



*Empowered lives.
Resilient nations.*

DISASTER RISK REDUCTION FINANCING
SUB-REGIONAL WORKSHOP
SARAJEVO, APRIL 2, 2019



WORKSHOP PROCEEDINGS REPORT

Acknowledgements

The **Sub-Regional Workshop on Disaster Risk Reduction Financing** was held in Sarajevo, Bosnia and Herzegovina, on April 2nd, 2019.

The workshop was organized by the **Climate and Disaster Team of UNDP Istanbul Regional Hub, UNDP Country Office in Bosnia and Herzegovina** with expert support of international organizations, private sector companies and academia (ICMIF, Risk Management Solutions, Bermudian ILS Phoenix CRetro, Israeli ILS IBI ILS Partners, McCarthy Denning) for countries and territories in Western Balkans sub-region (RBEC region: Europe and CIS countries).

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Photo credit: Amel Emeric/AP(2010 floods, village of Janja, 130km east of Sarajevo)
<https://www.sandiegouniontribune.com/sdut-thousands-evacuated-from-flooded-homes-in-bosnia-2010jun23-story.html>

Workshop proceedings report prepared by Monica Moldovan/UNDP IRH. April 2019



Jelka Miličević

Minister, Ministry of Finance



Sukhrob Khoshmukhamedov

UNDP Resident Representative a.i. in
Bosnia and Herzegovina,

EXECUTIVE SUMMARY

Moderated by Armen Grigoryan (UNDP Climate and Disaster Team Leader) and Jan Kellett (UNDP Special Advisor), the one day Disaster Risk Financing sub-regional workshop in Sarajevo on April 2nd, was organized by UNDP Istanbul Regional Hub, UNDP Country Office in Bosnia and Herzegovina for countries and territories of Western Balkans (*Albania, Bosnia & Herzegovina, The Republic of North Macedonia, Montenegro, Serbia*), facing exponential threats of various hazards, like earthquakes, floods, landslides, mudslides, droughts, extreme temperatures, etc.

The representative of Bosnia and Herzegovina's government, Minister **Jelka Miličević** has opened the proceedings by expressing her concerns over the high frequency and severity of disasters in the country and welcoming this meeting as a proof of preoccupation and focus of authorities in the sub-region to finding solutions for financing disaster prevention and reduction. UNDP Resident Representative a.i. in Bosnia and Herzegovina, **Sukhrob Khoshmukhamedov** noticed the diverse representation of stakeholders and countries in the sub-region which stands again as proof of the prominence of financing disaster risk reduction issue, on the authorities' agenda in Western Balkans, and highlighted the importance attached by UNDP to sovereign financial risk transfer and other risk financing instruments to preserve the hardly gained development outcomes and advance towards sustainable, risk informed and people centered development.

UNDP facilitators started the discussions with a prompt to generate ideas but most importantly, to identify concrete actions towards a coherent regional cooperation on financing disaster risk reduction. The sessions have touched upon the following topics: (i) current state of disaster financing that contributes to transform the promises of sustainable development into reality and its applicability to Western Balkans countries and territories; (ii) sovereign risk transfer instruments and the international development actors, the private sector and academia in support the governments of Western Balkans countries and territories to capture the potential of the global disaster financing market for building resilient region; (iii) the role of inclusive or micro-insurance across the region and potential for its growth; (v) the reforms and actions needed to accelerate development of national and regional disaster financing platforms Western Balkans countries and territories.

The workshop concluded with a group exercise and a sharpened focus on the way forward, exploring practical next steps for immediate actions to facilitate coordination in the sub-region. The **target audience** of the workshop entailed government representatives from Western Balkans states and territories, representatives of international community and private sector practitioners developing and managing various disaster financing instruments.

Session 1. The big picture of DRR Financing

The Case for Resilience



The session was opened by **Jan Kellett (UNDP, Special Advisor, Geneva)**- who has introduced the participants to different ways in which the international community approaches DRR financing, underlining the wealth of expertise in the insurance industry and the capital markets that exist and could be tapped into. Jan set the scene by making the case for resilience, walking the participants through many types of threats which can pose complex risks to sustainable development, and by showing how vulnerabilities, exposures and threats interact to create risks which lead to impacts, thus presenting the “world” in which development, risk and resilience can and should coexist.

He emphasized that smart investment, risk insurance and risk financing are really what makes the development sustainable, and continued to build the case for Resilience, showing that it reduces and transfer risks; builds coping capacity at many levels (eg. Country-community- family) and supports SDGs attainment and reduced vulnerability. From a different angle, Jan has further explained the triple dividend of Resilience and, referencing the World Bank’s report (1), he underlined that Resilience reduces losses and spurs growth; that it spurs recovery and it pays for recovery; stressing also the importance of the ex-ante disaster risk management which, unfortunately, goes by insufficiently acknowledged. Finally, he referred to specific threats in the Balkans touching upon the complexity of risk, scale of losses (eg. In Montenegro 5 bn US\$, in Bosnia and Herzegovina 2.5 bn US\$ losses approx. 25% of GDP) inequality and finally discussing agriculture and its importance for the region, arguing that while many countries are struggling to achieve resilience, limited funds are a seemingly insurmountable barrier. In relation to the latter, however, he further showed that the product represents just half of the picture, and the rest is the knowledge and prioritization of investments into the most vulnerable sectors (knowledge that society possesses). He concluded that knowledge of risks, a realistic quantification of risks, will shed clarity on the best financial instruments and insurance products that could cover one or multiple countries, which could be used to manage risks in most efficient ways.

Level Setting: Risk, Resilience and Finance in the Balkans:

The session continued with Jelena Doganjik (Europe Re) and Jovanka Cetkovic (UNDP BiH) presentations followed by a facilitated Q&A session:

Jelena spoke about different models of regional cooperation in catastrophe reinsurance, showing that focus on resilience is key to managing disaster risks. She then, walked the participants through the various barriers impeding access to disaster risk finance, chief among them being the limited funding. She underlined the importance of investing in prevention, which in turn lowers insurance premiums hence insurance products becoming more accessible. She continued by presenting different (re)insurance instruments offered by Europe Re to various entities at different levels (e.g. individual/homeowners esp. for agricultural resilience, municipal, national government) which can be tailored to various needs.

Jovanka presented UNDP Bosnia and Herzegovina’s experience with technology transfer for climate resilient flood management in Vrbas river basin, highlighting the flood insurance products developed and the amendments to existing tariffs. She emphasized the importance of awareness in the process to assess the people readiness and willingness to pay for insurance products, touching upon the first risk limit of 30,000 KM per housing unit, when total exposure is 48.5 mn KM for 1.6 mn housing units approx. She discussed the results of a project survey which has assessed the locals’ willingness to pay for flood/natural disasters insurance scheme, including households, public institutions, businesses, and farmers. The key conclusion is that there is a significant potential for the development of insurance packages for all segments of the population and in general the respondents and authorities appeared to have a positive attitude towards the introduction of the mandatory insurance and are open to expand their understanding of available risk insurance products.



Q&A session facilitated by Jan Kellett

Q&A session has started with the identification of the main disaster risk drivers in the region. The participants reflected on the main impediment hampering the spread of insurance products, and people's perception (behavior patterns) came to fore as a prominent issue, backed by a skewed perception of the frequency and vulnerability of the hazards compounded by a reminiscent communism mentality according to which the government must and should pay all the losses including the individual ones. The decrease of the insurance penetration after 2014 floods in Bosnia & Herzegovina and in Serbia, was largely attributed to collective forgetfulness and insufficient awareness on climate change consequences and likelihood of the increased frequency and severity of natural disasters. Moreover, in Serbia, the government's payment of individual losses may have discouraged local population to buy insurance products. Another issue discussed was that insurance companies in Serbia could benefit from stronger regulations and clearer institutional mandates to operate whereas in Bosnia & Herzegovina, insurance penetration could increase over a short-term period as authorities are interested; the insurance companies should try to diversify their products. The participants agreed over the usefulness of a mandatory insurance as practiced in other countries and the need for sub-national governments to be supported in terms of increased budgetary allocation for disasters preparedness by national governments. Consensus was reached over the need for an increased insurance penetration in the subregion, possibly with the development of products to cover multiple countries, to support governments risk transfer. Participants were interested to discuss and clarify terms eg. DRM and Disaster Risk Financing and resilience measures vs development measures.

Measure | Manage | Finance: The Language of Resilience (Keynote by Daniel Stander, Global Managing Director, RMS)

Daniel began by walking the audience through several growing challenges: increasing hazard, increasing exposure, increasing vulnerability (by 2030, 3bn people will be living in substandard housing), increasing impacts, increasing gap between exposed and insured losses, and post-disaster aid cannot be expected to fill the void. To combat these growing challenges with strategic action, Daniel emphasized the importance of analytics to governments' plans. Differentiating between DRR and disaster risk financing, Daniel noted that the two work best when implemented together. Daniel introduced the audience to the five pillars of resilience: Quantification, Strategy/Governance, Reduction, Financing and Preccovery. He explained the importance of quantifying risk in helping governments to understand its risk drivers and set realistic resilience targets to inform strategy. A strategy that is risk-informed, he argued, will help governments to reduce, finance or transfer the residual risk, allowing for ex-ante preccovery.

Analytics must be fit for purpose. Daniel distinguished between indicators and metrics. While indicators may help governments to identify strengths and weaknesses in broad terms, they are not robust enough to set and achieve meaningful resilience goals around reducing the impacts of potential shocks. He argued that we need metrics which measure potential losses using tangible values. "Metrics give you a wealth of information to help manage risk and understand the potential impacts of various mitigation schemes". He underlined that 'no model is perfect, but some are useful'. The key is working with good models and using them judiciously. Resilience being situational, he argued, means that resilience modelling must quantify the full range of possible outcomes. History is a poor precedent for future catastrophes: in the example of Haiti, there had been ten earthquake-related deaths in over 100 years, and then over 250,000 in one afternoon. We must take the historical record and then simulate potential impacts.

Daniel reminded the participants that although exposure is increasing and increasingly concentrated, especially in urban areas, insurance penetration is not. The disaster risk insurance coverage gap remains high – and is growing. 'In Eastern Europe and the CIS, there have been 314 disasters over the last ten years, resulting in more than 60,000 people killed, 11 million affected and physical damage alone of \$25 billion. On average, economic losses from natural disasters outstrip insurance coverage 3:1. The protection gap is increasing globally – and the gap is even more acute outside of the US and Western Europe'.

Analytics must simulate not only the hazard but also the frequency, severity and distribution of the impact, providing a quantified understanding of the potential net economic impact. Analytics must be well calibrated to historical losses experienced and validated against each new event. Finally, analytics must speak the language of the market - in other words, well-established models that have been adopted by the markets give a certain level of comfort to investors, when transferring risk.

Daniel continued to make the case for sound modelling metrics to understand a regions' resilience profile, acknowledge resilience gaps, and articulate clear objectives when devising long-term DRR strategies in the face of potential shocks. Analytics must support all facets of resilience, to be used as a tool to invest in the community. In an example, Daniel demonstrated how modelling was used to understand the benefits of investing in retrofitting in a flood-prone area, versus relocating the community. Models can also be used to understand and quantify the resilience dividend of nature-based defenses, such as the value of wetlands in preventing damage and losses in coastal areas.

Ultimately, analytics must link risk with capital, marrying the demand between governments and investors. A final prompt: Start with the end in mind; in other words, work out what it is that your trying to do and build a narrative; and as you understand and have a greater focus on what your objectives are, you can start to analyze more and reduce uncertainty over time, to tell a different story in the next few years.

Session 2: Transferring the Risk

Panel discussion- facilitated by Daniel Stander (RMS), with support from Clive O’Connel (McCarthy Denning) and Rom Aviv (IBI ILS Partners)



The panelists began by asking the attendees about their expectations of the proceeding day. Voices from the floor pointed to the need to elaborate on the increased vulnerability of the region and pressured public finances to pay for damage and losses. Discussions then revolved around governments’ need to finance and transfer risk, budgetary constraints, the available risk insurance instruments, openness of the insurance industry and the government’s central role and political commitment to invest in disaster risk financing (and how to build a case to motivate government investment), the possibility of sub-regional cooperation and UNDP’s convening role. Agreement over terms set the scene for further discussions: the symbiotic relationship between disaster risk reduction (DRR) and disaster risk financing (DRF), which are closely linked and together with disaster prevention are part of the broader topic of disaster risk management (DRM). Differences between debt finance and risk finance were also discussed interactively. Catastrophe bonds (Cat bonds) and Insurance Linked Securities (ILS) were briefly clarified. Cat bonds as a relief for public finance were discussed from different angles, starting with clarifications of the insurance instruments, followed by the advantages of parametric vs indemnity triggers. Insurance Linked Securities (ILS) are financial instruments that allow the transfer of insurable risks to the capital markets. These instruments are sold to investors through a process that entails several steps: the risk is acquired from (re)insurance companies, assessed and restructured, then offered to investors. ILS includes Cat bonds, around which the discussion was centered, as well as collateralized reinsurance. It was clarified that Cat bonds can be used in a rural as well as urban setting. Parametric insurance, which is triggered by third party, objective data, is a key financing tool for governments to transfer their rising (climate and disaster) risk to the international risk markets, as it allows for fast payouts in the wake of disaster (within days or weeks). Moreover, investors prefer the transparency of parametric triggers.



Departing from the idea that governments need to be presented with a good case to understand that ex-ante investment is a relief for public finance, the panelists explored various streams to finance risks and explained the benefits of investing in ex-ante risk financing, reflecting on the benefits of a parametric Cat bond for the region. They underlined that the region is attractive to investors, who are keen to diversify their risks globally. They advised that government-backed catastrophe bonds and ILS risk capital transactions in the region could be structured with parametric triggers vs indemnity, which can be implemented once confidence is gained by investors. Parametric triggers, using a modelled loss, were encouraged to improve modelling uncertainty and pricing accuracy. The growing market for green bonds, a type of debt with a responsible investment “marketing wrapper”, that provides financing for inclusive “build back better” and environmental projects, was differentiated from Cat bonds (which is not a debt). UNDP’s experience in Bosnia and Herzegovina brought to the forefront some impediments regarding parametric insurance; the main reason being that for clear triggers to be developed, on-the-ground measuring infrastructure needs to be strengthened (e.g. water gauges and measuring stations) and legislative amendments are likely necessary, as parametric triggers are currently breaking their laws on obligations. Discussions explored the possibility of using technological advances (eg. satellite imagery) to create effective triggers. The centrality of the government’s commitment to understanding and correctly measuring and financing risks was acknowledged by the participants. UNDP’s vital role as a convener and neutral broker was explored, especially with regards to facilitating multi-country risk models and engaging between governments and risk insurance companies.



DRF Practical considerations are quintessential: (i) understand the objective, create your strategy and financing targets (be clear about how much you can finance and how much you need to transfer), understand your triggers, understand your risk and its frequency and severity (have a good risk model!), run it by a book runner and a good broker (who understands cat bonds), seek complementary funding from international mechanisms (liaise with EC delegations in your countries, GIZ, access the climate international financial landscape etc) initiate multi-country projects (it reduces costs and improves insurance coverage; look at approx.35 mil USD amount insured at a minimum), have UNDP facilitate the dialogue, create awareness of the benefits of cat bonds and parametric insurance at all levels (gov, municipal, individual), pay attention to insurance regulators (i.e. choose one with which your government is comfortable with eg. UK, Cayman Islands, Bermuda, etc) amend legislation (if/when needed) for greater insurance penetration, make greater room for inclusive insurance.





Session 3: Leaving no one behind: Inclusive insurance

Facilitator: Jan Kellett

Key note speakers: Shaun Tarbuck, Chief Executive at ICMIF and Jaksa Kristo, Assistant Professor, University of Zagreb

Shaun has introduced the participants to the global mutual and cooperative insurance, explaining the bottom up approach (it can however work both ways) and focus on building communities and at the same time, market diversity. He continued by underlining that the global mutual/cooperative market share is 26.7% and growing, it has employed 25% more people in the past years (eg. In 2017 mutual and cooperative insurers collectively represented 8.9 trillion USD in total assets, had 1.16 employees and 922 million members/policy holders). Shaun underlined that in the emerging markets however, mutual insurance penetration is low due to the absence of permissive laws (e.g. in China after 5 years of preparations, laws were approved; Estonia and Uzbekistan as well). He continued by emphasizing that allowing the mutual insurers enter a market represents only half of the battle, the other is the mobilization of people and funding. He concluded by offering details about ICMIF members (by affinity group- agriculture is predominant) and dynamic of premium growth over the past decade and inviting the participants to reflect on how mutual insurance could be regionalized in Western Balkans.

Jaksa began with a primer on the benefits of mutual and cooperative insurance for the members (policy holders), insurance markets, society and economy at large. He tackled the limited mutual insurance development in the region in the region (domestic mutual insurers exist in several Central and Eastern European markets) and talked about the different approaches to the development of mutual or cooperative insurance, and that the way mutualism is shared depends on the cultural/historical background of a country. He showed the importance of financial and insurance literacy at many levels: planning for retirement, increased awareness on beneficial borrowing increased savings in case of low income or women headed households, increased understanding of the importance of saving among young people and continued with the idea that inclusive insurance can possibly help building trust in insurance products in general and increase insurance penetration where legislative frameworks allows.

Q&A session facilitated by Jan Kellett

Jan summarized the key points emphasizing that the mutual cooperative inclusive work starts with people, enlists a bottom up approach, and that the key to mutual insurance markets appears to be in the available setup operating in the region. Discussions about the scale of the industry followed, showing that although in this region the market is still in its infancy, it is well developed in other parts (eg. In Austria, 60% of premiums are mutual insurance premiums). The main impediments of the development of this type of insurance in the region is the legal framework, then the capital. As for legal frameworks, it is important that the legal provisions take into consideration smaller companies too. Mutual in agriculture are among the most developed and each farmer has at least 6 products; they understand that members are also shareholders not just claimants. Establishing a mutual and collecting funds depend very much on domestic legal framework (e.g. in Croatia the law is permissive provided that a certain type of license is obtained to allow for capital collection; in UK there are several ways to establish a mutual and only few countries insist on a membership fee). Mutual can be established at municipal level too (e.g. Australia, where for every municipality there is a mutual in place and in the US many more). Discussions explored the possibility to establish mutual in WB region, with experts support and ways to combine mutual with ILS at municipality levels (eg. Philippines).

Session 4: Development of approaches for disaster risk financing across Western Balkans

Facilitator: Armen Grigoryan, Regional Cluster Leader, UNDP Istanbul Regional Hub



Participants split into two groups focused on: Inclusive Insurance and Disaster Risk Financing and agreed on the way forward:

The main take-aways from the groupwork follow:

- (i) Countries do not want the status quo to continue;
- (ii) Countries desire the technical assistance required to explore risk financing;
- (iii) Countries must start with the identification of hazards and quantification of risks;
- (iv) Countries must develop a model to robustly simulate the probability/severity curve and the expected loss;
- (v) Countries must develop consensus over the amount that can be retained and identify the threshold above which risk needs to be transferred;
- (vi) Countries must start with the end in mind, but then build up a gradually;
- (vii) Countries must be clear on the purpose of the risk finance – to restore the private sector or to rebuild schools, to fund immediate response or to pay for long-term recovery, for example?
- (viii) Countries must produce an estimate of the expected loss for the layer of cover sought and develop a view on the amount of cover needed and the duration;
- (ix) Countries must identify potential donors to assist both with the up-front technical costs and premium financing;
- (x) The sub-region needs technical assistance for risk modelling to sufficiently quantify risk;
- (xi) Catastrophe bonds could be feasible, but the need for legal amendments should be analysed;
- (xii) The potential to blend capital (i.e. merging cat bonds with loans, domestic budget and aid) needs to be explored;
- (xiii) Regional (sub-regional) approaches could prove more efficient and effective;
- (xiv) Coverage of multiple hazards (e.g. in agriculture) and using parametric triggers could lower costs.

Before reaching some important concrete next steps, discussions revolved around many issues of concern for countries:

- (i) Although political will exists at declarative level, it may be weak when enforcement is needed
- (ii) The cost of financing products remains high, but losses are higher (e.g. costs in Serbia 2015 floods 117 mln USD of EU donation, 300 mln USD-World Bank loan, 250 mln USD- other donations; 40 mln USD individuals);
- (iii) Incentives for individual insurance and legislative amendments;
- (iv) Lack of data and expertise to model risk.

Next steps:

- UNDP COs to analyze their on-going portfolio and pipelines to identify initiatives that could be used to reach out to private sector and government partners to discuss and promote DRR financing at the national level;
- UNDP IRH to continue organizing DRR financing dialogues, where these ideas could be brought to the attention of governments;
- Present and discuss DRR financing issues at UNDP/CEU summer school on innovation and DRR first week of July, in Hungary;
- Serbia could lead the process at sub-regional level but needs some extra consultations at the national level.