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**United Nations Development Programme**  
**Countries: Albania, FYR Macedonia, Montenegro**  
**PROJECT DOCUMENT<sup>1</sup>**

**Project Title:**

**Enabling transboundary cooperation and integrated water resources management in the extended Drin River Basin**

<b>UNDP Strategic Plan</b> “ <i>Changing With the World</i> ” (2014 – 2017):	Outcome #2: Citizen expectations for voice, development, the rule of law and accountability are met by stronger systems of democratic governance
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**Expected CPAP Output (s)**

- Output 2.5 - Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation
  - Indicator 2.5.2. Number of countries implementing national and local plans for Integrated Water Resources Management

**Implementing Partner: GWP, GWP-MED**

**Brief Description**

The project goal is to foster the joint management of the shared water resources of the extended transboundary Drin River Basin, including coordination mechanisms among the various sub-basin commissions and committees (Lakes Prespa, Ohrid and Skadar). It is expected that this will be achieved by (i) building consensus among countries on key transboundary concerns and drivers of change, including climate variability and change, reached through joint fact finding; (ii) facilitating the agreement on a shared vision and on a program of priority actions deemed necessary to achieve the vision; (iii) strengthening technical and institutional capacities.

Programme Period:	2012-2016	Total resources required	USD 226,329,721
Atlas Award ID:	00082116	Total allocated resources:	USD 4,500,000
Project ID:	00091169	• Regular	USD 5,314,221
PIMS #	4482	o GEF	USD 4,500,000
		o Government	USD 52,804,000
Start date:	September 2014	In-kind contributions	USD 163,618,000
End Date	September 2018	Cash contributions	USD 93,500
Management Arrangements	IGO Execution		
PAC Meeting Date	tbc		

<sup>1</sup> For UNDP supported GEF funded projects as this includes GEF-specific requirements

Agreed by the Government of Albania:

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Date/Month/Year

Agreed by the Government of FYR Macedonia:

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Date/Month/Year

Agreed by the Government of Montenegro:

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Date/Month/Year

Agreed by (UNDP):

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Date/Month/Year

Agreed by Implementing Partner:

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Date/Month/Year

## List of Acronyms

ADA	Austrian Development Agency
CAC	Command and Control
CARDS	Community Assistance for Reconstruction, Development and Stabilization
CETI	Center for Ecotoxicological Research (Montenegro)
CLC	Land Cover Classification
CORINE	Coordination of Information on the Environment
DCG	Drin Core Group
EAR	European Agency for Reconstruction
EBRD	European Bank for Reconstruction and Development
EEA	European Environment Agency
EIA	Environmental Impact Assessment
EIB	European Investment Bank
ENR	Ezerani Nature Reserve
EU	European Union
EUWI	European Union Water Initiative
FMO	Fisheries Management Organization
FYR Macedonia	The Former Yugoslav Republic of Macedonia
GDP	Gross Domestic Product
GDWW	General Directorate of Water Supply and Wastewater (Albania - a public institution under the MPWTT)
GEF	Global Environment Facility
GIZ	Germany agency for International Cooperation
GWP-Med	Global Water Partnership – Mediterranean
IBA	Important Bird Areas (European Important Bird Area Programme)
IBRD	International Bank for Reconstruction and Development
ICPDR	International Commission for the Protection of the Danube River
ICT	Information and Communication Tools
ICZM	Integrated Coastal Zone Management
IDA	International Development Association
IHP	International Hydrological Programme of UNESCO
INSTAT	Albanian National Statistics Institute
IPA	Important Plant Areas
IPA	Instrument for Pre-Accession Assistance (European Union)

IPPC	Integrated Pollution Prevention and Control (Directive of the European Union)
IUCN	World Conservation Union
IW	International Waters
IW:LEARN	International Waters Learning Exchange and Resource Network
IWRM	Integrated Water Resources Management
KAP	Kombinat Aluminijuma Podgorica (Aluminum Plant in Podgorica)
KfW	Kreditanstalt Für Wiederaufbau (German Development Bank)
LOCP	Lake Ohrid Conservation Project
LOMB	Lake Ohrid Management Board
LOWC	Lake Ohrid Watershed Committee
LSIEMP	Lake Skadar-Shkoder Integrated Ecosystem Management Project (supported by GEF)
LSNP	Lake Skadar National Park
MAFCP	Ministry of Agriculture and Food and Consumer Protection (Albania)
MAFWE	Ministry of Agriculture, Forestry and Water Economy (FYR Macedonia)
MARD	Ministry of Agriculture and Rural Development (Montenegro)
MDGs	Millennium Development Goals
MED EUWI	Mediterranean Component of the European Union Water Initiative
MedWet	The Mediterranean Wetlands Initiative
MEFWA	Ministry of Environment, Forestry and Water Administration (Albania)
MEPP	Ministry of Environment and Physical Planning (FYR Macedonia)
METE	Ministry of Economy, Trade and Energy (Albania)
MH	Ministry of Health
MI	Ministry of Interior (Albania)
MIAPA	Ministry of Internal Affairs and Public Administration (Montenegro)
MIO-ECSDE	Mediterranean Information Office for Environment, Culture and Sustainable Development
MoU	Memorandum of Understanding
MPWT	Ministry of Public Works and Transportation (Albania)
MSDT	Ministry of Sustainable Development and Tourism (Montenegro)
MTCYS	Ministry of Tourism, Culture, Youth and Sports (Albania)
NCSD	National Council for Sustainable Development (Montenegro)
NGO	Non-governmental Organization
NIVA	Norwegian Institute for Water Research
NSSD	National Strategy of Sustainable Development
NSWR	National Strategy on Water Resources

NWC	National Water Council (Albania)
ODA	Official Development Aid
OECD	Organization for Economic Cooperation and Development
OSCE	Organization for Security and Co-operation in Europe
PA	Protected Area
PAHs	Polycyclic Aromatic Hydrocarbons
PBAs	Prime Butterfly Areas
PCB	Polychlorinated Biphenyls
PENP	Public Enterprise for National Parks (Montenegro)
PENP	Public Enterprise National Parks (Montenegro)
PPCC	Prespa Park Coordination Committee
PPG	Project Preparation Grant
PPMC	Prespa Park Management Committee
PPP	Purchasing power parity
RBA	River Basin Agencies
RBC	River Basin Council
RBD	River Basin District
RBM	River Basin Management Plan
REAs	Regional Environmental Agencies (Albania)
REC	Regional Environment Centre
REReP	Regional Environment Reconstruction Programme
SAA	Stabilization and Association Agreement
SAP	Strategic Action Plan
SAP	Stabilization and Association Process
SDC	Swiss Agency for Development and Cooperation
SEA	Strategic Environmental Assessment
SECO	Swiss Cooperation
SEE	South Eastern Europe
SIDA	Swedish International Development Cooperation Agency
SLMNR	Shkoder Lake Managed Natural Reserve
SLNP	Skadar Lake National Park
SME	Small and Medium Enterprises
SNV	Netherlands Development Organization
SWSSC	Shkoder Water Supply and Sewerage Company”

TAC	National Territorial Adjustment Council (Albania)
TDA	Transboundary Diagnostic Analysis
TP	Total Phosphorus
TWIEN-SEE	Targeted Information Exchange Network on Transboundary Waters in South Eastern Europe
TWRM	Transboundary Water Resources Management
UN	United Nations
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
WB	World Bank
WFD	Water Framework Directive (of the European Union)
WRM	Water Resources Management

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# 1. SITUATION ANALYSIS

## *Physical Characteristics*

1. The “extended” Drin Basin is located in the southeastern part of the Balkan Peninsula. It comprises the transboundary sub-basins of the Drin and Buna/Bojana Rivers and of the Prespa, Ohrid and Skadar/Shkoder Lakes. The Drin River is the “connecting body” of the “extended” Drin Basin, linking the lakes, wetlands, rivers and other aquatic habitats into a single, yet complex, ecosystem of major importance. The water bodies and their watersheds are spread in a geographical area that includes Albania, Greece, the Former Yugoslav Republic of Macedonia (from this point forward referred to as FYR Macedonia), Montenegro and Kosovo.

2. The Prespa Lakes is the starting point of the Drin water flow towards the Adriatic Sea. Prespa comprises of two lakes linked by a small channel, with regulated water flow, which crosses the alluvial isthmus that separates them: the Micro (small) Prespa shared by Greece and Albania and Macro (big) Prespa, shared by Albania, Greece and FYR Macedonia. Water flows through underground karst channels from the Prespa to the Ohrid Lake. Shared by Albania and FYR Macedonia, Ohrid is the largest lake in terms of water volume in South-Eastern Europe (SEE). The only surface outflow of Ohrid Lake, the Black Drin, flows north through FYR Macedonia and it enters Albania where it meets the White Drin –originating from Kosovo- to form the Drin River. Flowing westward through Albania, the Drin joins the Buna/Bojana River 1 km upstream of the outlet of Lake Shkoder/Skadar, near the city of Shkodra. Shared by Albania and Montenegro, Shkoder/Skadar is the largest lake in terms of surface in SEE. The Buna/Bojana River drains Lake Shkoder/Skadar and flows into the Adriatic Sea; its final tract (23 km) represents the Albania - Montenegro borderline.

3. The aforementioned surface water bodies including their tributaries, and the numerous wetlands and smaller natural and artificial lakes and aquatic habitats, are interlinked within the complex surface and groundwater system of the Drin Basin. With its rich water resources (>350,000 mc/s) and diverse ecosystems, this complex interconnected hydrologic and hydro-geologic system provides a wealth of services to the countries that share the Basin: energy supply, fisheries, water supply for irrigation and domestic uses, sustenance of unique endemic biodiversity, and livelihoods, such as recreation and tourism, which are becoming increasingly important in the economic strategies of the riparians, in particular of Montenegro and Albania.

## **Prespa and Ohrid: Two Ancient Lakes**

4. Worldwide only very few freshwater lakes exist that are characterised by a long geological history, often leading to an outstanding degree of endemic biodiversity. Examples include Lake Baikal located in Siberia, Lake Titicaca in South America, and lakes Tanganyika and Malawi in the East African Rift. Most of such “old” lakes have a tectonic origin and are located in regions still tectonically active.

5. Two famous representatives of such lakes in Europe are the karstic Lake Prespa and Lake Ohrid on the Balkan Peninsula. Lake Ohrid has today a surface area of 358 km<sup>2</sup>, a maximum water depth of 289 m, a mean water depth of 155 m, and a volume of 55 km<sup>3</sup>. The surface area of neighbouring Lake Prespa is 254 km<sup>2</sup>, its max and mean water depths are 58 m and 14 m, respectively, and its volume is 3.6 km<sup>3</sup>. The shortest straight-line distance between the two lakes is 9 km and Lake Prespa (altitude 849 m a.s.l.) is connected with Lake Ohrid (altitude 693 m a.s.l.) via underground karstic channels.

6. From a geological point of view, the tectonic origin and on-going tectonic activities of the Prespa and Ohrid basins are confirmed by field observations and recent earthquake data. Both lakes formed during the Pliocene, roughly two to three, possibly even five million years ago. Recent studies indicate the high sensitivity of lakes Prespa and Ohrid to climatic and environmental change and thus not only emphasize these lakes as world-class sites for paleo-climate research but also as some of the few sites worldwide where the impact of geological/climatic events on the lake’s biota can be investigated in detail. The ecological importance of both lakes was acknowledged by the declaration of Lake Ohrid as UNESCO World Heritage Site in 1979 and by the establishment of the Prespa as a National Park (in all three littoral countries) and as a Wetland of International Importance (Greek part of Lake Micro Prespa and FYR Macedonian part of Lake Macro Prespa together with the Ezerani Protected Reserve) under the Ramsar Convention.

7. Ancient Lake Prespa separated into lakes Macro and Micro Prespa, due to sediment deposition from the Aghios Germanos River. There is no natural surface outflow of the two lakes. Investigations using radioisotopes techniques have confirmed a underground karstic outflow beneath Galicica Mountain to Lake Ohrid (150m lower); see Fig. 1. The water from Macro Prespa is also thought to flow into surrounding aquifers possibly in Albania and elsewhere. Endemic biodiversity in Lake Prespa is low with little faunal exchange and overlap to Lake Ohrid, despite

their underground hydrological connection. Lake Ohrid instead is famous for its large number of (at least 212) endemic species. Although the total number of endemic species is higher in lakes Baikal, Tanganyika, Victoria and Malawi, Lake Ohrid is much smaller and, taking its surface area into account, it is possibly the most diverse lake in the world. The natural, oligotrophic (low nutrient and high oxygen contents) conditions that prevail in Lake Ohrid are supported by inflows depleted in mineral suspensions and nutrients. Most of the inflow to the lake is supplied by groundwater from abundant karstic sources in the relatively small natural catchment area. The only surface outflow of Lake Ohrid is the river Crni Drim (Black Drin) in the northern part of the lake.

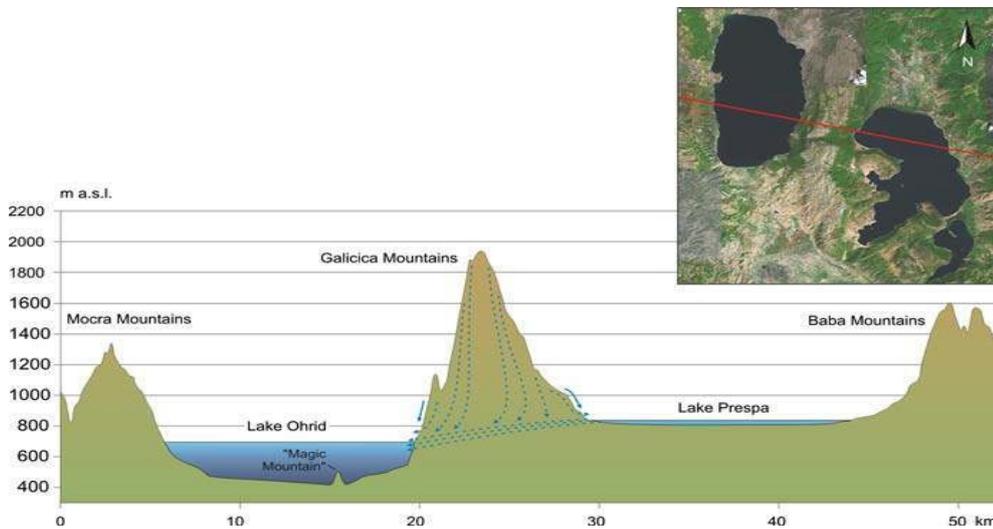


Figure 1 – Prespa and Ohrid Lakes, and their interconnection

## Drin River

8. The Drin River is formed by the confluence of two rivers: the Black and the White Drin. The Black Drin River drains an area of 9,209 km<sup>2</sup> (including Prespa and Ohrid watersheds); 58% of this area extends in Albania (5,369 km<sup>2</sup>) and 42% in FYR Macedonia (3,840 km<sup>2</sup>). Its main tributary -apart from Ohrid Lake- is the transboundary River Radika. The White Drin River rises in Zljeb Mountain in Kosovo; it drains an area of 4,964 km<sup>2</sup>, 88% of which extends in Kosovo (4,360 km<sup>2</sup>) and 12% in Albania (604 km<sup>2</sup>). Its average annual flow is 66.6 m<sup>3</sup>/s (at Vermice Kosovo, close to the Albanian borders).

9. Torrential runoffs, over-exploitation of sand and gravel from the river bed, deforestation combined with poor maintenance of flood protection facilities are among the factors that result in extended flooding in the White Drin sub-basin. It is estimated that 50% of the basin is threatened by flooding. The length of the regulated part of the White Drin, aiming to prevent floods, represents 15.6% of its total length.

10. The White Drin joins the Black Drin River at Kukes (Albania) to form the Drin River. It is estimated that half of the surface waters of Albania run through the Drin watershed. Its hydrologic network is dense consisting of numerous rivers, streams, springs and natural lakes. Additionally, there are three artificial reservoirs created in the late '60s – early '70s in the Albanian territory with the purpose of hydropower production: the Fierza Lake (the largest one with surface area 82.60 km<sup>2</sup> and length 72 km), the Koman Lake (surface area: 12 km<sup>2</sup>, length: 34.5 km) and the Vau Dejes Lake.

11. The Drin River used to flow solely through the fields of Zadrime, across the Lezha city, into the Drin Bay of the Adriatic Sea; after the floods of 1848 to 1858 and 1896, the Drin was split into two branches: one flowing in the original channel (old Drin - Drini i Lezha) and a new flowing into the Buna/Bojana River, at a distance of 1.5 km from the Shkoder /Skadar Lake's outlet. After the diversion of the remaining flow of the Drini i Lezha and the Gjadri River into the main channel of the Drin River that flows towards Shkoder the first was turned into a drainage channel<sup>2</sup>.

12. The Drin River discharge in its lower part is 352 m<sup>3</sup>/s, with a yearly long volume of over 11,000 10<sup>6</sup> m<sup>3</sup>. The yearly long average flow of suspended alluvium is 438 kg/s and the turbulence 1,250 gr m<sup>3</sup>.

<sup>2</sup> The flow of Drin i Lezha is low and even very low for about 9 - 10 months per year. The river is rejuvenated in winter with the increase of precipitation.

## Lake Skadar/Shkoder

13. The main tributary of the Shkoder/Skadar Lake is the Moraca River, having two tributaries itself: Zeta and Cijevna/Cemi Rivers. The 99 km long Moraca flows through the capital of Montenegro Podgorica, drains about 32% of the territory of Montenegro and contributes 62% of the Lake's water. Other important tributaries include the Crnojevica, Orahovstica, Karatuna, Baragurska Rivers in Montenegro, and Perroi I Thate, Rjolska and Vraca Rivers in Albania. Smaller streams flow into Shkoder/Skadar Lake at its west side. Groundwater from the Zeta Plain and karstic springs (on the southwestern and northeastern part) contribute about 20% of the water inflow to the lake. The largest lake on the Balkan Peninsula in terms of water surface Lake Skadar/Shkoder (Ramsar site in Montenegro since 1995 and Albania since 2005 – see also below under “Buna/Bojana”) shows several peculiarities that make it rather unique among the world's major lakes. The same characteristics, however, are symptomatic of the fragility of the lake's ecosystem as we know it today.

14. *Shallow, fluctuating depth* - Its average depth fluctuates from 5 to 10 m with its deeper parts located along the Western section of the lake. The variations in its depth are due to the high seasonality of rainfall compounded by the varying discharge capacities of the Buna/Bojana River (see below). These fluctuations determine variations in the total surface of the lake, with periodic flooding of its flat Eastern and Northern shore (Zeta Plain), where the limestone substratum is overlain by loose water bearing sediment.

15. *Complex conditions at the outlet* - The River Buna/Bojana, the lake outlet, has a weak transport and erosive capacity to remove sediments from the riverbed, due to the low gradient of its channel bed. Sediments accumulate, creating an impediment for the out-flowing waters of the lake, and determining the rise in water level and flooding of the lands around Lake Shkoder/Skadar. Sometimes the outflow from the lake in the Buna- Bojana is impeded by an increase in the flow in the Drin River due to the operation of the (three) *hydropower stations upstream*. Further, the combination of high discharge in the Drin River and a low water level in the lake back/ reverse flows occur. Finally, landfills to build new constructions have been narrowing the outlet (additional related information is provided below under “The issues of concern, Water Balance”).

16. *Karstic origin* - Lake Shkoder/Skadar is Europe's largest karstic lake, formed in relatively recent times in a shallow subsiding tectonic depression within the limestone dominated Dinaric chain. The *important role of karstic groundwater* circulation in Shkoder/Skadar is evidenced by numerous underwater karstic springs (“oka”) that originate in deep submerged dissolution caverns. Karstic groundwater flows and springs represent the second largest contribution to the lake's water (up to 30%). It has to be stressed that groundwater contained in the sediment cover of the Zeta Plain, the karst springs, the surface flows and the lake water are all hydraulically connected.

17. *Short water residence time* - Water circulation and mixing in Lake Shkoder is high, as well as in-/outflow. Water residence time is about 120 days: the lake is shallow, and groundwater wells up from the deeper parts and mixes with the water originating from surface inflow. Stratification does not occur.

*High water temperature* - Due to its low elevation, southern position and shallow water, Lake Shkoder has high water temperatures. This causes high rates of decomposition of organic materials. As the lake never freezes, it is a primary location for birds in winter.

## Buna/Bojana River and Delta

18. Buna/Bojana receives water from Drin River and Lake Shkoder/Skadar; the *combined catchment of the river* including the catchment Shkoder/Skadar – Drin (as well as the watersheds of Kiri and Gjader Rivers) reaches at a total surface 19,582 km<sup>2</sup>. This large *area includes* an ecologically connected complex system of wetlands (Lake Shkoder/Skadar, Velipoja Reserve, Domni marshes, and Viluni Lagoon) that has been identified as one of the 24 transboundary wetland sites of international importance known as “Ecological Bricks Sites” (Europe's Environment, Dobris Assessment, 1995). The part that lies at the territories of Montenegro was included in the list of Wetlands of International Importance (Skadarsko Jezero, Ramsar site No 184, 200 km<sup>2</sup>) in 1996. The wetlands along the Buna/Bojana River in Albania, including the Viluni lagoon near Velipoja at the Adriatic coast (total area of 495 km<sup>2</sup>), were designated for inclusion to the Ramsar List in 2/2/2006 (Shkodra and River Buna, Ramsar site no. 1598).

Table 1 presents the interconnections of major surface water bodies of the Drin River Basin.

**Table 1: The Drin Basin system – Shared sub-basins**

Water bodies	Lake Prespa	Lake Ohrid	Drin River	Lake Shkoder	Buna/Bojana River
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23. In addition, major pressure is exerted on biota by the interruption of bio-corridors and habitat fragmentation. Preventing fish from migrating upstream to spawn is one of the direct impacts of dams. A characteristic example is the Atlantic eel (*Anguilla anguilla*), which historically used the Drin River to migrate between Lake Ohrid and the Adriatic Sea. The dams and the altered flow patterns throughout the watershed have also affected other riverine species. Overall, the pressures exerted upon the ecosystems are major.

24. On the other hand, the significance of the water bodies in terms of electricity production is high: in Albania, the capacity of the plants installed in the basin equals to about 70% of the total hydro and thermal capacity installed in the country; in FYR Macedonia, the two dams on the Black Drin River represents 20% of the total installed hydropower capacity (accounts for 16% of the overall energy production). The countries face electricity deficits that are covered by energy imports. New dams are planned in Albania. A considerable number of small HP plants in the Black Drin watershed in FYR Macedonia and a cascade of dams in the Moraca River in Montenegro are either planned or are in the “pipeline”. One of the planned projects in FYR Macedonia involves the diversion of a part of the flow of Radika River to the Vardar River (belongs to the Aegean Sea basin). This has raised concerns in the Albanian side. Furthermore, the flow patterns in Drin, downstream the dams, are influenced by both licensed as well as uncontrolled gravel extraction. Hydropower production is also linked to oscillations of the water level in the lakes Ohrid and Shkoder/Skadar that impacts their ecological, economic and cultural values.

25. Variations in the water level in **Lake Ohrid** is linked with the operation of the Spilje and Globocica dams and the associated HP production stations downstream in **FYR Macedonia**, and occasionally with extreme precipitation incidents. Floods in the Ohrid Lake sub-basin are closely associated to the aforementioned phenomena. Lack of close coordination between Albania and FYR Macedonia with regard to the management of the outflow from the dams in both countries is an additional factor to be taken into account. Attempts to increase water withdrawals from Lake Ohrid in the last few years, in order to increase hydropower generation in the downstream HP plants in FYR Macedonia caused concern and reactions, in both countries. Permanent decrease or significant oscillations in the water level may lead to the shift of littoral zone habitats and/or deterioration or even elimination of the wetlands hence, deterioration of biodiversity. Commercial fishing will be also negatively affected since these habitats provide the spawning grounds for four commercial species, including the endemic Ohrid trout (*Salmo letnica*) -currently under protection in FYR Macedonia- and the smaller size Belvica species (*Salmo ohridana*).

26. It should be noted that deficiencies in the basin management in Albania could have direct and indirect impacts in upstream countries. For instance, at least in one case during 2010, the reduction of the flow of water from Ohrid to Black Drin in FYR Macedonia as a measure to mitigate floods in the northern part of Albania -in the Shkoder/Skadar Lake sub-basin- led to the raising of the water level in the Lake Ohrid by 50 cm, affecting negatively the anthropogenic (e.g. sewage system) and natural environment.

27. Furthermore, groundwater flooding was observed in settlements near the Ohrid Lake and Black Drin River. The altered water flow regime both upstream and downstream of the dams affects the habitats in the Black Drin River. Change in the erosion patterns in the river banks is an additional outcome. Floods in the Black Drin sub-basin in FYR Macedonia, is partially attributed to the decrease of the forest cover in the Jablanica Mountain; the negative trend has reversed as a result of the economic crisis. Some floods that have been observed in Albania in the border with FYR Macedonia are attributed to the increase of the discharge from the last dam in FYR Macedonia.

28. The outflow of the Lake Shkoder/Skadar through Buna/Bojana River is occasionally impeded due to increased flow of the Drin River; the latter is a result of water releases from the artificial lakes upstream. Under specific conditions -e.g. favourable winds- Drin water even enters in the Shkoder/Skadar resulting in a significantly raised water level in the lake. This occurs mostly from December to February, but may also occur during other periods, depending on the water quantity released from the hydro-power dams (Vau Dejes), which, in turn, depends on both precipitation and electricity demand. Furthermore, increased flow in the Kiri, Gjadri and Drin River cause sediment deposition at the confluence point of Drin and Buna/Bojana Rivers, thereby further obstructing the flow in the latter and the outflow from the lake.

29. Altered patterns of oscillation of the water level of **Lake Shkoder/Skadar** exert pressures on the ecosystems and the microclimate as well as on the agriculture around the lake. Lake Shkoder/Skadar is a shallow floodplain type of lake, with regular and extensive flooding of low gradient areas. The flooded areas are an essential habitat for maintaining the overall biodiversity of the lake. They provide essential spawning grounds and nursery areas for many fish species hence they support the high fisheries productivity in the lake and the river. The flood regime, the timing and amplitude of changes in water levels, are important factors for successful fish spawning. Disturbance of this regime alter the characteristics of the habitats.

30. Increased frequency and intensity of flooding in the **Shkoder/Skadar – Buna/Bojana** area during the past two-three years has had detrimental socioeconomic effects in the region. The 2010 floods were the most severe ones recorded in the last 80 years in the Albanian side; in the Montenegrin side they resulted in the highest level of water

ever recorded. While there is a need for these phenomena to be further studied, it is believed that they come as a result of the combined effect of the following:

- Flow variability due to both natural and anthropogenic factors (extreme weather events, water releases from the dams on Drin River);
- High sediment input through the tributaries of Drin downstream the dams due to erosion caused by gravel extraction and loss of plant coverage;
- Accumulation of alluvium in the tributaries of Drin, Drin itself and Buna/Bojana. In the case of Drin this is due to the decreased sediment transport capacity as a result of the controlled outflow from the artificial lakes; in the case of Buna/Bojana the latter is combined with the low gradient of the riverbed;
- Blockage of the natural secondary channels of the Buna/Bojana River that existed in the past in the delta area; the pick flows exceed the capacity of the main (existing) channel;
- Poor maintenance of the drainage channels and flood preventing constructions in the Albanian side and of the embankments in the Montenegrin side.

31. Recent work<sup>4</sup> that looked into the reasons for the oscillation of the level of Lake Skadar/Shkoder concluded that the main reason for the January 2010 major floods in the Montenegrin part of the basin was the de-regulation of the hydropower production dams on Drin in Albania.

32. Climate change and variability leading to the increase of the frequency of extreme precipitation events should be taken into consideration as an additional possible explanation of these flooding phenomena. It is noteworthy that similar “localized” floods are becoming more frequent throughout the world, attributed by many scientists to already occurring climate change. On the other end, drought periods seem to increase resulting, among others, to reduction of flows, forest fires, etc. Related decrease in the forest coverage in particular is expected to affect wildlife, the life expectancy of dams due to erosion and siltation, etc.

## 2. Sediment Balance

33. The diversion of Devolli River in Albania into **Lake Micro Prespa** has led to the deposition of considerable amounts of solid material causing a permanent alteration of the character and functions of the site; almost the total of the Albanian part of Micro Prespa Lake transformed from a shallow lake into a wetland. Despite their ecological significance for wildlife, in particular avifauna, and as buffer zones, extensive growth of reed belts accelerates ageing and succession processes of the lake.

34. Increased sediment loads entering both **Lakes Micro and Macro Prespa**, has been the outcome of deforestation and overgrazing in both Albania and FYR Macedonian sides and unsustainable agricultural practices in FYR Macedonia. Further to the increased sedimentation, nutrients and micro-pollutants can be transported in the water body adsorbed and absorbed on particulate matter.

35. It seems that the main problem in terms of excessive sediment loads entering the Lake Ohrid lies mostly with the diversion of the Sateska River to the Lake in FYR Macedonia. Deforestation in the watershed of Sateska is a major pressure resulting in erosion of the riverbed. Illegal extraction of sand and gravel from the riverbed influence water flow patterns and cause the increase of sediment loads entering the Lake. Overall, the load of silt entering the Lake Ohrid is large. A delta including a small island has been formed at the river mouth. Reforestation is planned. Increased sediment loads and soil erosion due to deforestation and agricultural activities is an issue in other parts of the Ohrid watershed as well.

36. Increased sediment loads into the **Black Drin River** in FYR Macedonia, is a result of uncontrolled grazing and logging. Illegal gravel extraction from rivers in the Black Drin catchment lead to disturbance of the sediment and the habitats and has an effect on the river flow patterns causing erosion of the adjacent land; the changes of the shape of the river channel undermine infrastructure, bridges and roads, and productive land.

37. Overall, increased fine sediment load that characterize unstable rivers may also have impacts on fish and wildlife habitats, even in the absence of other water pollution problems.

38. Erosion is an important and complicated issue in the **Drin River and Buna/Bojana River watersheds** that is not sufficiently studied and understood. Among its causes -the significance of each one may vary in different areas- are the: (i) deterioration and destruction of plant coverage as a result of over-grazing, logging, forest fires etc.; (ii) unsustainable agricultural practices including inappropriate irrigation methods; (iii) altered flow patterns; (iv) gravel extraction along the rivers and their tributaries etc.

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<sup>4</sup> A joint Predictive hydrological model for Skadar/Shkoder basin was developed and used for this analysis in the framework of the GEF LSIEMP project (2008-2012).

39. Damaging of the flood protection constructions (barriers) in the channels of Drin coupled with the steep gradient of their bed exacerbates erosion phenomena. Soil erosion leads to high sediment loads, in addition to normal inputs, in the Drin River. Significant loads of material transported into the lake of the Hydro-Power Station of Vau i Dejes may result in the increase of the rate of filling up of the artificial lake.

There is erosion in some parts of the Buna/Bojana Delta while there is sand deposition in other parts; the progression of the sea along some parts of the coast at the Buna/Bojana mouth has been about 500 m since 1936 and about 50 m the past 20 years.

40. The morphology of the Buna/Bojana deltaic complex is believed to be affected by a combination of factors:

- Alteration of the water flow regime in the Drin – Shkoder/Skadar – Buna/Bojana system due to the construction of the cascade of dams on Drin;

- Entrapment of sediment in the upper part of the watershed by the dams;

- Reduction of the sediment transport capacity of the Drin in combination with the natural low gradient of the channel of Buna/Bojana River resulting in the deposition of alluvium (coming from erosion in the tributaries of Buna/Bojana and Drin) preventing this from reaching the Buna/Bojana mouth at the Adriatic Sea. The sediment deposition in Buna/Bojana River causes reduction of the speed of water further resulting to additional deposition of sediment;

- Variability of the wave activity and sea level in combination with short-term events (storm waves and tides) and long-term processes (sea transgressions).

The changes in the coastline affect drastically the ecosystems in the Buna/Bojana Delta. For example, nesting bird habitats are being lost progressively throughout the Delta due to the disappearance of islands.

### 3. Water Quality

41. Diffuse and point source pollution is a matter of concern throughout the “extended” Drin River basin. It results to impacts to the ecosystems of the Drin as well as of the Adriatic Sea and poses risks to human health.

A considerable amount of nutrients ends up in the **Drin hydrologic system** and the **Adriatic Sea**; 95% of the nutrient load is attributed to anthropogenic sources. The riparian countries are slowly taking measures to address urban wastewater pollution; wastewater treatment plants have/are being constructed for some major towns especially in Montenegro.

42. Inadequate wastewater collection and lack of treatment is an issue in the Albanian part of **Micro Prespa**; wastewater is discharged in surface waters or underground. The level of diffuse pollution cannot be estimated. Macroscopic observations (according to reports from local population in Albania, water transparency has decreased to only a few centimeters) and scientific evidence (e.g. the composition of the phytoplankton community) suggests that the Lake is currently heading towards eutrophication; however, there is not enough information available to the authors with regard to the causes. As an outcome there is major pressure exerted on fish population and there are impacts on the balance of the ecosystem which hosts many species including endangered ones.

43. The intensity and duration of human pressures resulted in the deterioration of water quality in the **Macro Prespa Lake**. This is also true for the watershed in the part of FYR Macedonia, except the elevated stretches of the rivers way beyond the immediate human activities. In order to prevent further deterioration of the water quality in the watershed, substantial measures have to be introduced and implemented. This is especially important for the Prespa Lake itself since it has already started to show clear signs of becoming eutrophic. According to current monitoring from FYR Macedonian institutions and from basic surveillance monitoring for the preparation of the watershed management plan in the FYR Macedonian part, the Lake can be characterized as mesotrophic. According to scientific research regarding the composition of the phytoplankton communities e.g. diatoms, the state of the lake is moderately mesotrophic to eutrophic or even eutrophic in some cases. There are also some indications of becoming eutrophic throughout the year; there are more frequent and possibly toxic cyanobacteria ‘blooms’. Nevertheless, systematic monitoring for the lake and its tributaries need to be established so as to extract safe conclusions about the status of the water bodies and follow the responsiveness of the system to pressures as well as to measures taken by the countries to address these.

44. Nutrients input –mainly from the FYR Macedonian side that hosts the biggest share of the population and economic activities in the watershed– is considered to be the main cause. This input comes as a result of mainly unsustainable agricultural activities e.g. improper use of fertilizers and irrigation techniques, and insufficient wastewater management; in addition, erosion may also contribute to nutrient inputs due to the poor land management (agriculture). Organic pollution leads to lowered dissolved oxygen concentrations –particularly in summer months– contributing to degradation of water quality with a potential impact on aquatic life. The main source of organic pollution is believed to be the town of Resen and the industry in the same region. Furthermore, about 10-15% of apple

production usually ends up in the streams entering the Lake or the Lake itself increasing the organic carbon loads; measures are been taken by the FYR Macedonian authorities to address this issue. Insufficient wastewater management leads to bacterial pollution too in certain areas of the lake and its tributaries.

45. Diffuse pollution from agriculture in the Albanian part is minimal and where present it should be of local character. The use of chemical fertilizers is very limited. The nutrient and organic loads entering the lake due to insufficient wastewater management is a factor of pollution that may have -data are not available- an impact of local character; it should be of less importance if compared to transboundary pollution. In contrast, the impact of wastewater discharge is major in the Albanian part in terms of bacteriological pollution; the situation becomes critical at certain locations during certain periods of the year. The health risks are high for people who use untreated water abstracted from the lake for drinking purposes or when using the lake for recreation.

46. There is little information available regarding the concentrations of hazardous and toxic substances in the local aquatic system (water column, sediment or biota). It is known though that inadequately treated industrial wastewater in the FYR Macedonian side of the basin reaches the water bodies. The use of herbicides and pesticides in this part of the watershed is substantial, mainly within the Golema River sub-watershed, affecting both the river and the northern end of the Lake. Use of inappropriate types of pesticides in FYR Macedonia e.g. agrochemicals banned by the law -these are obtained and used in both Prespa and Ohrid sub-basins- may pose a threat to the ecosystem. As for the seriousness of the threat, while only rough estimates can be made about the quantities or the types of pesticides and herbicides used, ecotoxicology studies of runoff from fruit orchards in the region indicate significant sub-lethal impacts of insecticides on fish larvae and potential for certain herbicides to have sub-lethal effect on endocrine function in wildlife and humans, affecting sex determination, growth rates, and fecundity. There are views suggesting that hazardous substances use has resulted already to the alterations of the ecosystem structure. In Albania the use of pesticides is restricted; farming is labor intensive.

47. Water quality deterioration is most intense at the littoral zone of **Lake Ohrid** especially:

- In FYR Macedonia in the: sections adjacent to the urban areas of Struga and Ohrid; shoreline in the south of Saint Naum; areas that the larger tributaries discharge into the lake, especially the Sateska, Daljan, Grasnica and Koselska Rivers;

- In Albania in the: sections adjacent to the urban area of Pogradec and in the shoreline where recreational activities take place i.e. Drilon, Pojska, and Lin.

48. Ohrid is an oligotrophic lake; however, there are indications of progressing eutrophication. Nutrient loading from both littoral countries exert pressure to the system causing acceleration of the “aging” process of the lake. Concentrations of phosphorus and nitrogen have been increasing over time. Considering the very large volume of water in the lake this increase represents a very significant change. Both the phytoplankton and zooplankton communities are shifting to a species composition more characteristic of a mesotrophic condition and so do the macrophytes and benthic fauna in the shallow-water zone.

49. Lake Ohrid is being “fertilized” from the FYR Macedonian side due to inefficient infrastructure for wastewater collection -the sewerage network covers the total of the Ohrid coast but it overflows during increased precipitation- insufficient treatment, and diffuse pollution due to uncontrolled and excessive use of fertilizers. There are plans for the rehabilitation of the sewerage network as well as the treating capacity of the wastewater treatment plant in Struga.

50. Urban wastewater discharge has been the main input of nutrients from the Albanian side leading also to organic and bacterial pollution -of local importance- at the littoral zone. Treatment, since 2009, of urban wastewaters of the Pogradec area has had a positive effect with regard to the organic matter and phosphorous concentration trends as well as with regard to the bacterial contamination of water. According to observations some improvement in the water quality in the adjacent part of the lake is evident.

According to some information phosphorous is transported via the karstic underground connection from the Prespa watershed.

51. Inappropriate disposal of solid wastes and non-compliance of the existing landfills to modern standards in both sides of the basin is another threat for surface and groundwater. There is some preliminary evidence in Lake Ohrid with regard to hazardous substance pollution. In FYR Macedonia pesticides used by farmers in the watershed may threaten fish in the lake; traces have been found in the tissues of some fish collected. In addition, there have been inflows of toxic wastes from industrial facilities in the area of Ohrid. Economic reasons have forced the closure of many industrial plants in the past two decades, thus sources of pollution have been *de facto* greatly reduced. However, studies have indicated an elevated level of PCB in edible fish.

52. Mining activities at the Albanian shoreline have been sources of heavy metals pollution (e.g. chromium, copper, cobalt, nickel, iron, etc.). The impacts to the ecosystem had been considerable. According to publications, flora and fauna (especially some fish species) of the lake had been seriously affected in the adjacent to Guri i Kuq lake area. Sediments in the littoral zone in adjacent to the mines areas are substantially polluted, presenting a potential

toxic risk for the *aquatic* life and, through the food chain, also to humans. The closing down of mines and the removal and disposal of the site tailings in Guri i Kuq addressed to a certain extent these important pollution sources. Depositions of residual material left in open pits in abandoned mines constitute still a pollution source; the initiation of operation of some illegal mines may be an issue as well. A potentially significant risk to living organisms is still present.

53. The main sources of pollution in the **Black Drin River** in FYR Macedonia are considered to be: domestic sewage and solid waste; agriculture; mining activities throughout the watershed. There is no adequate information available to the authors with regard to water quality; according to some data, nutrient levels appear to be low if compared to the other sub-basins of the extended Drin River basin. According to the Spatial Plan of FYR Macedonia (2004) Black Drin is among the watercourses of the country that shows “permanent deterioration of its quality”.

54. There is also no adequate information with regard to water quality in the part of the **Drin River** watershed extending to the Albanian side. The following are among the potential sources of pollution:

- Inappropriate disposal of solid waste throughout the watershed; deposits, including of hospital waste, are present on the river banks and lake shores in residential areas;
- Domestic sewage that is discharged untreated along the course of the river as well as in the artificial lakes;
- Waste from mining and industrial activities throughout the watershed and in particular in the Kukes region where mining industries are placed.

55. According to some publications concentrations of nitrates and DIN are rather high compared to the values observed in the Prespa and Ohrid Lakes. According to the Albanian Ministry of Environment the overall water quality in the Drin River is good.

56. Despite the fact that the **Lake Shkoder/Skadar** receives pollutant loads, the quality of water appears to be reasonably good, due to the high renewal rate of 2-2.5 times per year.

57. Inappropriate solid waste, wastewater management as well as inappropriate agricultural activities results in pollutants entering the Shkoder/Skadar Lake – **Buna/Bojana River** system. Ammonium, nitrates, phosphates and detergents have been above threshold values in the period 2006-2010 in several monitoring stations. Improvement of related infrastructure in Podgorica and construction of infrastructure in Cetinje is underway.

58. In the Montenegrin side, untreated or poorly treated municipal wastewater and diffuse pollution from the Zeta Plain pollute surface water and groundwater. Pollution reaches the lake through tributaries and springs. Increased concentrations of nutrients (phosphates and nitrates) are monitored in the Lake near the river mouths, in particular these of Crnojenica and Moraca Rivers; concentration peaks are observed during summer season. The karstic geology facilitates underground movement of pollutants. The highest concentrations of nitrates in the period 1998-2005 were recorded -apart from Vranjina that is influenced by Moraca River- in Podhum that is recharged in the Podgorica area. Furthermore, water polluted from waste and wastewater from Cetinje flows through the permeable rocks down to the spring of Obodska Pećina; the Crnojenica River originates from this karstic spring the -large- recharge area of which includes also Cetinje.

In the Albanian part pollution contributed is due to absence of wastewater treatment, insufficient solid waste management and agricultural runoff. Sewage from the Shkodra city is collected into a pool and then pumped into the Drin River at a short distance before its confluence with Buna/Bojana. Occasional failures of the sewerage system lead to spills posing a threat to the quality of the Lake. The discharged wastewater affects the Buna/Bojana River all the way down to its delta and in periods of high waters in Drin and floods, the Lake.

59. Bacterial pollution seems to be an issue of local importance during spring / summer in Moraca River downstream the Podgorica wastewater treatment plant; this is also true occasionally, during the summer period at the point that Moraca enters Shkoder/Skadar Lake.

60. The sources of toxic substances pollution lie mainly at the Montenegrin side:

- The Aluminum Plant in Podgorica (KAP: Kombinat Aluminijuma Podgorica), about 22 km from the Lake; pollutants associated with the operation of the plant include fluoride, phenols, SO<sub>2</sub>, NO<sub>x</sub> (emitted in the atmosphere), PCBs that had been stored under poor conditions, phenolic compounds, PAHs and mercury-containing wastes. Pollution by PCBs is currently regarded as of low concern due to the export, in 2006, of accumulated waste reserves and the proper storage of newly generated PCBs since the privatization of the company in the end of 2005.
- The Steelworks Niksic that is located near one of the tributaries of the Zeta River (about 100 km from the Lake), is responsible for a range of pollutants, such as waste oils, heavy metals and toxic substances that reach the Zeta and Moraca rivers.

61. While hazardous substances (heavy metals, PAHs, PCBs, etc.) had been observed in the period prior to 2000 in the Lake Shkoder/Skadar, improvement of the water quality has been noticed in the last years. The pollutants that have reached the lake in the past seem to have been accumulated in the sediments.

62. Moderate and, in few cases, high concentrations of heavy metals have been (monitored) identified at specific sites of the lake in the sediments. Concentrations of PAHs and PCBs in sediments were found to be higher at the entry points of the Moraca River than the pelagic zone, and exhibited a decreasing trend from 1993-1996 to 2005. Analysis done after 2005 showed that concentrations of PCBs and PAHs in water samples were below detection limit and that sediment from locations in the deepest areas in the lake was the most polluted. Nevertheless, according to other researchers that studied the lake in the period 2006-2009, a number of PAHs were present in the Lake Skadar/Shkoder water; for some compounds, concentrations were high. Traces of pollution from the Steelwork factory in Lake Shkoder/Skadar are minor. Trace metals were found to be relatively higher in the Albanian side of the Lake.

63. According to some stakeholders (information is not confirmed) Drin contributes, to some extent, trace metal pollution to the Buna/Bojana River from mining activities upstream.

64. Inadequate solid waste management is of particular importance and constitutes a serious pressure. While in the Albanian part there is an almost complete absence of waste management, the situation is slightly different in Montenegro where the core of the problem is that waste collection systems covers mainly the urban population. Podgorica, Cetinje, Danilovgrad, Bar and Ulcinj are served by an organized system of waste collection and disposal; sanitary landfills operate in all aforementioned towns. The rest of the wastes are dumped in a large number of uncontrolled disposal sites or even in the vicinity of watercourses that frequently wash litter into larger streams, the Lake and/ or the Buna/Bojana River and the sea, a situation exacerbated by floods.

65. Efforts to improve solid waste management in both countries, including construction of sanitary landfills, are ongoing.

66. There are insufficient data with regard to impacts due to pollution; nevertheless, the nature of pressures as well as their intensity in some cases, lead to the conclusion that water pollution is a threat to the ecosystem and potentially to the health of local population.

67. Compared to the Shkoder/Skadar Lake the nutrient levels in the Buna/Bojana River are elevated and reflect, most probably, the discharges of urban wastewater of the city of Shkodra as well as the nitrogen and phosphorus loads entering the system through agricultural runoff. Localized bacteriological contamination is also an issue. In periods of high waters in Drin and floods (see above “*Water Balance*”) the lake is affected as well.

#### 4. Other issues

##### Unsustainable forestry management and deforestation

68. Illegal and abusive logging -for commercial purposes as well as due to socioeconomic conditions- extensive collection of firewood, uncontrolled grazing coupled with *poor forest* management in Albania, has resulted in the deterioration of forests in most parts of the Drin Basin including the Ohrid sub-basin.

69. In Prespa it is estimated that 50% of the forests are significantly degraded and at about 10% of these can only be restored by extensive reforestation – in *some cases the natural* regeneration capacity of the forest has been lost. The declining trend of livestock is a positive development with regard to pressures related to grazing. The sub-sequent erosion has been a contributing factor for the destruction of the wetlands in Micro Prespa Lake. Nowadays, the remaining high forest habitats and undisturbed grassland in the Prespa National Park are very limited. Important habitats of several animal species (e.g. *Lynx lynx*, *Rupicapra rupicapra*) have been fragmented and degraded. In Lake Ohrid sub-basin habitat fragmentation and loss constitute a threat to mammals, some of which are either threatened with extinction or are classified as vulnerable.

70. In the Black Drin, damages are more severe in the Lura National Park and Luzni-Bullaci Reserve. Habitat fragmentation and loss is an issue across the drainage basin.

71. The Diber, Kukes, Puke and Malesia e Madhe Regions in the Drin watershed host the largest areas of forest in Albania; their role in water balance and prevention of erosion is crucial. The aforementioned reasons of degradation, coupled with poor management practices (forests have been managed with a view to production of timber and firewood with only limited attention to ecosystem management) have led to direct impacts on biodiversity depending in woodland habitats, and increased erosion. Socio-economic reasons lead to over-harvesting of rare medicinal plants. In the Lake Shkoder/Skadar Basin on the Montenegrin side, in addition to reckless logging, frequent seasonal fires contribute to deforestation.

72. Alterations in land use also affect directly forests. For instance in Buna/Bojana the natural forests along the seashore are threatened or already damaged by constructions.

73. In FYR Macedonia forests have been managed more successfully; nevertheless, this has been done with a view to resource production, timber and firewood. Ecosystem values and watershed management considerations are not incorporated as major management objectives; there are on-going efforts to alter this approach e.g. in the Galicica Park in the Prespa sub-basin. The alteration of the structure of the forest ecosystem through the monoculture

reforestation in the watershed of the Macro Prespa Lake has caused the simplification of the forest species composition and degraded forest habitats e.g. has caused the loss of nesting trees for globally threatened species such as the imperial eagle. In Ohrid and the Black Drin tree cutting is regulated and reforestation is practiced; there has been some concern with regard to the species used in this regard. Reforestation has significantly reduced erosion; nevertheless, there are still areas that require attention, especially in the Sateska watershed (see above “Sediment Balance”).

#### Unsustainable fishing practices and introduction of alien species

74. Further to the water regime disturbances and water pollution mentioned above that lead to degradation of shoreline habitats and habitat alterations, there are additional pressures that result in the decline of the native fish stocks as well as in the decline of biodiversity in the extended Drin watershed. The following factors are valid for all countries of focus; the significance of each one may vary among different areas in the Basin and the different countries: lack or inadequate regulation and/or enforcement with regard to over-fishing, inappropriate means of fishing (inappropriate nets), poaching during spawning periods and introduction of non-native or exotic species.

75. In **Lake Macro Prespa** the aforementioned pressures have led to the decline of native fish stocks, changes in the structure of fish populations and species composition, loss of biodiversity, while there is a risk of potential loss of revenue for fishermen. It should be taken into account that in Albania fishing is exercised by a part of the population to complement its income or for house consumption. The statistics on fish numbers and catches are limited in the Prespa Basin as a whole. A key conclusion of a detailed study on fish stocks in the basin (in the framework of the UNDP-GEF Prespa project) is that while the overall fish biomass may be constant (or even increasing) commercial fish stocks, in particular carp and bleak, are under threat due to over-fishing. As an outcome of all three littoral countries having experimented with restocking native species and fish farming, nine (9) non-native fish species have been “introduced” to the Lake. According to some other information the number of alien species is twelve (12) against eleven (11) endemic species. The latter represent approximately 70% of the fish stock in the lake.

76. In **Lake Ohrid** the native fish populations are also under pressure. Overfishing seems to be the major cause of the decline of commercial species such as the carp, bleak, belvica (*Salmo ohridana*) and in particular the endemic Ohrid trout (*Salmo letnica*). With regard to the latter, it is believed that conservation measures in the FYR Macedonian side are more efficient and that pressures exerted in the Albanian side has an impact at transboundary level; nevertheless, the ban on the fishing of trout currently in force in FYR Macedonia seems not to be always respected. There is no such ban on the Albanian side. There have been at least seven (7) exotic fish species introduced during the last decades. One of these, the golden trout (*Oncorhynchus mykiss aquabonita*) represents a threat to the Ohrid trout. Fishing regulations in the two countries are not compatible.

77. In Albania in the **Drin River**, non-discriminatory and destructive fishing methods are being used exerting major pressures to fish stocks and the ecosystem.

78. Fisheries in the hydrological system including the water reservoir of Vau i Dejes on Drin, the Buna/Bojana River, tributaries of both rivers, Lake Shkoder/Skadar and the marine area from the Buna/Bojana outlet until the town of Velipoja in Albania are subject to the total of the pressures mentioned above; in addition non-discriminatory and destructive fishing methods include the use of explosives, high voltage electrical shock and poisons. The outcome is a considerable decline of fish stocks and reduction in the number of fish species; some non-commercial fish species are also under threat.

79. In the case of Buna/Bojana River and Lake Shkoder/Skadar additional pressures include: destruction of reproduction sites; potential toxic contamination and; manmade barriers (nets) for fishing purposes along the migration routes to the Adriatic Sea. With regard to the latter, placing barriers along the Buna/Bojana River hinders the migration of anadromous and katadromous fish species and the reproduction of several species of Lake Shkoder/Skadar. Furthermore, overfishing at the mouth of the lake threatens the existing fish population.

80. The commercially valuable fish populations in Lake Shkoder/Skadar have declined in favor of less valuable species and there has been also a significant decline on migratory fish in the overall production; there have been significant shifts in the composition of fish catches from early 60’s till today. The introduction of non-native fish had negative impacts to the populations of the native fish species, such as cyprinids, and especially the wild carp (*Cyprinus carpio*). About 1/3 of the species and subspecies of the lake are allochthonous.

81. Growing populations in littoral and coastal settlements as well as growing tourism contribute to additional pressure on the fresh water and marine biodiversity. Lack of coordination between the two littoral countries exacerbates the situation; as the borders on the Lake are not clearly marked, there are cases that Albanian fishermen perform their activities on the Montenegrin side and vice versa. Cooperation on scientific research should also be *strengthened to make* it possible to better assess the fish populations in the lake, especially the most important commercial species, such as the eel, bleak and carp.

### Urbanization and unsustainable tourism

82. Urbanization due to socioeconomic reasons and unsustainable tourism, exert pressures in areas such as the immediate littoral zone of the water bodies and the coastal areas. The resulting land occupancy -due to construction- lead to soil sealing hence amplification of runoff processes into the lakes. Insufficient sanitation infrastructure, wastewater collection systems and treatment plants, exacerbate the pressures. The same is true for tourism related infrastructures such as hotels and weekend houses. Furthermore, tourism leads to a periodically increased need for wastewater treatment, waste disposal and water supply.

83. The outcome of the above is fragmentation and loss and/or modification of habitats, while biodiversity is directly and indirectly, threatened.

84. Furthermore, in all countries of focus the urbanization as well as tourism activities concentrate close to environmentally sensitive areas or biodiversity hotspots.

Characteristic examples of *areas exposed* to related pressures are:

- The littoral zone of Ohrid Lake, in particular close to Ohrid and Struga cities in FYR Macedonia where the number of permanent residents and weekend houses, hotels, campsites, resorts, tourist and sport facilities are increasing rapidly. Pristine coastal areas, which are highly sensitive and of great importance for local endemic species, are increasingly under pressure. Coastal habitats and reed belts have been destroyed; macrophyte communities have been altered and new associations have developed in some locations; fish spawning grounds in these regions may convert from salmonid into cyprinid spawning grounds (Kostoski et al., 2010 and references therein). In the Albanian part around Pogradec and Tushemisht village the reed zones have been severely affected by uncontrolled development.
- The Kukes city in the Drin basin in Albania, where mass movement of population from rural areas and growing demands for new constructions are reported; currently, there are 0.2 km<sup>2</sup> of illegal constructions.
- The littoral zone of Shkoder/Skadar Lake. In the Montenegrin part there are illegal constructions even within the borders of the National Park. In the Albanian side 32% of the population in the area lives in illegal settlements.
- The coastal zone of Buna/Bojana, is perhaps the most affected area in this regard. In Montenegro the Velika Plaza beach, in spite of its proclamation as a Natural Monument, is degraded due to illegal building, excavation of sand and hunting. Intensive construction of buildings in the hinterland of Velika Plaza, without the appropriate infrastructure, lead to waste water pollution. In Albania, in Velipoja, immigration has led in an increase of constructions -including many illegal- at the expense of the pine forest; the forest area has been significantly reduced (presently about 0,19 km<sup>2</sup> remain). Uncontrolled tourism development poses a risk to the biodiversity in the area, for instance, the system of sand dunes in the coastal areas at the Buna/Bojana mouth in Albania is under threat.
- Unauthorized recreational activities take place at several protected areas of the extended Drin River basin, even at the zones of strict protection and pose significant threats to the biota. For example in Lake Ohrid there is pressure exerted at the ecosystem from boat traffic; at the Velika Plaza beach in Montenegro, off-road vehicles running on beaches and building of trails to reach remote parts of the dune landscape have been recorded. Sand dunes are also under pressure in the Velika Plaza in Montenegro due to unsustainable tourism practices.

### Hunting

85. Unsustainable legal as well as illegal hunting is an issue for the entire ecosystem of the Lake Shkoder/Skadar and the Buna/Bojana River and delta. There are violations with regard to the:

- Protection status of certain areas i.e. hunting ban areas, such as the Ulcinj salina that is a site of utmost importance for migrating species;
- Hunting of rare and endangered breeding birds like the oystercatcher during the breeding season in the Buna/Bojana sub-basin, the pygmy cormorant, the common redshank, the avocet etc.;
- Hunting ban period. The long hunting season established in Montenegro should be noted among the issues of concern.

86. Furthermore, the insufficient control or even lack of control in some cases attracts foreigners to hunt in the area creating a phenomenon of “illegal hunting tourism”. “Tourist hunters” have been reported to hunt, even endangered species, also during the breeding season and/or within protected areas, in particular in the salinas of the Buna/Bojana delta and Lake Sasko.

87. As a consequence, the bird populations -including endangered species- and mammals have been decimated and the suitability of the Buna/Bojana delta for breeding of migrating birds has been impaired. The exact impacts cannot be assessed since data on the status of several fauna groups are limited due to the absence of a regular and coordinated monitoring at national and transboundary levels.

### Sand and gravel extraction

88. As already mentioned, sand and gravel extraction is a matter of environmental concern throughout the extended Drin River Basin. In addition to the direct impact to the benthic communities there are also indirect effects to biodiversity; these are due to the altered water flow and sediment distribution patterns (which furthermore favors erosion).

### Climate variability

89. Climate variability seems to be linked to the water balance and flow patterns of the Drin River in the last decades. There are already some related evidences, though further study is needed. In **Prespa basin**, a native species of trout living in the river ecosystems is reported to have changed the geographical boundaries of its habitat in Greece and Albania, as it has moved higher in colder waters. In FYR Macedonia, parts of the Brajcino River dries-up during summer months, affecting the migration for reproduction of the endemic trout and Prespa barbell.

90. Scenarios indicate likely climate variability & change impacts in SEE:

- Riverine flood risk will generally increase, amplifying the threats to the riparian habitats in Albania (MEA, 2009).
- In Lake Ohrid, increase of temperature is expected to reduce vertical mixing of the water column increasing the density difference between the surface and deep layers resulting in a decrease of dissolved oxygen in the deep water. Under the scenario of predicted atmospheric warming of 0.04°C per year, current anthropogenic phosphorus load would have to be reduced by at least 50% to maintain sufficient oxygen conditions for the fauna at the bottom of the lake.
- The coastal area of the Buna/Bojana delta will be affected by sea-level rise; it is projected that about 1 km<sup>2</sup> of wetland area will be lost by 2100. The coastal floodplain is expected to increase, while the coastal forestland and the low, non-vegetated wetlands are likely to decrease. Likely enlargement of lagoons is expected to increase their capacity to host migratory birds and change the composition of bird population. Changes in aquatic flora and fauna species in favor of species more tolerant to higher temperatures and salinities are likely to occur.

91. Under climate change scenarios, the composition of the forests in the **Drin Basin** is expected to change: evergreen species and oak forests are expected to enlarge, while areas of beech forests, which are more important to produce wood, would reduce. Common spruce forest is expected to disappear, while the alpine pasture on high mountains is expected to reduce more than ten times by 2100. Furthermore, the horizontal and vertical distribution of plant and animal species will change, as migrations to higher elevations are likely to occur, affecting the relict plant and animal species.

### **Box 1. Memorandum of Understanding for the Management of the Extended Transboundary Drin Basin - Common Concerns for sustainable development of the Drin Basin**

The Memorandum of Understanding for the Management of the Extended Transboundary Drin Basin was signed by the Ministers of the water and environment management competent ministries of the Riparians and their representatives in Tirana, 25 November 2011. The signatory parties identify in this agreement concrete problems affecting sustainable development and agree to take action to address these.

*“The Parties hereby should undertake concrete actions to address problems identified as affecting sustainable development in the entire Drin Basin or in one or more of the Sub- Basins:*

- (i) Improving access to comprehensive data and adequate information to fully understand the current state of the environment and the water resources and the hydrologic system (including surface, underground and coastal waters) as well as ecosystems of the Drin Basin;*
- (ii) Establish conditions for a sustainable use of water and other natural resources;*
- (iii) Develop cooperation and measures to minimise flooding especially in the lower parts of the Drin Basin;*
- (iv) Improve management and appropriate disposal of solid wastes;*
- (v) Decrease nutrient pollution deriving from untreated or poorly treated wastewater discharges and unsustainable agricultural practices;*
- (vi) Decrease pollution from hazardous substances such as heavy metals and pesticides;*
- (vii) Minimise effects of hydro-morphologic interventions that alter the nature of the hydrologic system and the supported ecosystems, resulting in their deterioration.”*

## 2. STRATEGY

### *2.1 Consistency with country and/or regional priorities and country ownership of the project.*

92. At the national level, in all project countries some steps are taken for principles of sustainability and environmental concerns to be integrated in the overall development policies. Such principles are increasingly included in legislative and planning documents and some mechanisms for integrating the environment into other policies are set, mainly at strategic document level. Importantly, steps have been made over recent years towards the alignment with the EU environmental legislation. A number of framework laws as well as some secondary legislation have been prepared and adopted covering both horizontal and sectoral issues i.e. environment and natural resources including water resources management, nature protection, pollution, waste management, strategic environmental assessment (SEA), environmental impact assessment (EIA), Integrated Environmental Permit issuing system, public participation etc.

*On the ground implementation of the reforms and implementation and enforcement of new laws are, however, still lagging behind.*

93. With regard to water resources, although there are related legal provisions, actual management is not practiced yet at the level of catchments areas or geographical/reference areas defined using characteristics such as ecological integrity.

94. The reasons are manifold. There are cases that the new laws aiming to incorporate EU Directives in the legal framework of the countries do not transpose all related obligations. In some cases even new laws lack fundamental elements such as definitions compliant with EU Directives requirements. Many of the new horizontal laws are framework laws and require a number of specific and detailed subsidiary laws and regulations in order to make them applicable and enforceable in practice; some steps regarding the preparation and adoption of secondary legislation have been made.

95. The sectoral structure of governments and the fragmented and/or overlapping responsibilities among not well coordinated institutions, with limited human and financial capacities, are additional factors. The overall administrative capacity of the institutional framework for basin management is low despite the on-going reforms and the assistance provided by international development partners. The environmental and natural resources planning, administration and monitoring capacities, in particular in the water sector, need to be significantly strengthened to implement the EU *acquis communautaire*. Reforms have started not so long ago and inherited conditions of the past e.g. long transition period of the countries towards a market based economy, limited social cohesion etc. as The current difficult economic conditions, need also to be taken into account.

96. Nevertheless, while making this analysis one has to keep in mind that even the European Union member states, although much ahead, are still struggling with similar issues.

97. Overall, the strategic policy documents and the legislation adopted constitute a significant effort made by the countries *to adopt/approximate* to the EU *acquis*, including its provisions on shared water resources management. *The transposition of the EU Directives should result in the Drin riparian countries establishing gradually a -in principle- harmonized legal framework for natural resources management. This facilitates -in principle- efforts for transboundary cooperation in the management of shared waters but it doesn't necessarily enable it due to the (i) aforementioned low administrative capacities; (ii) the lack of secondary legislation that will render the framework laws "implementable" and (iii) the lack of coordination and agreement in the setting of standards included in the secondary legislation.*

98. Hence, the current efforts at the policy and legislative levels do not manage to institutionalize and adequately address the integrated transboundary basin-wide approach which is indispensable, particularly in the case of the complex Drin Basin, for the sustainable management of water resources and for the protection of the integrity of ecosystems and of the services they provide.

99. In this regard and considering the state of basin management in the Drin Riparians, the enhancement of transboundary cooperation, and the strengthening of national river basin management systems should advance in parallel; strengthening the latter should lead to the enhancement of the former, and vice-versa.

100. Aware of the shortcomings in terms of transboundary institutions and of the opportunities offered towards improved natural resources management at the national level, the countries have expressed their desire to strengthen transboundary cooperation and for this purpose entered into an agreement, the 2011 Drin Basin MoU (see below).

101. The present project responds to the stated priorities set forth in the Drin MoU and the individual natural resources management needs at national level. It aims at fostering the joint, transboundary and integrated management

of the Drin River Basin, assisting to overcome the present fragmented approaches and diverse administrative and legal frameworks.

102. *In doing so, the project will be instrumental in facilitating the process of actual and on the ground implementation of the new national environmental laws and policies and the enhancement of the management frameworks, particularly at the basin level.*

103. An outline of the status of key parameters for environmental and water management in the three project beneficiary countries (Albania, FYR Macedonia and Montenegro) is provided herewith:

## **Albania**

104. *The approximation process is governed by the Stabilisation and Association agreement and the relevant Action Plan for Approximation of Environmental Legislation (2012-2015). There is a National Strategy that envisages joining the European Union in 2020.* The National Plan for the Implementation of the Stabilization and Association Agreement is the main reference instrument for the political, economic, legal and institutional reforms; it is considered an integral part of the National Strategy for Development and Integration 2007-2013 (NSDI), adopted by the Council of Ministers in March 2008. According to the NSDI, the following are among the strategic goals of the country in the field of environmental management: "...Enforcement of environmental legislation by strengthening of the Regional Environment Agencies and inspectorates, improvements in the permitting system" and "...Management of environmental resources through a clear command and control legal framework implemented through a well monitored and enforced permit system. Areas to be targeted are mineral resources, protected zones, soil, flora and fauna protection, water resources and water rights (notably a planning system and the strengthening of river basin authorities) ...". Furthermore, the NSDI provides the basis for the strategic planning in the field of water and sanitation and water resources management and protection.

105. Overall, there have been some positive legislative developments in most environmental and natural resources aspects, but implementation and enforcement remain weak due to lack of financial resources, lack of awareness in the administrative system, business and society in general and a weak judicial system. In addition, environmental monitoring across all sectors is weak and inconsistent. There is a need for a clear division of responsibilities between different administrative bodies as well as for inter-institutional coordination.

### Basin and Water Management

106. The Water Management National Strategy of 2004 is not harmonized with the requirements set in the EU WFD and the EU Groundwater Directive and it is only partly harmonized with other sectoral strategies. Lack of integration is particularly evident with the energy sector; the main focus of the Ministry of Energy and Industry has been the production of hydropower without consideration of its impacts on other sectors using water.

107. The new Law on Integrated Management of Water Resources (2012) establishes the structures and the regulatory framework regarding water resources management; nevertheless it does not address issues of coordination among the responsible institutions at the national and the local levels. It also fails to establish a clear framework related to balancing water uses, and water quality monitoring. There is no river basin management plan (RBMP) developed yet.

108. Albania has 6 river basin districts and river basin agencies, a National Water Council and 6 river basin councils, but the river basin agencies are severely understaffed and the National Water Council last met in 2006.

109. The National Water Council under the Prime Minister is responsible for all water management issues; the Ministry of Environment forms the Acting Secretariat of the Council. A World Bank technical cooperation project that started in 2012 will assist the Ministry in establishing a new strategy on IWRM, 2 river basin management plans (Drin and Semani, with priority for the Drin river basin – the latter supported by Sida) and a cadastre on water uses and recharge. The time line of that exercise will be approximately 5 years. The project will be implemented with a strong capacity building component and a learning-by-doing approach. It is envisaged to slowly extend the capacity of the relevant River Basin Agencies during the capacity building process and to revive the relevant river basin councils. Once completed, the exercise can be scaled up to the remaining 4 river basins. **Actions for the preparation of the river basin management Plan for the part of the Drin that extends in Albania has been initiated; a call of interest was lunched by the Ministry of Environment of Albania in May 2014 aiming to develop a shortlist of consulting firms.**

110. Some monitoring of water quantity and quality exists but is of insufficient geographic coverage. Mainly physical-chemical parameters are measured, the measurement of toxic parameters is limited and no biological monitoring is taking place. Improvements are foreseen under different technical cooperation projects, among others the aforementioned WB project, the regional GIZ climate change project and EU funded projects.

111. Some data for the preparation of river basin management plans is available. Improvements are necessary with regard in particular groundwater, water quality, water uses (by lack of cadastre) and general statistical information, which is usually not aggregated at the river basin level, but rather at county (administrative division) level. Efforts for the rehabilitation of the abandoned and destructed irrigation infrastructure in the country are on-going. Increasing agricultural and agro-processing production by, among others, improving irrigation infrastructure and strengthening water resource governing bodies has been among the strategic choices of Albania.

#### Waste Management

112. The existent legal framework is aligned with the EU directives and other international obligations (Bazel Convention). A strategy and an action plan for waste management have been prepared. Implementation and enforcement are at a very early stage while investment levels need to increase considerably.

#### Nature Protection

113. There has been some progress regarding nature protection in recent years. Transposition of the related EU legislation is advancing. Initial preparations are being made for the establishment of the NATURA 2000 network and the accession to key multilateral agreements. The total coverage of protected areas increased from 5.8% in 2005 to 13.08% of the territory of the country in 2010. However, enforcement and, in particular, management of the protected areas need considerable improvement.

#### Forestry

114. There is a six-level grading system regarding levels of protection and restrictions imposed. Forest areas within protected zones are separately classified and protected; environmental permits are required for any activity not explicitly permitted or prohibited under the law. Private forests within designated protected areas can only be used in accordance with an approved management plan. According to the law, logging, collection of secondary forest products, access to forests for recreation, health, and general occupation require permission by the authorities. Nevertheless, enforcement is limited due to lack of institutional and administrative capacity.

#### Fisheries

115. FMOs manage fishing activities and stocks, and issue fishing licenses. FMOs have been established in Prespa, Ohrid and Shkoder Lakes; as regards Drin, a FMO operational since 2009 manages fishing in Fierza and Koman artificial Lakes. Fishing is not very intense in Vau i Dejes Lake. Law enforcement is minimal due to insufficient human resources -fishing inspectors- and the lack of financial resources and equipment.

### **FYR Macedonia**

116. The approximation process is governed by the Stabilisation and association agreement of 2001 and the relevant Action Plan for Approximation of Environmental Legislation. FYR Macedonia is an EU candidate country since 2005 and there is a high level accession dialogue with Skopje since March 2012.

The country has made significant progress the past years with regard to the transposition of the EU *acquis* in the field of environment. Significant efforts are however needed to implement the legislation, especially in the areas of water management, industrial pollution control, nature protection and climate change. Investments continue to be extremely low in relation to needs, especially in the waste and water sectors. As regards overall administrative capacity for implementing and enforcing environmental legislation, this is still far from being sufficient at both central and local levels. Coordination among administrative bodies responsible for environment-related issues is not yet effective.

#### Basin and Water management

117. An important aspect of basin management is that the country has a Water Strategy since 2012. The Strategy is very comprehensive and covers all aspects of water and river basin management.

118. The implementation of the new Law on Waters that transposes the EU WFD was initiated in January 2011 with a delay of two years. The law properly arranges for most aspects of basin management. With regard to pending issues: The clarification of the role of the river basin management plan as the basic policy and planning document that governs water management needs to be addressed by amending the current legislation. Notions introduced by the EU WFD i.e. full cost recovery and cost-effectiveness should be translated in specific regulations adjusted in the realities of the country taking into account the concept of affordability. The water rights sub-legislation, necessary for the implementation of the River Basin Management Plans is in the process of adoption; when finished it will lead also to the full transposition of the Urban Waste Water Directive. No major progress is made instead towards implementation of the Urban Waste Water Directive, planned for January 2026.

119. Further steps were taken towards drafting river basin management plans, and the protection and restoration of water resources. River basin management districts have been established, the Water Directorate in the Ministry of Environment and Physical Planning (MEPP) was strengthened and departments in the river basins established (these were already in place before the Water Law was enacted) having the role of river basin agencies. Nevertheless, the

river basin agencies are not yet operational. The management plan for the Prespa basin was prepared in 2011. Complete plans for the basins districts, including financial-economic analysis, public consultations and consultations with transboundary partners are still pending.

120. There is a clear environmental and data processing strategy; not all provisions have been implemented though, due to lack of funds. Data for the preparation of river basin management plans is somewhat available but improvements are necessary. This concerns in particular groundwater and water quality. Biological monitoring of the status of surface waters does not take place routinely.

#### Waste management

121. In the area of waste management, alignment with the *acquis* continued with the adoption of implementing legislation. Steps were taken to set up an integrated regional waste management system. Investments in this area are far from sufficient and need to be increased with a focus on waste separation and recycling. A system to deal with data collection, registration and reporting is still not in place.

#### Nature Protection

122. Protected areas' management regulations, categorization of allowed and forbidden activities, licensing procedures for the use of protected species, data management etc. are included in the Law on Environment and the Law on Nature Protection. Requirements for public consultation with stakeholders are still not properly applied. All protected areas are required to have a 10-year management plan approved by the MEPP, within 2 years from the time of proclamation. The National Parks Pelister, Galicica and Mavrovo (the major protected areas in the Drin basin in the country) have management plans. The situation is far less satisfactory for other protected areas. The Management Plans regulate hunting activities as well as the borders of hunting grounds. Illegal hunting is not an issue in the Pelister and Galicica National Parks which are under strict protection and control in this regard.

#### Forestry

123. Logging is regulated; the land must be left in good condition for regeneration. Reforestation is widely exercised. General/national as well as special forest management plans are prepared by the Ministry of Agriculture Forestry and Water Economy (MAFWE) which also performs on-site inspections and issue licenses. Forest management has been successful, in most of the cases, in maintaining forest cover.

#### Fisheries

124. Licenses for concessions for commercial fishing companies and sport fishing associations (SFAs), as well permits for fish farms installation and operation are issued by the MAFWE. The fishing limits in the lakes are set through these. As for the rivers, according to FAO (2005), there are no official limits in terms of Total Allowable Catch.

### **Montenegro**

125. The approximation process governed by the Stabilisation and Association Agreement of 2001 and the relevant Action Plan for Approximation of Environmental Legislation. Montenegro is an EU candidate country since 2010 and accession negotiations have started in June 2012.

While the alignment of national policies and legislation with the EU *acquis* has been accelerated during the last years, implementation in several fields, including environment, lags behind. Consolidation of environmental competencies and effective inter-institutional cooperation and coordination mechanisms are yet to be established especially in areas of water management. The delegation of several competencies in relation to environment and natural resources management to local authorities have added to the institutional complexity; coordination with ministries needs to be improved and so are capacities at local level.

#### Basin and Water Management

126. Water resources management is governed by the 2007 Water Law; alignment with the EU WFD and its daughter Directives is in a relatively advanced stage (about 65% of all provisions are transposed - the expected date of complete transposition is end of 2016). However, the date for the full implementation of the Directive has not been determined yet. The law properly arranges for most aspects of river basin management, including water property, river basin districts, water master plan, river basin management plans, public participation, water use regulation, water protection and institutional aspects.

127. Planning is thought to be on river basin scale, administration is central at the Ministry level. At this moment there is an overlap of responsibilities with regard to the coordination role over water resources management between the Ministry of Agriculture and Rural Development (MARD) -the water "line ministry"- that this largely responsible for water quantity issues (including flooding) and the Ministry of Tourism and Sustainable Development that is responsible for water quality protection and monitoring.

128. Implementation and enforcement of the water legislation needs to be substantially improved, inter alia, through significant investments for wastewater collection/ treatment and drinking water supply, and by ensuring clear division of responsibilities and coherence between the actions of all authorities involved in water management issues.

129. Two River Basin Districts (RBDs) have been established as the basic spatial units for water management: the Black Sea RBD and the Adriatic Sea RBD (includes the Shkoder/Skadar and Buna/Bojana watersheds along with their tributaries). River basin management plans for each one of the RBDs should be prepared, for a period of six years, within nine years from the date that the Law on Water entered into force (i.e. until 2016). Nevertheless, there are no concrete steps taken to prepare a National Master Water Plan, or river basin management plans. The RBD authorities were established in 2011, sitting within the MARD. A plan for reducing water pollution as prescribed by the Law on Water was envisaged by the MARD for 2009, but it has not been developed.

130. Monitoring of water quantity and quality exists; the network is adequate but does not measure all required parameters (measurement of toxic parameters is limited). Data for the preparation of river basin management plans is largely available, but improvements are needed.

#### Waste Management

131. Waste management has been a problematic area but there have been major steps forward the past few years, especially for the management of urban waste; situation is not good in the rural areas. An operational integrated waste management system has not been established. Alignment with the European standards is not satisfactory. Financial and administrative limitations have delayed the implementation of the Waste Management Law since 2008.

#### Nature protection

132. There has been progress with regard to the transposition of EU legislation; nevertheless, transposition of the essential provisions from Wild Birds Directive and the Habitats Directive has not been done. Currently 20.75% of the territory is reported as being under protection status. There are six categories set to characterize the protected natural resources. Preparations for the establishment of the NATURA 2000 network have been initiated.

#### Forestry

133. The National Forestry Policy (2008) defines policy objectives and principles (including ecosystem based approach, sustainability, precautionary principle) regarding forest management. Implementation needs to be strengthened. Addressing the issue of illegal logging is of crucial importance and so is the development of a system of concessions enabling a controlled use of forest resources by the local population.

#### Fisheries

134. According to the Law on Freshwater Fishery, commercial fishing may be practiced in designated fishing areas while sports-recreational fishing may be done in all fishing waters (rivers and lakes). The capacity of the fisheries' administration is very limited; inspection and control are weak. There is a need to improve the collection of data with regard to the fishing fleet, catches, landings and biological state of fish stocks. A joint (Albania and Montenegro) Lake Management Strategy including National Fishery Management Plans for each country has been completed and adopted within the framework of the GEF/WB Lake Shkodra/Skadar Integrated Ecosystem Management (LSIEM) Project.

### ***Level of Public Participation and Stakeholders Involvement in Project countries***

135. Although there has been progress over the recent years, the level of public participation in the decision making in each country is still inadequate. Efforts are being made both at the policy and legislative levels, with the countries incorporating public participation provisions also in laws that touch upon natural resources management as well as at the level of implementation through specific projects and management activities. FYR Macedonia seems to be the most advanced country in this respect.

136. In Albania, public participation is mentioned in almost all strategic documents including the National Strategy for Development and Integration (2007-2013). The Laws on "Environmental Protection" and on "Environmental Impact Assessment" include relevant provisions. The first determines the role of non-profit organizations and provides for: public participation in environmental decision-making; the involvement of the public and stakeholders in environmental protection and in the development and approval of the local environmental action plans and programs; the access of the public to information; etc. As for the use of water resources *per se* an example of a legal tool regulating issues of stakeholders involvement is the Law "On irrigation and drainage" (1999, amended in 2008), which include provisions for and regulates the establishment and functioning of associations of water users. Nevertheless, not all the aforementioned provisions are implemented. Environmental civil society in Albania is growing in quantity and quality - more than 100 groups are registered NGOs all over the country (as for 2006). There are still issues *related to* the capacity of the majority of these. In addition, Albanian NGOs developed partnerships with other sectors for some major public advocacy and public pressure campaigns, including importing waste, and

energy investments.

137. In FYR Macedonia, the situation regarding public participation seems to be more satisfactory. The Law on Environment provides for public participation in environmental decision making while according to the EIA related legislation the stakeholders should be included in all steps of the process. In relation to public information, the Ministry of Environment and Physical Planning (MEPP) has developed an Environmental Awareness Strategy and an Environmental Communication Strategy. The MEPP seems to actively support public awareness and involvement. The Public Communication Office functioning within the MEPP provides easy access to environmental information. It carries out practical application of Aarhus Convention principles; a number of activities have been implemented the past years. It is also fostering active cooperation with civil society and NGOs and assists in the raising of their capacities through their involvement in the activities and events, such as public awareness campaigns, that the MEPP organizes. Strategies prepared are subject to public consultation. The implementation of the Law on Waters, which specifically provides for basin stakeholders involvement in the management of water resources will further enhance public participation at the basin/local level.

138. In Montenegro, the 2007 Constitution and the 2008 Law on Environment provide legal bases for access to information and public participation in decision-making. The government bodies have to make information available to all interested parties upon request. The 2005 “Law on Free Access to Information” regulates access to information. The procedures of public information and participation were developed further through the harmonization of the related national legislation with this of the EU. Since 2002, the NGO sector has been developing rapidly in Montenegro – approximately 200 environmental NGOs are registered in the country. Only few, though, have demonstrated the organizational and managerial capability and financial viability for implementing environmental activities and projects. NGOs are playing an increasingly significant role in areas such as national environmental and social policy development, decision-making, raising awareness, and promoting sustainable development principles. They have been involved in the preparation of policies and strategic documents; as an example the National Strategy for Sustainable Development was prepared after wide consultation with the stakeholders with the NGOs.

139. Public participation and stakeholders involvement in the Drin sub-basins follows the general mixed trend that exists at national level. Positive examples can be found. Involvement of the local communities in the management of the protected areas in FYR Macedonia is practiced through the participation of a representative of the local authorities in the management board. Nevertheless, there are also examples suggesting that stakeholder involvement at the basin/local level have been inadequate or practiced in a fragmented way. For instance, in Montenegro, stakeholders are not involved in the management structures of the Lake Skadar National park.

### ***Management at transboundary level***

140. Official cooperation for the management of some of the Lakes sub-basins shared among/between the countries of focus has been initiated and is in different stages of development. These cooperation efforts were initiated mainly within the framework of externally funded (GEF, UN, bilateral donors etc.) projects or initiatives of stakeholders and NGOs. Relevant Memoranda of Understanding and Agreements have been signed. The current frameworks for the management of the sub-watersheds of the Prespa, Ohrid, Drin, Shkoder and Buna need to be further strengthened, in addition to the national also at the transboundary level.

141. *Lake Prespa Basin* is the oldest case. It was the first shared lake in the SEE to be declared as transboundary protected area by the Prime Ministers of the riparian countries (2000) and an informal joint body, the Prespa Park Coordination Committee (PPMC), had been functioning facilitating a level of joint action. These have set the basis for enhanced coordinated/cooperative management; the GEF “Integrated Ecosystem Management in the Prespa Lakes Basin of Albania, FYR Macedonia and Greece” Project (ended in June 2012) further contributed towards this cause. An “*Agreement on the Protection and Sustainable Development of the Prespa Park Area*” was signed by the three riparian states and the EU Commission (Prespa, 2 February 2010). The European Commission is a signatory Party. The Agreement has been ratified by Albania and FYR Macedonia. Since the end of Prespa GEF project there are significant steps for follow up activities in FYR Macedonia and Albania among others with support from Switzerland and Germany<sup>5</sup>.

142. *In Lake Ohrid basin*, the GEF Lake Ohrid Conservation Programme (1998 – 2004) and the political commitment ever since had as an outcome the signing of an Agreement (2004) *for the management of the lake. The*

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<sup>5</sup> A management plan in accordance to the EU WFD was prepared for the part of the Prespa Basin extending in FYR Macedonia in the framework of the GEF project in the area. Part of the measures identified is implemented with the assistance of the Swiss Cooperation Agency. KfW has been providing support for the management of the National Parks in Albania. Currently, in cooperation with the MAVA foundation are leading efforts for the establishment of a trust fund used for activities for the management of Prespa.

*Lake Ohrid Watershed Committee* was established in November 2005 empowered with legal authority in Albania and FYR Macedonia, but much effort is still needed until actual cooperative management is reached.

143. *With regard to Lake Skadar/Shkoder*, the Albanian and Montenegrin ministries responsible for environmental protection signed the “*Agreement for the Protection and Sustainable Development of the Skadar/Shkoder Lake and its Watershed*” in 2008. The full size GEF supported “*Lake Skadar/Shkoder Integrated Ecosystem Management Project*” was initiated in 2008 (to end in September 2012) assisting in the enhancement of cooperation between the two countries towards the sustainable use of the natural resources of the lake and its watershed. *The Skadar/Shkodra Lake Commission commenced work in 2009; it should over time to become a legally-based Commission for transboundary cooperation in the Lake.*

144. Transboundary cooperation on the *Buna/Bojana and Drin rivers* (including its tributaries, Black Drin and White Drin) is limited, if compared to this for the lakes. In Buna/Bojana, an integrated ICZM and IWRM plan at transboundary level will be the outcome of the cooperation between PAP/RAC, GWP-Med and UNESCO for the implementation of a pilot activity in the framework of the GEF supported MedPartnership Project. The plan will be prepared in the first half of 2014.

145. Transboundary cooperation with regard to the extended **Drin River Basin** has been absent until recently. Efforts for the enhancement of cooperation have been initiated under the “*Drin Dialogue*” initiative<sup>6</sup> coordinated by UNECE and GWP-Med and financed by the Swedish EPA aiming to develop, with the participation of the stakeholders, a Strategic Shared Vision for the management of the Drin Basin. The “*Drin Core Group*” (DCG)<sup>7</sup> was established as the steering committee of the initiative and an informal body to provide a forum for coordination among the Riparians. Actions under the Drin Dialogue have led to the adoption of the “*Ministerial Declaration on the management of the extended Drin Basin*”. The Ministers expressed a strong political will to collaborate for the joint management of the Drin Basin.

146. Political will was translated into the signing of a **Memorandum of Understanding** by the Ministers of the water and environment management competent ministries of the Riparians and their representatives (Drin MoU - Tirana, 25 November 2011 - see Annex 1) that included as its objective the Strategic Shared Vision developed through the Drin Dialogue: “*to promote joint action for the coordinated integrated management of the shared water resources in the Drin Basin, as a means to safeguard and restore to the extent possible the ecosystems and the services they provide, and to promote sustainable development across the Drin Basin.*”

#### *The MoU for the Management of the Extended Transboundary Drin Basin (Drin MoU)*

147. The Drin MoU<sup>8</sup> identifies short-, medium- and long-term actions to address problems identified as affecting sustainable development in the entire Drin Basin or in one or more of the Sub-Basins. *The Drin MoU provides the political framework for and defines the context of the cooperation among the Drin Riparians.*

#### *Institutional Structure for the implementation of the Drin MoU*

148. The institutional structure for the implementation of the Drin MoU was established in 2012<sup>9</sup>. This includes the following Drin MoU Bodies:

The **Meetings of the Parties**; according to Article 6 of the MoU “the Ministers responsible for the management of water resources and/or environment of the five Parties shall meet annually to review progress in the implementation of the present MoU and its provisions”. The first Meeting of the Parties (MoP) was organized on 28 May 2013 in Tirana. The **Drin Core Group**<sup>10</sup>, established through the Drin Dialogue, was given the mandate to coordinate actions for the implementation of the MoU. The DCG comprises of representatives of the (i) competent Ministries of the Riparians, (ii) the existing joint structures<sup>11</sup>, (iii) UNECE, (iv) GWP-Med, and (v) MIO-ECSDE. According to the MoU, “*the*

<sup>6</sup> The development of the Shared Vision was the outcome of a structured multi-stakeholders consultation process at the national and transboundary levels, the so-called Drin Dialogue (2009-2011), supported by the UN Economic Commission for Europe (UNECE) and the Global Water Partnership – Mediterranean (GWP-Med). The activities under the Drin Dialogue were financed primarily by the Swedish Environmental Protection Agency, but also with contributions from UNECE, GWP-Med, the German Government and UNDP. The initiative finds its routes in activities implemented in the framework of the Petersberg Phase II / Athens Declaration Process and GEF IW:LEARN.

<sup>7</sup> The synthesis of the DCG remains the same since its establishment while its mandate has been enhanced under the Drin Memorandum of Understanding – see below in the document under “The MoU for the Management of the Extended Transboundary Drin Basin (Drin MoU)”.

<sup>8</sup> <http://www.twrm-med.net/southeastern-europe/southeastern-europe/supported-processes-and-projects/drin-river-basin/the-memorandum-of-understanding-for-the-management-of-the-drin-basin>

<sup>9</sup> All bodies are operational apart from the Expert Working Groups due to the lack of financing.

<sup>10</sup> The Terms of reference of the DCG have been prepared and approved by the 7th DCG Meeting, Tirana, 20 November 2012.

<sup>11</sup> Prespa Park Coordination Committee; Lake Ohrid Watershed Committee; Skadar/Shkoder Lake Management Commission.

*decisions of the DCG will be taken by the representatives of the Parties (i.e. the Drin Riparians) on the basis of consensus*". Not participating in the decision making, the members of the DCG that are not Parties to the Drin MoU contribute in the meetings, practically, as advisors of the Drin Riparians. The existing -in the Lakes sub-basins- joint bodies participate in addition with the aim to coordinate action at the Drin Basin and sub-basin level. There are two ordinary DCG meetings per year. Nine DCG meetings -five since the signing of the Drin MoU- have been organized in total.

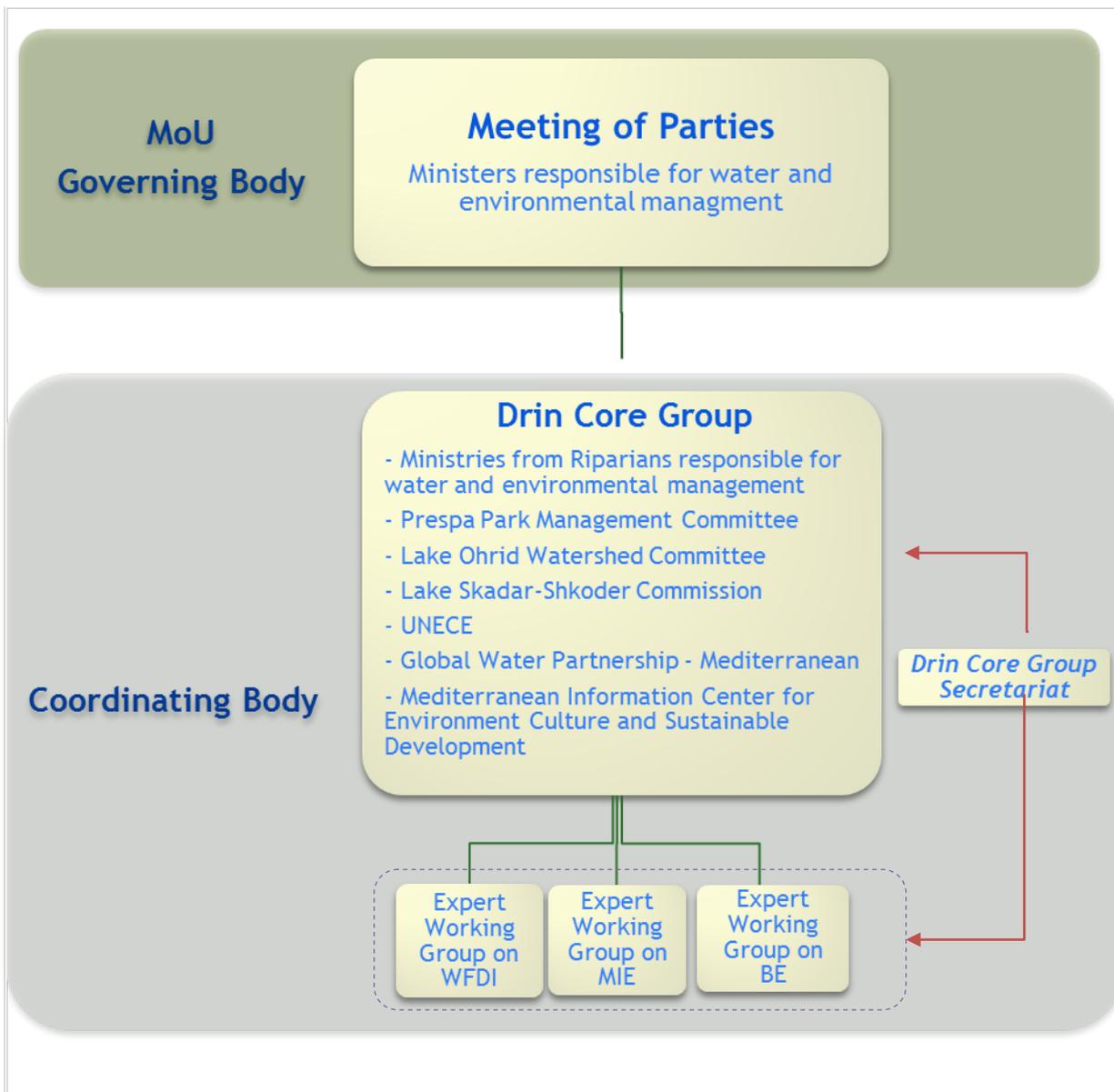
The **DCG Secretariat** provides technical and administrative support to the DCG assisting its day-to-day operation; GWP-Med serves by appointment of the Parties through the MoU as the Secretariat. This among others entails the following (the list is not exhaustive):

Day to day coordination of activities implemented under the DCG;

- Coordination of activities for the implementation of the Drin Action Plan (see below under the "The Action Plan for the implementation of the Drin MoU");
- Preparation of technical reports;
- Communication with third parties for the realization of the objectives of the DCG;
- Organization of the meeting of the Parties, the DCG meetings and the meetings of the Expert Working Groups (EWG) i.e. preparation of background documentation and reports; logistical arrangements etc.
- In addition the Secretariat works in cooperation with UNECE to:
- Facilitate the implementation of the Drin MoU;
- Explore opportunities for cooperation with international institutions, organizations and projects to support activities for the Implementation of the Drin MoU and Action Plan;
- Raise funds for the operation of the DCG and the EWGs;
- Raise awareness on the Drin MoU and the Drin Core Group, their objectives and functions among national and international stakeholders.

**Three Expert Working Groups** have been established to assist the DCG in its work:

- Water Framework Directive implementation EWG.
- Monitoring and Information exchange EWG.
- Biodiversity and Ecosystem EWG.



**Figure 2. Drin MoU Bodies. Institutional Structure for the Implementation of the Drin MoU**

### The Action Plan for the implementation of the Drin MoU

149. The Drin Action Plan<sup>12</sup> (DAP) was prepared to operationalize the implementation of the Drin MoU. It is not a “static document”; it is subject to updates and amendments in accordance to the decisions of the Meeting of the Parties to the Drin MoU and the DCG in response to developments as an outcome of the work for the implementation of the Drin MoU. It is structured around 6 Actions:

1. Enhancement of coordination mechanisms among the Parties.
2. Enhancement of the knowledge basis about the Drin Basin.
3. Improvement of information exchange through the establishment of a system for regular exchange of relevant information among the competent authorities of each Party.
4. Enhancement of cooperation in the field of flood risk preparedness, management and mutual support.
5. Institutional strengthening in the field of integrated water resources management.
6. Promotion of public participation and stakeholders engagement.

<sup>12</sup> Approved by the 6<sup>th</sup> DCG meeting (Ohrid, 30 May 2012) and endorsed by the 1<sup>st</sup> Meeting of the Parties (Ministerial meeting that took place in Tirana, 28 May 2013). More information as well as the Action Plan can be found at <http://www.twrm-med.net/southeastern-europe/supported-processes-and-projects/drin-river-basin/the-action-plan-for-the-implementation-of-the-drin-mou>

The project was designed to be compatible with the DAP and contribute in its implementation.

The Drin Core Group guide the implementation of the DAP; this body is given the responsibility to coordinate efforts to secure the financial resources. Two main actions are undertaken for creating the conditions and obtaining the resources for the implementation of the DAP:

1) *Coordination with donors and international organizations active in the Drin Basin to facilitate the gradual alignment of the activities they support with the DAP.* In this regard UNECE and GWP-Med are in contact with the World Bank office in Tirana that coordinates activities for the preparation of a River Basin Management Plan in the Albanian Drin Basin. Related activities are supported by the Sida<sup>13</sup> and implemented by the World Bank as part of the Water Resources and Irrigation Project that the latter implements in Albania<sup>14</sup>. Additionally, GIZ is participating as an observer in the DCG in an effort to coordinate with the on-going projects aiming the sustainable management of the three lakes of the Drin Basin (see Box 2 below).

2) *Coordination with donors and international organizations to secure the financing of activities that will contribute in the implementation of the DAP.* In this regard GIZ has financed a number of activities within 2013 and 2014 under DAP's Action 6: Promotion of public participation and stakeholders engagement.

### **Box 2. Projects in the Drin Basin supported by GIZ**

Two regional projects in the Drin River Basin are supported and coordinated by the GIZ and implemented in cooperation with the competent ministries in the beneficiary Drin Riparians:

a. Conservation and Sustainable Use of Biodiversity at Lakes Prespa, Ohrid and Shkodra/Skadar Project; the first phase was concluded in the end of 2013. The project aims to improve the implementation of legislation, regulations and management plans for the conservation and sustainable use of biodiversity at lakes Prespa, Ohrid and Skadar/Shkoder. The main focal areas cover Fauna and Flora monitoring, Fish monitoring and Fisheries, Wetland Protection and Water Framework Directive and cover a range of activities such as supporting the implementation of EU Habitats and Bird Directives, introducing the European Committee of Standardization (CEN) standards for fish and fisheries monitoring, raising awareness of wetland biodiversity and conducting Transboundary monitoring of chemical, physico-chemical and biological elements, respectively. A second phase has been prepared and will be initiated within 2014. The content of the Project is coordinated with the content of the GIZ supported activity; the outputs/outcomes of the latter will be used for the preparation of the TDA (Output 1.1), and the development of the Ohrid management plan (Output 11).

b. The Climate Change Adaptation Programme in Western Balkans (01/2012-12/2018) aims to improve adaptation to climate change and it includes among others a range of activities in the fields of flood and drought risk management. Specifically, main components of the program include the Drin-Buna Flood Early warning system, climate change adaptation strategies, local flood and drought management plans and implementation of defined measures, regional water resources management and climate change adaptation in urban areas. The budget of the project is 3,500,000EUR. The content of the Project is coordinated with the content of the GIZ supported activity; the outputs/outcomes of the latter will be used for the preparation of the Flood Risk Management Plan to be prepared under Output 11.

## **2.2 Consistency with the GEF focal area strategies and strategic programs**

150. The proposed project is fully consistent with the long term goal of the International Waters focal area, i.e.: the promotion of collective management for transboundary water systems and subsequent implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of

<sup>13</sup> Cooperation established between Sida and the executing partners is on-going. The last meeting took place in January 2014 in the office of the Deputy Minister of Environment of Albania that hosted the meeting. There was an agreement to coordinate actions. Furthermore Sida is considering financing activities that will facilitate the "extension" of the GEF Project in Kosovo. Opportunities for a meeting with Sida in the headquarters in Stockholm to further discuss the issue are currently (summer 2014) explored.

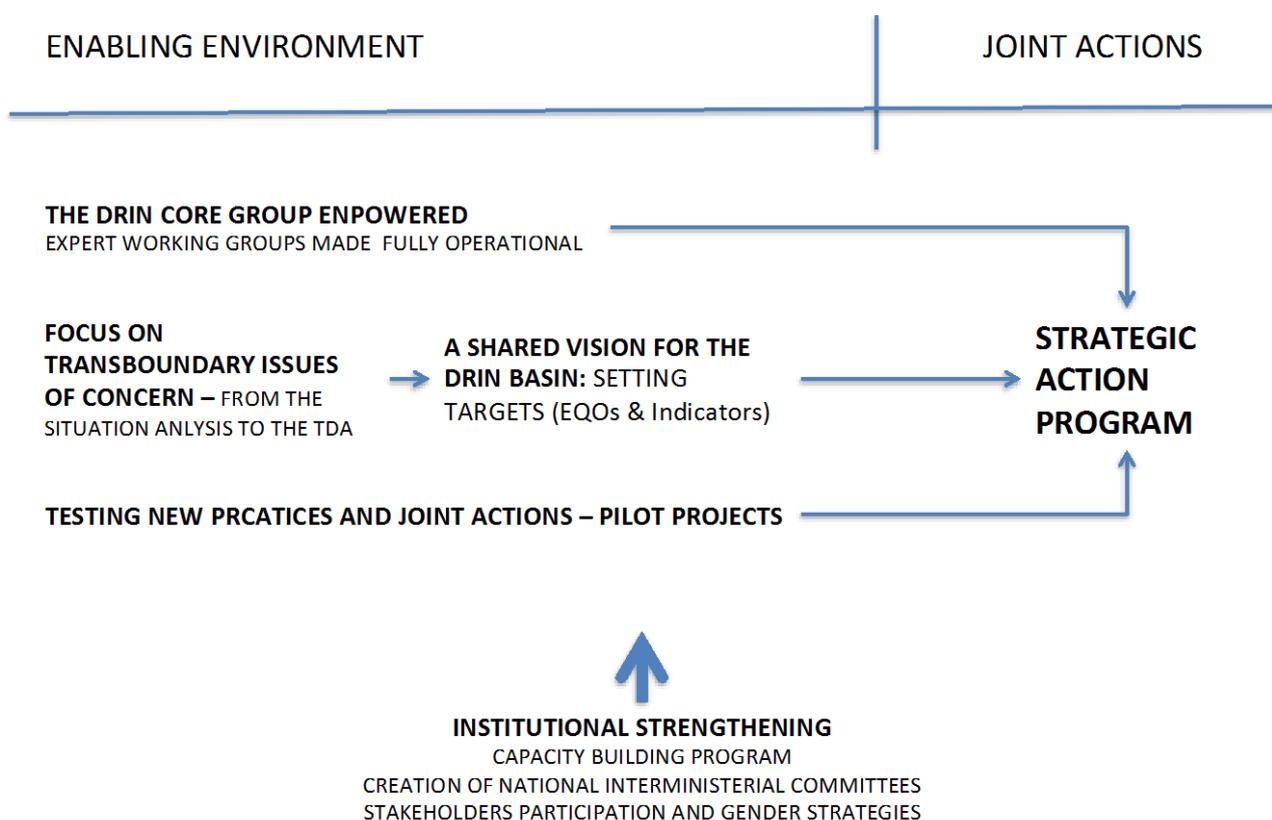
<sup>14</sup>The objectives of the Water Resources and Irrigation Project for Albania are to (i) establish the strategic framework to manage water resources at the national level and in the Drin-Buna and Semani river basins and (ii) improve, in a sustainable manner, the performance of irrigation systems in the project area. The project has 4 components. Dam and Irrigation and Drainage (I&D) systems rehabilitation component will rehabilitate and modernize I&D systems and dam infrastructure. Institutional support for irrigation and drainage; see also <http://www.worldbank.org/projects/P121186/water-resources-irrigation-project?lang=en&tab=overview>

ecosystem services. Its specific objectives fall under Objective 3 of the IW Focal Area: “*Support foundational capacity building ... for ecosystem-based, joint management of transboundary water systems*”, which includes dialogue, capacity building for legal reforms, and potential agreement for improved legal and governance matters at multiple levels from the transboundary to sub-basin, national, and local. Finally, the project, with its consideration of climatic variability and change, role of groundwater, and gender mainstreaming, responds to specific requirements of the GEF IW Strategy.

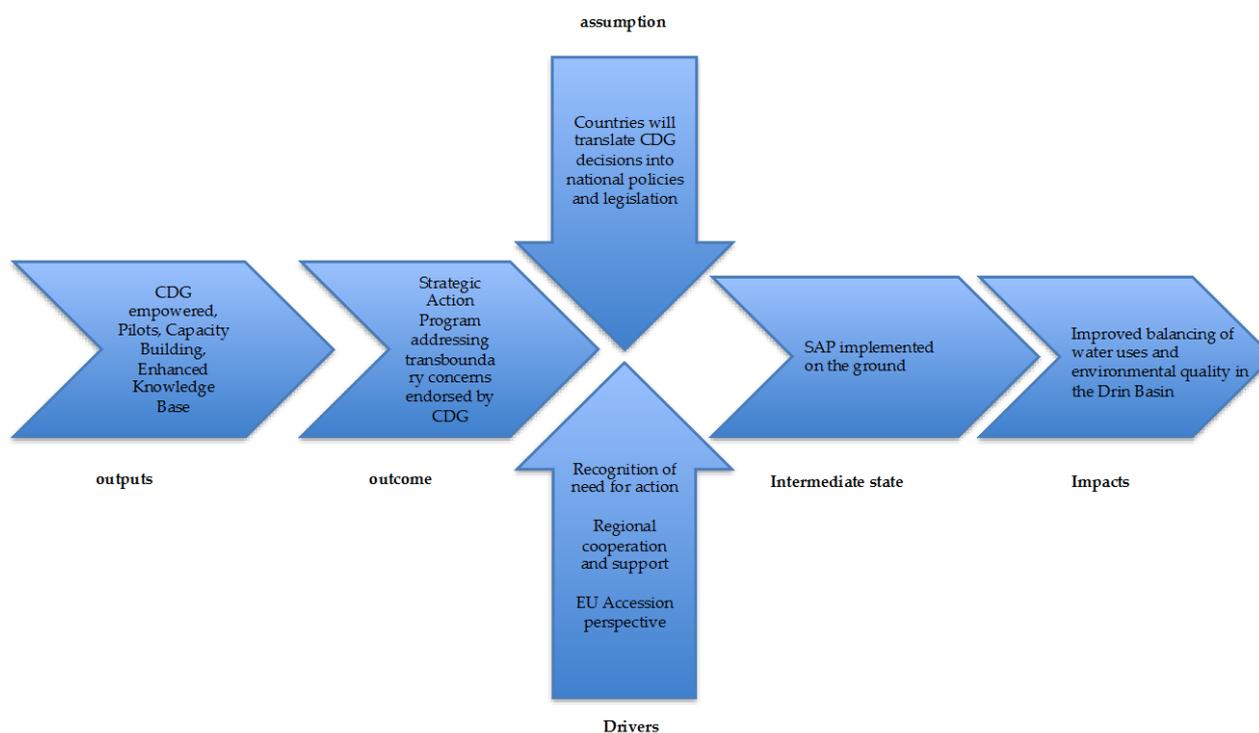
### 2.3 Design principles and strategic considerations

151. To achieve its stated objectives, the project will implement the Transboundary Diagnostic Analysis – Strategic Action Program (TDA-SAP) process, tested successfully in numerous GEF International Waters projects. The TDA-SAP is a consensus building process based on joint fact finding, available science, stakeholder participation aimed at identifying causes of transboundary degradation and reaching agreement on priority interventions.

152. The project is articulated into four components (Strengthening of transboundary management frameworks; Consolidating the knowledge base through pilots and TDA; Agreeing on joint priority actions – SAP; Raising of awareness and promoting participation) and adopts a blend of regional facilitation mechanisms and of country-based on-the-ground demonstrations of good practices and technological solutions. This approach has proven its high effectiveness in a number of International Waters foundational projects.



**Figure 3. Project Design Strategy**



**Figure 4. Application of the Theory of Change to project design.**

The figures above show the architecture, rationale and strategy of project design, and the interactions of the various components.

## 2.4 Project objective, outcomes and outputs/activities

**Project Objective:** *To promote joint management of the shared water resources of the extended transboundary Drin River Basin, including coordination mechanisms among the various sub-basin commissions and committees (Lakes Prespa, Ohrid and Skadar).*

153. The project goal is to foster the joint management of the shared water resources of the extended transboundary Drin River Basin, including coordination mechanisms among the various sub-basin commissions and committees (Lakes Prespa, Ohrid and Skadar). It is expected that this will be achieved by (i) building consensus among countries on key transboundary concerns and drivers of change, including climate variability and change, reached through joint fact finding; (ii) facilitating the agreement on a shared vision and on a program of priority actions deemed necessary to achieve the vision; (iii) strengthening technical and institutional capacities.

### COMPONENT 1. CONSOLIDATING A COMMON KNOWLEDGE BASE

#### **OUTCOME 1: CONSENSUS AMONG COUNTRIES ON KEY TRANSBOUNDARY CONCERNS, INCLUDING CLIMATE CHANGE AND VARIABILITY, REACHED THROUGH JOINT FACT FINDING**

##### **Output 1. Transboundary Diagnostic Analysis (TDA).**

*Activities:*

##### **Preparation of the Transboundary Diagnostic Analysis**

154. The first step of the TDA – SAP process consists of an analysis of priority transboundary environmental problems. What sectoral activities cause the degradation and how serious this is? Which are the actual drivers, causing the degradation? What are the information gaps on the existing environmental state, policy distortions and institutional deficiencies? National environmental documents and plans will inform the responses to the aforementioned questions and will provide inputs for preparing this analysis as well as identifying priorities among environmental concerns. Stakeholder analysis and assessment of the public involvement are additional essential tools so that economic and social aspects will be duly reflected. The analysis of the causes of degradation and the needs for capacity building should also include examination of strategic documents related to basin management.

155. Under this output the TDA process will be undertaken, and the TDA document, including the formulation of critical areas for interventions to be considered during the SAP preparation process, will be elaborated and approved. This process will build upon the extensive assessments carried out as part of the PPG process and consolidated into the 2013 document: “*Situation Analysis – Management of the Extended Drin Basin*” (Annex 2 - an earlier draft was prepared by GWP-Med in 2011 and discussed in the Drin-level Tirana multi-stakeholders Workshop, 25 November 2011, of the Drin Dialogue). This document builds on the “*Status Report Management of the “extended” Transboundary Drin Basin*” prepared for and presented at the Drin-level Tirana multi-stakeholders Workshop, 2008, of the GEF IWLEARN, and uses information already generated through the transboundary diagnostic analysis as well as the socioeconomic studies conducted within the GEF/UNDP “*Integrated Ecosystem Management in the Prespa Lakes Basin*” and of the GEF/World Bank “*Lake Skadar/Shkoder Integrated Ecosystem Management*” Projects. As a result of this preparatory work, conducted by national experts and coordinated by GWP-Med, a basic knowledge of the present physical, environmental and legal aspects, *as well as of the major issues of concern, has been achieved*. A more thorough analysis, including the preparation of a water balance taking into consideration available information regarding socio-economic aspects and the karstic geology of the basin was not *however possible during project preparation due to lack of adequate resources*; available information was scattered among institutions and organizations in the Drin Riparians. Such work would demand the engagement of a team of experts in each country, covering a range of scientific domains, to collect and analyze all available data at national level. *This will be done as part of project implementation.*

156. In order to complete a full-fledged TDA, and reach science based agreement on the main issues of transboundary concern and drivers of change, additional knowledge will be acquired (i) through analysis of the technical work related to basin management, fisheries management, monitoring etc. already done in accordance with the WFD in some sub-basins in the framework of IPA<sup>15</sup>, GIZ (see box 2) and SDC financed projects; (ii) incorporation

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<sup>15</sup> Instrument for Pre-Accession Assistance (IPA); The Instrument for Pre-Accession Assistance (IPA) offers assistance to countries engaged in the accession process to the European Union (EU) for the period 2007-2013. The aim of the IPA is therefore to enhance the efficiency and coherence of aid by means of a single framework in order to strengthen institutional capacity, cross-border cooperation, economic and social development and rural development. Pre-accession assistance supports the stabilisation and association process of candidate countries and potential candidate countries while respecting their specific features and the processes in which they are engaged. [http://europa.eu/legislation\\_summaries/agriculture/enlargement/e50020\\_en.htm](http://europa.eu/legislation_summaries/agriculture/enlargement/e50020_en.htm); [http://ec.europa.eu/regional\\_policy/the\\_funds/ipa/index\\_en.cfm](http://ec.europa.eu/regional_policy/the_funds/ipa/index_en.cfm)

of new information (provided that this will become available to the project) from the GIZ supported projects (see box 2) as well as the Sida supported and World Bank implemented *Water Resources and Irrigation Project in Albania* (see footnote 13 above) and; (ii) through new assessments on the following aspects:

1) In depth Hydrological, Hydro-geological and Environmental Assessment of the Basin, harmonized across riparian countries. This will include various investigations and assessments, including the *use of modelling tools as appropriate, complementary to the 2014 Situation Analysis, particularly in the fields of listed below; in the event of lack of information available to the national institutions, the project will implement field activities for the collection of data in selected areas of paramount ecological importance, or areas that it have already been indicated through the Situation Analysis as problematic:*

- *Freshwater Dependent Ecosystems* -Characterization and assessment of the present state of the water bodies in the Drin Basin in addition to the 3 major lakes that have *already been the object of previous GEF projects*.
- *Karstic Waters* – Karstic complexes, where the distinction between surface and groundwater loses its meaning, and may even become misleading, constitute a large part of the Drin Basin. Special attention will be given to these highly vulnerable waters and to their circulation patterns. Already available information and data will be acquired by the DIKTAS GEF/UNDP project that has been focusing on the karstic hydrogeology in an area that overlaps with the Drin Basin<sup>16</sup>. **UNESCO has been the executing partner of the DIKTAS project; its involvement and contribution of its experience in conjunctive surface/groundwater management will be solicited.**
- *Climate Variability and Change* - The countries of the Mediterranean recognize that with current projections<sup>17</sup> there will be a number of climate impacts, including increased summer temperatures and decreased annual precipitation, increased water -related  
These future scenarios will have to be taken into consideration as part of the TDA. Links will be established with the GEF/UNEP project “Integration of climatic variability and change into national strategies to implement the ICZM Protocol in the Mediterranean”.
- *The Coastal Zone and Deltas* - Coastal ecosystems, terrestrial, freshwater and marine, are among the most productive ecosystems in the world. These ecosystems are also among the most complex and the most threatened ones. This is true for large sections of the Buna – Bojana coastline and estuarine and deltaic environments of the Montenegrin and Albanian coast, where aggressive developments are being planned and implemented. The TDA will address the sustainability of the environmental values of the Drin coast and river mouths, taking also into consideration the results of the GEF/UNEP MedPartnership pilots in the region.

2) Water Uses. Knowledge of how the surface and groundwater of a basin are being, often conjunctively, used and by whom is an important and often forgotten piece of the whole basin picture that a TDA would need to consider. This entails the description of the uses of water based on formal rights, which generally are held only by larger users (industry, large farms etc.), and also indications of the many minor uses based on “*de minimis*” rights to abstract and use small quantities of water. The latter are generally ignored. This activity will make an assessment of water uses on the basis of available information to the countries.

3) The Water – Energy Nexus. The World Water Development Report 2014 “Water and Energy” observes that water is required to produce nearly all forms of energy and can be a limiting factor in the development of hydropower, thermal electricity generation and biofuels. The decisions made today about how to increase energy production will determine the sustainability of freshwater resources tomorrow. But the connection between the water and energy has not been always taken into consideration. Energy is driven by market forces, and commands great resources, while water is considered a public good, a human right, at less a public health and welfare issue. Reflecting this economic, commercial and social disparity, energy attracts greater political attention than water in most countries. The TDA work will consider this reality, and analyse this connection within the context of the Drin Basin and its major hydropower industry. The project will use the UNECE Water Convention methodology regarding Water, Food,

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<sup>16</sup> DIKTAS has done an extensive work in mapping the karstic geological formations, and collecting all related information regarding the hydrologic and hydrogeologic conditions; related information have been integrated in detailed maps with the use of GIS.

<sup>17</sup> Research on climate variability and its impacts in the Mediterranean (such as the MEDClivar project, and CIRCE, among others) along with the findings contained in the fourth assessment report of the IPCC are all in agreement on the broad future trends in climate variability in the Mediterranean, in spite of the complexity of factors controlling Mediterranean climate.

Energy and Ecosystems nexus assessment. An indicator-based analysis will be used for the qualification and for the initial quantification of the -identified through the TDA- inter-linkages among water, land, energy and ecosystems.

### Validation and approval.

The draft TDA will undergo a consultation process with key stakeholders in the project countries with the aim of incorporating their views and knowledge and thus become a common basis in all three countries, on which solutions will be planned and cooperation will be built. Once approved by the DCG, an extensive summary will be translated in the project countries languages and disseminated widely.

### **Output 2. Agreement on main drivers of change, and on indicators of current conditions, documented and agreed by the Drin Core Group.**

#### *Activities:*

Defining and agreeing on environmental status indicators. Having achieved a shared understanding of the present baseline conditions of the Drin Basin and the major transboundary concerns, the project will identify the drivers of change and will work to define feasible indicators that will allow the countries to monitor in an harmonized way and in the long term the evolution of the system and its reaction to the various stress reduction measures and interventions that countries may undertake in the future within the SAP implementation context or otherwise. These indicators are the Environmental Status Indicators recommended by the International Waters focal area of the GEF<sup>18</sup>. They must be simple, comprehensive and feasible given the socio-economic and technical contexts in the countries. The project will identify in each country the institution/department/agency potentially responsible for the long term monitoring of the various tracts and sub-basins. The work will be carried out by international and national experts under the guidance of the Impelementing Partner, and will produce options for indicators and monitoring protocols for decision by the DCG. The set of Environmental Status Indicators and the modalities for periodic long term monitoring and data exchange defined under Output 2 will be reviewed and adopted by the DCG.

### **Output 3. Monitoring and Information Management System (IMS).**

Establishing an Information Management System (IMS) that will enable the DCG, and country users to collect, store, and share indicators data and related information in a consistent way.

The TDA results, the long term monitoring needs and procedures, and the project as a whole, from the information management's perspective will be taken into consideration. The TDA and the various components of the project are going to produce and be based on large amounts of data and information. In addition, data and information sources will likely differ from one country to the other and among sub-basins. Under these conditions the flow of data and information needs to be harmonized and streamlined as much as possible. In other words, use of an information management system is paramount both for the conduct of the TDA and for producing a harmonized baseline set of data and a neutral repository for future monitoring data.

The information management system (IMS) will enable country users to collect, store and share data and information (should related decision is taken by the countries) in a consistent way. The IMS will include:

- Data and information. This component consists of all data and information that are used in the TDA and other project components. This component can be in the form of datasets with geospatially-referenced data (GIS-layers), tabular data with indicator values, descriptive data and images with e.g. profiles and pictures.
- ICT-technology. This component will consist of software that will enable storing, processing and visualizing and combining various types of data and information (e.g. geo-referenced maps, tabular data, images and descriptive texts). The software will allow for (geospatial) processing of data and easy querying of maps and tables. By storing all available data on a server of a designated organization (if this is acceptable by all project countries), all information can be made accessible to various audiences via web-based interfaces.

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<sup>18</sup> "... Collaborating countries must harmonize their sampling, laboratory, and analysis methods so that they all agree on what water quality, quantity, or ecosystem parameters (living resources) should be sampled to track progress toward a goal. These agreed environmental status indicators are measures of actual performance or success in restoring and protecting the targeted water body.....Social indicators may also be appropriate here to measure whether communities and stakeholders benefit from the changes in environmental conditions brought about by the project." GEF M&E Working Paper 10, 2002.

## COMPONENT 2. BUILDING THE FOUNDATION FOR MUTLI-COUNTRY COOPERATION

### **OUTCOME 2: VISIONING PROCESS OPENS THE WAY FOR SYSTEMATIC COOPERATION IN THE MANAGEMENT OF THE TRANSBOUNDARY DRIN RIVER BASIN.**

#### **Output 4. Shared Vision (horizon of 20 years).**

##### *Activities*

157. A Shared Vision for the management of the Drin Basin has been developed through a multi-stakeholders process and adopted (2011) by the Drin Riparians as part of the Drin MoU. This Shared Vision will be further developed to include environmental quality objectives (EQOs) and relevant indicators consistently with the Environmental Status Indicators established under Output 2. The informed consensus, strengthened by joint scientific fact-finding, reached as part of the TDA development process, will facilitate the agreement on feasible environmental quality targets (EQTs). Identified indicators will be feasible given the technical and human capacities available in the countries.

158. The Shared Vision document will be discussed during one of the multi-stakeholders meetings to be organized under Output 12. The indicators and the Shared Vision document will be discussed among the countries during the meetings of the Drin Core Group and the Expert Working Groups organized under Output 7.

#### **Output 5. Strategic Action Program (SAP) with a 5 years' time horizon and consistent with the Shared Vision formulated.**

##### *Activities*

159. The core of the SAP process is the collaborative formulation and negotiation of a joint and harmonized program of strategic priority actions needed to address key transboundary concerns identified through the TDA process. It will enable stakeholders to translate the Shared Vision for the Drin Basin and its targets into concrete actions, and to reach consensus on the interventions needed to sustainably manage the basin through an ecosystem approach that provides for the long-term sustainability of land and water resources. The SAP is a regional, non-binding, document crystallizing the commitment of the three countries to undertake a series of agreed actions.

160. The SAP development process will be informed by the TDA including the indicator-based analysis that will be used for the qualification and the initial quantification of the inter-linkages among water, land, energy and ecosystems, and by results of the pilot demonstrations. It will focus on the major transboundary issues identified in the TDA. Through technical and stakeholder consultative processes the actions that countries are willing to undertake at national and regional levels will be jointly defined, including policy, legal and institutional reforms, investments needed to address identified issues, etc.; the actions will aim to: (i) address major transboundary issues including identified trade-offs among water, energy and land sectors and ecosystems (with different emphasis/relevance in each sub-basin); share benefits, as these are identified by the nexus assessment, stemming from the interlinkages among water, energy and land sectors and ecosystems across the basin. The SAP will also include an estimation of the required financial resources and a strategy to mobilize those resources. The objective will be to formulate a financially realistic, government endorsed, sustainable program that effectively responds to local conditions and incorporates lessons learned, thereby facilitating its long-term implementation. The draft SAP will be prepared through a participatory process including all major stakeholders, and the NICs and DCG members, guided by the PCU, and will be submitted to the DCG for endorsement.

### **OUTCOME 3: COUNTRIES AND DONORS COMMIT TO SUSTAIN JOINT COOPERATION MECHANISMS AND TO UNDERTAKE PRIORITY REFORMS AND INVESTMENTS.**

#### **Output 6. Partnership Conference.**

##### *Activities*

161. The core of the activity will be the organization, once the SAP will have been adopted, of a "Partnership Conference". The purpose of this activity is to enhance the sustainability of the project outcomes by gathering and consolidating international technical and financial support around the SAP implementation process.

162. The event will be hosted by one of the project countries and the program will include, besides the presentation of the SAP and of the process leading to its preparation and adoption, the distribution of easily accessible documentation, and possibly field visits, media events and discussion forums. High level representatives of all project countries, the GEF Secretariat, UNDP, UNECE, GWP Med, other GEF IAs, project co-financing partners, bilateral and multilateral donors will be invited to participate.

It is expected that a Partnership Declaration will capture the outcomes of the Conference.

### **COMPONENT 3. INSTITUTIONAL STRENGTHENING FOR INTEGRATED RIVER BASIN MANAGEMENT (IRBM)**

#### **OUTCOME 4: THE OPERATIONALIZATION AND STRENGTHENING OF THE INSTITUTIONAL AND LEGAL FRAMEWORKS FOR TRANSBOUNDARY COOPERATION WILL FACILITATE BALANCING OF WATER USES AND SUSTAINING ENVIRONMENTAL QUALITY THROUGHOUT THE EXTENDED DRIN BASIN.**

##### **Output 7. High Level Joint Commission for the extended Drin Basin established.**

###### *Activities:*

163. In order to advance towards achieving the stated outcome, the project will support the Drin Core Group (DCG) in becoming fully operational and able to fulfil its mandate (see Annex 1 in the Drin MoU) and function as a High Level Joint Commission<sup>19</sup>:

- a. Coordinate actions for the implementation of the MoU, being responsible for coordination among countries and among the various basin organizations and cooperative bodies operating at the sub-basin level, and provide authoritative advice to the Parties for the management of the Drin Basin;
- b. Facilitate and enable coordination and cooperation among the Riparians, and the international institutions, initiatives and donors active in the area. Effort in this regard has been initiated and provide results<sup>20</sup>; the DCG and its Secretariat will be assisted in gradually becoming the reference point for the range of related actions, initiatives and programs in the Drin Basin;
- c. Act as main beneficiary of the GEF funded project. It will represent the key technical-political interface of the project at the basin level that will approve the TDA, process the endorsement of the SAP, approve the Environmental Quality Objectives (EQO), Environmental Status Indicators and plans for their long term monitoring<sup>21</sup>. Furthermore, the DCG will practically act as the Steering Committee of the project as decided by the 1<sup>st</sup> Meeting of the Parties, at Ministerial level, (Tirana, 28 May 2013)<sup>22</sup>.

164. Activities will aim at (i) completing the architecture of the DCG by initiating and facilitating the operation of the three Expert Working Groups (EWGs), that constitute indispensable technical support structures of the DCG and substantiate background of its deliberations, and (ii) supporting the operation of the overall institutional structure for the implementation of the Drin MoU for the period 2014-2018, including definition of work plans, periodic meetings of all MoU bodies, facilitation of exchanges amongst the MoU bodies and international partners, and reporting.

165. The EWGs will be working on issues that are addressed by the present project as well as by the GIZ supported projects (see box 2 above - there is already an agreement with GIZ in this regard): it will review the working procedure for the implementation of specific activities, comment on the outputs e.g. ToRs and reports etc. The aim is to facilitate sustainability of the project outcomes and outputs by ensuring:

- ownership by national institutions;

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<sup>19</sup> Kosovo is represented in the DCG. In this regard this activity will enable the representation in the project of an upstream Drin Basin country that was not eligible for financing the time that the PIF was submitted for approval to the GEF council. Through this activity Kosovo's views and opinion with regard to the management of the Drin Basin will be introduced to the project implementation.

<sup>20</sup> i.e. approval of the Drin GEF project by the 1<sup>st</sup> Drin Ministerial Meeting; cooperation between the DCG and the GIZ financed projects.

<sup>21</sup> This is in line with the decision 8 of the 1<sup>st</sup> Meeting of the Parties (Tirana, 28 May 2013) that indicates the following in its point (c): "Advise, to this end, the implementing and executing agencies to: (...) and (ii) Make best use of the institutional structure established under the Drin MoU to guide and facilitate project implementation".

<sup>22</sup> Further to the content of the previous footnote the 1<sup>st</sup> Meeting of the Parties indicates in Decision 8 point (d) that "(...) the representatives of the competent ministries of the GEF project beneficiary countries to the DCG will be the representatives of the respective Parties in the Steering Committee of the GEF project, and invite and kindly request the representatives of the competent ministries of the Drin Riparians that are not among the project beneficiary countries in DCG (...) to also participate in the Steering Committee of the GEF Project as observers.

- use of local knowledge;
- adaptation to the realities of national processes and contribution to their objectives.

164. Furthermore the work of the EWGs will facilitate the implementation of the project as they will assist the DCG in taking decision regarding the endorsement of the outputs and outcomes<sup>23</sup>.

### **Output 8. Inter-ministerial Committees established and functioning.**

#### *Activities:*

165. Each of the participating countries has agreed to create for the purposes of the project, a National Inter-ministerial Committee (NIC), or its equivalent, composed of high level representatives of all the various ministries and agencies that are or should be involved in the management of the basin (e.g.: Treasury, Water, Agriculture, Forestry, Energy, Physical Planning etc.). NICs will be established with the technical support of the project in all three countries. *Each of the NICs will interact with the respective representative of the country in the DCG, and the project: (i) providing advice with regard to the outputs of the project e.g. TDA and SAP assisting towards the incorporation of considerations of different sectors related to the management of the Basin in these, thus enhancing the potential of sustainability of the project outcomes and (ii) help translating into national actions and policies the SAP and the DCG guidance.*

166. The Committees will meet periodically upon request of the project management, and will receive and comment the main project outputs i.e. TDA, Environmental Status Indicators, SAP, demonstration activities, and related documentation. They will have a particular role in guiding the process of harmonization of existing policy and institutional frameworks at national level.

The countries will be asked to appoint and form NICs from the first year so as to be appropriately engaged early in the life of the Project, and become able to productively contribute, through: (i) strategic communication activities (see under Outcome 7); (ii) stakeholders involvement activities e.g. participate in the Annual Stakeholders conferences (see under Outcome 6). **The sectors that should be represented in the inter-ministerial Committees are the following: Water resources, Environment, Territorial/ land use, Agriculture/Food, Energy, Industry, Health, Economy/Finance/Development; institutions with responsibilities over flood management, infrastructure and local authorities should be also represented.**

### **Output 9. SAP adopted at the Ministerial level by the Meeting of the Parties to the Drin MoU.**

#### *Activities*

167. Following endorsement by the countries through the DCG, the SAP will be presented to the Meeting of the Parties of the Drin MoU for adoption. Once adopted by the Parties, each country will translate the SAP into National Implementation Programs.

### **Output 10. Training program.**

#### *Activities:*

168. The program of capacity building is a major activity under this Component and the project. Capacity needs have been identified through an analysis at transboundary and national levels conducted during the PPG phase (Annex 3. Training Program Analysis). Input generated by an assessment of the state of the management framework in the project countries and by identifying the related deficiencies that are known to lead or may potentially lead to the deterioration of the environment and the natural resources in the Drin Basin, was used along with input from the countries.

169. Building capacity on priority issues for a number of target groups will be instrumental for: delivering outputs of the Component; assisting in the sustainability of the wider project outcomes and; resulting in strengthening the overall basin management architecture.

170. The list of training themes are given in the list below; table 1. “Training Programme” in Annex 3 “Training Program Analysis” presents the respective capacity building needs and the objectives for each training activity:

1. Project management;
2. International obligations regarding transboundary water resources management including impact assessment;
3. Land use management;
4. Integrated Water Resources Management / WFD implementation;

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<sup>23</sup> The decision was taken during a meeting of the executing partner with GIZ Albania in December 2013.

5. Environmental permitting and management at the local level;
6. Floods and droughts management;
7. Nature and ecosystems protection;
8. Pollution control;
9. Economic valuation of issues and solutions for basin management.

171. The training program will consist of short courses and workshops. An annual program of training activities will be agreed upon with the DCG, and organized by the project and the project partners.

Participants will be staff of national and local authorities, joint commissions and bodies, research institutions, NGOs, management authorities of protected areas, water managers, parliamentarians, private sector, media, etc. The following means will be used:

- a. Capacity Building Workshops organized by the project.

Each Workshop will include sessions of theoretical and practical content. International experts with proven knowledge and experience will be invited as facilitators and speakers. The duration of each workshop will be from two to five days; it will be adjusted according to the training needs and may be shorter or longer if necessary.

- b. Study Visits organized by the project.

Study visits assist in enhancing the capacity of the participants, through the transfer of experiences from the visiting body/area. International bodies with which cooperation will be fostered are the ICPDR, the Sava Commission, the International Commission for the Protection of Rhine etc. The group of individuals selected to participate in each of the study visits will be formed on the basis of the theme of the event.

An additional option would be for selected individuals –one representative from each project country each time- to spend a period and work as experts in a selected “host” organization; this will enable the participants to acquire hands-on experience and function as trainers for their colleagues in the organization for which they work. The “host” organizations will be selected among joint bodies and ministries of countries with advanced basin management frameworks that are already active as developing partners of the Drin project countries (e.g. Sweden, Germany, Switzerland etc.).

- c. Participation of representatives of institutions in trainings organized by competent third parties and in policy and technical conferences and workshops.

There is a number of training workshops and conferences organized by UN agencies and programs, and international organizations (GEF IWLEARN, UNDP’s Cap-Net, UNECE, UNESCO, EU, GWP, GWP-Med, WWF, IUCN etc.).

Representatives of the project countries will be given the opportunity to participate in these. The Implementing Partner along with the project management unit will be screening related opportunities and advice the institutions in the project countries ministries.

172. The Training Program will be reviewed and may be revised in the course of the project implementation to respond to emerging needs in relation to the project and/or the framework for the management of the Drin Basin at the national and the transboundary levels.

## **COMPONENT 4. DEMONSTRATION OF TECHNOLOGIES AND PRACTICES FOR IWRM AND ECOSYSTEM MANAGEMENT**

### **OUTCOME 5: BENEFITS DEMONSTRATED ON THE GROUND BY ENVIRONMENTALLY SOUND APPROACHES AND TECHNOLOGIES NEW TO THE REGION.**

**Output 11.** A program of on the ground pilot demonstrations will deliver tangible results using quantifiable indicators.

173. Within the context of foundational projects -aimed at enabling transboundary cooperation among countries sharing a water body, and facilitate agreement on a program of joint management actions- Pilot Demonstrations are intended to provide multiple benefits to allow countries to (i) accrue direct experience on approaches, technologies,

practices and organizational settings novel to the region and test their cost effectiveness and feasibility in the regional context, (ii) test cooperative arrangements, (iii) feed into the SAP formulation process.

174. In the present project, pilot demonstrations will play an important role. Countries are ready and willing to work and experiment together addressing issues that have been identified through previous programs of technical assistance, or that will enhance their ability to move more swiftly along the path of EU accession.

175. During the PPG phase, an open call for related proposals was addressed to all key stakeholders in countries, providing guidelines to follow in the description of the proposed activities (see table 2). Furthermore, a technical meeting with the national experts employed under the PPG phase worked on the identification of demonstration activities. A set of criteria was used for the screening of proposals: relevance; efficiency; sustainability; management; execution and partnership arrangements; relationship with the Drin Basin context and; monitoring.

**Table 2. Enabling transboundary cooperation and integrated water resources management in the extended Drin River Basin**

**PILOT PROJECTS: Guidelines for Summary Description**

Pilot Project Title, and location			
Location		Planned duration:	
Estimate of costs		Co-financing	

1. Pilot Project Rationale

- Background

What are the problems the project will address?

Are there on-going activities (implemented by Donors) or activities implemented in the past (e.g. through GEF) that the proposed project will build on? Please refer to the title, the specific activities and the outcomes and outputs that the project will use.

- Objective of the project

- Components and output under each component

2. Executing Arrangements

3. Elements for Consideration (Table)

RELEVANCE	
Are the intended results likely to contribute to the achievement of the project goal and outcomes?	
EFFICIENCY	
Does the pilot intend to make use of / build upon pre-existing institutions, partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency?	
SUSTAINABILITY / REPLICATION AND CATALYTIC EFFECTS	
Does the pilot present a strategy / approach to sustaining outcomes / benefits?	
If funding is required to sustain pilot outcomes and benefits, are adequate measures / mechanisms to secure this funding in place?	
Are there any financial risks that may jeopardize sustenance of pilot results and onward progress towards impact?	
Are there environmental factors, positive or negative, that can influence the future flow of pilot benefits?	
Will the pilot contribute to policy changes?	
Is there sufficient level of ownership by the main national and regional stakeholders necessary to allow for the pilot results to be sustained?	
MANAGEMENT, EXECUTION AND PARTNERSHIP	

<b>ARRANGEMENTS</b>	
Have the capacities of partner(s) been adequately assessed?	
Specify the roles and responsibilities of internal and external partners	
<b>RELATIONSHIPS WITH THE EXTENDED DRIN BASIN CONTEXT</b>	
Describe how the pilot is connected to activities of the Drin Project executed by others, planned exchanges and regional disseminations efforts, local stakeholders and authorities involvement.	
<b>MONITORING</b>	
Demonstrate that baseline data collection been satisfactory/adequate	

176. A number of these were qualified for inclusion in the project document and concept notes were prepared with the assistance of the national experts. **The title and outputs of each one are listed below:**

- Integrated River Basin Management Planning in Lake Ohrid in accordance to WFD; it will among others test a process to be applied throughout the Drin basin thus responding to the need for a harmonized basin-wide approach to IRBM.
  - **Outputs:**
    - **ToR for the preparation of Basin Management Plan at transboundary level.**
    - **Ohrid Basin Management Plan.**
- Wastewater treatment; the preparation of a decision support tool/study to elaborate on the needs in terms of wastewater treatment infrastructure in an area of ecological importance where a city exists (e.g. Shkodra city)<sup>24</sup>.
  - **Outputs:**
    - **Integrated modelling tool.**
    - **Report including (i) Model-based determination of the quality of treated effluents from Shkodra city in order to fulfil the quality objectives at the Buna/Bojana estuary and coastal zone and the public health risk objectives from the spread of pathogens in flood events; (ii) Determination of the appropriate technical solution for the management of wastewater and storm water of the city of Shkodra.**
- Reduction of nutrient load and forest preservation through biomass collection and production of fuel briquettes in Montenegrin part of Skadar Lake.
  - **Outputs:**
    - **A study for the production of fuel-briquettes from Skadar Lake macrophytes biomass.**
    - **Facility, equipment and operation scheme for production of fuel-briquettes from Skadar Lake macrophytes biomass.**
    - **Monitoring of the outcomes; if the latter are satisfactory, institutionalization of the scheme.**
    - **Report capturing the results to eventually be used for replication purposes.**
- Catchment Flood Risk Management in the Drin Basin.
  - **Outputs:**
    - **An operational Ad Hoc Flood Expert Working Group under the Drin Core Group.**
    - **Components of a Catchment Flood Risk Management Plan (provided that the countries reach an agreement over the ToR for the preparation of Flood Risk Management Plan at transboundary level).**
    - **Emergency operation rules for the dams (provided that the countries reach an agreement for the preparation of these rules).**
- Testing self-regulatory mechanisms between fishermen through fishermen associations to promote sustainable ecosystem based fisheries management in Montenegrin part of Skadar Lake.
  - **Outputs:**
    - **A feasibility study, legal documentation for the acquisition of the necessary licenses and technical studies for the establishment and operation of a centralized fish market.**
    - **A body that will operate the market, in which fishermen associations will participate.**

<sup>24</sup> The executing partners have established cooperation with the KfW office in Albania that is responsible for the operations of the organization in the Drin Basin area. A meeting with the Director took place in Tirana on December 2014. There was an agreement to coordinate actions to ensure that overlaps are avoided especially with regard to the pilot activity related to wastewater management in Shkodra city; KfW has been active in this field in Shkodra.

- A procedure for the collection and processing of fish-logs, filled by the fishermen that sell fish through the market, to acquire precise data regarding the quantitative and qualitative characteristics of the fish intake.
- Report capturing the results to eventually be used for replication purposes.

177. Annex 4 contains the draft concept notes. The final selection of the demonstration activities will be made during the early stages of project implementation by the Drin Core Group based on well-justified recommendations of the PMU resulting from negotiations with the project countries. This will be done to give the chance for new suggestions that may emerge, based on upcoming and well substantiated needs, to be included for consideration by the countries. Furthermore, this way the activities can be updated on the basis of results of projects –supported by co-financing partners- that are currently implemented<sup>25</sup>.

## **COMPONENT 5. STAKEHOLDER INVOLVEMENT, GENDER MAINSTREAMING AND COMMUNICATION**

### **OUTCOME 6: PUBLIC SUPPORT AND PARTICIPATION TO IWRM AND JOINT MULTI-COUNTRY MANAGEMENT ENHANCED THROUGH STAKEHOLDER INVOLVEMENT AND GENDER MAINSTREAMING.**

178. Equally important to the linkages between the project activities e.g. the outcomes of the TDA will feed the preparation of the SAP etc., is the multilevel non-linear linkages among the groups of stakeholders, the institutions and the countries, that are by default engaged in the management of the Basin and that the project activities concern; who, how, when, at what level is engaged in partnership with whom. The former will define the success of the project in terms of implementation of the activities while the latter will define the success of the project in terms of creating the conditions for sustaining its outcomes and achievements. The structured involvement of the appropriate stakeholders at the appropriate level and time in the different project activities using suitable means will secure the creation of these linkages. A range of information and strategic communications, consultation and involvement activities will be integrated in and run horizontally the Project, its activities and execution in pursue of strengthening the commitment of politicians, decision makers, users and other stakeholders at all levels as well as the public for a sustained cooperative effort among the countries sharing the Basin for its sustainable management.

#### **Output 12. A Stakeholder Involvement and Gender Mainstreaming Strategy defined and implemented.**

##### *Activities*

179. Stakeholder<sup>26</sup> Involvement and Public Participation<sup>27</sup> in IWRM demand a collaborative institutional process or multi-stakeholder platforms to define problems, identify what is desired and achievable, and produce agreement on how common goals will be reached. It involves a wide range of stakeholders in processes of problem-solving and joint decision-making:

- Different levels of government
- Civil-society, private sector actors (farmers, fishermen, tourism, industry, environmental groups, community groups, special interest groups), scientific partners, media, etc.

180. The project will act within the context described in the Strategy section; a context where the principles of stakeholder involvement, while fully recognized by the national laws, are not yet adequately translated into daily practice and at all levels. The water sector is no exception; there is much room for improvement regarding civil society and public participation while the private sector does not participate to the policy development process. The project will strive to set an example and raise the standard of stakeholder involvement practice in water and natural resources management, which is considered an essential element of the success of the project itself.

181. Stakeholders consultation and involvement in activities will support the implementation of the Components 1

<sup>25</sup> As an example the pilot “Identification and mapping of flood prone areas, and definition of a flood management plan involving multiple uses of hydropower schemes, and early warning system” will be informed by the developments of the GIZ supported “Climate change adaptation in the Drin River Basin” project with regard to the local flood management measures, the creation of hydrological model across the Drin Basin etc.

<sup>26</sup> An agency, organization, group or individual who has an (direct or indirect) interest in the project/program, or who affects or is affected positively or negatively by the implementation and outcome of it.

<sup>27</sup> Refers to participation by the public (individuals, NGO’s) in decision-making, ranging from merely commenting on drafts to co-decision making.

- 4 and the achievement of their envisaged outcomes. These will include meetings at national and transboundary levels and the use of the web-based tools as appropriate. The project's Public Participation and Stakeholders Involvement Strategy -aimed at achieving this higher level of involvement and participation- will be the basis of the planning and organization of consultation and involvement activities. The Strategy will be based on the information developed through the Stakeholders Analysis (see under Output 1).

182. The main project areas in which the stakeholders will be involved in through consultation processes include:

- Preparation of the TDA (see under Output 1).
- Preparation of the SAP (see under Outcome 2).

183. The involvement of stakeholders in the implementation of the activities and/or in consultation processes will encourage/result in advanced policy development: The TDA will be a widely agreed document that will incorporate all available knowledge and feed into the SAP, which will be the outcome of consultations among stakeholders with different views, perceptions, opinions and interests. The implementation costs of these activities will fall under the budget of the respective component.

184. Furthermore, pursuant to Article 5 point 2 of the Drin MoU indicating that “*understanding the need for the implementation of the Strategic Shared Vision to reflect the views of the stakeholders the Parties call for an annual meeting of stakeholders from the Drin Riparians*<sup>28</sup> (...)” the project will organize two stakeholders conferences. Added to the two meetings at the transboundary level -one to present and consult on the TDA and one to present the SAP and the outcomes of the project- one stakeholders meeting at transboundary level per year will be organized.

185. The *draft Public Participation and Stakeholders Involvement Strategy* will be submitted to the DCG for approval early in the project implementation period. Its preparation will be based on the information developed through the Stakeholders Analysis (see under Output 1).

186. ***Gender mainstreaming*** has been the primary methodology for integrating a gender approach into environment and development efforts. It is defined by the UN Economic and Social Council (ECOSOC) as: “...the process of assessing the implications for women and men of any planned action, including legislation, policies or programs, in any area and at all levels. It is a strategy for making the concerns and experiences of women as well as of men an integral part of the design, implementation, monitoring and evaluation of policies and programs in all political, economic and societal spheres, so that women and men benefit equally, and inequality is not perpetuated. The ultimate goal of mainstreaming is to achieve gender equality.” UNDP is committed to supporting capacity development of its national partners to adopt approaches that advance women's rights and take account of the full range of their contributions to development, as a foundation for MDG achievement. The commitment of UNDP on gender issues is covered in its gender equality strategy of 2008- 2011. Under this strategy, the GEF is identified as a key partner in the development and harmonization of supportive policy and legislative frameworks and institutional capacity building which is at the heart of the GEF's international waters portfolio approach for the improved management of transboundary waters. Involving both women and men in integrated water resources initiatives is likely to increase project effectiveness and efficiency. Participation by both women and men improves project performance and improves the likelihood of sustainability. In other words, a project is more likely to achieve what planners hope it will achieve if women and men (both rich and poor and representing different sectors) are active participants and decision makers.

187. In the project area, in a changing environment towards EU accession the role of women is being enhanced. There is a tradition of active participation of women in the economy as a result of the existence of socialist regimes in the project countries till the early 90's. This tradition is still alive especially among women that are educated and can be noted in the Ministries responsible for the management of environment and natural resources including water.

188. Furthermore, the Drin Dialogue process preceding the GEF project has been characterized by an active participation of women.

189. Women were well represented among stakeholders, in the National Consultation meetings that were organized in Albania, FYR Macedonia and Montenegro as well as in the Consultation Meeting at the transboundary level<sup>29</sup>.

<sup>28</sup> The first Drin Basin Multi-Stakeholders Conference since the signing of the MoU was organized in Tirana, Albania, 10 -11 December 2013 by the Drin Core Group with the support of the GIZ and UNECE within the framework of the Drin Coordinated Action for the implementation of the Memorandum of Understanding for the management of the Drin Basin. The event was one of the activities to sustain the active engagement of stakeholders in the process for the management of the Drin Basin through the Drin MoU implementation. The conference was used also to consult the stakeholders on the development of the Project Document.

<sup>29</sup>

Name of meeting	Date	Location	Number of participants	of female	Number of participants in total
Consultation meeting in FYR Macedonia	2 Nov 2010	Ohrid, FYR Macedonia	16		61
Consultation meeting in Albania	5 Apr 2011	Tirana, Albania	44		121
Consultation meeting in Montenegro	28 Sep 2011	Podgorica, Montenegro	27		56
Consultation meeting at Drin Basin level	25 Nov 2011	Tirana, Albania	49		132

Finally, women represent 30% of the members of the Drin Core Group and 60% of the members of each of the three EWGs.

190. On gender issues the project will adopt a two-pronged approach:

1) *Mainstreaming gender in project execution* - Balanced gender participation in project execution activities will be sought, including in working groups etc. The project will also work to ensure a balanced participation among men and women in the overall stakeholder involvement strategy and in consultation workshops, and will support both women's and men's contributions individually, rather than assuming that both groups will benefit equally from gender-neutral development interventions. Data regarding the participation of men and women in the meetings will be recorded and used as an indicator. Adaptive management responses in the case of unbalanced participation will include among others incentives for the participation of the sex less represented e.g. participation financially supported by the Project etc.

2) *Integration of the gender perspective into water policies* - The development and harmonization of supportive policy and legislative frameworks and institutional capacity building aimed at ensuring that the gender perspective is successfully incorporated into international water regime, policy, and activities, will be sought. This will be promoted by:

(a) Identifying gaps in equality and developing strategies and policies to close those gaps; considering gender issues in the mapping and analysis of water resource use (see Output 1);

(b) Assessing potential differentiated roles, benefits, impacts and risks for women and men. This will include among others the identification of the roles men and women traditionally have been having in basin management including in the fields of:

o biodiversity, particularly in specific ecosystems where specialized knowledge and management responsibilities have historically accrued to either women or men e.g. women's role in the management of agrobiodiversity and men's role in the sustainable use of wildlife including fisheries in lakes.

o mitigation of consequences of floods; women, being responsible for households and communities and as stewards of natural resources have a special role in mitigating flood effects at community/household level.

(c) Promoting women's participation in awareness raising (see Output 13) and training activities (see Output 10): support for educational activities, on topics such as the environment, energy, and decision-making, projects in general.

(d) Inform as appropriate the SAP with the outcomes of analysis under (b) aiming to sustain or revive traditional practices promoting sustainability of natural resources management and reinforce as appropriate and feasible the women's role in the management of shared basins.

(e) Involving women's organizations: while the responsibility for implementing a gender approach does not rest solely with women's organizations, they are natural vehicles for promoting gender equality at the local as well as the national level. The project will identify women's organizations through the Stakeholders Analysis and work to involve them in the activities under component 5 (e.g. celebration of the Drin Day, consultations etc.).

The draft Gender Mainstreaming Strategy for the project including the above activities will be drafted as part of the Public Participation and Stakeholders Involvement Strategy and submitted to the DCG for approval.

### **OUTCOME 7: POLITICAL AWARENESS AT ALL LEVELS AND PRIVATE SECTOR PARTICIPATION STRENGTHENED THROUGH HIGHER VISIBILITY OF THE PROJECT'S DEVELOPMENTS AND TARGETED OUTREACH INITIATIVES.**

#### **Output 13. Information, Communication and Outreach Strategy prepared and implemented.**

##### *Activities*

191. The entire project will be participatory and communication oriented. Based on an Information, Communication and Outreach Strategy, a range of related activities will be implemented to foster:

- The understanding of the issues and situation by the general public and the stakeholders, including water users and the private sector, facilitating their contribution in the development and implementation of solutions;
- The enhancement of awareness at the political level and among decision makers thus creating the enabling

environment for action to be taken.

The Strategy will be based on the information developed through the Stakeholders Analysis (see under Output 1) and consist of three parts:

1. *Awareness Raising*– Objectives: To raise awareness amongst the wider public about the declining state of the environment of the Drin watershed and coastal areas and of the benefits of adopting an integrated multi-country approach to their management. Activities will include all or part of the following types of activities: Drin Day celebration; Publications including project brochure; Educational material; Media Workshop and Releases and Press Articles on the occasion of projects milestones; Media tours and radio messages; Project Video Documentary.
2. *Strategic Communication* – Objectives: To inform and raise awareness amongst specific categories of stakeholders about the aims and objectives of the project as well as the Drin’s resources and the necessary action needed to move towards sustainable management of the Basin; these categories would include decision-makers, and/or stakeholders in the position to influence the cause of the issues at hand e.g. parliamentarians, journalists, entrepreneurs/users of resources, etc. Activities: tailored made publications; tailored made informative emails; awareness raising events.
3. *Document and Communicate Lessons Learned* – Objectives: To make information, resources and products developed during the Drin Project easily accessible to the public and to promote the benefits and lessons from the Project to key audiences. Activities will include all or part of the following: Preparation of publicly accessible summaries of Technical Reports; Guides and toolkits; Fact sheets (one pagers); Pilot projects videos; Focus meetings and seminars.

Participation in IW LEARN activities, and establishment of website.

192. The new phase of IWLEARN being presently planned will include activities focusing on the promotion of conjunctive management of surface and groundwater in basins, in line with GEF 6 priorities. The Drin project is fully in line with this objective. **At least two notes will be developed for portfolio sharing drawing on experiences from the project including those related to conjunctive management of surface and groundwater in basins.**

193. The Project’s Website will use the tools developed under the IW LEARN Project. This will secure synergies regarding dissemination of information and lessons learned, and communication with actors outside the Project (e.g. international organizations, water practitioners worldwide etc.). The website will be an instrument supporting the implementation of the project activities. It will support and incorporate -on the condition that the IWLEARN website toolkit support such functions- a range of tools such as project’s management team working space, information database, interactive maps, forum discussions etc.

194. The project will also actively participate in the GEF IW Biannual conferences and sponsor participation of country representatives from governments. **Additional activities may be implemented as part of IWLEARN guidance; at least 1% of the GEF grant will be channelled to IWLEARN related activities.**

### 3. PROJECT RESULTS FRAMEWORK:

#### STRATEGIC RESULTS FRAMEWORK

<b>Objective</b>	To foster the joint management of the shared water resources of the extended transboundary Drin River Basin, including coordination mechanisms among the various sub-basin commissions and committees (Lakes Prespa, Ohrid and Skadar).				
	<b>Objectively Verifiable Indicators</b>				
<b>Outcomes</b>	<b>Indicator (Process)</b>	<b>Baseline</b>	<b>Target</b>	<b>Sources of verification</b>	<b>Assumptions</b>
<b>Outcome 1.</b> Consensus among countries on key trans boundary concerns and drivers of change, including climate change and variability, reached through joint fact finding	<b>1.</b> The Transboundary Diagnostic Analysis of the Extended Drin River Basin, consistent with the projects in accordance with the WFD in sub-basins, and identifying main issues of transboundary concern and drivers of change, is completed and approved by countries.	Project countries have pursued the management of the shared water resources of the Drin River Basin, both surface and groundwater, predominantly from a national perspective. Countries are at different levels with regard to the EU accession, and implementation of the WFD including the preparation of RBM plans; when RBM plans are being prepared, this is not done in coordination with neighbouring countries. Bilateral and	Approval of TDA by the Drin Core Group.	Final TDA document. Reports of analyses undertaken as part of the TDA.  Meeting minutes and record of approval by Drin Core Group.  PIRs, midterm and final evaluations.  Information available on official websites at UNDP, project website, and national government websites.	Cooperation between multiple technical and scientific working groups is maintained throughout the TDA process.  National-level budgets for participating ministries remain approximately at the same level.  Countries and data owners agree to contribute data and information, and to make data freely available.  RBM plans preparation responsible Ministries in Drin countries and international organizations assisting Drin

	<p><b>2. Information management system containing data gathered through the TDA is established.</b></p>	<p>multi-lateral agreements concerning lake sub-basins are in place (Ohrid, Prespa, Skadar), but coordination, recognition of transboundary issues at Drin basin level and overall IWRM approach are lacking.</p> <p>Information and data related to the management of Drin Basin are dispersed among countries and institutions.</p>	<p>Establishment of an Information Management System (IMS) that will enable the DCG, and country users to collect, store, and share data and information in a consistent way.</p>	<p>Information Management System (IMS)</p>	<p>countries in preparing the RBMs agree to actively contribute to the TDA process.</p>
<p><b>Outcome 2.</b> Visioning process opens the way for systematic cooperation in the management of the transboundary Drin River Basin</p>	<p><b>1. The Shared Vision contained in the Drin MoU - updated in consistency with the findings of the TDA, and containing indication of environmental quality objectives (horizon 20 years), relevant indicators, and strategic development lines and priorities - is agreed upon by the countries.</b></p>	<p>Countries adopting fragmented approach to water resources utilization and environmental protection with little consideration of transboundary implications and freshwater ecosystems sustainability.</p> <p>A Shared Vision for the management of the Drin Basin has been developed through a multi-stakeholders process and adopted by the Drin Riparians as part of the Drin MoU. Nevertheless, this Shared Vision needs</p>	<p>Agreement on updated Shared Vision formalized by countries.</p>	<p>Final Shared Vision Document.</p> <p>Meeting minutes and record of approval by Drin Core Group.</p>	<p>Informed consensus strengthened by joint scientific fact-finding (TDA) facilitates agreement on feasible environmental quality objectives (EQOs).</p> <p>Identified indicators will be feasible given the technology available in the countries.</p>

	<p><b>2. A Strategic Action Program (SAP with horizon 5 years) consistent with the updated Shared Vision and the Drin MoU, addressing main issues of transboundary concern and containing concrete actions at the national and regional levels, is formulated.</b></p>	<p>to be developed further to include environmental quality objectives and relevant indicators.</p> <p>Lack of an overarching basin-wide science based framework for the implementation of the medium and long term priority actions in view of achieving the overall aims and objectives of the Drin MoU, and of the updated Vision hinders the formulation of coherent policies, legislative reforms and identification of investments targeted to the sustainable utilization of the Basin's water resources and dependent ecosystems, and their integrated management.</p>	<p>SAP formulated and endorsed by the Drin Core Group and adopted by the Meeting of the Parties to the Drin MoU (Ministerial Meeting – see Outcome 4.3).</p>	<p>Strategic Action Program document endorsed by the DCG.</p>	<p>The TDA – Vision process facilitates Government level agreement on and commitment to undertake needed reforms and investment.</p>
<p><b>Outcome 3.</b> Countries and donors commit to sustain joint cooperation mechanisms and to undertake priority reforms and investments</p>	<p><b>1. Partnership Conference, aimed at raising awareness and interest of the international community and ODA providers on sustaining countries commitment to SAP implementation.</b></p>	<p>Donor interest in the region, technical assistance and investments do not respond to a strategic vision to address transboundary issues in the Drin Basin and sub-basins in an integrated manner.</p>	<p>Partnership Conference held.</p>	<p>Partnership Declaration issued at the end of the Conference</p>	<p>Strategic vision reflected in concrete actions in the SAP will attract sustained interest from donors and ODA providers in facilitating SAP implementation.</p>
<p><b>Outcome 4.</b> The operationalization and strengthening of the institutional</p>	<p><b>1. The three Drin Core Group (DCG) Expert Working Groups (EWG) become fully</b></p>	<p>The institutional structure for the implementation of the Drin MoU comprise of:</p>	<p>The DCG Expert Working Groups become operational in</p>	<p>Work Plans for each EWG are prepared and approved by DCG; Meetings of the EWGs and related reports</p>	<p>Momentum gained through the Drin Dialogue is sustained by the present project and ensures political commitment to multi-</p>

<p>and legal frameworks for transboundary cooperation will facilitate balancing of water uses and sustaining environmental quality throughout the extended Drin Basin</p>	<p>operational making it possible for the DCG to assume the full range of responsibilities stemming from the Drin MoU and act as a Joint Commission.</p> <p><b>2.</b> Inter-ministerial Committees (or equivalent bodies) are established in each project country tasked with the coordination of country response to guidance of the DCG.</p> <p><b>3.</b> A Strategic Action Program (SAP with horizon 5 years) is adopted by the countries.</p> <p><b>4.</b> DCG members, DCG working group members, water and land managers, policy makers and other practitioners are trained in surface/groundwater management, IWRM, implementation of international policy instruments (WFD, UNECE Water Convention), and other relevant disciplines</p>	<ul style="list-style-type: none"> <li>- Meeting of the Parties (MOP; Parties are represented by Ministers). The MOP takes place on an annual basis.</li> <li>- Drin Core Group, established as a result of the Drin Dialogue Project (UNDP/UNECE/GWP-Med). Its success has fostered the formulation and approval of the present project.</li> <li>- Three Expert Working Groups (1. Implementation of Water Framework Directive; 2. Monitoring and Information Exchange; 3. Biodiversity and Ecosystems). The EWGs have been established but are not yet operational hence can't provide the necessary assistance to the DCG for the latter to assume the full range of responsibilities stemming from the Drin MoU.</li> </ul> <p>Lack of an overarching</p>	<p>assisting the DCG to assume the full range of responsibilities stemming from the Drin MoU.</p> <p>The Inter-ministerial Committees established.</p> <p>SAP adopted by the Meeting of the Parties to the Drin MoU (Ministerial Meeting).</p> <p>Full and successful participation of all DCG members and expert groups, and of qualified representatives of land-water managers and practitioners in training activities.</p>	<p>regarding the implementation of the Work Plans; decisions of the DCG endorsing the outputs of the EWGs and decisions by the Meeting of the Parties adopting the outputs.</p> <p>Inter-ministerial bodies are formed and meet.</p> <p>Strategic Action Program document agreed upon by all project countries at ministerial level.</p> <p>Records of completed training programs and lists of attendees.</p>	<p>country cooperation for the management of the Extended Drin Basin.</p> <p>The TDA – Vision process facilitates Government level agreement on and commitment to undertake needed reforms and investment.</p>
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	and technologies.	basin-wide science based framework for the implementation of the medium and long term priority actions in view of achieving the overall aims and objectives of the Drin MoU, and of the updated Vision hinders the formulation of coherent policies, legislative reforms and identification of investments targeted to the sustainable utilization of the Basin's water resources and dependent ecosystems, and their integrated management.			
<b>Outcome 5.</b> Benefits demonstrated on the ground by environmentally sound approaches and technologies new to the region	<b>1. Program of Pilot Demonstrations,</b> responding to the Drin MoU approved by countries during inception period is implemented resulting in:  - Management Plan for Ohrid Lake is prepared;	Regional experience so far does not include testing of IWRM in a large basin, coping measures for climate variability and change, nutrient management, amongst others.  A Basin Management Plan is not in place in Lake Ohrid; the preparation, in accordance to the WFD, of a basin management plan for a shared water body is not tested in the Drin Basin.	Program fully implemented by the end of the project.  The Ohrid Basin Management Plan is prepared and the WFD approach for the preparation of a management plan in a Drin's transboundary sub-basin is tested.	Final reports of all pilot demonstrations.  PIRs, Mid-term and Final Evaluations.  Project Website.  Ohrid Basin Management Plan.	Countries and local stakeholders and authorities will support full development of the Program.  Competent institutions, including scientific, in Albania and FYR Macedonia participate in the preparation of the plan. GIZ provide data and information produced through related activities it supports.

	<p>- Integrated modelling tool is developed assisting in: appropriate quality for treated effluents and appropriate wastewater management solution for Shkodra city in Albania to be determined.</p> <p>- Facility, equipment and scheme for production of fuel-briquettes from Skadar Lake macrophytes biomass are established as means for the reduction of nutrient load in Shkoder/Skadar lake.</p> <p>- Ad hoc Flood Expert Working Group is established and Catchment Flood Risk Management Plan is prepared including emergency operation rules for dams.</p>	<p>Shkodra city is a pollution hotspot affecting areas of paramount ecological importance.</p> <p>Nutrients enter the Shkoder/Skadar lake through its tributary, Moraca. De-forestation takes places in the Montenegrin part and collected wood is used for heating purposes.</p> <p>Floods have been having detrimental effects across the Drin Basin. The issue can't be dealt with effectively with unilateral action. Related instruments/approaches and cooperation among Drin riparians is necessary but absent.</p>	<p>Scientific sound and cost-effective solutions to address unsustainable wastewater management are identified; the tool used in this regard can be used in other ecologically sensitive areas facing similar pollution issues.</p> <p>A solution for the removal of nutrients loads from the lake and the reduction of pressure on forests is tested.</p> <p>Facilitate cooperation among Drin riparians for the the management of flood risk implementing approaches new to the area.</p>	<p>Report describing methodology and outcomes; modelling tool.</p> <p>Facility, equipment and scheme for production of fuel-briquettes from Skadar Lake macrophytes.</p> <p>Reports of meetings of Expert Working Group; Flood Risk Management Plan Report.</p>	<p>Shkodra municipality collaborates and facilitates the implementation of the pilot activity including through the provision of necessary information and data.</p> <p>Competent Montenegrin institutions meaningfully cooperate with the project for the implementation of the activity.</p> <p>Countries agree in the establishment of an expert working Group under the Drin Core Group, agree on the ToR for and the preparation of all components of Flood Risk Management Plan and in the preparation of emergency operation rules for dams. The different institutions related to flood management and the Power Companies in the Drin Riparians meaningfully participate in the work,</p>
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	- A centralized fish market is established in Montenegrin part of Skadar lake.	Illegal fishing exerts pressure to the fisheries in Shkoder/Skadar, and despite the continuous efforts, institutional capacities are weak to address the issue.	A solution to reduce illegal fishing in Lake Skadar is tested; this involves selling the catch of legal fishermen through a central fish market as incentive for peer control of illegal fishermen.	Centralized fish market.	consultations and negotiations and provide necessary data and information.  Fishing associations and legal fishermen welcome the activity, participate in the scheme and sell their catch through the central market. Competent institutions welcome and facilitate the activity.
<b>Outcome 6.</b> Public support and participation to IWRM and joint multi-country management enhanced through stakeholder involvement and gender mainstreaming	<b>1.</b> Stakeholder Involvement and Gender Mainstreaming Strategy is defined and adopted by Drin Core Group.	Level of public participation in decision-making is unclear in all countries, with efforts being made to introduce/implement legislation leading to increased stakeholder involvement and public participation. Gender issues not yet considered.	Drin Core Group approval of Stakeholder Involvement and Gender Mainstreaming Strategies.	Two Documents containing the Strategies and evidence of adoption by DCG.  Reports reflecting participatory approach and gender equity in project's events and processes.	Countries and DCG members committed to embrace more participatory approaches in basin management.
<b>Outcome 7.</b> Political awareness at all levels and private sector participation strengthened through higher visibility of the project's developments and targeted outreach initiatives	<b>1.</b> Information, Communication and Outreach Strategy is prepared and implemented.	Public awareness of natural resource sustainability issues and of water governance and management is generally scarce.	Communication activities support the preparation and adoption of the TDA and the SAP.  All the project's main events, findings and achievements recorded and disseminated through media events and ICT.	Website documents outreach activities.  Communication activities (tailored made communication to targeted stakeholders including emails, publications etc.)  Project results and achievements presented at major international fora (WWF, IWC, WWF, etc.), project website established in accordance to IWLEARN standards,	N/A

			Project's active participation to IW LEARN activities and events using at least 1% of GEF grant.	experience notes produced, participation of project representatives in IW biannual conferences.	
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#### 4. TOTAL BUDGET AND WORKPLAN

<b>Award ID:</b>	00082116	<b>Project ID(s):</b>	00091169
<b>Award Title:</b>	PIMS 4482 Regional Enabling transboundary cooperation and integrated water resources management in the extended Drin River Basin		
<b>Business Unit:</b>	ALB10		
<b>Project Title:</b>	PIMS 4482 Regional Enabling transboundary cooperation and integrated water resources management in the extended Drin River Basin		
<b>PIMS no.</b>	4482		
<b>Implementing Partner (Executing Agency)</b>	IGO (Global Water Partnership)		

GEF Outcome/ Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:
<b>COMPONENT 1: Consolidating a common knowledge base.</b>	<b>GWP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	198,000	198,000	50,300	50,300	496,600	1
				71300	Local Consultants	136,550	136,550	20,000	20,000	313,100	2
				71600	Travel	17,950	17,950	1,000	1,000	37,900	3
				72300	Materials & Goods	2,500		2,500		5,000	4
				73100	Rental & Maintenance- Premises	1,500	1,500	1,000	1,000	5,000	5
				74100	Professional Services	4,000				4,000	6
				74200	Audio Visual&Print Prod Costs			20,000		20,000	10
				74500	Miscellaneous Expenses	4,700	4,700			9,400	11
				75700	Training, Workshops and Confer	39,500		39,500		79,000	12
				72800	Information Technology Equipmt	20,000				20,000	13
				<b>sub-total GEF</b>	<b>424,700</b>	<b>358,700</b>	<b>134,300</b>	<b>72,300</b>	<b>990,000</b>		

					<b>Total Outcome 1</b>	<b>424,700</b>	<b>358,700</b>	<b>134,300</b>	<b>72,300</b>	<b>990,000</b>	
<b>COMPONENT 2: Building the foundation for multi-country cooperation.</b>	<b>GWP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	0	0	78,000	63,000	141,000	14, 20
				71300	Local Consultants	0	0	75,400	42,200	117,600	15, 21
				71600	Travel	0	0	9,500	7,750	17,250	3
				72300	Materials & Goods	0	0	1,250	3,750	5,000	16, 22
				73100	Rental & Maintenance-Premises	0	0	1,250	3,750	5,000	5
				74100	Professional Services	0	0	1,000	3,000	4,000	7, 23
				74200	Audio Visual&Print Prod Costs	0	0	0	20,000	20,000	17
				74500	Miscellaneous Expenses	0	0	0	5,630	5,630	18
				75700	Training, Workshops and Confer	0	0	44,010	80,510	124,520	19, 24
					<b>sub-total GEF</b>	<b>0</b>	<b>0</b>	<b>210,410</b>	<b>229,590</b>	<b>440,000</b>	
				<b>Total Outcomes 2</b>	<b>0</b>	<b>0</b>	<b>210,410</b>	<b>229,590</b>	<b>440,000</b>		
<b>Component 3: Institutional strengthening for Integrated River Basin Management (IRBM).</b>	<b>GWP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	73,100	73,100	73,100	73,100	292,400	25
				71300	Local Consultants	20,885	20,885	20,885	20,885	83,540	26
				71600	Travel	15,150	15,150	15,150	15,150	60,600	3
				72300	Materials & Goods	2,250	2,250	2,250	2,250	9,000	27
				73100	Rental & Maintenance-Premises	1,250	1,250	1,250	1,250	5,000	5
				74100	Professional Services	1,000	1,000	1,000	1,000	4,000	8
				74500	Miscellaneous Expenses	5,250	5,250	5,250	5,250	21,000	28
				75700	Training, Workshops and Confer	117,365	117,365	117,365	117,365	469,460	29
					<b>sub-total GEF</b>	<b>236,250</b>	<b>236,250</b>	<b>236,250</b>	<b>236,250</b>	<b>945,000</b>	
				<b>Total Outcome 3</b>	<b>236,250</b>	<b>236,250</b>	<b>236,250</b>	<b>236,250</b>	<b>945,000</b>		
<b>Component 4: Demonstration of technologies and practices for IWRM</b>	<b>GWP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	144,250	144,250	144,250	144,250	577,000	30
				71300	Local Consultants	90,750	90,750	90,750	90,750	363,000	31
				71600	Travel	10,250	10,250	10,250	10,250	41,000	3

and ecosystem management.				72100	Contractual Services-Companies	3,750	3,750	3,750	3,750	15,000	32
				72200	Equipment and Furniture	5,500	5,500	5,500	5,500	22,000	33
				72300	Materials & Goods	37,500	37,500	37,500	37,500	150,000	34
				72500	Supplies	750	750	750	750	3,000	35
				72800	Information Technology Equipmt	2,750	2,750	2,750	2,750	11,000	36
				73100	Rental & Maintenance-Premises	13,850	13,850	13,850	13,850	55,400	37
				74100	Professional Services	3,500	3,500	3,500	3,500	14,000	38
				74200	Audio Visual&Print Prod Costs	3,000	3,000	3,000	3,000	12,000	39
				74500	Miscellaneous Expenses	4,650	4,650	4,650	4,650	18,600	40
				75700	Training, Workshops and Confer	42,000	42,000	42,000	42,000	168,000	41
					<b>sub-total GEF</b>	<b>362,500</b>	<b>362,500</b>	<b>362,500</b>	<b>362,500</b>	<b>1,450,000</b>	
	<b>Total Outcome 4</b>	<b>362,500</b>	<b>362,500</b>	<b>362,500</b>	<b>362,500</b>	<b>1,450,000</b>					
Component 5: Stakeholder Involvement, Gender Mainstreaming and Communication Strategies.	GWP	62000	GEF	71200	International Consultants	35,000	35,000	35,000	35,000	140,000	42, 47
				71300	Local Consultants	12,250	12,250	12,250	12,250	49,000	43, 48
				71600	Travel	2,450	2,450	2,450	2,450	9,800	3
				72300	Materials & Goods	1,250	1,250	1,250	1,250	5,000	44, 49
				73100	Rental & Maintenance-Premises	1,250	1,250	1,250	1,250	5,000	5
				74100	Professional Services	1,000	1,000	1,000	1,000	4,000	9
				74200	Audio Visual&Print Prod Costs	42,500	42,500	42,500	42,500	170,000	50
				74500	Miscellaneous Expenses	400	400	400	400	1,600	45
				75700	Training, Workshops and Confer	16,400	16,400	16,400	16,400	65,600	46
					<b>sub-total GEF</b>	<b>112,500</b>	<b>112,500</b>	<b>112,500</b>	<b>112,500</b>	<b>450,000</b>	
	<b>Total Outcome 5</b>	<b>112,500</b>	<b>112,500</b>	<b>112,500</b>	<b>112,500</b>	<b>450,000</b>					

<b>PROJECT MANAGEMENT UNIT</b>	<b>GWP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	28,125	28,125	28,125	28,125	112,500	51
				71300	Local Consultants	28,125	28,125	28,125	28,125	112,500	52
					<b>sub-total</b>	<b>56,250</b>	<b>56,250</b>	<b>56,250</b>	<b>56,250</b>	<b>225,000</b>	
			<b>Total Management</b>	<b>56,250</b>	<b>56,250</b>	<b>56,250</b>	<b>56,250</b>	<b>225,000</b>			
<b>PROJECT TOTAL</b>						<b>1,192,200</b>	<b>1,126,200</b>	<b>1,112,210</b>	<b>1,069,390</b>	<b>4,500,000</b>	

**Summary of Funds:** <sup>30</sup>

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Total
<b>GEF</b>	1,192,200	1,126,200	1,112,210	1,069,390	4,500,000
<b>Ministry of Environment, Albania</b>	12,938,500	12,938,500	12,938,500	12,938,500	51,754,000
<b>Ministry of Sustainable Development and Tourism, Montenegro</b>	37,500	37,500	37,500	37,500	150,000
<b>Ministry of Environment and Physical Planning, the FYR Macedonia</b>	225,000	225,000	225,000	225,000	900,000
<b>UNDP</b>	1,328,555	1,328,555	1,328,555	1,328,555	5,314,221
<b>KfW</b>	30,894,500	30,894,500	30,894,500	30,894,500	123,578,000
<b>Swiss Cooperation</b>	8,250,000	8,250,000	8,250,000	8,250,000	33,000,000
<b>GIZ</b>	1,697,500	1,697,500	1,697,500	1,697,500	6,790,000
<b>UNECE</b>	32,500	32,500	32,500	32,500	130,000
<b>GWP-Med</b>	53,375	53,375	53,375	53,375	213,500
<b>TOTAL</b>	<b>56,649,630</b>	<b>56,583,630</b>	<b>56,569,640</b>	<b>56,526,820</b>	<b>226,329,721</b>

**Budget notes:**

Note	Explanation
1	International consultants costs related to Outputs 1,2,3 (including PM input to the preparation of the Stakeholders Analysis and TDA; River Basin management, Hydrology/Hydrogeology, Water Quality, Ecosystems, Socio-economic, Modelling, Legal, Nexus, GIS, Database Experts; GWP financial and administrative services; UNECE services) during years 1-4
2	Local consultants costs related to Outputs 1,2,3 (including National Coordinators' input to the preparation of the Stakeholders Analysis and TDA; River Basin

<sup>30</sup> Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc...

Note	Explanation
	management, Hydrology/Hydrogeology, Water Quality, Fisheries, Ecosystems, Socio-economic, Modelling, Legal, Nexus, GIS, Database Experts) during years 1-4
3	Cost of travel in project countries for project staff and international and local consultants
4	Materials and goods to conduct field operations necessary for the preparation of the TDA
5	Costs related to maintenance of project offices (also those offered by governments) in the project countries
6	Audit costs in year 1
7	Audit costs in year 2
8	Audit costs in year 3
9	Audit costs in year 4
10	Costs related to the printing and publication of the TDA
11	Miscellaneous expenses for consultation and, staff and consultant's meetings related to Outputs 1,2,3
12	Meetings (of project staff and international and national consultants; consultations) costs including accommodation and subsistence, interpretation, facilities, meeting rooms etc. for the achievement of Outputs 1,2,3
13	Acquisition of software and software licenses
14	International consultants costs related to Outputs 4,5 (including PM input to the preparation of the Shared Vision and SAP; River Basin management, Hydrology/Hydrogeology, Water Quality, Ecosystems, Socio-economic, Legal Experts; GWP financial and administrative services; UNECE services) during years 3-4
15	Local consultants costs related to Outputs 4,5 (including National Coordinators' input to the preparation of the Shared Vision and SAP; River Basin management, Hydrology/Hydrogeology, Water Quality, Ecosystems, Socio-economic, Legal Experts) during years 3-4
16	Materials and goods for meetings and consultations for the preparation of the Shared Vision and SAP
17	Costs related to the printing and publication of the SAP
18	Miscellaneous expenses for meetings related to Outputs 4,5
19	Meetings (of project staff and international and national consultants; consultations) costs including accommodation and subsistence, interpretation, facilities, meeting rooms etc.) for the achievement of Outputs 4,5
20	International consultants costs related to Output 6 (including PM input to the preparation and organization of the Partnership Conference; GWP financial and administrative services; UNECE services) during year 4
21	Local consultants costs related to Outputs 6 (including National Coordinators' input to the preparation and organization of the Partnership Conference) during year 4
22	Materials and goods for the organization of the partnership conference
23	Translation of material
24	Partnership conference costs including accommodation and subsistence, interpretation, facilities, meeting rooms etc.
25	International consultants costs related to Outputs 7,8,9,10 (including PM input to the support the operation of the Meeting of the Parties to the Drin MoU, the DCG and the 3 Expert Working Groups, establishment and operation of the Inter-ministerial Committees, adoption of the SAP and the implementation of the Training Program; GWP financial and administrative services; UNECE services) during years 1-4
26	Local consultants costs related to Outputs 7,8,9,10 (including National Coordinators' input to the support the operation of the Meeting of the Parties to the Drin MoU, the DCG and the 3 Expert Working Groups, establishment and operation of the Inter-ministerial Committees, adoption of the SAP and the implementation of the Training Program) during years 1-4
27	Materials and goods for meetings and workshops

Note	Explanation
28	Miscellaneous expenses for meetings, training workshops, study visits related to Outputs 7,8,9,10
29	Meetings (Parties to the Drin MoU, the DCG and the 3 Expert Working Groups; training workshops, study visits, participation in conferences) costs including accommodation and subsistence, interpretation, facilities, meeting rooms etc. for the achievement of Outputs 7,8,9,10
30	International consultants costs related to Output 11 (including PM input to the implementation of the pilot activities; River Basin management, Hydrology/Hydrogeology, Water Quality, Fisheries, Ecosystems, Socio-economic, Modelling, Legal, Engineering, Experts; GWP financial and administrative services; UNECE services) during years 1-4
31	Local consultants costs related to Output 11 (including National Coordinators' input to the implementation of the pilot activities; River Basin management, Hydrology/Hydrogeology, Water Quality, Fisheries, Ecosystems, Socio-economic, Modelling, Legal, Engineering, Experts) during years 1-4
32	Contracts for the construction of: fish market and; machinery and facilities for the production of fire briquettes;
33	Equipment and furniture for project offices in project countries
34	Materials and goods for meetings and workshops for construction of fish market and facility for the production of fire briquettes
35	Supplies for the functioning of fish market and production of fire briquettes facility
36	Equipment for the national coordinators and project staff
37	Rental of facilities for the implementation of the demonstration activities
38	Translation services
39	Printing and production of studies, plans
40	Miscellaneous expenses for meetings and other actions under the pilot activities
41	Meetings (under the 5 demonstration activities including, mainly, consultations and technical meetings) costs including accommodation and subsistence, interpretation, facilities, meeting rooms etc.
42	International consultants costs related to Output 12 (including PM input to the preparation and implementation of the Stakeholders Involvement and Gender Mainstreaming Strategy; public participation and stakeholders involvement expert; GWP financial and administrative services; UNECE services) during years 1-4
43	Local consultants costs related to Output 12 (including National Coordinators' input to the preparation and implementation of the Stakeholders Involvement and Gender Mainstreaming Strategy; public participation and stakeholders involvement expert) during years 1-4
44	Materials and goods for the implementation of multi-stakeholders meetings
45	Miscellaneous expenses related to the implementation of the multi-stakeholders meetings
46	Meetings (2 multi-stakeholders meetings) costs including accommodation and subsistence, interpretation, facilities, meeting rooms etc.
47	International consultants costs related to Output 13 (including PM input to the preparation and implementation of the Information, Communication and Outreach Strategy; communications expert; GWP financial and administrative services; UNECE services) during years 1-4
48	Local consultants costs related to Output 13 (including National Coordinators' input to the implementation of the Information, Communication and Outreach Strategy; communications expert) during years 1-4
49	Materials and goods for the implementation of awareness raising and communications activities including celebration of Drin Day, press events etc.
50	Printing and production of awareness raising and communication material including brochures, publications of project outputs, video spots, educational material, website operation and maintenance.
51	Project manager
52	National Coordinators related costs

WORKPLAN

Quarters		Q1	Q2	Q3	Q4												
<b>Project</b>																	
<b>COMPONENT 1. CONSOLIDATING A COMMON KNOWLEDGE BASE</b>																	
<b>OUTCOME 1: CONSENSUS AMONG COUNTRIES ON KEY TRANSBOUNDARY CONCERNS, INCLUDING CLIMATE CHANGE AND VARIABILITY, REACHED THROUGH JOINT FACT FINDING</b>																	
<b>Output 1. Transboundary Diagnostic Analysis (TDA)</b>																	
<i>Preparation of the Transboundary Diagnostic Analysis</i>																	
	Stakeholder analysis																
	In depth Hydrological, Hydro-geological and Environmental Assessment of the Basin																
	Water Uses																
	Water – Energy Nexus assessment																
	<i>Preparation of draft TDA</i>																
	<i>Validation and approval</i>																
	Focus Groups Meetings /Consultation meetings																
<b>Output 2. Agreement on main drivers of change, and on indicators of current conditions, documented and agreed by the Drin Core Group</b>																	
<b>Output 3. Monitoring and Information Management System (IMS)</b>																	



WATER USES AND SUSTAINING ENVIRONMENTAL QUALITY THROUGHOUT THE EXTENDED DRIN BASIN																		
<b>Output 7. High Level Joint Commission for the extended Drin Basin established.</b>																		
	Ministerial Meetings			●				●										●
	Drin Core Group Meetings		●		●			●			●			●			●	
	Expert Working Group Water Framework Directive Meetings		●		●			●			●			●			●	
	Expert Working Group Biodiversity and Ecosystems Meetings		●		●			●			●			●			●	
	Expert Working Group Monitoring and Information Exchange Meetings		●		●			●			●			●			●	
	Preparation of workplans of DCG and EWGs																	
<b>Output 8. Inter-ministerial Committees established and functioning</b>																		
	Establishment		●															
	Meetings							●						●			●	
<b>Output 9. SAP adopted at the Ministerial level by the Meeting of the Parties to the Drin MoU</b>																		
<b>Output 10. Training program</b>																		
	Capacity Building Workshops organized by the project		●		●			●			●			●			●	
	Study Visits							●					●			●		
	Participation of representatives of institutions in trainings/workshops/conferences																	

<b>COMPONENT 4. DEMONSTRATION OF TECHNOLOGIES AND PRACTICES FOR IWRM AND ECOSYSTEM MANAGEMENT</b>																			
<b>OUTCOME 5: BENEFITS DEMONSTRATED ON THE GROUND ENVIRONMENTALLY SOUND APPROACHES AND TECHNOLOGIES NEW TO THE REGION</b>																			
<b>Output 11. A program of on the ground pilot demonstrations will deliver tangible results using quantifiable indicators</b>																			
	<i>Finalisation of the program of activities</i>																		
	<i>Implementation of the program of activities</i>																		
<b>COMPONENT 5. STAKEHOLDER INVOLVEMENT, GENDER MAINSTREAMING AND COMMUNICATION</b>																			
<b>OUTCOME 6: PUBLIC SUPPORT AND PARTICIPATION TO IWRM AND JOINT MULTI-COUNTRY MANAGEMENT ENHANCED THROUGH STAKEHOLDER INVOLVEMENT AND GENDER MAINSTREAMING</b>																			
<b>Output 12. A Stakeholder Involvement and Gender Mainstreaming Strategy defined and implemented</b>																			
	Public Participation and Stakeholders Involvement Strategy Preparation																		
	Implementation of Public Participation and Stakeholders Involvement activities																		
	Gender Mainstreaming Strategy Preparation																		
	Implementation of Gender																		

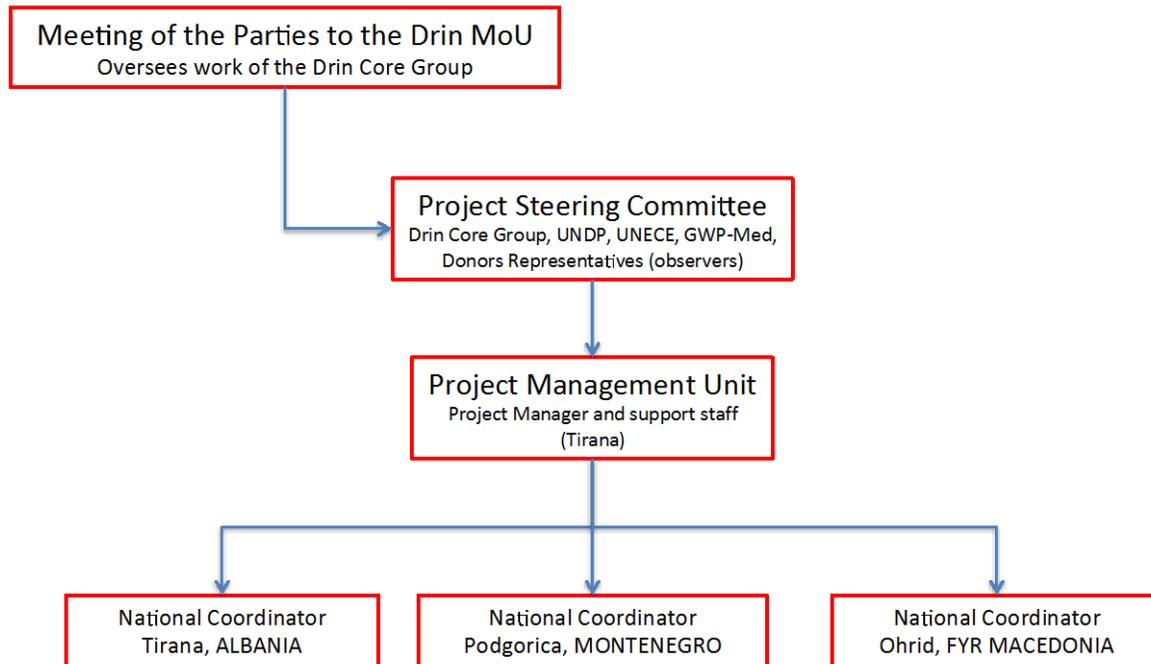
	Mainstreaming activities																	
<b>OUTCOME 7: POLITICAL AWARENESS AT ALL LEVELS AND PRIVATE SECTOR PARTICIPATION STRENGTHENED THROUGH HIGHER VISIBILITY OF THE PROJECT'S DEVELOPMENTS AND TARGETED OUTREACH INITIATIVES.</b>																		
<b>Output 13. Information, Communication and Outreach Strategy prepared and implemented.</b>																		
	Information, Communication and Outreach Strategy Preparation																	
	Implementation of Communication and Outreach activities																	
	Establishment and operation of a website																	
	Participation in IW LEARN activities																	

 Output Implementation phase  
 Activity implementation phase

 Project inception phase  
 Project implementation phase  
 Project closure phase

## 5. MANAGEMENT ARRANGEMENTS

### PROJECT MANAGEMENT ARRANGEMENTS



195. The project will be implemented by UNDP and executed by the Global Water Partnership (GWP). Financially it will be managed and administered by GWP through GWP-Med, located in Athens, Greece. Responsibilities include hiring and administration of international and local personnel, procurement of goods and services, travel arrangements and other miscellaneous support as required. Financial management of the GEF grant is the responsibility of GWP. It will manage the funds in accordance with GWP financial rules and regulations, monitor expenditures and maintain fiscal oversight of all expenditures. The GWP will have a full control over project operations, and can use its own supply channels for recruitment and procurement, provided that the process is in line with UNDP standard requirements and based on “best value for money”.

196. The UNDP in Albania will act as the Principal CO, and will be accountable to the GEF for the use of funds and reporting to GEF on all aspects of the project per the Monitoring and Evaluation Plan, with support of UNDP Country Offices in FYR Macedonia and Montenegro. Regional Center in Istanbul (IRC) will ensure additional regional coordination and oversight.

197. The Project will be managed by **the Project Coordination Unit (PCU)**, based in Tirana, Albania; staff will be stationed also in Podgorica, Montenegro, Ohrid, FYR Macedonia and Athens, Greece. The PCU will provide the day-to-day management and coordination function for project activities. Among others it will prepare the Inception Report, closely follow the implementation of project activities, handle day-to-day project issues and requirements, and ensure a high degree of transnational and inter-institutional collaboration (international and regional organizations and donors). It will be

responsible for production of six- month advance reports and six-month and annual expense reports. It will also assist the UNDP's EO in preparing final evaluation of the project. The PCU will report to the Steering Committee/Project Board. It will constitute of a Project Manager (PM), supported by Administrative and Financial staff; support in this regard will be provided by GWP-Med. Three **National Coordinators (NC)**, one located in each of the Tirana, Podgorica and Ohrid, as PCU members will assist the PM in coordinating project activities and the international and national experts; they will also assist securing regular engagement and coordination with the regional and local organizations, institutions and authorities involved in the implementation of the project. The PM and the NCs will be recruited based on an open competitive process.

198. UNECE will be providing technical assistance and advise on issues of expertise; these will be detailed in an inter-agency agreement that will be established with UNDP.

199. The **Steering Committee/Project Board (SC/PB)** will oversee the project execution and will act as the main policy guidance body of the project. In accordance to a related decision of the Ministers of the Drin Countries (28 May 2013, Tirana), the composition of the SC/PB will be the same to a large extend as the composition of the Drin Core Group in order to secure coherence with the decisions of the political body for the management of the Drin Basin. In this regard **Members** of the SC/PB will be the representatives of:

- Project countries in the Drin Core Group:
  - Ministry of Environment, Albania
  - Ministry of Environment and Physical Planning, the FYR Macedonia
  - Ministry of Sustainable Development and Tourism, Montenegro
  - Ministry of Agriculture and Rural Development, Montenegro
- UNDP, UNECE and GWP-Med.

The following Drin Core Group Members as well as donors<sup>31</sup> active in the Drin Basin will participate in the SC/PB as **observers**:

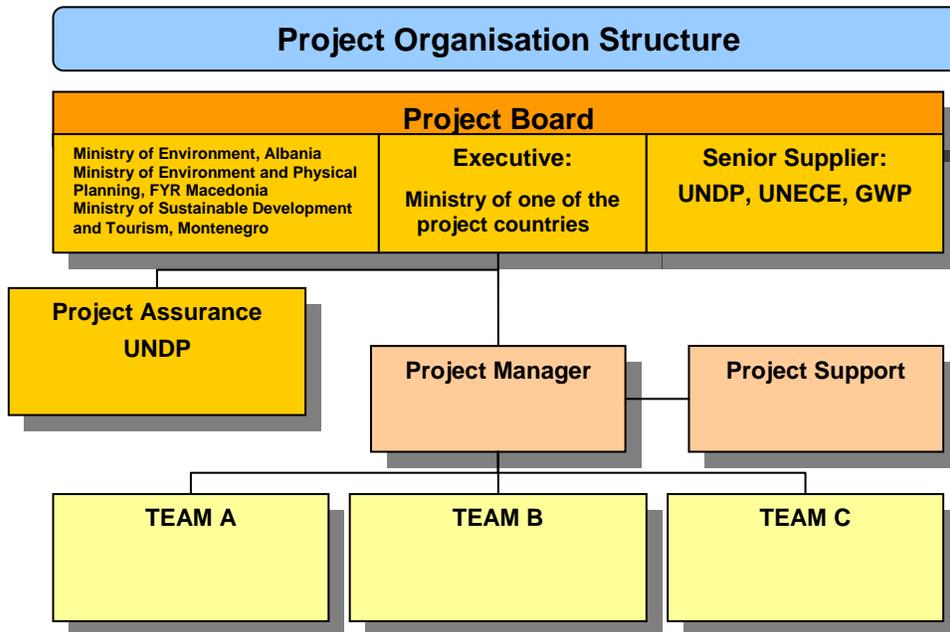
- Representatives of the non-project Drin Riparians:
  - Ministry of Environment, Energy and Climate Change, Greece
  - Ministry of Environment and Spatial Planning, Kosovo
- Representatives of the Joint Commissions/Committees in the Drin Basin i.e. Prespa Park Management Committee, Lake Ohrid Watershed Committee and Lake Skadar-Shkoder Commission; MIO-ECSDE.

The Meeting of the Parties to the Drin MoU will oversee the work of the Drin Core Group hence, of the SC/PB; this will result in increased ownership of project decisions.

200. The SC/PB will provide guidance based upon project progress assessments and related recommendations from the PM and will: Review the Annual Status reports workplans, technical documents, budgets and financial reports; Review the reports prepared under the M&E activity and; Based on the previous, make recommendations for the conduction of the business of the Project and if necessary take appropriate decisions for changes of the work plan, timetable and budget allocations. It will meet one or two times per year, as deemed appropriate by the SC/PB.

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<sup>31</sup> There have been discussions for the establishment of a working group comprising of donors and international organizations that will discuss developments in the management of the Drin basin as an outcome of the Project. There is an initial agreement reached with SDC, GIZ and the Italian Cooperation.



201. In order to ensure GWP's ultimate accountability for the project results, Project SC/PB decisions will be made in accordance to standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the SC/PB, the final decision shall rest with the Project Manager.

The SC/PB contains three distinct roles, including:

- a) **An Executive:** individual representing the project ownership to chair the group.
  - a. *A representative of one of the focal Ministries of the Project Countries – rotating among the ministries on an annual basis*
- b) **Senior Supplier:** individual or group representing the interests of the parties concerned, which provide funding for specific cost sharing projects and/or technical expertise to the project. The Senior Supplier's primary function within the SC/PB is to provide guidance regarding the technical feasibility of the project.
  - a. *Representative of the UNDP and/or UNECE*
- c) **Senior Beneficiary:** individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the SC/PB is to ensure the realization of project results from the perspective of project beneficiaries.
  - a. *Representatives of the focal Ministries of the Project Countries.*
- d) The **Project Assurance** role supports the SC/PB Executive by carrying out objective and independent project oversight and monitoring functions. The Project Manager and Project Assurance roles should never be held by the same individual for the same project.
  - a. *Representative of the UNDP*

202. The success of the project implementation is dependent upon strong project guidance, coordination and advocacy from the SC/PB. The PCU which will be responsible for arranging SC/PB meetings, providing materials to members prior to the meeting, and delineating a clear set of meeting objectives and sub-objectives to be met.

203. The **UNDP Principal Project Representative (PPR)** is selected by the UNDP Regional Center during the early stages of the project execution based on criteria such as UNDP Country Office (CO) interest, substantive and managerial capacity, and presence of regional institutions and expertise in the country. The responsibilities are as follows:

- a) The PPR will be responsible for financial and management oversight of the Implementing Partner (GWP) in accordance to UNDP/GEF rules on behalf of the UNDP Regional Center;
  - b) The PPR carries out responsibilities working closely with the UNDP Regional Center and the UNDP Regional Advisor for International Waters and in cooperation with the regional stakeholders concerned and the UNDP resident representatives in the other project countries.
204. **Project Manager:** The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the guidance laid down by the SC/PB. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.
205. In order to accord proper acknowledgement to GEF for providing funding, a GEF logo should appear on all relevant GEF project publications, including among others, project hardware purchased with GEF funds. Any citation on publications regarding projects funded by GEF will also accord proper acknowledgment to GEF.

### ***Audit arrangements***

The Audit will be conducted in accordance with the established UNDP procedures set out in the Programming and Finance manuals by the legally recognized auditor.

## **6. MONITORING FRAMEWORK AND EVALUATION**

The project will be monitored through the following M& E activities. The M& E budget is provided in the table below.

### **Project start:**

A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop should address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- b) Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

### **Quarterly:**

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc... The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

### **Annually:**

- Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

### **Periodic Monitoring through site visits:**

UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

### **Mid-term of project cycle:**

The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (insert date). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#).

The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

**End of Project:**

An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#).

The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

**Learning and knowledge sharing:**

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

**Communications and visibility requirements:**

Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: [http://www.thegef.org/gef/GEF\\_logo](http://www.thegef.org/gef/GEF_logo). The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: [http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08\\_Branding\\_the\\_GEF%20final\\_0.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf) Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

**M& E workplan and budget**

<b>Type of M&amp;E activity</b>	<b>Responsible Parties</b>	<b>Budget US\$</b> <i>Excluding project team staff time</i>	<b>Time frame</b>
Inception Workshop and Report	<ul style="list-style-type: none"> <li>▪ Project Manager</li> <li>▪ UNDP CO, UNDP GEF</li> </ul>	Indicative cost: 10,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> <li>▪ UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.</li> </ul>	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	<ul style="list-style-type: none"> <li>▪ Oversight by Project Manager</li> <li>▪ Project team</li> </ul>	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ UNDP RTA</li> <li>▪ UNDP EEG</li> </ul>	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> </ul>	None	Quarterly
Mid-term Evaluation	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ UNDP RCU</li> <li>▪ External Consultants (i.e. evaluation team)</li> </ul>	Indicative cost: 40,000	At the mid-point of project implementation.
Final Evaluation	<ul style="list-style-type: none"> <li>▪ Project manager and team,</li> <li>▪ UNDP CO</li> <li>▪ UNDP RCU</li> <li>▪ External Consultants (i.e. evaluation team)</li> </ul>	Indicative cost : 40,000	At least three months before the end of project implementation
Project Terminal Report	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ local consultant</li> </ul>	0	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ Project manager and team</li> </ul>	Indicative cost per year: 3,000	Yearly
Visits to field sites	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ UNDP RCU (as appropriate)</li> <li>▪ Government representatives</li> </ul>	For GEF supported projects, paid from IA fees and operational budget	Yearly
<b>TOTAL indicative COST</b> Excluding project team staff time and UNDP staff and travel expenses		US\$ 102,000 (+/- 5% of total budget)	

## 7. LEGAL CONTEXT

This project forms part of an overall programmatic framework under which several separate associated country level activities will be implemented. When assistance and support services are provided from this Project to the associated country level activities, this document shall be the “Project Document” instrument referred to in: (i) the respective signed SBAA’s for the specific countries; or (ii) in the Supplemental Provisions attached to the Project Document in cases where the recipient country has not signed an SBAA with UNDP, attached hereto and forming an integral part hereof.

This project will be implemented by the Global Water Partnership (“Implementing Partner”) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

The responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP’s property in the Implementing Partner’s custody, rests with the Implementing Partner. The Implementing Partner shall: (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; (b) assume all risks and liabilities related to the Implementing Partner’s security, and the full implementation of the security plan. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

## **8. ANNEXES**

**Annex 1. Memorandum of Understanding for the Management of the Extended Transboundary Drin Basin**

**Annex 2. Situation Analysis – Management of the Extended Drin Basin**

**Annex 3. Training Program Analysis**

**Annex 4. Demonstration Activities – Draft Concept Notes**

**Annex 5. Stakeholders in the Drin Basin**

**Annex 6. Risks and Assumptions**

**Annex 7. Terms of Reference of key project personnel**

**Annex 8. Co-financing Commitments**

**Annex 9. Capacity Assessment: Results of capacity assessments of Implementing Partner**

## **THE DRIN: A STRATEGIC SHARED VISION**

### **Memorandum of Understanding for the Management of the Extended Transboundary Drin Basin**

#### **Preamble**

1. *Mindful* of the Ohrid Declaration of 18 April 2011 in which we, the water and/or environment competent Ministers of the Drin Riparians (hereinafter, the “Ministers”) committed to negotiate and adopt a Shared Vision document on the coordinated management of the Extended Transboundary Drin Basin (hereinafter the “Drin Basin”);
2. *Expressing* our political will towards basin-wide mutual understanding in water management as a precondition for cooperation towards sustainable development;
3. *With full appreciation* of the work of the Drin Core Group whose establishment in 2009 signalled the initiation of the Dialogue among the stakeholders for the management of the Drin Basin (Drin Dialogue), and *taking fully into consideration* the outcomes of the Drin Dialogue;
4. *Confirming* our commitment to sustainable development in the Drin Basin that can be brought about in a coherent way through transboundary cooperation, in accordance with the principles of the European Union integration process;
5. *Aware* that the Drin River is the connecting agent of an extended shared watershed, including a number of shared water bodies and an adjacent sea, the Adriatic, linking these into a hydrologic system that supports a variety of ecosystems within the Drin Basin;
6. *Considering* that the Drin Basin is of international importance, due to its morphology and biological diversity, including the habitats within its Sub-Basins that are vital for the

- conservation of numerous rare species, many of which are endemic and/or globally endangered;
7. *Considering* environmental protection and conservation, and sustainable use of the natural resources of the Drin basin, including water, to be an integral part of the development process aimed at meeting the needs of the present and future generations on an equitable basis;
  8. *Recognizing* that sustainable development in the Drin Basin should include a balanced and reconciled development of vital economic sectors such as tourism, agriculture, energy production, fisheries and forestry;
  9. *Acknowledging* the need for sustainable and integrated management of the shared water resources in the Drin Basin and stressing our joint responsibility in this regard;
  10. *Being guided* by the principle of reasonable and equitable use of water resources;
  11. *Convinced* of the need for promoting adequate institutional arrangements and capacity building for sustainable and integrated water resources management in the Drin Basin;
  12. *Recognizing* the need to coordinate management efforts across the Sub-Basins in this regard, while making use of the existing cooperation schemes that have been established for some of the Sub-Basins, namely Prespa Park Management Committee, Lake Ohrid Watershed Committee, and Lake Skadar-Shkoder Commission;
  13. *Convinced* of the need of structured stakeholder involvement as part of sustainable basin management;
  14. *Recognizing* the need for the Parties to meet the obligations arising from relevant international agreements, particularly the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (March 17, 1992 – hereinafter referred to as “UNECE Water Convention”) and its Protocols, the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, February 2, 1971), the Convention for the Protection of the Mediterranean Sea Against Pollution (16 February 1976) and its Protocols and taking into consideration provisions of the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (May 21, 1997);
  15. *Conforming* to the principles and legal framework of the European Union, in particular the Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy (October 23, 2000 – hereinafter referred to as “EU WFD”);
  16. *Acknowledging* the contribution of the UNECE, GWP-Med and the Petersberg Phase II / Athens Declaration process, that support the Drin Dialogue, in reaching the signing of this MoU;

Now, therefore, the Ministers and their representatives hereby enter into this Memorandum of Understanding (hereinafter, “MOU”), to be referred to as “The Drin: A Strategic Shared Vision”:

### **Article 1. Definitions**

1. The “Sub-Basins” consist of the respective geographical areas of each of the following basins: the Prespa Lakes, Lake Ohrid, Lake Shkoder/Skadar (collectively, the “Three Lake Areas”); the Black Drin River (Crn Drim or Drin i Zi); the White Drin River (Beli Drin or Drin i Bardhë); the Drin River (Drim or Drini or Drin i madh), and the Buna/Bojana River.
2. The “Extended Transboundary Drin Basin,” or “Drin Basin” is the geographical area consisting of the integrated geographical areas of all the Sub-Basins.
3. The “Parties” are the five water and/or environment competent Ministries of the Drin Riparians represented by the respective Ministers and their representatives.
4. The “Drin Core Group” (hereinafter, “DCG”) is the informal body established in 2009 to provide a Forum for coordination among the Parties to enable communication and cooperation among them and the key stakeholders and for the coordination and the facilitation of implementation of the Drin Dialogue, comprising of representatives of the: Parties; Prespa Park Management Committee; Lake Ohrid Watershed Committee; Lake Skadar-Shkoder Commission; United Nations Economic Commission for Europe (hereinafter referred to as the “UNECE”); Global Water Partnership – Mediterranean (hereinafter referred to as the “GWP-Med”); and Mediterranean Office for Environment Culture and Sustainable Development (hereinafter referred to as the “MIO-ECSDE”).
5. The “Drin Dialogue” is a coordinated and structured consultation process, initiated in 2009, among the Parties, the existing joint Commissions/Committees in some of the Sub-Basins and stakeholders, towards the development of a Shared Vision for the enhancement of transboundary cooperation and sustainable management of the Drin Basin in compliance with existing regional and international legislation in particular the provisions of the UNECE Water Convention, the EU Water Framework Directive (hereinafter referred to as the “EU WFD”) and other related multilateral agreements, facilitated by the UNECE and the GWP-Med and conducted within the frameworks of the UNECE Water Convention and the Petersberg Phase II / Athens Declaration Process.

### **Article 2. Objective**

The Parties, through their Ministers and their representatives, commit to promote joint action for the coordinated integrated management of the shared water resources in the Drin Basin, as

a means to safeguard and restore to the extent possible the ecosystems and the services they provide, and to promote sustainable development across the Drin Basin.

### **Article 3. Common Concerns for sustainable development of the Drin Basin**

The Parties hereby should undertake concrete actions to address problems identified as affecting sustainable development in the entire Drin Basin or in one or more of the Sub-Basins:

- (i) Improving access to comprehensive data and adequate information to fully understand the current state of the environment and the water resources and the hydrologic system (including surface, underground and coastal waters) as well as ecosystems of the Drin Basin;
- (ii) Establish conditions for a sustainable use of water and other natural resources;
- (iii) Develop cooperation and measures to minimise flooding especially in the lower parts of the Drin Basin;
- (iv) Improve management and appropriate disposal of solid wastes;
- (v) Decrease nutrient pollution deriving from untreated or poorly treated wastewater discharges and unsustainable agricultural practices;
- (vi) Decrease pollution from hazardous substances such as heavy metals and pesticides;
- (vii) Minimise effects of hydro-morphologic interventions that alter the nature of the hydrologic system and the supported ecosystems, resulting in their deterioration.

### **Article 4. Priority Actions at national, bilateral and/or multilateral levels**

1. In the short term (to 2013) a set of minimum, “No Regret” measures should be initiated and carried out to promote integrated water resources management, also at national level, and facilitate enhancement of cooperation, including:

- a. Elaboration of coordination enhancement mechanisms among the Parties. The Drin Core Group will be used for this purpose.
- b. Enhancement of the knowledge basis about the Drin Basin that will allow planning of management and implementation of the EU WFD at national, Sub-Basin and Drin Basin level as well as enhanced cooperation among the Parties in the future. This may be achieved through the characterization of the Drin Basin in accordance to the EU WFD and the analysis of the hydrological patterns integrating consideration of: (i) the results achieved in the Three Lake Areas through previous and on-going GEF funded projects; (ii) the results of other on-going and past relevant projects; (iii) the karstic nature of large sections of the Drin Basin; (iv) the surface/groundwater interaction patterns and conjunctive uses throughout the Drin Basin; and (v) the coastal ecosystems, transitional waters and shallow marine environment. The characterization of each Sub-Basin should be done either at the national level or through bilateral or multilateral coordination or cooperation on the basis of related existing agreements among the Parties concerning the management of each Sub-Basin. This information will be available to all Parties

through the system indicated in point 4.1.c and potentially in the future through this indicated in point 4.2.d.

- c. Improvement of information exchange through the establishment of a system for regular exchange of relevant information among the competent authorities of each Party.
- d. Enhancement of cooperation in the field of flood risk preparedness, management and mutual support. This may be achieved through the preparation of different options for the establishment of cooperation at technical level in this regard, by a working group comprising of representatives of the competent authorities of the Parties under the coordination of the Drin Core Group.
- e. Institutional strengthening in the field of integrated water resources management targeting managers, practitioners, relevant officers of national, regional and local authorities, other stakeholders etc. Towards this end, capacity building activities could be foreseen in fields of priority such as: (i) integrated basin planning and management in accordance with the EU WFD, (ii) practices of transboundary water cooperation in accordance to the UNECE Water Convention, (iii) GIS & spatial planning, (iv) Environmental Impact Assessments and industrial site inspections, (v) flood management, (vi) natural wastewater treatment systems, (vii) best agricultural practices, (viii) avoidance and containment of invasive species, (ix) environmental monitoring system design and management, (x) enforcement of water quality, water abstractions, recharge area protection and biodiversity regulations, (xii) groundwater management, (xiii) sustainable tourism, etc.
- f. Promotion of public participation and stakeholders engagement. This may be achieved through the preparation and implementation of a Stakeholders Involvement Plan.

2. In the Medium Term (till 2015) actions undertaken should allow the establishment of instruments to be used for the sustainable management of water resources in the Drin Basin, including:

- a. Achievement of a science based consensus, among the Drin Riparians, on key (Drin Basin) transboundary priorities including climate change scenarios, and also main drivers of change and indicators of sustainable development for the basin, based on the knowledge basis established (see 4.1.b. above).
- b. Preparation of an elaborated water balance for the Drin Basin as a useful decision support tool at national and transboundary levels.
- c. Establishment of a harmonized Drin Basin Water Monitoring Program compatible with the UNECE Guidelines on Monitoring and Assessment of Transboundary Rivers, the relevant provisions of the EU WFD, and the Shared Environmental Information System (SEIS) of the EEA.
- d. Making use of the efforts described under 4.1.c., establishment of an Information Management System (IMS) that will enable authorities to collect, store and share data and information produced through the Drin Basin Water Monitoring Program, and
- e. Establishment of basin-wide cooperative management on the basis of an agreement among the Parties and the establishment of a Basin Commission.

3. In the Long Term (after 2016) the instruments that will allow the Parties to work towards sustainable management of the water resources in the Drin Basin are expected to be in place, including:

- a. Development of a Drin Basin Management Plan in accordance with the EU WFD and the UNECE Water Convention, that will serve as the guidance document for the development and implementation of river/lake basin management plans for each of the Sub-Basins at national and transboundary level in accordance with the bilateral and multilateral agreements among the Drin Riparians.

## **Article 5. Implementation and Monitoring**

1. Pursuant to point 4.1.a, the mandate of the DCG is prolonged and expanded to facilitate communication and cooperation among the Parties for the implementation of the provisions of the present MoU. The functions and responsibilities of the DCG are defined in the Annex to this MoU.

2. Understanding the need for the implementation of the Strategic Shared Vision to reflect the views of the stakeholders the Parties call for an annual meeting of stakeholders from the Drin Riparians and appreciate and accept the offer of UNECE and GWP-Med to facilitate its organization.

3. Aiming at the enhanced and structured engagement of stakeholders in the implementation of the MoU the Parties encourage the establishment of the “Drin Water Partnership” as a mechanism that will facilitate (a) awareness raising; (b) information exchange; (c) communication; (d) capacity building; (e) consultation and active participation if need be.

4. The Parties request GWP-Med in cooperation with MIO-ECSDE to elaborate on such a scheme and explore possibilities to establish under the auspices of GWP-Med such a Water Partnership.

5. The Parties ensure the participation of their respective Governments, within their possibilities, to provide resources for the implementation of the provisions of this MoU and call upon and invite the EU, Global Environment Facility and other donors to join and provide support in this regard. The DCG shall initiate, stimulate and coordinate activities in this regard.

6. The Parties request the continuation of the assistance provided under the Petersberg Phase II / Athens Declaration Process, coordinated by the German and Greek governments and the World Bank, as well as under the UNECE Water Convention.

7. The Parties urge UNECE and the GWP-Med to continue providing their technical support and facilitation of the process.

## **Article 6. Meetings of the Parties**

The Ministers responsible for the management of water resources and/or environment of the five Parties shall meet ANNUALLY to review progress in the implementation of the present MoU and its provisions.

**Article 7. Legal Effect**

The present MoU shall not affect the status of bilateral relationships and rights and obligations of the Parties under prior Memoranda of Understanding and/or all international Agreements concluded among them.

**Article 8. Validity**

The present MoU becomes valid from the date of signing.

**Article 9. Withdrawal**

A Party may withdraw from this MoU by giving written notice to every other Party, which shall become effective with respect to such Party 30 days after receipt of such notice by all Parties.

**Article 10. Termination**

This MoU may be terminated by a majority decision of the Parties. Such termination shall take effect six months after such a decision by the Parties.

Done at Tirana this twenty fifth day of November two thousand and eleven, in 5 copies, one for each Party, in the English language.

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Minister  
Fatmir Mediu

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Minister  
Abdilaqim Ademi

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Deputy Minister  
Velizar Vojinovic

---

Deputy Minister  
Ilir Mirena

---

Special Secretary  
Andreas Andreadakis

## **Annex. Set-up, Functions and Responsibilities of the Drin Core Group**

The set-up, functions and responsibility of the DCG is the following:

- (i) The DCG will be comprised of the nominated representatives of the: (a) Parties (hereinafter referred to as the “representatives of the Parties”); (b) Prespa Park Management Committee; (c) Lake Ohrid Watershed Committee; (d) Lake Skadar-Shkoder Commission; (e) UNECE; (f) GWP-Med; (g) MIO-ECSDE.
- (ii) GWP-Med will serve as the Secretariat of the DCG providing technical and administrative support.
- (iii) The institutions and bodies participating in the DCG may alter their representatives in the DCG through a formal letter to the DCG Secretariat.
- (iv) The decisions of the DCG will be taken by the representatives of the Parties on the basis of consensus.
- (v) The DCG shall meet on a regular basis and not less than once per year. The next meeting of the DCG will be organized within 6 months from the signing of the MoU. The dates and the frequency of the meetings to follow will be decided by the DCG itself.
- (vi) A non-scheduled meeting of the DCG may be called at the request of any of the representatives of the Parties upon submission to the Secretariat of a written request including explanation of the reasons for such meeting, which shall be promptly distributed to all DCG members.
- (vii) The venue of the meetings will be decided by the DCG. The meetings shall be chaired by the representative of the Party in which they are held.
- (viii) The DCG shall amend as necessary in conformity to the aforementioned in this article and in accordance to the requirements stemming from the MoU its internal rules of organization and Terms of Reference (ToR) decided at Podgorica on 1 December 2009.
- (ix) Possible changes in the set-up, functions and responsibility of DCG is decided of by the meeting of the Parties.

## **Annex 2. Situation Analysis – Management of the Extended Drin Basin**

*See files accompanying the Project – file can be downloaded here*

<https://www.dropbox.com/s/yuikjlyzutcufe/Drin%20Situation%20Analysis%20-%20Final.zip>

### **Annex 3. Training Program Analysis**

*See files accompanying the Project Document*

#### **Annex 4. Demonstration Activities – Draft Concept Notes**

**I. Integrated River Basin Management Planning in Lake Ohrid.**

*See files accompanying the Project Document*

**II. Wastewater treatment in Shkodra city area.**

*See files accompanying the Project Document*

**III. Reduction of nutrient load and forest preservation through biomass collection and production of fuel briquettes in Montenegrin part of Skadar Lake.**

*See files accompanying the Project Document*

**IV. Identification and mapping of flood prone areas, and definition of a flood management plan involving multiple uses of hydropower schemes and early warning system.**

*See files accompanying the Project Document*

**V. Testing self-regulatory mechanisms between fishermen through fishermen associations to promote sustainable ecosystem based fisheries management in Montenegrin part of Skadar Lake**

*See files accompanying the Project Document*

## **Annex 5. Stakeholders in the Drin Basin**

*See files accompanying the Project Document*

## Annex 6. Risks and Assumptions

### OFFLINE RISK LOG

(see [Deliverable Description](#) for the Risk Log regarding its purpose and use)

<b>Project Title:</b>	<b>Award ID:</b>	<b>Date:</b>
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9.	10. Description	11. Date Identified	12. Type	13. Impact & 14. Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	<p>Enter a brief description of the risk</p> <p><i>(In Atlas, use the Description field. Note: This field cannot be modified after first data entry)</i></p>	<p>When was the risk first identified</p> <p><i>(In Atlas, select date. Note: date cannot be modified after initial entry)</i></p>	<p>Environmental Financial Operational Organizational Political Regulatory Strategic Other</p> <p><i>Subcategories for each risk type should be consulted to understand each risk type (see Deliverable Description for more information)</i></p> <p><i>(In Atlas, select from list)</i></p>	<p>Describe the potential effect on the project if this risk were to occur</p> <p>Enter probability on a scale from 1 (low) to 5 (high) P =</p> <p>Enter impact on a scale from 1 (low) to 5 (high) I =</p> <p><i>(in Atlas, use the Management Response box. Check "critical" if the impact and probability are high)</i></p>	<p>What actions have been taken/will be taken to counter this risk</p> <p><i>(in Atlas, use the Management Response box. This field can be modified at any time. Create separate boxes as necessary using "+", for instance to record updates at different times)</i></p>	<p>Who has been appointed to keep an eye on this risk</p> <p><i>(in Atlas, use the Management Response box)</i></p>	<p>Who submitted the risk</p> <p><i>(In Atlas, automatically recorded)</i></p>	<p>When was the status of the risk last checked</p> <p><i>(In Atlas, automatically recorded)</i></p>	<p>e.g. dead, reducing, increasing, no change</p> <p><i>(in Atlas, use the Management Response box)</i></p>
1	<p>Lack of sustained political support by the project countries may hinder the ability of the project to reach its objective.</p>	1 May 2013	Political	<p>If becomes reality it will be difficult for project countries to reach consensus on SAP.</p>	<p>This is considered unlikely as the Ministers of the Drin Riparians that are competent for waters resources and environment management have declared their political support towards the sustainable management of the Drin Basin by signing the Drin MoU</p>	Project Manager	Implementing Partner	1 May 2014	no change

				P = 1 I = 5	(Tirana, 25 November 2011). Furthermore, there is a decision by the Ministers that the synthesis of the Steering Committee will follow this of the Drin Core Group that consists of formally appointed representatives of the Parties to the MoU. The project design foresees activities that will strengthen country commitment through improved science and understanding, exchanges and consultations, awareness campaigns and capacity building. The EU approximation process will also help in moving the project successfully forward				
2	Climate Change may have an effect to the hydrological system in the Drin Basin affecting the ecosystems, the frequency and intensity of floods hence the society and the economy etc.	1 May 2013	Environmental Financial	Given the nature of the project, oriented at improving science, establishing processes and creating enabling political environments, Climate Change will not have any impact on the project likelihood of success. Possible increase of effects of Climate Change will result in greater need of cooperation among the riparian countries; the latter is fostered by the project.  P = 3 I = 1	Climate change and increased climatic fluctuations will be taken into full consideration as part of the technical components of the project, from the diagnostic analysis, to the identification of needed priority actions, so that future management of the basin will include measures and provisions to face this challenge to sustainability.	Project Manager	Implementing Partner	1 May 2014	no change

## **Annex 7. Terms of Reference of key project personnel**

### **Project Manager and Chief Technical Advisor (PM/CTA)**

The prime responsibility of the Project Manager (PM) is to ensure that the project produces the specified results, to the required standard of quality, within the specified timeframe and budget as indicated in the project document.

The PM shall be responsible for overall management and supervision of the project and for providing critical technical input to project implementation.

The PM shall have the authority to run the project on a day-to-day basis on behalf of the Implementing Partner (GWP) within the guidance laid down by the Steering Committee. She/he will manage and provide overall supervision for all staff in the Project Coordination Unit (PCU), consultants and sub-contractors.

She/he shall liaise directly with the UNDP-GEF GEF Regional Technical Advisor, National Focal Points (NFPs) and project partners in order to develop the project annual work plans.

She/he will report to the UNDP-GEF Regional Technical Advisor and the Executive Secretary of GWP-Med. She/he shall consult and coordinate with, the senior representatives of partner institutions and agencies as well as the respective UNDP officers in Albania, FYR Macedonia and Montenegro.

#### **Duties:**

The PM will have the following specific duties:

##### *Management:*

- Provide management leadership for the project -both on organizational and substantive matters-related to planning and general monitoring of the project; the PCU and its staff and; the budget. Management and supervision should be done in accordance with the Project Document and the rules and procedures of the GWP.
- Prepare annual work plans and coordinate the implementation of project activities using guidance from the Steering Committee and the Drin Core Group. The work plans will provide guidance on the day-to-day implementation of the project document noting the need for overall coordination with other projects and the various donor funded parallel initiatives. Ensure adherence to the project's workplans, prepare revisions of the workplans to be submitted to the Steering Committee for approval, as required.
- Catalyze the adaptive management of the project by actively monitoring progress towards achievement of project objectives vis-a-vis the agreed progress indicators and applying the resulting insights to the project's ongoing work.
- Prepare GEF project progress reports, as well as any other reports requested by the GWP and UNDP.
- Coordinate the selection and recruitment of project personnel including the national and international consultants.
- Supervise and guide the work of National Coordinators, consultants and subcontractors and oversee compliance of their work with the project annual workplans.
- Assume overall responsibility for the proper handling of logistics related to project workshops and events.
- Arrange for the timely recruitment and procurement of quality services and equipment and for implementation of project activities of in accord with applicable rules, regulation and standards. Monitor the expenditures, commitments and balance of funds under the project budget lines, and draft project budget revisions.
- Assume overall responsibility for meeting the financial delivery targets set out in the agreed project annual work plans and coordinate reporting on project funds and related record keeping.

- Coordinate the administrative and financial work undertaken by the GWP in service of the project.
- Liaise with project partners to ensure their co-financing contributions are provided within the agreed terms.
- Ensure adequate information flow, discussions and feedback among the various stakeholders of the project.

*Technical Input:*

- Provide critical and significant basin management and water resources-related technical input to project implementation based upon professional background and experience.
- Provide overall technical guidance:
  - to ensure effective and efficient implementation of the project activities towards full achievement of its stated objectives;
  - to ensure consistency with the integrated water resources management approach;
  - for all Project's substantive, managerial and financial reports.
- Provide technical input and be responsible for the development of Terms of Reference for consultants and contractors.
- Provide specific technical input and guidance on the implementation and documentation of project activities directly within her/his technical area and provide oversight and guidance to international and national consultants recruited to undertake/support the implementation of project activities.
- Engage in a constructive dialogue with the NFPs and project partners to maximize consistency and synergy between the various project components.
- Foster and establish technical best-practice links with other related regional initiatives and, where appropriate, with other regional International Waters programmes.
- Interact on a technical and substantive level with the members of the Drin Core Group and its Expert Working Groups in order to maximize sustainability of project outcomes.
- Provide overall technical guidance to maintain and develop the project web-site, seeking and incorporating data and information from all project partners.
- Represent the project at the Steering Committee meetings, technical meetings and other appropriate fora at regional and international levels.
- Undertake any other actions related to the project as requested by UNDP Regional Technical Advisor and GWP.

*Skills and Experience Required:*

- Post-graduate degree in environmental management or a directly related field, e.g. integrated water resources management, natural resources management, biology, hydrology etc.
- Demonstrated working experience on: water resources management at basin level; facilitation of processes for the enhancement of cooperation among countries for the management of international waters; analysis including technical of basin management and water resources management issues; stakeholders consultation and involvement including experience in preparing stakeholders analysis; development of plans in the context of international waters management; provision of expert and technical assistance and services to joint bodies and national authorities; knowledge management and institutional capacity building.
- At least six years of working experience on the issues mentioned above at the extended Drin Basin level.
- Very good understanding of water resources governance and basin management at the Drin Riparian states and basins levels.

- Very good understanding of the socio-economic and political background in the Drin Riparian states as well as of the bilateral and trilateral cooperation processes for the management of Drin sub-basins (Lakes Prespa, Ohrid and Shkoder/Skadar).
- Working experience with the project national stakeholder institutions is desired.
- At least ten years of experience in fields related to the assignment including five years of experience on project management and five years of experience at a senior programme management level.
- Demonstrated diplomatic and negotiating skills; familiarity with the goals and procedures of international organizations, in particular those of the GEF and GEF partners.
- Experience with GEF International Waters projects and TDA/SAP methodology will be appreciated.
- Must be able to demonstrate ability to make significant technical and management contributions to project implementation.
- Strong drafting, presentation and reporting skills.
- Excellent knowledge of English.

Duty Station: Tirana, Albania and Athens, Greece

Duration: Four years on a fixed-term contract

Suggested Grade: TBD

## **National Coordinators (NC)**

One National Coordinator will be based in each of the project countries, Albania, FYR Macedonia and Montenegro. Each of the National Coordinators (NCs) will coordinate, under the direct supervision of the Project Manager (PM), part of the project activities and manage the day to day operations of the PCU office in the project country she/he is based at. Each of the NCs will provide technical input for the implementation of the project and will support the Project Manager (PM) in coordinating the work of the international and national consultants. Each of the NCs will report to the PM. She/he will ensure effective communication with the ministries and the national institutions in the country that she/he is based at and will work closely with the PM and the international and national consultants. The three NCs will be part of the Project Coordination Unit (PCU) and will be recruited based on an open competitive process.

### **Duties:**

Each of the NCs will have the following specific duties performed under the supervision of the PM:

#### *Management:*

- Support the preparations of project work-plans and operational and financial planning processes.
- Contribute to the preparation of progress reports.
- Assist in procurement and recruitment processes.
- Prepare agendas and arrange field visits, appointments and meetings both internal and external related to the project activities and write minutes from the meetings.
- Assist in logistical organization of meetings, training and workshops; ensure the proper day-to-day functioning of the PCU in the country that is based at by supervising the provision and acquisition of all necessary supplies and services including maintenance contracts, office supplies and communications. She/he shall be responsible for the proper running and upkeep of the PCU hardware including the computers, copiers, etc. Maintain records over project equipment inventory.
- Monitor project activities, and assist the PM in: monitoring budgets and financial expenditures and prepare draft budget revisions and working budgets.
- She/he shall oversee the work of Administrative Assistants (should these are recruited in the course of the project).
- Advise all project counterparts on applicable administrative procedures and ensure their proper implementation.
- Assist all PCU staff and international and national experts in the country they are stationed with personnel matters relevant to the performance of official duties. This work, with support from the financial officer and staff in GWP-Med, will include the obtaining of visas for official missions and assistance to newly arriving or departing staff opening bank accounts, etc. The incumbent will also supervise keeping records of time and attendance of international and national experts and any other administrative functions as required by the PM.
- Undertake all duties relevant to advertise national and international procurement related to the Project, with support of the financial officer in GWP-Med. She/he will arrange for customs clearance if required. She/he will maintain precise records of all goods purchased and for maintaining proper equipment inventories as well as for ensuring the proper labeling and recording of equipment delivered to the field.
- Perform other duties as required.

#### *Technical Input:*

- Coordinate and provide technical input for activities that will be defined -for each NC- during the inception period in a way that it is ensured that objectives are met and envisaged outcomes and outputs are delivered as described in the Project Document. This includes that each of the NC will

ensure -in cooperation with and using advice by the PM- that the outputs is of the optimum possible quality.

- Coordinate and facilitate, for the activities she/he coordinates, inputs of government agencies, partner organizations, scientific and research institutes, subcontractors, and national and international experts in a timely and effective manner.
- Assist the PM in the recruitment / mobilization of qualified national and international external experts and organizations as needed to provide specific consultancy services; in this regard assist the PM in defining the technical responsibilities and deliverables expected from national and international consultants and service providers and to elaborate them in comprehensive Terms of Reference.
- Assist the PM in coordinating the international and national experts that work for the activities that the NC coordinates. The NC will be the principal line of liaison between the PM and the aforementioned experts.
- Assist the PM in providing specific technical guidance on the implementation and documentation of project activities directly within her/his technical area and provide oversight and guidance to international consultants recruited to support specific areas of project implementation.
- Ensure, for the activities she/he coordinates, that national and international consultants prepare adequate work plans, prepared their deliverables in accordance to the ToR.
- Prepare reports for the respective activities as requested by the PM.
- Support the PM in the preparation of annual project work plans and reports.
- Assist the PM in the review of reports of national and international consultants, project budget revisions, and administrative arrangements as required by UNDP/GEF procedures and by the needs of the project implementation.
- Provide overall technical input to maintain and develop the project web-site, seeking and incorporating data and information from project activities.

#### Skills and Experience Required:

- Graduate degree in environmental management or a directly related field e.g. hydrology / hydrogeology, biology, limnology, geography, natural resources management.
- Demonstrated working experience on: water resources governance; natural resources management and basin management issues; stakeholders consultation and involvement.
- At least three years of working experience on the issues mentioned above preferably at one of the sub-basins of the Drin Basin (Lakes Prespa, Ohrid, Skadar/Shkoder, and Drin and Buna/Bojana Rivers).
- Very good understanding of water resources governance and river basin management in the Drin at the riparian states, sub-basin and basin levels.
- Very good understanding of the socio-economic and political background in the Drin Riparian countries as well as of the bilateral and trilateral cooperation processes for the management of Drin sub-basins.
- Experience in TDA/SAP methodology and/or flood management and/or using GIS software will be appreciated.
- Experience with GEF projects will be appreciated.
- Demonstrated capacity to prepare technical reports.
- Strong drafting, presentation and reporting skills.
- Excellent knowledge of English.

Duty Station: Tirana, Albania or Podgorica, Montenegro or Ohrid FYR Macedonia

Duration: Four years annually renewed

Suggested Grade: TBD

## **Annex 8. Co-financing Commitments**

*See files accompanying the Project Document*

**Annex 9. Capacity Assessment: Results of capacity assessments of Implementing Partner**

*See files accompanying the Project Document*