[Climate-ADAPT](#): The European Climate Adaptation Platform (guidance, reports, maps, data, case studies)

EEA Report '[Climate change, impacts and vulnerability in Europe 2016](#)' (2017)

EU Policies:

[Strategia dell'UE di adattamento ai cambiamenti climatici](#) (in ITALIAN)

[EU Urban Agenda Climate Adaptation Partnership](#)

[Covenant of Mayors for Climate and Energy Europe](#)

Knowledge base and policy on climate change adaptation in Italy (in ITALIAN):

[Technical-scientific reports supporting the Italian Strategy of climate change adaptation](#)

[Italian Strategy of climate change adaptation "Strategia Nazionale di Adattamento ai cambiamenti climatici"](#)

Background to the EU Urban Agenda Climate Adaptation Partnership

The Urban Agenda for the EU was launched in May 2016 with the Pact of Amsterdam. It represents a new multi-level working method promoting cooperation between Member States, cities, the European Commission and other stakeholders to stimulate growth, liveability and innovation in the cities of Europe and to identify and successfully tackle social challenges.

The Urban Agenda has 14 partnerships, one of them focussed on Climate Adaptation. The one for Climate Adaptation was set up in 2017 as a multilevel and cross-sectoral cooperation instrument and delivery mechanism for delivering under this priority theme. The Partnership has developed an Action Plan to provide concrete actions for the design of future and of existing legislation, instruments and initiatives relating to the adaptation to climate change in urban areas in the EU.

One of the actions is “Political Training Academy on Climate Adaptation”. This action is led by the Council of European Municipalities and Regions (CEMR) in collaboration with partners: EUROCITIES and cities of Glasgow, Genova, Loulé and Potenza. COSLA is involved through CEMR, COSLA’s European umbrella body, where we are based together in the House of Municipalities in Brussels with our sister associations from other countries.

Training sessions for politicians are being organised by the Climate Adaptation Partnership to provide general information on what adaptation means for cities and local authorities and provide knowledge of the co-benefits of adaptation actions.