1. Key development issues and rationale for Bank involvement

Croatia, similar to other countries in the Central and South Eastern Europe, is exposed to a range of natural hazards including earthquakes, floods, forest fires, extreme temperatures, drought, and landslides. Wildfires have been particularly dangerous in recent years affecting areas along the Adriatic coast and showing a growing trend. In 2008 alone, there have been 2,700 wildfires reported on the coast.

The country is prone to seismic risk, particularly in the coastal zone. Dubrovnik was destroyed by a powerful earthquake in 1667 and another earthquake, with an intensity of VIII multichannel seismic (MCS) perception shook the Kupa Valley in 1909. The country has also been affected by frequent, but smaller, earthquakes over the past century.

Flash floods, water channel overflow in river valleys, and flooding endanger more than 15 percent of the country’s inland territory. Zagreb, the only city adequately protected from Sava River flooding, still remains vulnerable to flash floods.

The data show an upward trend in catastrophic events over the last 15 years. The impact of climate change, accompanied by changes in land use patterns and increased human settlements in disaster-prone areas, will increase the severity and intensity of weather-related disasters. Less precipitation and much warmer temperatures will lead to higher risks of water scarcity, droughts,
heat waves, forest fires, biodiversity loss, and soil and ecosystem degradation. More violent spells of rainfall will increase erosion and risk of flash floods.

Taking into account Croatia’s vulnerability, disaster risk reduction becomes a critical factor for sustainable economic and social development. The forecasted growing level of risk will need to be addressed through preparedness and disaster risk management measures.

The Bank has developed a regional Disaster Risk Mitigation and Adaptation program framework for South Eastern and Central Europe (SECE DRMAP), of which the proposed project is an integral part. Countries in the Europe and Central Asia (ECA) region have increasingly come to recognize the importance of taking proactive measures for disaster preparedness and risk management rather than relying solely on disaster response. The Bank has supported several programs in disaster risk reduction; the regional SECE DRMAP framework together with “vertical” operations, such as the Croatia Disaster Risk Mitigation and Adaptation Project (HR DRMAP), will advance the region’s disaster risk management and adaptation agenda based on the experience and lessons learned in ECA and other regions. This project is a first phase Adaptable Program Lending (APL), to strengthen Croatia’s hazard risk management capacity at the national level and to support and integrate this capacity within the regional context.

2. Proposed objective(s)

The objective of the proposed Disaster Risk Mitigation and Adaptation Project for Croatia is to reduce the vulnerability of the country to natural hazards and reduce human, economic and financial losses due to catastrophic events. This objective will be achieved through: (i) strengthening disaster risk management capacities; (ii) increased preparedness and response capabilities; (iii) enhancement of the country’s capacity to lead regional coordination in the area of wildfires hazard risk reduction and response; (iv) catastrophic risk insurance; and (v) prompt access to financing of relief and recovery efforts following a major disaster.

3. Preliminary description

The proposed project would be designed as part of a regional Disaster Risk Mitigation and Adaptation Program for South Eastern and Central Europe (SECE DRMAP). The project would be a Specific Investment Loan (SIL) to be implemented over 3-4 years.

The proposed project would be financed by an IBRD loan of about $40 million and a $10 million contribution by the Borrower. Contingency financing of about $90 million to assist with disaster response could be supported by IBRD funding through the Catastrophe Risk Deferred Drawdown Option (DDO).

The project would include the components and activities described below.

Component A: Disaster Risk Management and Preparedness. The objective of this component is to strengthen the capacity of government institutions to manage hazard risks and respond to disasters. The proposed activities include:
1. Development of the National Disaster Risk Management Strategy and Investment Program;
2. Emergency Response Improvement:
   - Emergency response equipment and relief supplies;
   - First Responder training;
   - Development of disaster-related information databases and disaster simulation programs;
   - Enhancement of 112 System;
   - Upgrade of First Responder communications system; and
   - Public awareness, communication and information on disaster preparedness.
3. Establishment of a Regional Coordination Center for Wildfires

**Component B: Strengthening of Hydro-meteorological Services.** The objective of the component is to address gaps in capacity to mitigate weather damage. The key issues to be addressed are: marine forecasting in the Adriatic, forecasting and nowcasting of severe weather events, and management of the Sava River to enable flood management and safe navigation over the medium term. Specific activities include: (1) update of the hydromet monitoring network; and (2) update of forecasting center capacity.

**Component C: Catastrophic Risk Insurance.** The component has a three-fold objective: (i) to provide Croatian homeowners and Small and Medium Enterprises (SMEs) with access to affordable and reliable catastrophe insurance products; (ii) to enable the government of Croatia to reduce its fiscal exposure to natural disasters by transferring its implicit financial responsibility for private losses to the private insurance market; (iii) to support diversification of the Croatian insurance market.

*South Eastern and Central Europe Regional Catastrophe Insurance Facility.* The Catastrophe Insurance component of the project entails Croatia joining, as a founding shareholder and member, the South Eastern and Central Europe Catastrophic Risk Insurance Facility (SECE CRIF), which is being established under the South Eastern Europe Disaster Risk Mitigation and Adaptation Program. The facility will offer innovative low cost catastrophe insurance products to homeowners and SMEs, which currently do not exist in the traditional insurance market.

The Catastrophic Risk Insurance component would finance (1) a public information and awareness campaign; and (2) Government membership equity contribution to the Regional Catastrophic Risk Insurance Facility.

**Component D: Deferred Drawdown Option.** The component would provide the government with access to contingency funding in a form of the Catastrophe Deferred Drawdown Option (Cat DDO), a newly introduced Bank instrument. The Cat DDO will address the country’s immediate liquidity needs in the aftermath of natural catastrophes. The Government will be able to access funds from the facility upon the declaration of a state of emergency as a result of a natural disaster.

The maximum amount of Cat DDO funding is 0.25 percent of the national GDP which, in Croatia’s case, will be about US$90 million. The funds may be drawn down over a three-year period, which may be renewed up to four times for a total of 15 years.
4. Tentative financing
   Source: ($m.)
   Borrower  10
   International Bank for Reconstruction and Development  40
   Total  50

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