# PROJECT INFORMATION DOCUMENT (PID)
# CONCEPT STAGE

Report No.: PIDC935

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| **Project Name** | West Balkans Drina River Basin Management (P145048) |
| **Region** | EUROPE AND CENTRAL ASIA |
| **Country** | South Eastern Europe and Balkans |
| **Sector(s)** | General water, sanitation and flood protection sector (100%) |
| **Theme(s)** | Other environment and natural resources management (100%) |
| **Lending Instrument** | Investment Project Financing |
| **Project ID** | P145048 |
| **GEF Focal Area** | International waters |
| **Borrower(s)** | Bosnia and Herzegovina, Republic of Serbia, Montenegro |
| **Implementing Agency** | Ministry of Agriculture, Forestry and Water Management, FBiH Ministry of Agriculture, Forestry and Water Management, RS Ministry of Agriculture, Water Management and Forestry, Ministry of Agriculture and Rural Development |
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| **Concept Review Decision** | Track I - The review did authorize the preparation to continue |

## I. Introduction and Context

### Country Context

1. The Drina River, 346 km in length, is the largest tributary of the Sava River, which in turn is the largest tributary of the Danube. Originating in the snowy Dinaric Alps in Montenegro at an altitude of 2,500 meters, it drains a vast karst plateau which receives the highest annual rainfall in Europe (about 3,000 mm), resulting also in the highest specific runoff in Europe (up to 50 l/s/km2). The river is notorious for its extreme high and low flows, with part of the baseflow due to snowmelt. The extremes are exacerbated by un-harmonized operation of numerous hydropower plants. The Drina basin is also considered an area most sensitive to climate variability within the Danube basin. Formed by the confluence of the Tara and Piva rivers, both of which flow through Montenegro and converge on the border of Montenegro and Bosnia-Herzegovina (BiH), the lower

Drina forms the border between BiH and Serbia over a length of 220 km, before emptying into the Sava river in northeastern BiH. Upstream, the river is hemmed in by in deep valleys and steep banks; in its lower reaches, in the plains of the Sava River, it meanders and flows along several channels often changing course.

2. The Drina River Basin (DRB), about half the size of Switzerland, is home to almost one million people, with most settlements concentrated along the Drina River and its major tributaries Piva, Lim, Cehotina and Tara. The Basin is shared equally among the three riparian countries and they have strong social and economic interests in the basin. In Montenegro, it covers 45% of the county's territory and comprises 25% of the total population. In BiH, it covers 14% of the country's territory; however, it is of much importance to the Entity Republika Srpska (RS) as it covers over 25% of the Entity's territory (but much less in the Entity Federation of Bosnia-Herzegovina [FBiH]). In the case of Serbia, it covers 7.7% of the country's surface, but the country is heavily dependent on hydropower generated across the basin.

3. GDP per capita (2011) ranges from US$4,372 in BiH to US$6,927 in Montenegro, with Serbia at US$5,759. However, these national averages are misleading, particularly in the case of Montenegro. The economy of many communities in the Drina Basin tends to be depressed due to difficult transportation links, comparatively long distances to markets, and the perilous state of many of the old local industries and infrastructure. The downstream municipality of Bijeljina (in RS) is the richer part of the DRB as it has a prospering agricultural, industrial and service-based economy, thanks to its proximity to Serbia and Croatia.

4. Yet, the DRB is rich in endowments of natural resources and in development potential, compared to other parts in the Balkans. It has significant hydropower generation potential: the DRB hosts eight medium to large hydropower generation dams, but an estimated 60 % of the potential for hydropower generation remains untapped. The DRB also has abundant tourism opportunities and a rich biodiversity that is characterized by several scarce and endemic species. Many forests in the upper Drina basin are home to animal species that are endangered in other parts of Europe. The river water, of generally good quality due to its high flow rate and low pollution, abounds in fish—both farm-raised and wild. Angling and hunting for sport have become important commercial activities. A number of natural parks and protected areas are spread throughout the basin and the landscape is dotted with unique glacial lakes and canyons. The Tara Canyon, a UNESCO World Heritage site, is located in Montenegro. Being one of the last "untouched" river basins in Europe, its pristine landscape has considerable scenic value which could make tourism and recreation significant sources of income for the rural communities. The protected nature areas—mostly forests and meadows upstream, and some wetlands—also depend on adequate water provision at very local scale, and are now increasingly threatened by a dominating development desire as well as pollution and two decades of failing river maintenance.

5. The Drina and its tributaries are historically known for recurrent floods. The December 2010 flood caused devastation in the middle reaches (in and around the town of Gorazde in FBiH, and in Montenegran towns) and in the lower reach (in Serbia, and in Bijeljina in RS). It represented a one-in-80-years flood that was caused by high precipitation, early snowmelt and by non-synchronized operation of the large upstream Mratinje hydropower facility, in Montenegro. In February 2013 a flood of similar magnitude was only narrowly averted. In short, the basin is not yet capable of capturing the opportunities for sustainable development as it faces growing risks from local pollution, loss of habitat and fisheries, from intensive and conflicting uses of surface and groundwater, and poor adaptation to climatic fluctuations. Studies show that the Balkans have the greatest sensitivity to climate and precipitation change in Europe. A study identified the Drina as the sub-basin in the Danube basin that is most vulnerable to climate change and variability.

6. While many development opportunities have obvious national and regional significance,

such as for hydropower, the waters of the Drina and its tributaries also are strongly connected to local economies, with livelihoods and environmental values, ranging from insecure water supply due to fluctuating groundwater tables affected by reservoir operation, to a highly unstable river morphology and high incidence of local floods by the main rivers and by mountain torrents. Similarly, local pollution and lake eutrophication cause daily damage to water supply, agriculture, tourism and biodiversity, while solid waste and toxic mine spoil depots are constantly at risk of being flooded and washed out. The strong currents, amplified by daily discharges from reservoirs, rapidly erode river beds and undercut embankments endangering housing, infrastructure and arable land. Municipalities and local communities have become more vocal in stressing the urgency to lay out an investment agenda that better responds to local needs and opportunities.

7. The three countries are on a path of growing integration as they aspire to become EU member states. Therefore, their policies are increasingly shaped by the EU acquis, among others, on water management, climate change and energy. In 2015, the three countries will deregulate their power sector under the Vienna Accord, which will drastically affect the hydropower concession system on the Drina. They also pursue similar economic development objectives, aiming to increase their access to regional markets, and enhance competitiveness and private initiative. Their common heritage tends to facilitate sharing development concepts, and practical cooperation. Thirteen municipalities from the three countries have founded a joint platform as a Drina EuRegion. Importantly, the countries are increasingly cooperating on water management.

**Sectoral and Institutional Context**

8. While the Basin holds major potential for economic development and enhanced environmental goals, this potential largely remains locked in. Although many development opportunities appeal to national interests and authority, such as for hydropower, their externalities and trade-offs at local and regional scales have been not yet quantified, stifling decision-making. The lack of confidence and operational grip on water management has been holding back the individual countries to take initiative to address key questions about prioritization of investments, and ensuring fair sharing of benefits and of risks. Similarly, the countries struggle with the operationalization of the concept of integrated water resources management (IWRM) in an environment of severe financial constraints, and are seeking advice from other partners. For hydropower, the partial deregulation of the energy sector has given rise to numerous private parties seeking investment concessions totalling well over Euro 1 billion, however, this development is on hold pending broader agreement on a sustainable basin management concept. Similarly, all three countries are facing difficulties in specifying more appropriate conditions for the hydropower operation concessions that will need to be renewed in 2014-2016. A regional, international water management arrangement would help open up better informed decision-making.

9. Critical hydrometeorological data are missing. With the basin located in the middle of the armed conflict zone that raged in the Balkans in the 1990s, the hydromet infrastructure, especially within BiH, suffered heavily and needs rebuilding. Any development plan for investment in infrastructure and climate resilience will need to be founded not only on reliable hydrological data for surface and groundwater, but also on the issuance and compliance monitoring of concessions and operational management that requires more accurate flow measurement under drought and flood conditions. Moreover, with the basin being particularly sensitive to climate change and floods, more reliable forecasting and models are essential. The Republican Hydrometeorology Services of Serbia are arguably the best funded and equipped.

10. The 2002 and 2010 floods and recent prolonged droughts have highlighted the region’s vulnerability and its lack of preparedness. With the Drina being one of the few rivers that depends

heavily on snowmelt for its baseflow, temperature fluctuations matter. While the impact of climate change on the overall magnitude, duration and frequency of floods and droughts cannot be forecasted with precision, evidence exists that extreme wet and dry episodes have increased in recent years in frequency and in amplitude across the basin. Therefore, as the future economic and social policies of the countries will depend on sustainable water management, these policies will need to be calibrated against the best available forecasts for climate variability to ensure optimal climate change adaptation. At the same time, the likelihood that hydropower generation in the DRB will increase suggests that the basin can also play a much more important role in climate change mitigation. The hydropower would generate much-needed energy and supplement or replace generally old coal-fired power stations; it would help the region meet EU targets for CO2-reduction. Policies will properly address the trade-off between the environmental interest in protecting terrestrial and aquatic biodiversity—which may argue against HP--and that in in climate change mitigation—which would argue in favor of HP.

11. Hydropower (HP) is dominating Drina water management. Currently, eight HP plants are operating in the DRB, with a medium-sized ninth plant (Buk Bijela) and several mini- to medium-hydro plants in preparation. Almost all existing plants are operated by the Electric Power Enterprise of Serbia (EPS), as owner of six and with most of the remainder under concession (partly up to 2016). However, the hydropower facilities (their reservoirs and operational schedules) were not designed for concurrent flood mitigation, and the comparatively small volumes they can retain also limit such role. However, their operation rules are not constrained in the existing Concession conditions, and water releases do not take into account flood risks downstream. These facilities are still mostly operated on an individual basis, and much scope exists for increasing their overall utility for the basin by improving their operations and identify, and address, trade-offs. The DRB still holds the largest unutilized hydropower potential in Europe estimated to represent an additional 12,000 GWh per year.



12. The three countries are interested in increasing their electricity production and participating in the European Union's (EU) Emissions Trading System (ETS). About 326MW of capacity is currently in the planning stage with various concessionaires; the possible power generation from a diversion from Tara water into the Morača River towards the Adriatic, in Montenegro, is highly controversial; identifying suitable alternatives would help reduce the pressure for this. For the moment, BiH is self-sufficient in energy supply and a net exporter. In Serbia, the bulk of the electricity is produced by thermal power plants (most of which do not comply with EU standards) and the government has a strong interest in expanding and improving its renewable power base and its power security after the 2012 drought left its HP generators struggling. Although no new large HP construction is foreseen in Montenegro, the government is actively encouraging foreign investment capital for increasing HP generation. Any energy and hydropower strategy, however, can be designed only once full analyses of the sustainable development opportunities in the DRB have been studied. The DRB strategy is an essential precondition to inform, and specify the constraints to a regional power strategy.

13. The DRB is also impacted by other anthropogenic pressures of more local nature. Poor land management and zoning have resulted in significant soil erosion along the river banks. This has compromised water retention capacity of the land and caused an increase in surface run off. In many locations, communities suffer from the large fluctuations in reservoir levels and dam water releases . The disposal of untreated sewage and garbage/debris into the river has resulted in hotspots of point and non-point pollution along the river. Uncontrolled exploitation of sand and

gravel from the river bed has adversely affected the water regime of the Drina River and caused local bank erosion. Municipalities report to be highly concerned by local flood episodes, as well as other issues of very local nature: landslides, droughts (that affect water supply and agriculture), pollution from upstream, etc. They prioritize investments in tourism (eco-trekking, rafting, angling, hunting) as well as in industry and mining. While some of the required interventions are of local nature, others are border-crossing problems in Drina sub-catchments in the more mountainous areas that can be resolved only by international cooperation.

14. The above demonstrates the prominent trade-offs between the different sectoral water use and development options that need to be addressed in a basin strategy. It also demonstrates that only cooperative, international basin-wide management plans can capture economies of scale, synergies and win-win solutions, provided the countries will also be applying IWRM principles. The riparian countries are very aware of the need to achieve better informed decision-making, driven by robust studies, more extensive and formalized cross-border coordination, and better institutional capacity for river basin management. Preparatory work (see further) has allowed to identify priority investments and capacity development that would lay the foundation for more robust work in the future and help develop more robust development and management plans that are of both local and basin-wide significance.

15. The Drina basin is exemplary for a basin with large stakes and risks, whose sustainable development strongly depends on regional cooperation. The cooperation on water management is improving, albeit slowly, and the proposed GEF project would add major value by further facilitating the cross-border dialogues, building institutional capacity, and demonstrating the value and feasibility of focused investments. The three countries are now members of the International Commission for the Protection of the Danube River (ICPDR) and the International Sava River Basin Commission . Both Commissions have prepared the EU-compliant “roof” (over-arching) River Basin Management Plans (RBMPs) for the Danube and the Sava in 2007 and 2013, respectively. However, these Plans are of a more general nature, and call for further detailed management planning for the Drina basin. In line with the EU WFD, they concentrate on water quality management, the good status of water bodies, and wastewater treatment strategies, while under-reporting on investments and measures that relate to the river morphological changes, water quantity management and trade-offs—key challenges for the Drina basin. Still, the Sava and Danube plans would provide useful frameworks and parameters within which the basin plan of the DRB is to be prepared.

16. In close partnership with the three countries and the International Sava River Basin Commission, the World Bank supported a regional policy dialogue and strategic and sector analyses in 2011-2013 . These studies analyzed the trade-offs between management scenarios of the basin (between the three countries, between the sectors, and between upstream and downstream interests), and assessed their strengths and weaknesses. The studies also assessed the basin’s vulnerability to climate change and possible adaptation options. The studies inventoried and assessed existing preliminary proposals for investments, and for strategic policy decisions. This facilitated a first, general prioritization of feasible investments and capacity buiding interventions that are able to respond to urgent demands and that are financially realistic. In addition, these activities would help devise an adaptive programmatic approach to balance different interests, building confidence in cooperation, and preparing the ground for future, deeper cooperation on technically and politically more complex investments and decisions.

17. The Rapid Transboundary Diagnostic Scan and Analysis (TDA) includes a preliminary baseline assessment of the Basin, analyzes its key strengths and weaknesses and identifies areas and opportunities for investments for the three countries. It concludes that flood and drought risk management should not be approached in isolation from the other water management issues. It provides a quick diagnostic analysis of key issues, notably water use, hydropower management, flood management, protection of water resources, sediment management, bank erosion and climate change.

18. The rapid TDA concludes that the following sets of interventions need to be prepared:

a. capacity development and institutional strengthening for the international water management using IWRM principles, and to prepare climate change resilience;
b. urgently required immediate investments, mostly to protect against frequent floods;
c. regional studies, dialogue with stakeholders, and embedding of principles of IWRM and climate change adaptation to inform decision-makers of medium- and long-term strategic investments and management decisions; and, thereafter
d. preparation for, and investment in these medium- and long-term investments.

19. The Drina Program has given rise to several inititives in the basin. Urgently required immediate investments have been idenitified and are being prepared under the aegis of the regional Drina dialogue. The Priority Flood Protection Project for BiH (along the left-bank of the Lower Drina in Bijeljina [in RS], and in the Gorazde Canton [in FBiH]) is being prepared as a US$20 million IDA investment to provide high-priority no-regret flood protection measures against nearly annual Lower Drina floods. The Bank is expecting to receive additional Regional IDA funds for this investment as it meets the regionality criteria. In Serbia, the new Irrigation and Drainage II Project (US$ 100 million, of which about US$30 million in the Drina basin), in preparation, will include the flood protection works along the Lower Drina right bank, that will mirror the protection works on the other side in BiH. Both countries are cooperating closely on these works. There are several ongoing Bank-financed projects that are assisting the Drina riparian countries with flood management works, including inter alia, the Bosnia Agriculture and Rural Development Project that has specific activities targeted towards flood protection in the Drina basin.

20. With the same programmatic objectives, European Union IPA funds will co-finance the project by funding generation of basic data related to flood management in lower Drina parts of the basin (Serbia and BiH), by Digital Terrain Mapping, and the preparation of first sets of Flood Risk Maps. Also, Montenegro, Serbia and BiH have requested assistance to develop pilots to increase climate change resilience in steeper terrains (Upper and Middle Drina), through better control of erosion and flooding, and groundwater recharge (drought mitigation), at local levels by managing the system of torrents, lakes and wetlands in a more integrated way. Preliminary designs have been prepared.

21. As part of the Drina program, the EU West Balkan Investment Facility (WBIF) has agreed to fund (€ 1.2 M) the joint study of the three countries on the regional technical study for a Drina Basin Investment Prioritization Framework (2014-2015). The Framework will focus on identifying, in broad terms, the medium- and longer-term investment opportunities, with the aim to set the stage for preparing a sustainable development roadmap able to unlock the investment dialogue among the countries and seek feasible solutions that are fully based on IWRM. Given the likely complexity of the issues, and the need for intensive consultations, this study will require more specific follow-up

after 2015, at the time when the proposed GEF Project would become operational.

22. Finally, at the institutional level, the three countries are currently seeking to: (i) establish effective arrangements for developing inter-ministerial committees at the national level as well as bilateral and trilateral commissions (technical commisions to jointly identify key basin/ water resources issues and address these as well as political commission(s) for higher level support and regional policies), and (ii) continue to cooperate in the international Danube and Sava Commissions. The three countries have requested that the Bank partner with them and assist in this program.

23. Hence, one can consider that the GEF support at this stage of regional development and political concurrence would be particularly influential and add special value as the countries are politically stepping up to the challenge and have requested a partnership with the Bank to describe, analyze and address these complexities at policy and operational levels, help convene the interested parties, and leverage the funds.

**Relationship to CAS**

24. The proposed Project is consistent with the overall strategic goal of the GEF5-International Waters (IW) Focal Area, namely, the promotion of collective management for transboundary water systems and subsequent implementation of the range of policy, legal and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services. It is in line with the GEF IW Strategic Objective 3 in that it supports foundational capacity building and portfolio learning for joint, eco-system-based management of a transboundary water system. The project will also draw upon the international experiences under GEF IW:Learn and specifically the lessons acquired in the region from the ongoing GEF Neretva-Trebsinjica Management Project in BiH and Croatia (2009-2014).



25. While project funding (US$5 million) would be furnished from GEF IW, during project preparation additional funding support would be sought from the Special Climate Change Fund (SCCF) as the project is also in line with the strategy of the SCCF which identifies several programming priorities, including inter alia, water resource management, land management and supporting capacity building, including institutional capacity, for preventive measures, planning, preparedness and management of disasters relating to climate change, in particular for droughts and floods in areas prone to extreme weather events. Currently, SCCF funds are awaiting replenishment from donors. As soon as these funds become available to GEF, an application will be made for SCCF support and the project scope and activities will be adapted accordingly.

26. The proposed Project is in line with the priorities identified in the respective Country Partnership Strategies (CPS) of the three counties. Additionally, with the three countries seeking EU membership, EU integration remains one of the chief drivers for actions and reforms in all sectors of the countries' economies. The proposed project has been designed within the overarching framework of these priorities.

27. In Bosnia-Herzegovina, the project is in line with the key recommendations under the new CPS FY2012-FY2015. The objectives of the FY12-15 CPS are to promote: (i) competitiveness; (ii) social inclusion; and (iii) environmental sustainability to help ensure the sustainable use of natural resources, such as water, within the framework of climate change impacts. One of the CPS outcomes is "…better flood preparedness and management along the Drina river basin" which the government recognizes as critical not only to protect the lives and livelihoods of people in the basin

but also to protect the overall health of this unique ecosystem. The project is also in line with the CPS objective of promoting energy efficiency through environmentally sustainable production of hydropower and assisting BiH's efforts towards energy security in the light of climate change impacts.

28. In Montenegro, the CPS for FY2011-2014 calls for "Improving Environmental Management and Reducing the Cost of Environmental Problems". It specifically identifies the occurrence of floods as a significant natural disaster in the country and underscores the need for flood management and protection, especially with more frequent and widespread floods expected under conditions of predicted climatic shifts. The proposed project will also contribute to the CPS outcome of enhanced cross-border energy trade and more regular energy supply within Montenegro.

29. The project is in line with Serbia's CPS for FY2012-2015 which seeks, among other things, to assist the country with meeting its obligations as an EU candidate country. While not a pillar of the CPS, the strategy emphasizes environmental sustainability as critical for Serbia's development and seeks to support projects that would help to advance Serbia's environmental agenda. The proposed project interventions are designed to promote and enhance the environmental integrity of the Drina river basin. One of the outcomes in the results matrix of the CPS is "improved water resources management and strengthened water resources management institutions and policies. It calls for investments in flood defense infrastructure and drought resilient interventions.

## II. Proposed Development Objective(s)

### Proposed Global Environmental Objective(s) (From PCN)

30. The objective of the Project is to assist the countries of Bosnia-Herzegovina, Serbia and Montenegro to achieve improved planning and implementation for integrated, cooperative management of the trans-boundary Drina River basin.

### Key Results (From PCN)

31. The proposed PDO-level results indicators, to be developed and refined during project preparation, include: (i) enhanced multi-state cooperation to balance conflicting water uses in transboundary Drina waters; and (ii) increased policy convergence, a shared vision and agreed technical cooperation frameworks, with sustainable financing identified, including an agreed strategic action plan for more sustainable and balanced investments in the basin.

32. The intermediate level results indicators will be developed further during project preparation and the relevant Bank's Core indicators and GEF IW indicators will be included in the final results framework.

## III. Preliminary Description

### Concept Description

32. The proposed regional Drina Basin management Project will be designed to implement, over the period of 3 years (2015-2018) selected institutional and capacity development measures for collective management of the Drina countries by the three riparian countries. It will allow the decision-makers to prepare and agree on a Strategic Action Plan (SAP) for joint, sustainable management of the Drina basin, including the identification of medium- and long-term investments drawing on on-going and GEF-funded studies and dialogue, and the WBIF-funded Investment Framework study. The envisaged project activities are based on the following criteria: they are

strategically part of the Drina program co-financed by other financiers; they were identified as high priority by key stakeholders during the previous rapid TDA consultation process; they fit in an operation that aims to both strengthen the capability for long-term basin-wide planning, and to respond to emergent local needs to build more awareness and create ownership among the local governments and communities; they meet the GEF requirements that they help mainstream IW objectives and embed principles IWRM in mainstream planning; and a high level of institutional and technical readiness is demonstrated.

33. The identified activities support declared policies of the three countries, making their sustainability after Project completion very likely. Because the Project would not finance much hardware, the operation and maintenance costs are modest and fall well within the means of the governments. The institutional arrangements will be sustained after the Project, as it is a priority policy of the three countries to strengthen international cooperation over waters, under the existing Danube and Sava Frameworks to which they are signatory, and driven by the shared ambition to accede to the EU, which imposes advanced international cooperation, and integration. The hydrological simulation model capability will be maintained by the existing Water Agencies. While these agencies are constrained in investment budgets, they possess adequate technical staff and routine budgets. Thus, the Project's outputs are very likely to be sustainable.

34. There are several on-going and planned parallel regional initiatives in the basin that will provide critical support to the work of the proposed project, including inter alia, the WB Drina BiH Priority Flood Protection Project (2015-2019), Serbia Irrigation and Drainage II Project (2016-2021), the EU WBIF-funded TA Support to Drina Basin Investment Prioritization Framework (2014-2015) (see paras. 19-21) and the forthcoming AAA work by the Bank for the Regional Energy Strategy for the Balkans (2014-2016). While this Strategy will cover the whole of the Balkans, the Drina basin's hydropower generation capability will figure prominently in the strategy. The work envisaged under the GEF Drina project will not only draw from these operations but also EU's IPA-funded Digital Terrain Mapping and Flood Risk Mapping of parts of the river system (total cost about €14 million), and the EIB-financed Sava Flood Protection Project (total cost €75 million of which about €15 million in the Drina estuary's vicinity). Furthermore, the proposed Project is closely associated with studies, policy and strategic work, and with capacity development and training on the Drina by the International Sava River Basin Commission. While these operations having a relatively narrow focus, the proposed Project has been designed to concentrate on the broader policy and institutional development objectives. These projects will constitute the larger programmatic effort being established by the proposed GEF Project, addressing and implementing the same Drina program strategy (that should become increasingly directed by the GEF project), being implemented by the same Agencies and with unified management at the Bank. These operations represent an overall value of about US$100 million. Attachment A outlines the different associated and parallel co-financed activities, their main outputs and funding source, and the implementation and coordination arrangements. The Attachment, thus, describes the pivotal role of the proposed project in establishing the overall coordination and policy platform through institutional strengthening and dialogue mechanisms.

35. The main investments associated with the Drina Initiative are the public-private proposals for hydropower that require a robust basin strategy to become more feasible and realistic: in Serbia the Dubravica, Tegare and Rogacica HPPs on the Middle Drina and the Bistrica (Klak) Pumped Storage HPP on the Uva river (total capital investment of about €1.37 billion); in Montenegro, the Krusevo HPP on the Piva river4 (estimated cost of €200 million); and in BiH the Buk Bijela and

Foca HPPs (total costof €300 million). Even if only part of this about €2 billion agenda would materialize, as properly identified and sustainable investments, the Project would have a very large leverage.

Description of Components and activities

36. The following activities would be implemented under the proposed project subject to confirmation and amendment during project preparation.

Component 1: Multi-state Cooperation on International Drina Management

37. Sub-component 1A: Development of an agreed Strategic Action Program (SAP) mainstreaming transboundary IWRM and climate change adaptation in national planning. This component would provide more effective planning tools to the riparian countries for enhanced decision making in integrated DRB management, to identify trade-offs, and to put in place appropriate policies and reforms, applying IWRM principles and developing climate-change adaptation. Towards this, the project will support:

(i) Preparation of a Drina Basin Strategic Action Program (SAP)—comprising three "national" chapters and a consolidated, "roof" report—as part of, and complement to a Drina River Basin Management Plan, that would identify a prioritized list of short-, medium- and long-term measures and a pipeline of investments for integrated, sustainable management of DRB which would also help leverage additional donor support for the implementation of the investments. The SAP will be developed based on the findings of an in-depth TDA to be undertaken by the project and will build on the output from the WBIF-funded Priority Investment Study (2014-2015). The SAP will be compatible with the Sava and Danube River Basin Management Plans. (BiH, Serbia, Montenegro, Regional)

(ii) Establishment and operation of a suitable, jointly endorsed hydrological simulation model combined with a climate change impact module. The model would notably support capacity for modeling various hydropower development, flood and drought, and land use scenarios. The hydraulic model would include reservoir discharge operation optimization (from the perspective of sustainable river management), environmental flow, and sediment transport control. The hydraulic model would provide knowledge about the present as well as future water uses, considering not only the nexus between hydropower generation and environmental protection but also the potential for flood mitigation measures along the Drina and its main tributaries. The model would require purchase of incremental equipment (automated flow /level gauges) for low- and high-flow conditions, flow rate – level rating curve determination, and calibration. The model would be a commercially available and updatable one-dimensional package which would be compatible with similar models applied in the region and by the International Sava River Commission. The three countries and the International Sava River Basin Commission would receive facilities (computer and hardware equipment, software, and related equipment) and training to operate the model; protocols for standardization, and for regular updating and maintenance will be agreed. The project will ensure that the models supported under the project are simple, user-friendly and financially sustainable. (BiH, Serbia, Montenegro, Regional)

(iii) Support for a water resources and basin study to define the basin and water resources parameters that would be able to better inform regional strategies for energy and hydropower development and rationalization. The study will propose measures and constraints that will allow to determine the levels of sustainability and realism of various hydropower proposals, including

compensatory measures and design adaptations to address trade-offs and negative externalities. The study will specifically take into account the need for IWRM-based decision-making, and the need to define operational guidance for climate change adaptation. (BiH, Serbia, Montenegro, Regional)
(iv) Analysis of the water resources and basin system, to allow specification of parameters and protocols to inform the design and concession arrangements for reservoirs and hydropower facilities across the basin. (BiH, Serbia, Montenegro, Regional)
(v) Develop protocols to improve data compatibility among the three countries, within the seat of the Hydrometeorological Standing Committee of the International Sava River Commission

38. Sub-component 1B: Institutional Development and Capacity Building. This component will support the establishment of regional- and national-level institutions for joint management of the DRB and for enhanced capacity for action on transboundary concerns at bilateral, trilateral and International Sava River Basin Commission levels.
(i) Establishment of a Project-based Drina Task Force responsible for daily management of regional activities leading towards the preparation of an integrated Drina River Basin Management Plan and prioritization of investment projects under the SAP (see Sub-Component 1A) in close cooperation with the International Sava River Commission. (BiH, Serbia, Montenegro, Regional)
(ii) Establish a Project-based Drina Steering Committee, comprised of higher-level officials from all three riparian countries to maintain the ongoing dialogue for cooperation and commitment among the three countries at the political level. The Steering Committee would also oversee the work of the Task Force and project. The International Sava River Basin Commission would be Observer. Over time, the Steering Committee would become associated closer with the International Sava River Commission. The Government of Montenegro would be encouraged to become a full member of the International Sava River Basin Commission. (Regional)
(iii) At national level, inter-ministerial committees would be set up, and capacity developed, to facilitate the development of better integrated sectoral plans to balance conflicting water uses and that would feed into the regional-level strategy. (BiH, Serbia, Montenegro)
(iv) Help prepare appropriate national and local policy and regulatory reforms to conform to the international Drina water management. (BiH, Serbia, Montenegro)

Component 2: Support for Flood and Drought Management and Community Participation

39. This component would support the following:
(i) Enhanced Flood Forecasting and Early Warning System at regional scale to complement and coordinate the existing ones in the riparian countries; this would include (a) preparation of a Flood and Drought Preparedness Strategy; and (b) capacity building for implementation of flood and drought resilience measures. (BiH, Serbia, Montenegro, Regional)
(ii) Small Grants and Awareness Program. Replicating the excellent experience in the GEF Neretva-Trebisnjica Management Project as well other GEF projects, the Project will set up a Small Grants Program to (co-) finance small, local initiatives by community organizations, schools, academics, private companies and other entities that have meritorious proposals to support the objective of the project. Grants are US$10,000-20,000 large, must be completed within 1 year, and will be called three times in the Project duration. The Manual of the Neretva-Trebisnjica Management Project will be adopted for this. (BiH, Serbia, Montenegro). The Project will also fund a broad public awareness program to inform the population in the basin of the objectives and activities under the proposed project and its rationale and potential benefits, and to engage the basin communities into more active partnership. The Sub-component will finance (i) information activities by the respective governments as well as under the leadership of the International Sava

River Basin Commission; (ii) a sixth-monthly publication ”Our Drina”; and (iii) will provide incremental fund for school and community initiatives in this regard (as described under the Small Grants Program).

Component 3: Project Management and Monitoring and Evaluation. A Regional Project Management Team (PMT) would be established for overall coordination of the Project at the regional level. The PMT will be accountable to a high-level Inter-state Steering Committee, in which the International Sava River Basin Commission will be Observer. The project will support Project Implementation Teams (PIT) in each of the three countries who will be responsible for the day-to-day implementation of project activities at the national level. The PITs will develop and maintain a project website and participate in relevant GEF IW:Learn events.

## IV. Safeguard Policies that might apply

| Safeguard Policies Triggered by the Project | Yes | No | TBD |
|---|---|---|---|
| Environmental Assessment OP/BP 4.01 | x | | |
| Natural Habitats OP/BP 4.04 | x | | |
| Forests OP/BP 4.36 | x | | |
| Pest Management OP 4.09 | | x | |
| Physical Cultural Resources OP/BP 4.11 | | | x |
| Indigenous Peoples OP/BP 4.10 | | x | |
| Involuntary Resettlement OP/BP 4.12 | | x | |
| Safety of Dams OP/BP 4.37 | | x | |
| Projects on International Waterways OP/BP 7.50 | | | x |
| Projects in Disputed Areas OP/BP 7.60 | | x | |



## V. Financing (in USD Million)

| | | | |
|---|---|---|---|
| Total Project Cost: | 7.00 | Total Bank Financing: | 0.00 |
| Financing Gap: | 0.00 | | |

| Financing Source | Amount |
|---|---|
| BORROWER/RECIPIENT | 2.00 |
| Global Environment Facility (GEF) | 5.00 |
| Total | 7.00 |

## VI. Contact point

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