1. Project Data

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<th>Practice Area(Lead)</th>
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<td>Urban, Resilience and Land</td>
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<th>L/C/TF Number(s)</th>
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<th>Total Financing (USD)</th>
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<td>81,244,201.51</td>
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<th>Bank Approval Date</th>
<th>Closing Date (Actual)</th>
<th>IBRD/IDA (USD)</th>
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2. Project Objectives and Policy Areas

a. Objectives
The Program Development Objective (PDO) of this Development Policy Operation (DPO) as stated in the Program Document (PD, page i):
"To strengthen Serbia’s institutional and legal framework to effectively manage the physical and fiscal impact of natural hazards".
For the purpose of this evaluation, the individual objectives of this DPO are identified as follows:
PDO 1. Strengthening the institutional and legal framework to effectively manage the physical impact of natural hazards.
PDO 2. Strengthening the institutional and legal framework to effectively manage the fiscal impact of natural hazards.

b. Pillars/Policy Areas
The PDOs were to be achieved through reforms under three policy areas/pillars (PD, page i).
Pillar 1. Strengthening Serbia's legal and institutional framework for post-disaster reconstruction and disaster and climate risk management.
Pillar 2. Strengthening Serbia's technical capacity for planning and implementing disaster and climate risk management activities.
Pillar 3. Reducing the fiscal impact and strengthening the Borrower's financial capacity to respond to the adverse impact of natural hazards, particularly those exacerbated by climate change.

c. Comments on Program Cost, Financing, and Dates
Financing. An IBRD loan of US$70.0 million financed this DPO with a Catastrophe Deferred Drawdown Operation (CAT-DDO). In addition, there was financing from three Trust Funds (TFs): US$1.0 million (TF-A4344); US$4.3 million (TF-A2296); and US$1.0 million (TF-A7621). With this, the Bank financing for this operation was US$76.4 million. The amount disbursed was US$81.2 million. According to the clarifications provided by the team, the difference between the appraisal estimate and amount disbursed was the loan was disbursed in EUR.

3. Relevance of Objectives & Design

a. Relevance of Objectives
Country context. Serbia is vulnerable to natural hazards, especially weather-related ones. This operation was prepared in the wake of the floods of May 2014, which caused significant damages and losses amounting to 4.8% of the Gross Domestic Product (GDP). The disaster disproportionately affected the poor, with estimates showing 125,000 people pushed into poverty, a 7% increase over the previous years' poverty headcount. Serbia was also sensitive to future climate and precipitation change, with weather-related events expected to become more frequent. Having a Disaster Risk Management Strategy (DRM), and contingent financing to secure access to immediate liquidity to meet recovery needs following a natural hazard was important in the country context.
Government strategy. In the years before appraisal, the Government started adopting measures for moving towards a proactive DRM approach to disasters (as opposed to an emergency-driven reactive approach). The
Government adopted the National Disaster Risk Management Program (hereafter NDRMP) in December 2014, identifying DRM as a national priority and approved a National Action Plan in 2017 for implementing the NDRMP. The Government also enacted legislation to strengthen the legal framework to better manage disasters such as the: (I) The Law on Emergency Situations (2009) mandating multi-hazard vulnerability assessments at national and municipal levels; and (ii) The Law on Amendments to the Emergency Situations (2011) introducing the concept of risk assessments.

As a potential candidate country for European Union (EU) membership, Serbia also made efforts to align its legal framework with EU regulations on DRM. For instance, Serbia's Law on Water (2010) was consistent with the EU Water Framework Directive (EU WFD), and with EU Flood Directive (EFD) that required EU member states to establish flood risk management plans for river basin districts. Serbia also adopted the Law on Meteorological and Hydrological activity (2010) which provided the legal framework for weather forecasting, early warning, weather and climate related information for risk assessments and integrated strategic priorities of the World Meteorological Organization (WMO).

**Bank strategy.** The Bank financing for this operation, intended to provide Serbia with a fiscal buffer for: (i) reducing the impact of future disasters on its fiscal balance; (ii) providing bridge financing for immediate response, which was an appropriate use of Bank resources, since disasters disproportionately impacts the poor; and (iii) ensuring that budget resources are not diverted from other development programs. The PDOs were well-aligned with the Bank's Country Partnership Framework (CPF) for 2016-2020. The CPF recognized that making Serbia's economy more climate resilient was an important part of the country's development agenda. DRM was integrated in the CPF as an inherent part of the policy coordination and rationalization agenda (objective 1b: creating a more effective public administration and improving service delivery), and mitigating financial risk through the Catastrophic Risk Insurance Facility (objective 2b: creating a more stable and accessible financial sector). The Bank's CPF for 2022 - 2026 which is currently being finalized, prioritizes more resilient growth as one of the two higher level objectives and emphasizes the objective of transitioning to a climate resilient and environmentally sustainable economy.

**Previous Bank experience.** The World Bank has a long partnership with the Government to build Serbia's resilience to DRM. The Bank provided financial and technical support for a Recovery Needs Assessment following the 2014 floods. Subsequently, the Bank provided technical assistance for implementing the NDRMP (such as, building institutional capacity for risk reduction investments, emergency preparedness, improving early warning systems, and developing risk financing solutions). When this operation was prepared, the Bank was financing two ongoing operations: (i) a flood emergency recovery operation for supporting sectors most affected by floods; and (ii) the West Balkans Drina River Management Project for improving the capacities of Bosnia, Serbia and Montenegro to manage the transboundary Drina River Basin. The Bank is also supporting the development of Serbia's catastrophe insurance market through the South East Europe and Caucasus Catastrophic Risk Insurance Facility (SEEC CRIF).

The Bank team determined that the macroeconomic situation to be robust at appraisal, given the stronger macro and fiscal development and the strong global demand for emerging market debt at that time. When this operation was prepared, Serbia had a new three-year of SDR 935.4 million Stand-By-Arrangement (SBA) with the International Monetary Fund (IMF). The prior actions of this operation were based on sound analytical underpinnings (discussed below).
4. Achievement of Objectives (Efficacy)

Objective 1
Objective
PDO 1. Strengthening the institutional and legal framework to effectively manage the physical impact of natural hazards.

Rationale
Theory of change. Operationalizing the Public Investment Management Office (PIMO) for reconstruction works and establishing a dedicated national entity for planning DRM measures were likely to strengthen the institutional framework for managing natural hazards. Flood risk assessments, collecting information on natural damages and losses and increasing the number of sectors and institutions using an open-source geospatial platform with risk information, were aimed at increasing Serbia’s capacity for planning and implementing disaster and climate risk management activities that would aid in managing the physical impact of natural hazards. These outcomes were likely to contribute to long-term outcome of building of Serbia’s resilience and its capacity to cope with and recover from adverse natural hazards.

The PIMO. The PIMO was operational from September 2017. As of October 31, 2021, it was managing reconstruction projects funded by the World Bank, the European Investment Bank (EIB), the Council of Europe Development Bank (CEB), and the KfW Development Bank. The PIMO submitted annual reports for Cabinet approval in 2017, 2018 and 2019. These reports were verified by Bank experts to contain the required information to better manage risks. When this operation closed, the PIMO was implementing the "EU for Serbia resilient to disasters program" (This program funded by EU (EURO funds of 14 million) was to be used for for infrastructure upgrades, procuring necessary equipment, and capacity building at various levels). To support its increasing portfolio of activities, the PIMO increased its staffing from 42 in 2017 to 73 by 2021, with 32 engaged in engineering services, 18 in coordination services and 23 in providing managerial, technical and logistical services.

The Sector for Emergency Management (SEM). The Government enacted legislation for establishing the SEM n the Ministry of Interior (MoI) as the national agency for implementing the National Disaster Risk Management Plan. The SEU was responsible for overseeing risk the assessments of administrative units from national to local levels, sector institutions, and large public and commercial enterprises. Following its
mandate, SEM supervised the completion of national and local flood risk assessments, that enabled the local governments to develop rescue plans and disaster risk reduction investment plans. Of the 174 local self-governments, the MoI approved the disaster risk assessments of 132. Of these, 65 received approval for developing protection and rescue plans.

National flood risk assessments. The Ministry of Agriculture, Forestry and Water Management completed flood risk assessments of 75 identified flood prone areas in October 2020. The assessments complied with the EU Flood Directive and covered 2,750 kilometers (km) of river reaches. The assessments concluded that 115 towns and municipalities (with a population of 5.5 million, about 75% of Serbia’s population) are prone to potential flooding. This assessments strengthened Serbia’s capacity for mitigation works such as dikes or retention areas, restricting buildings in high-flood zones, improving hydro meteorological forecasting, and helping in determining contingency reserves in the national budget.

Number of sectors and local self-governments applying the post-disaster loss and needs assessment (PDNA) methodology. The ICR (paragraph 53) observes that 23 local governments were affected by floods in June 2019. Nineteen of the affected local governments applied this methodology to quantify the damages and losses and developed subsequent recovery programs based on the data collected by the affected municipalities. The PDNAs covered five sectors: housing, agriculture, public facilities, economy and infrastructure. The ICR notes that most local governments continue to apply this methodology for quantifying data on damages, even though they are not mandated to do so.

Number of sectors and institutions using an open source geospatial platform with risk information. Following the adoption of the law on National Infrastructure of Geospatial Data on April 2018, the Government developed GeoSerbia - a national Spatial Data Infrastructure (SDI) - to improve access to spatial data (electronic geographic data) for risk assessment and decision making at the national and local levels. The Geodetic Authority of Serbia (RGA) is responsible for operating GeoSerbia. When the operation closed, GeoSerbia had 73 metadata sets, 285 datasets and 39 data set services, with data on population, education and health institutions, seismic weather maps, landslide locations, cultural heritage sites, nature resources, climatological stations and river banks. This data was available to the public and state institutions. When the operation closed, there were 146 institutions registered as active users of the platform (including 25 ministries/government agencies, 107 municipalities and cities, four bodies of the autonomous province and nine public enterprises and companies). The institutions represented sectors like environment, agriculture, real estate, urban planning, geology, water and transport. The PIMO developed the Disaster Risk Information System (DRIS) on this platform as part of the larger Disaster Risk Registry platform that is now being used to create a consolidated centralized repository of risk information at the national level. The efficacy of this PDO is satisfactory.

Rating
Substantial

Objective 2
Objective
Strengthening the institutional and legal framework to effectively manage the fiscal impact of natural hazards.

Rationale

**Theory of change.** Reforms aimed at establishing a fiscal risk unit, developing incentives and a Disaster Risk Financing Plan for local self-governments and preparing an annual consolidated report on historical post-disaster expenditure data were likely to strengthen the institutional and legal framework to manage the fiscal impact of natural hazards and aid in Serbia to cope with and recover from natural disasters.

**Fiscal Risk Unit.** Following the adoption of the Systemization Act in March 2018, the Ministry of Finance (MoF) established a new group in the Department for Macroeconomics and Fiscal Analysis for managing fiscal risks. The group has since then been elevated to a sector. This sector unit with a staff of fourteen people, was tasked with the responsibility of quantifying the disaster-risk related contingent liabilities. Following the setting of this unit, the Bank through a Swiss State Secretariat for Economic Affairs (SECO) financed Technical Assistance project supported production of a fiscal risk statement in the last quarter of 2020 to enhance management of the fiscal impact of natural hazards and national budget planning.

**Disaster Risk Financing for local self-governments.** Three pilot municipalities - Ucize, Paracin, and Kraljevo - prepared disaster risk financing plans. These plans build on previous work supported by the Bank Technical Assistance program, on assessing the legal framework for disaster risk financing at the municipal level, and enabling them to rely less on public spending through leveraging risk financing solutions. However, there were delays in adopting the plans - mainly because the local self governments were not mandated to adopt the plans.

**Historical post-disaster expenditure data.** The fiscal sector collected data from almost thirty State-owned enterprises (SOEs) on disaster-related expenditures. The consolidated data and the post-disaster database were delivered to the Budget department at the end of 2020. This data was to support national budget planning and managing the fiscal impacts of natural hazards through quantified information.

**Drawdown of CAT-DDO Instrument.** Since program effectiveness, Serbia requested three withdrawals. First, on July 10, 2018, the MoF requested a partial drawdown of EUR 30 million based on the Government's decision on June 21, 2018, declaring a natural disaster due to the flooding caused by sudden heavy rainfall. Second, on June 20, 2019, the MoF requested a partial drawdown of EUR 15 million, following the Government's decision on June 6, 2019, declaring a natural disaster due to flooding caused by heavy rains and hailstorms. and third, on March 20, 2020, the MoF requested a drawdown of EUR 20.77 million to support the Government in taking measures to manage the impact of COVID-19 pandemic. Disbursements for these withdrawals were fully processed upon confirmation of the Borrower's compliance with the drawdown trigger.

Given that two of the three outcomes were realized, efficacy of this PDO is satisfactory.

**Rating**

Substantial
5. Outcome

The prior actions were appropriate first steps along the results chain for realizing the intended objectives. Of the nine results indicators, eight indicators were a direct measure of the Pillar's achievement and could be verified. Combining the achievement ratings for the two objectives gives a **Satisfactory** rating for outcome.

a. Outcome Rating
   Satisfactory

6. Rationale for Risk to Development Outcome Rating

**Institutional risk.** The ICR (paragraph 70) observes that the DRM sector roles are now anchored in Serbian Law and local development plans. The PIMO established in 2015 as the lead agency for reconstruction s financed partly through budgetary allocations and external sources. The SEM within the MoI and the fiscal risk unit in the MoF also have budgetary allocation. However, although the annual budgets for PIMO and SEM has been growing since their inception, overall financing of these institutions remains low relative to their growing mandates. In the case of SEM, allocated funds do not adequately cover operational costs such as staffing and equipment. In the case of the fiscal management unit, there is a need to strengthen staffing to enable execution of its mandate effectively. There is moderate risk that the institutional capacity of these entities could be undermined due to lack of adequate funding.

**Technical risk.** There is moderate technical risk that that activities like the GeoSerbia platform may be compromised due to the lack of operational, technical and financial capacities of line ministries. Further, capacity building activities are still required to improve DRM at the local levels.

a. Risk to Development Outcome Rating

7. Assessment of Bank Performance

a. Quality-at-Entry

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   Quality-at-Entry Rating

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b. Quality of supervision

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Quality of Supervision Rating
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Overall Bank Performance Rating
Satisfactory

8. Assessment of Borrower Performance

a. Government Performance
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Government Performance Rating
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b. Implementing Agency Performance
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Implementing Agency Performance Rating
---

Overall Borrower Performance Rating
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9. M&E Design, Implementation, & Utilization

a. M&E Design
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b. M&E Implementation
---

c. M&E Utilization
---

M&E Quality Rating
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10. Other Issues
a. Environmental and Social Effects

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b. Fiduciary Compliance

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c. Unintended impacts (Positive or Negative)

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d. Other

There were no observed unintended impacts.

### 11. Ratings

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<th>Reason for Disagreements/Comment</th>
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<tr>
<td>Quality of ICR</td>
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**Note**
When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006. The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

### 12. Lessons

The ICR draws the following main lessons from the experience of implementing this operation.

1. **Strong institutional champions can be very helpful for advancing a complex reform program requiring coordination across all involved agencies.** The Public Investment Management Office (PIMO) in this operation provided the impetus for inter-agency coordination of disaster risk management related policy actions and the Ministry of Finance (MOF) was crucial to advocate the need for innovative risk financing mechanisms and associated institutional reforms, leading to the development of CAT-DDO operation.
2. An enabling political environment at international level can be useful for incentivizing national reforms. As a potential candidate for membership within the European Union (EU), Serbia was making efforts to align its legal framework with the EU regulations and directives. The alignment of the operation with EU regulations added incentives in this operation for achieving the results such as the completion of the flood risk assessment (EU Flood Directive) and the establishment of the GeoSerbia (INSPIRE Directive).

3. Solid analytical foundation and ongoing support by an overarching technical assistance program can help in designing an effective program. In the case of this operation, the Bank’s technical assistance program proved to be helpful in designing the prior actions and the indicators for achieving the intended outcomes.

4. Besides providing immediate liquidity in the aftermath of a disaster, a CAT-DDO instrument can also be useful for enabling improvements in underlying systems and institutions. The CAT-DDO supported the Government in this operation through three separate withdrawals triggered by different types of emergency events. This operation through the specification of prior actions and pillars also helped in strengthening institutions for risk management.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR is well-written. The ICR provides a clear description of the country context when the Bank prepared this operation. The theory of change articulated in the text is clear and clearly shows the links between the prior actions, the chosen results indicators and the intended outcomes. The ICR provides a clear description of the CAT-DDO instrument. The ICR draws suitable lessons from the experience of implementing this project.

a. Quality of ICR Rating

Substantial