





# CLIMATE CHANGE FINANCING IN SERBIA:

**OVERVIEW AND NEXT STEPS** 

# Introduction and objectives



- During 2015 Serbia developed its intended Nationally Determined Contribution document in line with the Paris Agreement
- Serbian authorities are currently preparing a revised version of the NDC
- The associated MRV system is being developed and will be implemented in the coming period
- Effective formulation and monitoring of climate financing actions lies at the heart of achieving climate change objectives defined therein

This study has an objective to help Serbian authorities achieve more focused results linked to their climate change agenda, by:

- a) Assessing the capabilities of the current budgetary framework to provide relevant climate change expenditure information
- b) Enable better understanding of how much government spends on climate change
- c) Assess the visibility of CC financing in the budget, and
- d) Provide directions on how to enable better tracking of the CC spending to contribute to increased performance of CC policy agenda.



### **Structure of the Study:**

- ❖ Introduction contextual background and objectives
- Loss and Damage Analysis
- Institutional and legal framework
- Climate change financing structure and trends
- Guidelines for introducing Climate Budget Tagging (CBT) in Serbia
- Concluding Remarks



This chapter is developed in line with UNFCC methodology to cover all five of the suggested thematic areas (i.e. slow-onset events, non-economic losses, risk management approaches, human mobility and action and support).

The analysis effectively represents an extended introduction making the case for enabling better CC financing monitoring mechanisms.

Serbia is still in the process of development of an appropriate framework for collecting and storing information related to loss and damages. The main source of information for loss and damage related data is the Service for Emergency Situation at the Ministry of Interior, that populates the data of the project DESINVENTAR. Also the analysis used the domestic studies focused on estimation of effects of climate change related events (e.g. Bozanic and Mitrovic, 2019)



#### **Slow-onset events**

- These events include: increasing temperatures, desertification, loss of biodiversity, land and forest degradation, glacial retreat and related impacts, ocean acidification, sea level rise and salinization
- Temperature rise of 1°C brings a negative effect of 1.2% to 4.2 % change in GDP over the long-run (BM,2019)
- Out of these figures, the highest single contributor is the agricultural sector with 0.47% and 1.66% estimated negative output shock due to 1°C rise in temperature
- This is primarily due to the estimated reduction of 7% in average annual precipitation and decreased median annual flows by 20% as a result of 1°C temperature rise (2<sup>nd</sup> NC document)

#### **Extreme events**

- Loss and damage related studies in Serbia are dominantly focused precisely on these types of events.
- Total material damage in the Republic of Serbia caused by extreme events in period between 2000 and 2015 amounted more than 5 billion euros (primarily from droughts and high temperatures)
- 2014 floods affected 44 flood areas and the total of 1.6 million people. Total damage was 1.5 billion euros.



#### Non-economic losses

- These items include: health degradation, mobility obstacles, degradation of territory, cultural heritage, indigenous knowledge, societal/cultural identity biodiversity, ecosystem services or even loss of human lives
- Data about non-economic losses are quite limited in the case of Serbia.
- Negative impact of heat waves on health was explored during the summer months in year 2007, when 167 people died out of which 151 people had over 75 years which represented 76% increase compared to referent death rate (MoEP, 2017).
- Desinventar database is an important (although incomplete) source of non-economic losses information. (1980-2020)

Mortality		Housing Damages	
Fire	130	Flood	58.633 Houses
<b>Explosion</b>	59 Deaths	Earthquake	14.992 Houses
Flood	52 Deaths	Hailstorm	11.824 Houses

### Risk management approaches

- Comprehensive risk management in the context of addressing loss and damage from climate change consists of addressing the entire gamut of possibilities from reducing loss and damage before it occurs, to addressing loss and damage that cannot be avoided (UNFCCC, 2012).
- Law on emergency situations, Law on fire protection, National Strategy for Protection and Rescue in Emergency Situation, Serbian National Disaster Risk Management Program - These documents represent the pillars of Serbian regulatory risk management framework in terms of loss and damage.
- Serbia is missing a full-scale MRV system as an essential tool to track progress made in implementation of achievement of country's obligations under the UNFCCC
- There is an EWS for extreme temperatures in place thanks to the joint efforts of the Institute of Public Health and the RHI of Serbia.
- Also hydro alarm is managed by RHI whereas large amounts of data are processed within Prognoza system.



### **Human mobility**

- Climate changes and its adverse impacts cause migrations, displacement and planned relocation of people.
- In the context of Serbia, although there are discussions about environment related migrations they are not yet analyzed in full.
- According to the PIMO data (PIMO, 2015) During the 2014 flood 31.879 people were evacuated from their homes while there was 494 families that lost their homes.

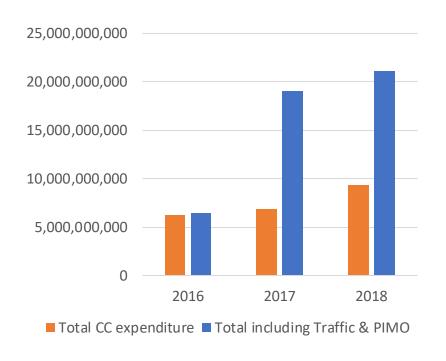
### **Action and support**

- In order to set up a general framework for comprehensive protection from natural disasters, in 2014 Government of Serbia introduced National program for managing natural disaster risks.
- The 6-year Program focuses on six components: Institutional development and capacity building, risk identification and monitoring, risk mitigation, early warning systems and alerts, risk financing strategy and recovery.
- During the year 2014 and 2015, PIMO channeled over 332 million (357 mil EUR) in order to fund flood recovery.
- Serbia also developed Low-Carbon Development Strategy and an Action plan with scenario analysis during 2016 – 2019. The implementation of envisaged scenarios requires from 6.5 to 19.2 billion Euros to reach the stated objectives



## Climate change financing – structure and trends

#### Total climate change (CC) **budgetary** expenditure, 2016-2018



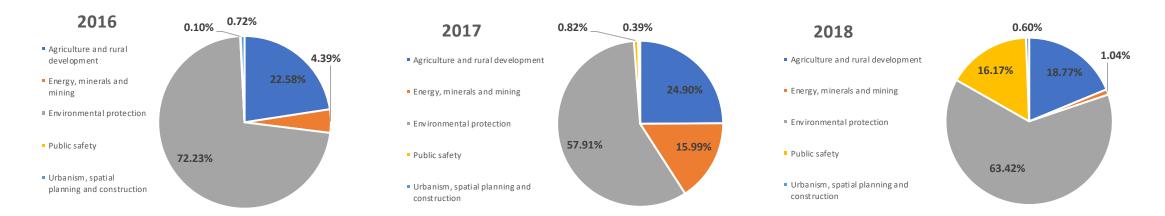
#### **Observations:**

- Total expenditure is increasing at a fast pace in the recent years (10% in 2017, 35% in 2019), reaching 9.4 billion RSD in 2018
- When Traffic sector and PIMO activity is included, the increases are quite significant.
   In total it was 21.1 billion RSD in 2018
- In total, the CC expenditure reached 0.57% of the budget in 2016, 0.62% in 2017 and 0.80% in 2018
- These two sectors are presented separately since they are rather large compared to the set of more "traditional" climate change sectors



# Climate change financing – structure and trends

#### Total climate change (CC) budgetary expenditure, 2016-2018



#### **Observations:**

- Environmental protection sector dominates the CC financing structure with an average share of around 63%
- It is followed by the Agriculture and rural development with more than 20% representation
- The share of sectors fluctuates because of uneven project implementation dynamics going from year to year
- The sectoral structure changes significantly to the benefit of Traffic and Economic Development (handled by PIMO) when these sectors are considered together with the others.

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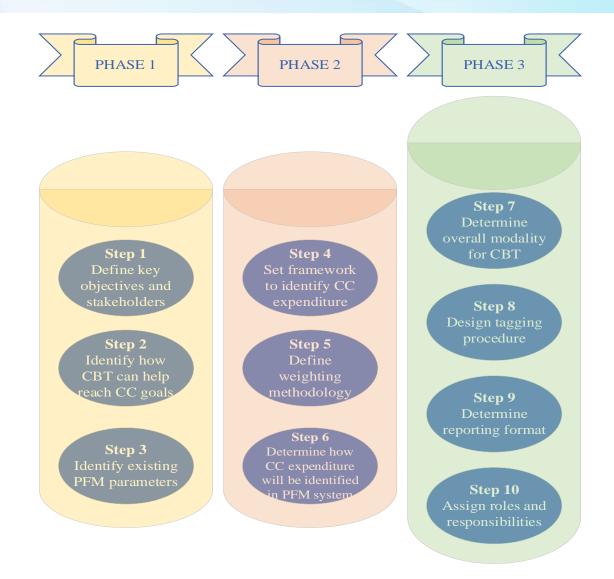




- The dataset observed does not represent an accurate, methodologically consistent basis for climate change policy analysis
- It is rather an estimate made based on expert opinion combining financial and climate change knowledge within Serbian context
- It will be necessary to reach out for implementation of a wellstructured standardized budget classification scheme which would enable automatic and reliable identification of climate change related expenditure (i.e. Climate Budget Tagging)



### Climate Budget Tagging (CBT) Implementation Design





### **CBT Technical Design**

The objectives of the future CBT classification is to enable:

- 1. identification of expenditure which is relevant for climate change
- 2. differentiate between climate change mitigation and adaptation actions
- 3. identification of type of intervention
- 4. identification of the source of funding

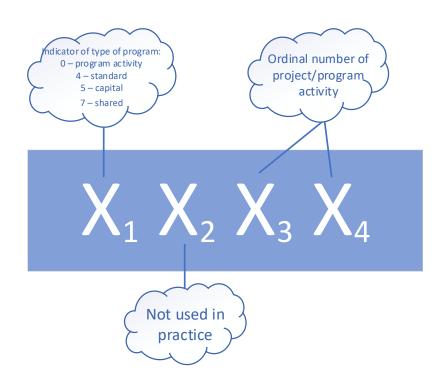
Under Option 1 below, fulfillment of objectives 1, 2 and 3 would be ensured through suggested changes in the classification framework.

Identification of the source of financing is already a part of the budget classification framework.

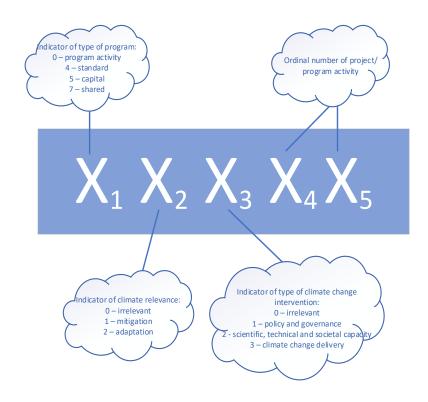


### **CBT Technical Design – Option 1**

#### Existing coding system



#### Recommended coding system





### **CBT Technical Design – Option 2**

Here, we recommend that the existing sector number 4 which reads "Environmental protection" is split into two sectors – one dealing specifically with climate change and another which would include non-climate change related environmental financial activities. The new sector could take number 22 (there are currently 21 sectors in total) and could simply read "Climate change".

This option is minimalistic and provides only for accurate identification of climate change related expenditure without going beyond that (i.e. providing for differentiation between mitigation and adaptation and identification for sector).

The advantage of this approach versus the one described under Option 1 above is that it is far less demanding to implement in terms of financial and technical resources.



### **CBT Implementation Phase – Activities & Responsibilities**

Activities	Responsibility	Timing
Development of draft changes to the Rulebook on budget classification	MoEP & MoF (Treasury) wih TA support	short-term
2. Adoption of changes in the Rulebook	MoF (Budget Dpt)	short-term
3. Integration of the modifications in the ISIB (FMIS)	MoF (Treasury)	short-term
4. Integration of the modifications in BIS	MoF (Budget Dpt)	short-term
5. Development of methodologial guidelines for CBT	MoEP with TA support	short-term
6. CBT promotion	MoEP	medium-term
7. Development of capacities for CC financing assessment	MoEP with TA support MoEP and MoF (Budget	medium-term
8. Integration of CC strategic and budgetary framework	Dpt)	medium-term

# Thank you



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