

## SECTOR PLANNING DOCUMENT

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### BOSNIA AND HERZEGOVINA

### ENVIRONMENT & CLIMATE ACTION

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NOTE: The Sector Planning Document aims at a) assessing the degree of readiness in relation to the sector approach as well as b) planning and sequencing IPA II priorities (it is an IPA II specific tool). The level at which this document is used is flexible, i.e. at the level of an entire sector (IPA II primary sector) of a 'sub-sector', depending on the purpose, size of the country, etc. Preparing this document is mandatory until the given sector has reached the required maturity to move towards fully-fledged sector support. However, the format/structure (apart for the section on sector approach assessment in Part I) and level of details are not prescriptive: this template should therefore be used mainly as guidance for development of a mid-term/long-term plan for sector support under IPA II. The document is of a working nature, to be updated regularly over the years.

### 1 SECTOR CONTEXT

Bosnia and Herzegovina (BiH) is at a turning point in the development of its economy, society and environment. Among the key issues facing BiH are the pace of their integration with the European Union (EU) and the prospect of future membership. European integration represents an important opportunity and also a challenge in terms of reforming national institutions, policies and laws. On its way to the EU, the country is bound to complying with specific EU regulations including those of environment and climate change. The focus of EU policies on environment has shifted from a compartmentalised approach towards a systemic approach that captures the interdependencies across environment, health and well-being challenges. The choices that BiH government make concerning pressing questions today will influence not only the region's environment in the coming decades, but also that of other European countries. For this reason, a future-oriented perspective is important.

By signing the Stabilisation and Association Agreement (SAA) in 2015, the country committed itself to gradually align its legislation with the EU *acquis*, to ensure adequate institutional set-up and capacities in order to be able to take on the obligations of membership and to ensure that existing and future legislation is properly implemented and enforced. This is particularly important in the field of environment where the SAA calls for strengthening of administrative structures and procedures in the sector Environment and Climate Action to ensure strategic planning of environment issues and coordination between relevant actors in order to be able to align its environmental legislation to the Community environmental *acquis* and to implement and enforce it properly. Approximation of EU environmental *acquis* is one of the most demanding challenges for the country. According to the *ECRAN Progress Report: Monitoring Transposition and implementation of EU environmental acquis (2015-2016)*, although a certain degree of legislation alignment with horizontal and sector specific environmental *acquis* has been achieved further activities are needed toward full transposition and harmonization of EU environmental requirements in the legislation of Federation of Bosnia and Herzegovina (FBiH), Republika Sprska (RS) and Brcko District of BiH (BD BiH).

The main reference document setting the framework for the reform process in the Sector is the 2017 *Bosnia and Herzegovina Environmental Approximation Strategy (EAS)*. The EAS together with its relevant implementation documents adopted by FBiH, RS and BD BiH, identifies framework necessary for harmonised countrywide approach in legal harmonisation, implementation and enforcement of the EU environmental *acquis*. Particular efforts will be needed in the sub-sectors of Air Quality, Water Quality, Waste management and Climate Changes alignment in these areas will require substantial investments and institutional capacity building to design implement and monitor environmental policies and bring country closer to the EU integration. Major challenges and urgent needs for priority improvements related to Environmental and Climate Action are also identified in the 2012 *Bosnia and Herzegovina State of the Environment Report*.

The legal harmonization, implementation and enforcement requires from the sector Environment and Climate Action to be well organized, coordinated, and appropriately staffed, with possession of specific

legal, technical and economic expertise. In addition, its implementation requires significant capital investments in the environmental infrastructure<sup>1</sup>.

The following paragraphs describe the key problems/needs and the main challenges of the sub-sectors.

**Water management:** Water management regulation in Bosnia and Herzegovina consists of *Water Laws*<sup>2</sup> adopted in Federation of BiH and Republika Srpska that are transposing the main principles of water-related *EU Directives*. BD BiH is currently in the process of adoption of *Water Law*. Although BiH was supported through IPA assistance<sup>3</sup> to further align with relevant EU acquis this was just partially enough. There is a still clear need for further actions in order to develop primary and secondary legislation, based on the previous developments and aligned with all relevant pieces of water related EU *acquis*.

Following requirements of the entity Water Laws as well as requirements of the Water Framework Directive (WFD)<sup>4</sup>, the entity River Basin Management Plans (RBMPs) for the Sava river basin in BiH were developed and adopted with the support allocated through IPA 2011<sup>5</sup>. The entity RBMPs for the Adriatic sea watershed area are developed and adopted in RS while adoption in FBiH is still pending. Although, major step forward has been done, still there are certain gaps that could not be addressed within the first planning cycle<sup>6</sup> due to lack of resources, technical knowledge and relevant expertise. Already achieved level of development needs to be upgraded. Based on already acquired knowledge and experience, the capacities of the respective water agencies needs to be further developed in order to enable them to develop RBMPs for the next planning cycle 2022-2027. All developments in water sector need to be integrated into the Water Information Systems (WIS), thus respective upgrade of WIS have to be done..

Although BiH made commendable reform progress in the water sector, the pace needs to be accelerated in order to ensure sufficient level of transposition and implementation of EU water related directives and facilitate further developments in the sector. This would also contribute to the implementation of the other requirements on the international agenda such as Sustainable Development Goals (SDGs), particularly SDG6, Water Convention<sup>7</sup>, UNECE Protocol on Water and Health, Convention for Protection of Danube River Basin, Framework Agreement on Sava River Basin, etc.

Further reform and development of the water sector should rely on legal and institutional capacity developments as well as on related infrastructure development. It is essential that existing legislation continues to be harmonised with EU directives, harmonised throughout the different administrative levels and to ensure long term sustainability of the system. Key driving forces for this are prevention of further degradation of waters and water related ecosystems, reduction of flood and drought risks, sustainable use of water resources and good quality services. Moreover, financing of the water sector has to be analysed and respective solutions should be proposed in order to ensure regular operation

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<sup>1</sup> According to the EAS, the total cost of approximation in the sector Environment and Climate Action was estimated at approximately EUR 7 Billion distributed as follows: 55% for the approximation in the sub-sector of Water Management, 29% for the sub-sector of Air Quality and Climate Change, and 14% for the sub-sector of Waste Management.

<sup>2</sup> FBiH Official Gazette, No 70/06; and RS Official Gazette, No. 50/06, 92/09, 121/12, 74/17.

<sup>3</sup> IPA 2011 "Strengthening of water capacities in BiH"

<sup>4</sup> Directive 2000/60/EC concerning establishing a framework for Community action in the field of water policy

<sup>5</sup> Government of RS and Government of BD BiH already adopted, however adoption by the Government of FBiH is expected

<sup>6</sup> WFD introduces six years planning cycles

<sup>7</sup> UNECE Convention on the protection and use of transboundary watercourses and international lakes

of the institutions, further capacity development, adequate maintenance of the infrastructure and more efficient implementation of the planning documents such as river basin management plans, flood risk management plans etc.

In the field of **water supply, wastewater collection and treatment**, BiH is still far from the EU standards. The water and wastewater services sector (water supply, wastewater collection and treatment) in BiH is facing with a number of challenges that could be summarized as follows:

- proportion of population using safely managed drinking water services 67%
- population connected to a wastewater treatment plant 21,7%
- high level of non-revenue water (50% in average, while in some cases this goes to more than 70%),
- overemployment and still lack of adequate technical capacities in communal utilities,
- assets are not properly managed between municipal authorities and communal utilities,
- water service tariffs do not cover costs and directly affect sustainability,
- operational and financial sustainability is endangered,
- lack of investments in infrastructure development,
- DSIP<sup>8</sup> and APIDs<sup>9</sup> are still not in place,
- shared jurisdiction over the sector between different level of authorities and between different sectors.

The assistance through IPA 2018-2020 should be allocated to overcome these challenges, especially in terms of finalisation of DSIP and APIDs that will lead to development of water legislative aligned with EU water *acquis*, development of planning documentation and support reforms in water sector, as well as and investments in infrastructure that will increase (i) proportion of populations using safely drinking water services, (ii) population connected to a wastewater treatment plant, (iii) reduce non-revenue water. According to EAS, the cost of approximation of Drinking Water Directive (DWD)<sup>10</sup> is amounted to EUR 719 million, while the same cost for Urban Wastewater Directive (UWWD)<sup>11</sup> is amounted to EUR 2.166 million. The efficient implementation of DWD and UWWD will directly contribute to prevention of further deterioration and improvement of the water quality and water related eco-systems not only in BiH but in neighbouring countries and international river basins (Sava and Danube River basins).

In the area of **flood protection and fighting the adverse impact of the climate changes**, the Council of Ministers of BiH adopted in 2014 country wide Action Plan for Flood Protection and River Management. Although, there are number on going flood protection activities further support to implementation of the Action Plan is needed. Particular actions should support development of so called “no regret” flood protection infrastructure, strengthening of the institutional capacities, monitoring and forecasting capacities. In addition to this, long term sustainability of the flood protection infrastructure has to be ensured throughout improvements of the standards and methodologies for regular inspection and maintenance of the respective infrastructure.

**Waste management:** Solid waste management regulation in Bosnia and Herzegovina consists of entity Laws on Waste Management<sup>12</sup> and set of entity bylaws that regulate different aspects including waste

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<sup>8</sup>Directive Specific Implementation Plan

<sup>9</sup> Action Plan for Implementation of the Directive

<sup>10</sup> Directive 98/83/EC concerning quality of water intended for human consumption

<sup>11</sup> Directive 91/271/EEC concerning urban wastewater treatment

<sup>12</sup> Law on Waste Management in the Republic of Srpska (Official Gazette (O.G.) RS 113/13 and 106/15); Law on Waste Management in the Federation of BiH (O.G. FBiH 33/03, 72/09); Law on Waste Management in BD (O.G. BD 72/09, 25/04, 1/05, 19/07, 2/08 and 9/09)

categories with lists, permitting for small-scale activities on waste management, extended producers responsibility (EPR), transboundary movement of waste, etc. The laws promote the EU principles of *Waste Hierarchy*, *Polluter Pays* and *Producer Responsibility*. While the laws on waste management are the legal basis for waste management in the country, adopted strategies and plans<sup>13</sup> provide guidelines for the future development and investments in the field of waste management. In FBiH cantons develop their own strategic documents on waste management as part of their legal obligations arising from the Law on Waste Management. Municipalities in both entities are also obliged to develop Municipal Waste Management Plans. The targets laid down in those strategies such as 50% packaging waste separation, 100% collection coverage, 100% upgrading/closing of municipal landfills, introduction of separate waste collection systems in practically all municipalities are very ambitious taking into account the existing situation and the achievements up to now.

The transposition of the Waste Framework Directive in BiH is relatively advanced. Republika Srpska adopted new Law on Waste Management in 2013 while Federation of BiH adopted amendments to the Law on Waste Management in 2017, therefore increasing the level of transposition relative to the last available progress report. As regards the legislation on specific waste streams, partial transposition has been achieved in respect of the Packaging Waste Directive, WEEE Directive and the Sewage Sludge Directive. The proper implementation and management schemes for extended producer responsibility (EPR) have still to be developed guided by successful EU practises. In FBiH, the Decision on the ban of import, production, placing on the market and use of products containing lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) applies from 1 June 2016<sup>14</sup>. Significant progress in RS has been noted towards alignment of the national legislation with the Restriction of Hazardous Substances (RoHS) Directive due to adoption of the Rulebook on the restriction of use of certain hazardous substances in electrical and electronic equipment<sup>15</sup>. The transposition of the PCB/PCT Directive, the End-of-Life Vehicles Directive and the Batteries Directive has not started yet in Bosnia and Herzegovina. Transposition of the Landfill Directive remains at an early stage and compliance with only few of the Directive's provisions is ensured. Further efforts are needed on alignment with EU acquis provisions on landfill directive and on closing or rehabilitating non-compliant landfills. Legislation on the shipment of waste is harmonised with the Basel Convention.

Based on the latest national statistics report published by Agency of Statistics BiH in 2016<sup>16</sup>, the situation in waste sector in BiH can be described with the following indicators:

- Waste generation rate is 0.89 kg/cap/day (2015).
- The total amount of municipal waste generated annually is around 1.3 mil tons (2015)
- Waste collected with waste collection services 74% (2016)
- Population covered with solid waste collection service (entity average) 66% (2015)
- Waste disposed on sanitary landfills 33% of the amount collected (2015)
- Waste recovered 1% (2015%).

<sup>13</sup> Environmental Protection Strategy of FBiH for the period 2008-2018 which addresses waste management in its integral part, the Waste Management Strategy of FBiH and Federal Waste Management Plan 2012-2017 (FBiH); Solid Waste Management Strategy 2017-2026 (RS); Environmental Protection Strategy of BD for the period 2016-2026 which addresses waste management in its integral part

<sup>14</sup> Official Gazette of FBiH, no. 52/16

<sup>15</sup> Official Gazette of RS, no. 50/15

<sup>16</sup> Agency for statistics of Bosnia and Herzegovina, First release, Public transportation and disposal of municipal waste, 2016.

All waste management activities in BiH are carried out by municipal communal companies with the exception of one cantonal communal company in case of Sarajevo Canton. Waste collection is mostly by the bring system using 1,100 litre containers. Some municipalities use also 120/240 litre containers for door-to-door collection and large skips (5-8m<sup>3</sup>) mainly for non-hazardous industrial waste collection. The main revenues for collection, transport and disposal of waste from households are from tariffs which are collected by communal companies and are subject to charging the VAT. The average tariff for waste management was 0.5% of the spendable income, while international norms indicate 1-1.5%, as is the case in most EU member states<sup>17</sup>. The average tariff collection coverage is between 80-90% whereby it should be taken into account that 18% of the population is living below the national poverty norm.

The main treatment option available in the country is landfilling of waste. The entity Waste Management Strategies recommend the implementation of regional landfills serving a certain geographical area. Currently, Bosnia and Herzegovina has 6 active regional sanitary landfills that serve 36 municipalities (out of 141 + BD) and 2 under construction that will serve 6 more<sup>18</sup>. It is considered that 10 regional landfills will be sufficient to serve all municipalities in BiH. Up to now, only a part of the landfill regionalization plan has been implemented. New regional landfills (new site or upgrading of existing municipal landfill) are needed while existing ones might need an upgrade (expansion of disposal area and investment in leachate treatment plants) to protect human health and environment from inappropriately disposed waste.

It is estimated that 93 non-compliant municipal landfills are found in the country. There is only one landfill for inert waste located in the Municipality of Neum. The number of illegal dumpsites is high. Current estimates indicate the existence of 340 illegal dumpsites in FBiH and 250 in RS. However, the Federal Waste Management Plan 2012-2017 and Draft Waste Management Strategy in RS 2016 – 2025 estimate that there are as many as 1,200 illegal dumpsites. All these landfills exert significant pressure to human health, environment and climate change in terms of pollution caused by uncontrolled discharge of leachate and biogas. Therefore, cleaning of dumpsites and land remediation activities the location are considered to be one of the priority actions.

There are 5 sorting/separation lines installed in BiH (Mostar, Konjic, Sarajevo, Tuzla, Doboj) for sorting of pre-separated dry recyclables or mixed waste. No other options for waste (pre)treatment are available in the country. Other treatment options to reduce the quantities to be landfilled are investigated such as production of Refuse Derived Fuel (RDF) for co-incineration in cement plants. Two cement plants in Bosnia and Herzegovina are interested for RDF as an alternative fuel which was a driver for several municipalities to start thinking about RDF production. A feasibility study for the construction of such plant at the regional landfill in Zenica is completed, while Sarajevo and Mostar regional landfills are also interested to investigate these options.

The country is lacking facilities for treatment and disposal of special waste categories, including waste sludge, animal waste, medical waste, hazardous waste etc. Only three medical institutions have the equipment for the sterilisation and neutralisation of infectious waste<sup>19</sup>. This waste usually ends up at municipal landfills posing threat to human health and environment. Significant portion of industrial

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<sup>17</sup> Municipal Solid Waste Management Sector Review- Strategic Directions and Investment Planning up to 2025, World Bank, January 2018.

<sup>18</sup> "Smiljevići" Sarajevo; "Ramići" Banja Luka; "Brijesnica" Bijeljina; "Mošćanica" Zenica; "Uborak" Mostar; "Crni vrh" Zvornik; "Koričine" Livno (still under construction); and "Kurevo", Prijedor (still under construction);

<sup>19</sup> University Clinical Center of Sarajevo, General Hospital "Abdulah Nakaš" Sarajevo, and the Institute for Public Health in Central Bosnia Canton

hazardous waste and other categories of special waste are transported for treatment abroad in line with the provisions of Basel Convention.

Entity Governments and BD are committed to improve the current situation and enhance the performance of the sector in a more economically, financially and environmentally sustainable manner. The overall vision of the sector is effective transposition and implementation of the environmental *acquis* for waste management. Unfortunately, the responsible institutions are seriously understaffed and lack technical capacities to efficiently implement and monitor the waste management activities. The key needs of the sector are:

- Further harmonisation of legislation with EU Directives meeting the affordability principle and strengthening the enforcement of its implementation
- Strengthening of the institutional framework at Entity (ministry), Cantonal (cantonal ministry) and Local (municipality) level
- Preparation of investment projects to improve collection, transport, separation and disposal of MSW including capacity building at all levels.
- Closure of existing municipal dumpsites.

The assistance through IPA 2018-2020 will be sought to address these issues through interventions in legislation development, institutional capacity building, investment projects to build new and equip existing regional waste management centres and close existing unused dumpsites. These interventions will help further align waste management sub-sector with EU waste *acquis* and protect human health and environment from inappropriately disposed waste. Interventions related to separate collection and sorting of waste will help to moving up the waste hierarchy from disposal to waste reuse and recycling.

**Nature protection.** The principal legal enactments related to nature protection are defined in the Law on Nature Protection of Federation of BiH, Republika Srpska and Brčko District<sup>20</sup>. There are discrepancies in legislation between Federation of BiH and Republika Srpska, as well as between federal and cantonal levels, causing problems for effective planning and management of protected areas in BiH.

Transposition of the Habitats Directive and the Wild Birds Directive remains stagnant. Law on Nature Protection in FBiH has advanced the transposition of the Wild Birds Directive and the Habitats Directive. Transposition of the Annexes is envisaged through adoption of the relevant secondary legislation, but the date for achieving full transposition has not been provided. Transposition of the Zoo Directive is complete. Regulation on the conditions for establishment and operation of the zoos<sup>21</sup> has ensured full transposition of this Directive. Law on nature protection in RS has ensured only partial transposition of those two directives. Partial compliance with the requirements of the Zoo Directive has been achieved through provisions of the Law on Animal welfare<sup>22</sup> and the Rulebook about foundation and conditions for the operation of the zoos<sup>23</sup>.

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<sup>20</sup>Law on Nature Protection of FBiH (Official Gazette of the FBiH, no. 66/13), the Law on Nature Protection of RS (Official Gazette of RS, no. 20/14) and the Law on Nature Protection of BD (Official Gazette of BD of BiH, no. 24/04, 1/05, 19/07, and 9/09).

<sup>21</sup> Official Gazette of FBiH, No. 27/10

<sup>22</sup>Official Gazette of RS, no. 111/08

<sup>23</sup>Official Gazette of RS, no. 85/10



Council of Ministers of BiH has adopted in 2017 the Decision on conditions and manner of implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The implementation of the decision is pending publishing in Official Gazette. As regards Regulation on Leghold Traps, implementation is at an early stage. The use of leghold traps is prohibited. However, necessary changes to the existing legal framework that would ensure that import of pelts and goods from countries referred to in Article 3 is prohibited have not been decided yet. Also, lack of implementation planning is reported as regards establishing certification procedure and effective enforcement system. Thus, full implementation is not determined yet. Implementation of the EU Timber Regulation and the FLEGT Regulation has not started yet.

Bosnia and Herzegovina still does not have developed adequate inventories of flora, fauna and fungi species. The identification of habitat types and level of their diversity as well as their adequate categorisation in line with Habitat Directive, flora and fauna of Europe, EURO-MED data base etc is still not carried out. A step forward in assessing the trends in species was conducted by adopting entity red lists<sup>24</sup>. The red list of FBiH does not contain marine species. Two entity red lists have not been harmonized and there is no single/harmonized Red Data Book of threatened species at the state level. Some improvements have been observed concerning genetic diversity including: initiation of the first steps for accession to the *Nagoya Protocol* (Feasibility Study for accession to the Nagoya Protocol has been developed), integration of issues of protection of genetic diversity into entity agriculture strategies, and establishment of gene banks and botanical gardens. The research of genetic diversity of forests, ichthyofauna and agricultural variety of fruits and grains has also been carried out, but the results are not publicly available. A particular progress in terms of protection of genetic diversity is seen in Republika Srpska through development of programs for conservation and sustainable use of plant genetic resources.

Monitoring on biodiversity is still on an *ad hoc* basis and related to projects. Eight documents developed after 2011 include data about the status of biodiversity using 15 relevant indicators. BiH Agency for Statistics included 3 indicators for biodiversity in their statistical report from 2013. The new areas of special importance to biodiversity and new unique aspects of biodiversity have not been identified since 2011. Status of landscapes and ecosystems diversity is unknown due to the lack of a monitoring system status. The best situation in terms of monitoring the status of ecosystems is in the forestry sector. The Development of Forest Management Baseline Documents and establishment of pilot sites in certificated forest areas provided significant data on status of forest ecosystems.

According to the current laws on nature protection in the entities and BD, entities and the district are obliged to establish information systems for nature protection. However these information systems are not in place. Only RS has introduced a register of protected areas. RS also plans to adopt the bylaw on management of information system, issues of monitoring, collecting, recording and analysing data, facts and other relevant information about the state and use of nature in 2016. Data collected on PAs are submitted to the Institute for Protection of Cultural, Historical and Natural Heritage of RS, responsible for updating the register of PAs.

According to entity legislation on nature protection, the system of protection of natural areas foresees the introduction of national PAs (in line with IUCN categorization) and Natura 2000 sites. IBA and

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<sup>24</sup>The Red List of the Federation of Bosnia and Herzegovina, Official Gazette of FBiH No. 7/14; The Red List of the Republika, Official Gazette of RS No. 124/12

Ramsar sites are not integrated into the national PA system, as they are not recognized in the legislation on nature protection in FBiH and RS. Total number of protected areas is 25 as of April 2017, of that 4 are national parks. The current territory under protection is 2.7%, excluding IBA and Ramsar sites.

Although entities laws on nature protection leave the possibility to proclaim Natura 2000 areas, currently no areas have been identified and officially proclaimed. 122 areas (about 19% of the territory of BiH), including 200 species and 60 habitats, are proposed for future protection and formation of ecological network in BiH.<sup>25</sup>

There are 3 Ramsar and 4 IBA sites in BiH. No management planning has taken place (management plans are not developed) and very little or no conservation action has been undertaken for these sites.

Nature protection sub-sector is considered as a sector with least development in terms of EU integration. The assistance through IPA 2018-2020 will be sought to start addressing the gaps. The activities will be focused on development of BiH inventories on flora, fauna and fungi species as well as sustainable management of protected areas. The sector will benefit from the baseline information on the flora, fauna and fungi known to occur in BiH in terms of planning of future activities relevant to implementation of EU biodiversity *acquis*.

**Air Quality:** The majority of air pollutants comes from industrial sector including thermal power plants in Gacko, Ugljevik, Tuzla and Kakanj, steel factory in Zenica, wood processing industries in Maglaj and Doboj, chemical, detergent and fertilizer industries in Tuzla, metal industry in Jajce, etc. The most significant source of CO<sub>2</sub> emissions is the energy sector, which in the 2002-2013 period contributed with about 53% of total CO<sub>2</sub> emissions, followed by agriculture (14%), industrial processes (6%) and waste (5%). The share of emissions from other sectors in the total emissions during this period is about 22%. Approximately 50% of electricity in Bosnia and Herzegovina is generated by thermal power plants, (TPP) fuelled by domestic coal and with a rather high emission of carbon dioxide (1.3 t CO<sub>2</sub>/MWh). The industrial polluters and their emissions to air are controlled through the instrument of environmental permit. Compliance with the emission limit values (ELVs) is often low as the necessary abatement equipment is not installed or does not function properly. More stringent inspection control of industrial plants is necessary, however the inspection capacities at entity and cantonal level in FBiH are not sufficient. Since 2011, industries have to pay the fee for the emission of SO<sub>2</sub>, NO<sub>x</sub> and dust based on their measured emissions, or in case measurements are not available their fee is calculated.

Intensity of traffic in transport sector is increasing the emission of exhaust gases, which is most visible in larger urban centers in BiH. The increase of air pollution is specially alarming during winter, mostly due to emissions of exhaust gases from private fuels. The transport sector causes 40% of the NO<sub>x</sub>, 80% of the Non-Methane Volatile Organic Compound (NMVOC) and an estimated 10% of the emission of particulate matter (PM<sub>2.5</sub>). According to European Monitoring and Evaluation Programme (EMEP) report, regarding the NO<sub>x</sub> emissions in the country, the transport sector is the second largest contributing sector (power plants and industry lead with a joint contribution of 55%). Because of the growing fleet of automobiles, additional measures are required to ensure decrease of NO<sub>x</sub> and PM<sub>2.5</sub> emissions and improvement of urban air quality by 2020, especially during the winter. At the moment, the average age of the private car fleet is 17 years with more than 75% of the cars using diesel as fuel.

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<sup>25</sup>As available at: <http://www.fmoit.gov.ba/userfiles/file/Natura%202000%20-%20Interpretation%20Manual%20LL.pdf> (last accessed on April 29, 2018)

More than 50% of the vehicles achieve below euro-3 standards. Other measures that are in study are the prohibition of the import of cars that achieve below euro-4 emission standards or to prohibit diesel fuelled cars in city centres in emergencies. The necessary legislation for these measures are to be adapted. Cars driving on LPG/CNG as a fuel and electrically driven cars are rare in Bosnia and Herzegovina and not stimulated properly by governments.

Their quality monitoring is performed in 16 cities in Bosnia and Herzegovina<sup>26</sup>. The automated measuring stations provide continuous monitoring in both urban and sub-urban environment. The monitoring network include 19 automatic air quality measurement stations in Federation of Bosnia and Herzegovina, and 11 in Republika Srpska. Therefore, network is also supplemented by manual air quality measurement stations located at different sites, but are not in accordance with the legally prescribed methodology. The following parameters are measured: SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, PM<sub>10</sub>. The measurements are performed according to EU standards. Measurements of Polycyclic aromatic hydrocarbons (PAHs) are not reported while heavy metal emissions are calculated. Data on the main air pollutants are available online through the Central Data Repository of EIONET. Air quality monitoring is carried out by entity meteorological institutes, namely the Hydrometeorological Institute of the Federation of Bosnia and Herzegovina and the Hydrometeorological Institute of Republika Srpska. Cantons in Federation of BiH also performs monitoring e.g. in Canton Sarajevo the Department of Public Health of Canton Sarajevo operates local air monitoring stations and publishes data on measured pollutants. It can be concluded that the air monitoring system has been improved since 2010. However, the system is not inter-connected and does not provide well-functioning countrywide air monitoring. Aggregated air quality data are not readily available for the entire country.

The increase in number of respiratory diseases is recorded, especially in large urban centres. In Bosnia and Herzegovina as a whole, 44,000 years of life are lost each year due to particulate matter or nitrogen dioxide or ozone pollution. More broadly, air pollution consumes over 21.5 per cent of Bosnia and Herzegovina's GDP through lost work and school days, healthcare and fuel costs for example. This is the main reason why air pollution is considered one of the priority problem. Some of the priority direction to improve the air quality are transition to clean (green) energy sources, more stringent gasoline controls as well as period motor vehicle tests, more stringent rules for industrial emitters, introduction of cogenerations for central heating system in cities like Kakanj and Zenica and modernisation of public transport and traffic in general.

Implementation of the EU regulation including Ambient Air Quality Directive and the 4th Daughter Directive relating to As, Cd, HG, Ni and PAHs in ambient air remains at an early stage in Federation of BiH and is well advanced in Republika Srpska. In Federation of BiH only limited progress has been achieved in 2012 as regards appointing the competent authorities responsible for the implementation of this Directive and establishing mechanism for ensuring information to the public in cases when the alert thresholds are exceeded. Implementation plans for all other individual obligations have not been developed yet. The transposition has advanced in 2010 and 2012 by adoption of the Law on Air Protection<sup>27</sup> and the Rulebook on method of air quality monitoring and defining air polluters limit values and other air quality standard<sup>28</sup>. However, transposition of the remaining provisions is not determined yet. The transposition score of the Ambient Air Quality Directive stands at 75%.

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<sup>26</sup> FBiH: Sarajevo, Ivan Sedlo, Zenica, Jajce, Tuzla, Lukavac, Kakanj, Goražde, Mostar, Ilijaš; RS: Banja Luka, Brod, Ugljevik, Gacko, Prijedor, Bijeljina

<sup>27</sup> Official Gazette of FBiH, No. 33/03 and 4/10

<sup>28</sup> Official Gazette of FBiH, No. 1/12

Transposition of the National Emission Ceilings Directive and the Directive on Sulphur Content in Liquid Fuels is at a very early stage with only few provisions reported as transposed. The precise transposition plan for those Directives has not been decided yet. The transposition has not yet commenced for the Stage I Petrol Vapour Recovery Directive and the Stage II Petrol Vapour Recovery Directive. In Republika Srpska, the transposition score of the Ambient Air Quality Directive stands at 94%. However, estimated date for achieving full transposition is unknown. Regarding transposition of the 4th daughter Directive only one provision concerning the required number of measurements (Art. 4.5) remains to be transposed, but without indication when the full transposition may be expected. Regarding the National Emission Ceilings Directive, transposition is at an early stage with only few provisions transposed by the Law on Air Quality Protection. Precise transposition plan for this Directive has not been developed yet. Transposition of the Directive on Sulphur Content of Liquid Fuels, the Stage I Petrol Vapour Recovery Directive and the Stage II Petrol Vapour Recovery Directive has not commenced yet. Precise transposition plans for those Directives have not been determined yet.

Bosnia and Herzegovina acceded to all amendments of Montreal protocol of Vienna Convention on the protection of the ozone layer, except for the very recent 2016 Kigali Amendment. The National Ozone Unit operates under the Ministry of Foreign Trade and Economic Relations. The country has complied with zero consumption of CFCs since 2009. In 2012, the HCFC phase-out management plan (HPMP) was approved committing the country to follow the Montreal Protocol phase-out schedule for HCFCs for the duration of stage I of the HPMP, i.e., achieving all control measures up to the 35% reduction in HCFC consumption on time. BiH has met the consumption targets specified in the HPMP for 2014 and 2015. In 2015, the decision of Council of Ministers on the procedures for the implementation of the Montreal Protocol that supports an enforceable licensing and quota system for the import and export of HCFCs was amended to introduce licenses for HFCs, and establish a ban on the import of equipment using HCFCs and HCFC blends. A ban on the import of pure HCFC-141b (as of 1 January 2015) as well as HCFC-141b contained in imported pre-blended polyols (as of 1 January 2016) has already been implemented. Significant number of activities has been implemented in the last years, from awareness raising campaigns and capacitation, through certification of service technicians and publishing a list of certified service providers, and providing equipment for demonstrating good practices to 20 training centres and equipping a licensed refrigerant recovery and recycling to become an ODS waste management centre.

**Industrial Pollution and Risk Management:** The requirements of EU Directive on Industrial Pollution are transposed through the entity Laws on Environmental Protection including requirement for licensing and monitoring of industrial activity through instruments of environmental permit. The same laws contain provisions on environmental impact assessment in line with the EIA Directive. However, according to the ECRAN *Progress Report: Monitoring transposition and implementation of EU environmental acquis* (2015-2016) the level of transposition of the IED Directive is relatively advanced (62% in FBiH and 48% in RS), while EIA Directive is transposed 43% in FBiH and 38% in RS. Alignment of the legal framework needs to be further stepped up. Bosnia and Herzegovina is in the process of ratification of the Protocol on Pollutant Release and Transfer Registers (PRTR Protocol to Aarhus Convention). Relevant PRTR legislation in Bosnia and Herzegovina was adopted in entities in 2007<sup>29</sup>. Compliance with of the requirements of EIA Directive and Seveso III Directive in FBiH is ensured

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<sup>29</sup> Regulation on registers of installations and polluters (OG FBiH No. 82/07); Regulation on methodology and manner of maintenance of register of installations and polluters (OG RS No. 92/07)

through Laws on Environment Protection and relevant bylaws<sup>30</sup>. Law on Environmental Protection in RS has ensured partial transposition of Seveso III Directive; the key provisions still remain to be transposed.

The environmental permits for the industries are issued at entity and cantonal level in Federation of BiH and at entity and municipal level in Republika Srpska. The permits contain conditions under which the industries can operate and include both mitigation and control measures based on ELVs for the main polluting substances to air and water. ELVs for emission to water and air are based on the EU standards. No ELVs are available for emission to soil. The country/entities have adopted national technical standards for best available techniques in food and beverage industry. Technical standards for cement plants, large combustion plants and self-monitoring were also produced but never adopted. The appropriate legislation for adoption of best available techniques is available at the entity level<sup>31</sup>.

Operators of plants and facilities, holders of environmental permit, report annually on the use of materials in industrial processes, emissions and releases, through Pollutant Release and Transfer Registers (PRTR). In FBiH, the obligation to report to the PRTR is not included in environmental permits. The operators in the Federation submit their reports, which are then manually fed into the database. The register is not accessible to the public online. In RS, the obligation to report to the PRTR is stipulated by the RS Law on Environmental Protection and is included in environmental permits. Nevertheless, the number of reports submitted by operators remains unsatisfactory. As of mid-2017, the register in RS is not accessible online to the public. No trainings on reporting to the PRTR were systematically organized for the operators in both entities.

The PRTR software has been installed in the Federal Ministry of Environment and Tourism and Hydrometeorological Institute of Republika Srpska who are responsible for its maintenance. The PRTR contains databases on pollution discharge, environmental permits, environmental inspection activities, and substances harmful to human health. The Federal Ministry has no capacity to maintain the PRTR. The two softwares are not harmonised. The data in the register are incomplete and inaccurate. It is necessary to technically improve its functions, harmonize the software and carry out monitoring and reporting more actively. This also preconditions the training of operators on reporting requirements as well as training of staff that will work on the PRTR maintenance.

**Climate Change:** Alignment of the national legal framework with the climate acquis has not started yet. Nevertheless, the Bosnia and Herzegovina is taking significant steps to tackle the issue of climate change both on the domestic and international level. Although the country has one of the lowest per capita greenhouse gas emissions in Europe (five tons CO<sub>2</sub> equivalent per capita per year; approximately half of the EU average), climate change has already been observed (e.g. drought in 2012 and floods in 2014). Bosnia and Herzegovina is particularly vulnerable to climate change due to its geographical position, the economic importance of the agriculture and forestry sectors, and the limited adaptive capacity. The raises in summer temperatures and alteration in rainfall patterns create a situation that will require fundamental changes to agricultural, forestry and land management methods. The

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<sup>30</sup> Laws on Environmental Protection (Official Gazette FBiH, No 33/03, 38/09); Rulebook on the content of safety reports, information on safety measures and the content of internal and external emergency plans (Official Gazette FBiH, No 68/05); Decree on installations subject to environmental impact assessment and on installations that may be commenced only when obtain the environmental permit (Official Gazette FBiH, No 19/04)

<sup>31</sup> Regulation on the Adoption of Best Available Techniques to Achieve Environmental Quality Standards (O.G. of FBiH, No. 92/07); Regulation on Activities and Manner of Making of Best Available Techniques (O.G. of RS, No. 22/08)

predicted reduction by 30% in annual precipitation and up to 50% in summer precipitation in the Posavina area and in the south of Bosnia and Herzegovina, will have negative implications for agriculture and forestry. These two major sectors of the economy contribute with 12% to Bosnia and Herzegovina's GDP, employ 20% of the workforce, and are critical for rural development. Changes in the precipitation pattern will also have impacts on hydroelectricity, and without adequate adaptation measures the energy demand of the country may not be met<sup>32</sup>.

Bosnia and Herzegovina has already begun taking measures to address climate change. BiH ratified the United Nations Framework Convention on Climate Change (UNFCCC) in September 2000. The Initial National Communication was completed in October 2009 and submitted to UNFCCC secretariat in May 2010 while the Third National Communication and Second Biennial Update Report on Greenhouse Gas Emissions (SBUR) was submitted to the UNFCCC Secretariat in May 2017. Bosnia and Herzegovina established a mechanism for approving and sending Nationally Appropriate Mitigation Actions (NAMA) under the UNFCCC registry to the existing activities of the Designated National Authority (DNA) for the implementation of Clean Development Mechanism (CDM) projects, which, in addition to DNA, has added development, receipt and approval/rejection of NAMA. The country also submitted its Indicative National Determined Contribution (INDC) to the UNFCCC following its adoption in October 2015 and needs support in strengthening the administrative capacity for its implementation and for alignment with the EU climate acquis. Implementation of INDC will require substantial changes in the sphere of policy and investment of the resources within the climate change segment of Bosnia and Herzegovina. Any future changes to existing NDC will need to be considered in the light of international requirements and in the process of wide consultations with all relevant stakeholders.

In April 2016 Bosnia and Herzegovina signed, and in March 2017 ratified, the Paris Agreement on Climate Change. The work on implementation of Paris Agreement is on-going. The country has also taken an active part in the Environment and Climate Regional Accession Network programme and in the Belgrade Initiative on Climate Change.

Bosnia and Herzegovina has adopted several sub-sector strategies, such as the *Climate Change Adaptation and Low Emission Development Strategy* and the *2014–2017 Action Plan for Flood Protection and River Management*.

The first priority for Bosnia and Herzegovina in addressing climate change mitigation is to strengthen its institutional and professional capacities for developing and implementing climate policy, monitoring greenhouse gas emissions, and planning, implementation, monitoring, reporting and verifying mitigation actions. The capacity building process, combined with the implementation of NAMAs, will put Bosnia and Herzegovina on track to fulfil the requirements of EU membership in terms of legal transposition, administrative capacity and policy implementation.

In addition to capacity building, the focus is on three sectors where the opportunities for emission reduction are highest, and where the economic and social impact of investment into emission reduction is potentially most beneficial. The sectors are: electricity generation, buildings and district heating and transport. In the electricity generation sector, the Strategy aims to replace existing coal fired power plants with new, more efficient plans, while promoting investment into renewable energy. In the buildings and district heating sector, the Strategy aims to improve the energy efficiency of

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<sup>32</sup> Bosnia and Herzegovina Climate Change Adaptation and Low-Emission Development Strategy, 2013

buildings and heating systems, and replace fossil fuels with biomass and other renewable sources of energy. In the transport sector, the goal of the Strategy is to reduce the expected growth of transport emissions by investing in railways and public transport. The sectors are interlinked, and also associated with others important areas, including human health and water resources.

The Climate Change Adaptation and Low-Emission Development Strategy is the first step in the establishment of an adaptive management feedback policy process. There is currently a lack of data and limited national capacity, thus the strategy is an initial step designed to consolidate political support for low-emission and climate resilient development. As the quality of information on emissions and experience with emission mitigation is improved, the strategy will be reviewed and adjusted. The strategy will enable – and will coordinate – enhanced sectoral strategies with detailed policies, measures, programmes and projects. Additionally, the Strategy identifies mitigation and adaptation actions and capacity building needs, which will provide the strategic and programming basis for effective international support. The Strategy will ensure that climate change mitigation and adaptation measures are gender responsive and will incorporate specific measures to ensure that the most vulnerable groups of population receive adequate support. Governance issues are also addressed. More support is needed for implementation of the Climate Change Adaptation and Low Emission Development Strategy, in line with the EU 2030 framework on climate and energy policies.

**Chemicals:** Bosnia and Herzegovina acceded to the *Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention)* in 2007. The BiH Administration for Health Plant Protection of is the Contact Point and the Designated National Authority for industrial chemicals and pesticides. The country has partly put in place a legal and institutional framework to implement the Rotterdam Convention, which has proved to be able to comply with the Convention's requirements. The country has submitted to the Convention decisions of no consent for the importing of 47 chemicals listed in Annex III of the Convention and subject to the Prior Informed Consent Procedure. Control of import and export of dangerous chemicals and biocides is regulated only in RS through the Law on Chemicals<sup>33</sup> and Law on Biocides<sup>34</sup>, and in accordance with the Regulation on the Contents of Report in the Procedure of Control of Import of Chemicals and the Regulation on the Contents of the Report in the Procedure of Monitoring of a Biocide that is Imported<sup>35</sup>. In FBiH, adoption of the law on chemicals is a precondition for ensuring appropriate implementation of the Rotterdam Convention. Further activities are needed to ensure successful coordination and harmonization of activities relating to approximation of management of chemicals in Bosnia and Herzegovina towards EU acquis on chemicals are required.

The alignment of the entities' legislation with the *Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation* is uneven. Bosnia and Herzegovina should continue strengthening the administrative capacities necessary for its effective implementation. The effective implementation of the Classification, Labelling and Packaging (CLP) regulation is pending on measures to be published in 2018. The transposition of Asbestos Directive and the Directive on protection of animals used for scientific purposes (2010/63) has not started yet.

Bosnia and Herzegovina ratified the *Convention on Persistent Organic Pollutants* in 2010. The Ministry of Foreign Trade and Economic Relations is the Official Contact Point. The country has complied with

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<sup>33</sup> Official Gazette of RS, no. 29/18

<sup>34</sup> Official Gazette of RS, no. 37/09

<sup>35</sup> Official Gazette of RS, no. 33/13

its reporting obligations. Based on the Decision of the Council of Ministers from 2015<sup>36</sup>, the country created enabling environment for implementation of Peking Amendments. The National Implementation Plan (NIP) for Reduction and Disposal of Persistent Organic Pollutants was adopted in 2016. The country has prohibited the import of all 10 POPs pesticides. The country has no regulatory and assessment schemes for existing pesticides or industrial chemicals, except in Republic Srpska where the procedures for registration of pesticides (plant protection products and biocides) and industrial chemicals are prescribed by the Law on plant protection products, Law on biocides and Law on chemicals<sup>37</sup>. Product evaluation is carried out within registration procedures prior to their placing on the market.

The Ministry of Health and Social Welfare of Republic Srpska is the National Focal Point for the *Strategic Approach to International Chemicals Management (SAICM)*. Bosnia and Herzegovina does not have a National Chemicals Management Profile or any equivalent framework for the implementation of SAICM. Republic Srpska has the Chemical Safety Strategy (2012-2016) that includes goals and measures for the protection of the environment in terms of ensuring comprehensive security of management of chemicals. The Strategy complies with the basic principles and recommendations of the International Program Chemical security of (IPCS), the Intergovernmental Forum on Chemical Safety (IFCS) and SAICM.

Bosnia and Herzegovina is not a Party nor has signed the *Convention on Mercury* (Minamata Convention), however, the country is currently receiving support to undertake a Mercury Initial Assessment (MIA). MIA should enable the Government to determine the national requirements and needs for becoming a Party to the Minamata Convention and establish a national foundation to undertake future work towards the implementation of the Convention. MIA Report is finalised waiting for adoption by Governments of Federation of BiH, Republika Srpska and Brčko District.

In order to improve cooperation in the field of chemicals and biocides management in BiH, implementation of EU legislation, and better implementation conventions in the Chemicals sub-sector, a **Protocol on Cooperation** between relevant institutions for the chemicals sub-sector in Bosnia and Herzegovina is drafted and is currently under discussion.

**Noise:** Implementation of the Environmental Noise Directive in BiH is at its beginning. The Law on Protection from Noise is adopted in 2012 in FBiH<sup>38</sup>. The Law transposes main requirements of Environmental Noise Directive through which land-based noise emissions are monitored and actions developed. It places an obligation to assess noise levels by producing strategic noise maps and plan further spatial development accordingly. Currently no maps are produced yet. The Law sets requirement for monitoring of noise and sets the emission limit values for noise. The Law is extensively used for regulation of noise from industrial activities through instrument of environmental permit. In RS and BD the regulatory framework is not established yet. Precise implementation plan has not been developed. Significant further efforts are needed to align with the EU *acquis* on environmental **noise**.

**Civil Protection:** Bosnia and Herzegovina is extremely exposed to the risks of natural or other disasters. According to the document Risk Assessment of Bosnia and Herzegovina Regarding Natural and Other

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<sup>36</sup> Decision on changes and amendments of Decision on conditions and methods of Montreal Protocol implementation and gradual phase out of ozone depleting substances in BiH (Official Gazette of BiH, no. 67/15)

<sup>37</sup> Official Gazette of RS, no. 52/10, Official Gazette of RS, no. 37/09; Official Gazette of RS, no. 29/18

<sup>38</sup> Official Gazette of FBiH, no. 110/12



Disasters<sup>39</sup>, BiH is most exposed to the risks of floods, fires, landslides, earthquakes and droughts. In May 2014 the heavy rainfall that hit the territory of BiH caused catastrophic floods with several tens of human casualties and more than 70 cities partly or completely affected by floods. The total damage is estimated at about EUR 2.04 billion, which is equal to 15% of GDP. Floods have identified that the protection and rescue system in BiH is characterized by insufficient level of coordination of the key stakeholders during the planning process as well as preventive and operational activities. Insufficient financial resources are allocated for protection and rescue, existing structures are insufficiently equipped and trained, and assessment and planning are done according to different methodologies.

Bosnia and Herzegovina is currently preparing to gain access to the EU Civil Protection Mechanism. Due to the exceptional importance of prevention in cases of floods, fires and earthquakes, it is necessary to strengthen the capacity to access the EU Civil Protection Mechanism. The first step was made in July 2014, when the relevant institutions, the Ministry of Security of BiH, the Ministry of Internal Affairs of the Republika Srpska, the Federal Administration of Civil Protection of the Federation of BiH and the Public Safety Department of the Brčko District of Bosnia and Herzegovina signed the "Protocol on cooperation and establishment of the point of contact for cooperation with Civil Protection Mechanism of European Union". The protocol envisages a way of official internal and external communication, decision-making process and modus operandi between competent authorities and civil protection for disaster risk management. The competent authorities and administrative capacity at the state level are the Coordination Body for Protection and Rescue and the BiH Ministry of Security. Civil protection authorities are established at entity and Brčko District level, as well as at the local level including civil protection services within the municipalities and municipal civil protection headquarters with mayors as commanders of the headquarters. An operational emergency communication centre is in place but not yet linked to the Common Emergency Communication and Information System. In order to improve the safety of citizens in general, it is necessary to create conditions for the implementation of existing legal norms in order to introduce a unique European Emergency Number 112.

There is a need for the establishment of harmonized methodologies in the preparation of analytical, planning and other documents that are in line with international recommendations and practices. Current approach to the methodology is different, both at the state level as well as at the level of entities, cantons and municipalities. A Strategy for Disaster Risk Reduction at the State Level, as well as other levels in the field of protection and rescue systems is needed. The competent protection and rescue institutions at all levels should establish databases of disasters, disaster loss data, teams and equipment of protection and rescue. These databases should be the exchange between all participants in protection and rescue. The existing capacities need to functionally integrate into the protection and rescue system.

The assistance through IPA 2018-2020 will be sought to start activities on establishing, equipping and training the teams for protection and rescue in case of an earthquake as well as establishment of Unique European Emergency Number 112. With these actions BiH will strengthen its capacity to access the EU Civil Protection Mechanism.

**Horizontal legislation:** In 2017, Bosnia and Herzegovina became a Party to the Protocol on Strategic Environmental Assessment. In the Federation of Bosnia and Herzegovina and the Brčko District the

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<sup>39</sup> <https://www.geonode-gfdrrlab.org/documents/849>

legal framework for SEA consists of a few articles in their laws on environmental protection. This is clearly not sufficient for proper regulation and implementation of SEA. Very few SEAs were done in the Federation of Bosnia and Herzegovina and none in Brčko District. In Republika Srpska, the legal framework for SEA is quite developed, with two rulebooks complementing the provisions of a dedicated section in the Law on Environmental Protection. Still, there are gaps in the legal framework on SEA in Republika Srpska with regard to the lack of requirement to obtain the opinion of health authorities and the need to strengthen provisions on public participation and consultation. In terms of practical application, Republika Srpska has a more extensive experience, although this experience is limited to spatial planning documents.

In the Federation of Bosnia and Herzegovina and in Brčko District, the legislation includes no provisions on transboundary consultations. In Republika Srpska, the Law on environmental protection provides for the obligation to ensure participation of relevant authorities and the public of other countries in case that the plan and program may impact their environment. The country's experience with SEA in a transboundary context is very limited.

## SWOT ANALYSIS OF THE SECTOR

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Environmental protection is gaining more importance and is recognised as a priority area of action at all levels of government in BiH.</li> <li>• Political decision on the European integration process.</li> <li>• Adoption of country wide Environmental Approximation Strategy of BiH with relevant implementation documents at the entities' level for its implementation.</li> <li>• Availability of sub-sector strategies</li> <li>• BiH is party to the relevant international conventions. Most relevant policies and strategies are in place and cooperation with IFIs is well established.</li> <li>• Basic institutional structure for environmental management is established and working at the mainly at the entities, cantonal and local level.</li> <li>• Increasing number of qualified and experienced staff of institutions in the sector.</li> </ul>	<ul style="list-style-type: none"> <li>• Poor coordination and communication between institutions responsible for different aspects of environmental policy setting and implementation.</li> <li>• Low level of cooperation between governmental and non-governmental sector regarding environmental issues,</li> <li>• Low capacity for Environmental Monitoring and Reporting.</li> <li>• Small level of domestic funding for environment due to difficult economic situation.</li> <li>• Existing institutions, especially local authorities, have insufficient capacity for dealing with all the aspects of environmental management.</li> <li>• Weak implementation and enforcement of the environmental legislation.</li> <li>• Environmental awareness of the general public is low.</li> <li>• The level of implementation and enforcement of the legislation and policies is low due to poor economy, low awareness and insufficient institutional capacity.</li> <li>• Disparities at the level of access to certain basic services between rural and urban areas (sewerage systems, waste collection).</li> </ul>

Opportunities	Threats
<ul style="list-style-type: none"> <li>• EU accession process represents an opportunity by providing motivation for increasing the institutional capacity, introduction of good practices and funding.</li> <li>• Use of EU resources (IPA funds, expertise, advising, networks, etc.) for solving problems related to environmental protection in the country.</li> <li>• Access to the regional initiatives – SEE 2020, Adriatic Ionic, Danube region</li> <li>• Access to financial resources from IFIs (EBRD, EIB, World Bank)</li> <li>• Possibilities of regional cooperation in the environment sector</li> <li>• Involvement of the business community in environmental-protection efforts.</li> <li>• Introduction of effective and contemporary techniques applied in relation to the environmental sector in other countries.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of political will to coordinate harmonisation, implementation and enforcement of EU environmental acquis at the state level.</li> <li>• Lack of political will to implement EU defined Sector Wide Approach at the state level in developing Country Wide Sector Strategies, Plans and Programmes.</li> <li>• Insufficient human and financial resources.</li> <li>• Fragmentation of competences at multiple levels.</li> <li>• Different priorities at different level of authorities in BiH;</li> <li>• Delays in adoption of the relevant countrywide strategies.</li> <li>• Lack of funds from the national budget and other sources due to difficult economic situation.</li> <li>• Difficulties to sustain the investment costs of the projects in the field of environmental infrastructure especially by the small and medium communities.</li> <li>• Insufficient implementation of legislation</li> <li>• Unwillingness of the population to accept new environmental practices due to their low environmental awareness and inability to pay for new services.</li> <li>• Delayed project preparation and implementation of projects may lead to loss of IPA funds: De-commitment of funds.</li> </ul>

## 2 SECTOR APPROACH ASSESSMENT

### 2.1 Assessment criteria

#### 2.1.1 National sector policy(ies) /strategy(ies)

The strategic framework of environment and climate action sector in BiH consist of a major reference environmental strategic framework and several sub-sector strategies.

In May 2017 Bosnia and Herzegovina adopted a **countrywide sector strategy**. *The Environmental Approximation Strategy of Bosnia and Herzegovina*(EAS-BiH), supplemented by environmental approximation programs for the Federation of Bosnia and Herzegovina, Republika Srpska and Brčko District, addresses eight sub-sectors of the EU environmental acquis: horizontal issues (EIA, SEA, liability, access to information, etc.); water management; waste management; air quality and climate change; industrial pollution; chemicals; nature protection; and environmental noise. For each of the sub-sectors, legal, institutional, economic and financial aspects are analysed and recommendations for short-term and mid-term measures provided.

The country also prepared **draft Environmental Policy** with the support of EU<sup>40</sup>. Draft Environmental Policy (supplemented by environmental policy documents for Federation of BiH, Republika Srpska and Brčko District) was prepared in line with the 6<sup>th</sup> and to some extent the 7<sup>th</sup> EU Environmental Action Programme. The approval procedures did not yet commence.

Four **Directive Specific Implementation and Financing Plans** (DSIPs) for four “investment-heavy” EU directives, and related Action Plans for their implementation in two entities and Brčko District, which complement the implementation of the EAS-BiH, have also been drafted with the support of EU funds<sup>41</sup> but still not proposed for the adoption. This would contribute to fulfilling the requirements of the SAA on legal approximation, implementation and enforcement in the area of urban waste water treatment (UWWT Directive), drinking water supply (Drinking Water Directive), flood risks assessment and management (Floods Directive) and solid waste landfilling (Landfill Directive).

Proposal for establishing countrywide coordinated **Environmental Project Pipeline System** for identification and financing of accession driven priority projects was developed under the framework of EU financed EnvIS<sup>42</sup> project but the proposal has never been officially adopted.

Concerning the existing subsector strategies, the following table gives overview of available documents at the state level with indication of their main elements.

Federation of BiH is implementing its Water Management Strategy for 2010-2022. Republika Srpska adopted Strategy for Integrated Water Management for 2015-2024 in March 2016.

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<sup>40</sup> The document is developed within the project “Strengthening of Bosnia and Herzegovina’s Environmental Institutions and Preparation for Pre-accession Funds” (“EnvIS”) financed by the European Union from the Instrument for Pre-accession Assistance (IPA 2008)

<sup>41</sup> The documents are developed within the project “Strengthening of Bosnia and Herzegovina’s Environmental Institutions and Preparation for Pre-accession Funds” (“EnvIS”) financed by the European Union from the Instrument for Pre-accession Assistance (IPA 2008)

<sup>42</sup> Ibid.

Concerning the existing subsector strategies, below is an overview of available documents at the state level with indication of their main elements.

## **Water Management**

### ***National Action Plan(NAP) for the Mediterranean region in Bosnia and Herzegovina***

NAP<sup>43</sup> is adopted by the Council of Ministers of BiH in October 2017. NAP contains 12 priority investment project for the Mediterranean area of BiH (Neretva and Trebišnjica river basins and coastal area of Neum) that should be implemented in order to reduce land-based pollution of Adriatic sea. The priority projects include (i) development of legislation and establishment and strengthening of institution responsible for marine monitoring and development of monitoring programme, (ii) extension of sewage system in main cities in the region, (iii) construction of wastewater treatment plants and extension of existing capacities for treatment in cities in the region, (iv) closure of municipal non-compliant landfills and construction of sanitary landfill for Trebinje region, and (v) increasing the efficiency of communal enterprises and investments in infrastructure for collection/separation /reuse/safe disposal of waste.

### ***Sava River Basin Management Plans 2016-2021***

River Basin Management Plans (RBMPs)<sup>44</sup> comprise of three RBMPs for Sava River, for the Federation of BiH, Republika Srpska and Brčko District. At the country level, the Roof report is prepared with the country-wide Programme of Measures. RBMPs contains information on state of surface and ground waters in the river basin, pressures and impacts, risk assessment and status assessment, economic analyses of water use, water management goals and environmental goals, and programme of measures. Public participation procedure was carried out in the process of RBMPs development. Plans for the Adriatic Sea in FBiH as and Trebišnjica river in RS is developed and adopted.

### ***Action Plan for Flood Protection and Water Management in BiH 2014-2017, extended up to 2021***

This Action plan<sup>45</sup> was adopted by Council of Ministers of BiH in January 2015. The Action plan identifies 5 main goals, as follows:

1. Reconstruct the damages on protection facilities and watercourses caused by the floods, erosions and torrents in 2014,
2. Harmonize the flood protection system with the EU legislation,
3. Establish a more reliable hydrological forecast system in BiH,
4. Create conditions for the sustainability of the flood protection system and strengthen inter-sector cooperation and coordination in BiH and the region,
5. Continue with the activities on full implementation of the integrated water management principles

6 key measures and 22 sub-measures (short term and medium term) are defined within the Action Plan with the aim to reach the aforementioned goals. The overall implementation of the Action Plan is coordinated by the MoFTER.

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<sup>43</sup> NAP is developed in line with the requirements of Barcelona Convention on the Protection of the Marine Environment and the Coastal Region of the Mediterranean.

<sup>44</sup> River Basin Management Plans (RBMPs) are prepared in the framework of the EU financed project "Capacity Building in the Water Sector in Bosnia and Herzegovina".

<sup>45</sup> The EC strongly supported implementation of the Action Plan from IPA 2014 and IPA 2016 allocations. In addition to IPA funds, resources were also provided from Entity Budgets, EIB and WB loans, WBIF and GEF grant support.

## **Waste Management**

### ***Bosnia and Herzegovina Solid Waste Management Strategy (2000)***

The Strategy<sup>46</sup> was developed in 2000 and it was adopted by the government of Republika Srpska in May 2002. The Government of Federation of BiH and Brčko District Government, as well as Council of Ministers of BiH never adopted this Strategy. However, this Strategy is important because it proposed the introduction of regional concept of waste management with the division of BiH territory into 16 regions, and posed the basis for positive legal regulations in force in Federation of BiH, Republika Srpska and Brčko District. In addition the solid waste management concept proposed by the this Strategy served as a basis for development of Solid Waste Management Strategy of Federation of BiH 2008-2018 and Federal Waste Management Plan 2012-2017<sup>47</sup>, as well as Solid Waste Management Strategy of Republika Srpska 2017-2026. The *Solid Waste Management Strategy of Federation of BiH 2008-2018 Federal Waste Management Plan (2012-2017)* expired and the process for updating these documents for the next planning period is on-going.

### ***Strategy of Radioactive Waste Management (2013)***

State Regulatory Agency for Radiation and Nuclear Safety developed the Strategy of Radioactive Waste Management in 2013<sup>48</sup>. The strategy is adopted by the Council of Ministers of Bosnia and Herzegovina in 2013 and published in 2014.<sup>49</sup> The strategy calls for a centralized approach to radioactive waste management in Bosnia and Herzegovina through the creation of a central storage facility for the entire territory of Bosnia and Herzegovina. It also foresees measures for radioactive waste reduction as well as the import and export of radioactive waste. The Strategy foresees open public access to all unclassified information about radioactive waste management.

## **Nature Protection**

### ***Strategy and action plan for protection of biological diversity in Bosnia and Herzegovina 2015-2020 (NBSAP BiH)***

NBSAP BiH<sup>50</sup>, adopted by the Council of Ministers of BiH in May 2017, is the core document concerning nature conservation in BiH providing a detailed review of the status of biological diversity up to 2014. The national goals concerning conservation of biological diversity in the NBSAP BiH have been set based on the priorities and specific qualities of BiH, and they are for the most part in line with the ten-year Strategic Plan for Biological Diversity 2011-2020 adopted by 10th CBD Conference of Parties. The document also contains the proposed indicators for each of the national goals, the action plan with measures that need to be implemented over the next 5 years, as well as the implementation plans serving as a tool for successful and facilitated implementation of the NBSAP BiH (2015-2020). The document contains four implementation plans for successful NBSAP implementation: a) Plan for capacity development; b) Technology needs assessment; c) Communication and outreach strategy; and d) Plan for resource mobilization.

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<sup>46</sup> Bosnia and Herzegovina Solid Waste Management Strategy was the first strategic document in the waste management sub-sector prepared in 2000 with the support of the EU PHARE programme.

<sup>47</sup> The implementing document of the Solid Waste Management Strategy of Federation of BiH

<sup>48</sup> [http://www.darns.gov.ba/en/LegislationAndDocuments/Politika\\_i\\_Strategije\\_en](http://www.darns.gov.ba/en/LegislationAndDocuments/Politika_i_Strategije_en)

<sup>49</sup> Official Gazette BiH, no. 01/14

<sup>50</sup> [http://www.unep.ba/tl\\_files/unep\\_ba/PDFs/NBSAP%20BiH\\_20160426\\_eng.pdf](http://www.unep.ba/tl_files/unep_ba/PDFs/NBSAP%20BiH_20160426_eng.pdf)

## **Air protection**

### ***National Emissions Reduction Plan (NERP) 2018-2028***

The NERP<sup>51</sup> was adopted at the Council of Ministers in December 2015, and submitted to the Energy Community before the deadline of December 31, 2015. This NERP is related to the emission reductions of sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and dust from large combustion plants (LCP) in BiH, here presented for the Federation of BiH and the Republika Srpska. The ultimate objective of the NERP is to reduce emissions from the LCPs included in the NERP by 1 January 2028 to the level of 14,243 tons of SO<sub>2</sub>, 7,746 tons of NO<sub>x</sub> and 780 tons of dust. This means that SO<sub>2</sub> emissions will be reduced by 95% compared to the amount emitted in 2014; the emission of nitrogen oxides (NO<sub>x</sub>) will be reduced by approximately 60%, and emission of particulate matters will be reduced by approximately 90%. Its budget is assessed of more than 300 million EUR; a solution for financing has still to be found. The NERP is the sum of individual Emission Reduction Plans (ERPs): Elektroprivreda BiH Working Group prepared the ERP for EPBiH; Elektroprivreda RS Working Group prepared the ERP for EPRS; and the operators of the industrial plants prepared the ERPs for their facilities.

## **Climate**

### ***Climate Change Adaptation and Low Emission Development Strategy for BiH***

The *Climate Change Adaptation and Low Emission Development Strategy for BiH* was adopted by Council of Ministers of BiH in October 2013. The Strategy represents the first step toward defining the comprehensive policy framework to respond to the climate change, and will enable access to international support necessary for its implementation. The Strategy has two main goals:

- increase resilience to climate variability and climate change, and in so doing secure development gains;
- reach a peak in greenhouse gas emissions around 2025 at a level that is below the EU27 average per capita emissions.

The approach outlined in this document encompasses two closely linked components: an Adaptation Strategy (with focus on agriculture, biodiversity and sensitive ecosystems, energy (hydropower), forestry, human health, tourism and water resources) and a Low-Emission Development Strategy (with focus on electricity production, energy efficiency in buildings, district heating and transport).

## **Chemicals**

### ***HCFC Phase-out Management Plan in Bosnia and Herzegovina 2012-2020***

HCFC Phase-out Management Plan<sup>52</sup> in Bosnia and Herzegovina (HPMP)<sup>53</sup> is prepared in 2011 and adopted by the Council of Ministers of Bosnia and Herzegovina in 2013. The document contains inventory of HCFCs in BiH, priority areas of policy and conversion interventions, Strategy and HCFC Phase-out Plans and cost estimates for implementation of HPMP in stages. The complete phase-out of consumption of HCFCs was intended for 2035, with interim steps of a 92% reduction by 2025 and a

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<sup>51</sup> NERP has been prepared according to the Policy Guidelines on the preparation of National Emission Reduction Plans, issued by the Energy Community Secretariat (EnCS) on December 19th 2014. USAID EIA assisted Bosnia and Herzegovina, that is, the entity and state ministries and operators of LCPs to prepare the National Emission Reduction Plan (NERP) for Large Combustion Plants (LCPs).

<sup>52</sup> The document is prepared in line with the provision of the Montreal Protocol and Peking Amendments to the Vienna Convention for the Protection of the Ozone Layer.

<sup>53</sup> <https://open.unido.org/api/documents/4856144/download/HCFC%20PHASE-OUT%20MANAGEMENT%20PLAN%20IN%20BOSNIA%20AND%20HERZEGOVINA>

97.5% reduction by 2030 which is more ambitious than the requirement of the Montreal protocol. Necessary equipment and training for replacement of HCFCa to HFC in several companies in BiH is carried out.

### ***National Implementation Plan (NIP) for the Stockholm Convention in Bosnia and Herzegovina 2015-2020***

National Implementation Plan (NIP) for the Stockholm Convention in Bosnia and Herzegovina<sup>54</sup> is prepared in 2015 and adopted by the Council of Ministers of BiH in March 2016. NIP contains inventory of 22 Persistent Organic Pollutants (POPs) and 19 Action Plans, which specify the measures and activities that need to be implemented in order to ensure the implementation of the Stockholm Convention in BiH, the institutions responsible for their realization, as well as the time frame and the estimated necessary funds. The activities envisaged by the NIP are aimed at improving management of chemicals and wastes through comprehensive addressing of problems related to POPs.

### **Sustainable management of land**

#### ***National Action Programme for the UN Convention to Combat Desertification***

National Action Programme for the UN Convention to Combat Desertification<sup>55</sup> is adopted by the Council of Ministers of BiH in May 2017. The development and implementation of the National Action Programme, which is in line with the UNCCD 10-Year Strategy, contributes to a better planning and monitoring of the implementation of UNCCD at the national level. Such improved planning will lead to a more efficient decision making process related to issues such as desertification, land degradation and draughts (DLDD) and sustainable management of land issues in BiH. The general objective of this document is to combat land degradation and mitigate the effects of drought by implementation of preventive measures in the high risk areas, and recover degraded land by applying melioration and protection measures. The Action Programme contains also 4 strategic objectives, as follows:

1. Improvement of the legal framework in order to protect land resources and sustainable land management,
2. Efficient institutions and administration able to respond to the requirements of sustainable land management,
3. Improvement and implementation of melioration measures, remediation and sustainable land management in BiH,
4. Public awareness raising and the role of education in combating land degradation and the effects of drought.

In addition to the aforementioned strategic objectives, the Action Programme defines operational objectives within each strategic objective.

### ***2.1.2 Institutional setting, leadership and capacity***

#### **Institutional setting**

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<sup>54</sup><http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/Default.aspx>

<sup>55</sup> [http://www.unep.ba/tl\\_files/unep\\_ba/PDFs/BHAP\\_eng\\_FINAL.pdf](http://www.unep.ba/tl_files/unep_ba/PDFs/BHAP_eng_FINAL.pdf)



Environmental responsibilities in Bosnia and Herzegovina are distributed between a number of institutions at various levels: state, entity, cantonal and municipal. According to the Constitution of BiH, state is responsible for the fulfilment of international obligations and Federation of BiH, Republika Srpska, and Brčko District of BiH have a constitutional duty to provide every assistance to BiH to consistently meet the commitments accepted by ratified international treaties (including here also SAA).

Given that the issues of protection, preservation and improvement of the environment are not listed as issues that are within competencies of BiH, the powers in this area belong to Federation of BiH, Republika Srpska and Brčko Distrikt of BiH. This means that Federation of BiH, Republika Srpska and Brčko Distrikt of BiH are empowered to regulate the environmental issues and all issues regarding use of natural resources through the laws, secondary legislation and standards, and to adopt their own legislation governing the operation of the institutions that implement these legal acts. Despite the fact that the Constitution of BiH does not proclaim environment as a core competence of the state of BiH, some existing competences in environmental matters could be clearly identified:

- Implementation of international treaties;
- Defining policies, general principles, coordinating activities and harmonizing plans of entity authorities and institutions at the international level within the competences of BiH;
- Coordinating activities to approximate the legal system of BiH with the standards for EU accession (*acquis communautaire*);
- Environmental Statistics;
- Ozone protection;
- Drinking water health safety;
- Liquid fuels quality;
- Plants Protection;
- Freedom to access information and access to justice;
- Protection of animals used for scientific purposes; and
- Noise from airplanes and traffic noise.

Other responsibilities regarding environmental issues currently falls under the competencies of FBiH, RS, and BD of BiH. These including transposition of EU environmental *acquis* into Entity and BD of BiH legislation and its implementation. In addition, the FBiH consists of 10 (ten) cantons and each has its own government and adopts its own laws (which are in accordance with legislation of the FBiH). Municipalities in FBiH (79) and RS (62) usually exercise their authorities through various municipal departments.

The proper functioning of administrative system, vertical (entity / cantonal / municipal) and horizontal (inter-entity / inter-ministerial / inter-municipal) cooperation, is the key challenge for successful legal harmonization, implementation and enforcement of national and international policies. The communication between environmental institutions at all levels is therefore crucial if the country is to achieve a high degree of harmonisation in transposition, implementation and enforcement of the EU environmental *acquis*.

## **State level**

**Ministry of Foreign Trade and Economic Relations of BiH (MoFTER)** is the state level authority in the sector. In accordance with Article 9 of the Law on Ministries and other Administrative Bodies of BiH,

MoFTER is, inter alia, competent for defining policies, general principles, coordinating activities and harmonising plans of entity bodies and institutions on the international level in the areas of, inter alia, environmental protection, development and use of natural resources. In accordance with Regulation on internal organization of MoFTER, competencies and responsibilities in environmental matters fall under responsibility of the Sector for Water Resources, Tourism and Environmental Protection.

**Ministry of Security of BiH** is responsible for respecting the undertaken international obligations and cooperation in the civil protection field, coordination of the activities of the entity civil protection administrations in BiH and coordination of their plans in case of natural or other disasters that have consequences on the territory of BiH, as well as programs and plans for protection and rescue. Civil-military cooperation and coordination is being conducted between the Ministry of Security of BiH and the Ministry of Defence of BiH. At the entity level, there are two (2) **Civil Protection Administrations of Federation of BiH and Republika Srpska and the Public Safety Department of the Brčko District of BiH** (Civil Protection Service), as well as ten (10) cantonal / county civil protection administrations. Civil Protection Administrations are responsible for activities to prevent natural and other disasters and to conduct effective operational actions in case of natural and other disasters.

**Bosnia and Herzegovina Agency for Statistics (BHAS)** is independent administrative body in accordance with article 17 of the Law on ministries and other administration bodies of BiH. Its competences are regulated by Law on statistics of BiH<sup>56</sup>. BHAS is competent for processing, distributing and defining the BiH statistical data. BHAS is, inter alia, a competent body for representing BiH in international relations pertaining to statistics and defining statistical standards as a condition for statistical research programmes. Internal relations between FBiH and RS institutes for statistics and BHAS are governed by the Law on Statistics of BiH.

**Bosnia and Herzegovina Administration for Plant Health Protection (PHPO)** is an administrative organisation within the Ministry of Foreign Trade and Economic Relations (MoFTER), established by the Decision to Establish the BiH Administration for Plant Health Protection<sup>57</sup> on the basis of the Plant Health Protection Law<sup>58</sup>. The Plant Health Protection Law is harmonised with the International Plant Protection Convention - IPPC that was ratified by the Decision to Ratify the International Plant Protection Convention<sup>59</sup>. The ratification of the International Plant Protection Convention obliges Bosnia and Herzegovina to establish a national plant health protection organisation. PHPO is the state level coordination body for implementation of the Rotterdam Convention in Bosnia and Herzegovina<sup>60</sup>.

The **Food Safety Agency of BiH** is an independent administrative body established by the Decision on Establishment of the Food Safety Agency<sup>61</sup> of the Council of Ministers of BiH on 8<sup>th</sup> March, 2005, upon the proposal of the Ministry of Foreign Trade and Economic Relations of BiH, based on provisions contained in the Law on Food of BiH<sup>62</sup>. The Agency is responsible for (i) ensure food and animal feed safety, (ii) carrying out scientific and professional-technical tasks defined by the Law on Food of BiH, (iii) implementation of international conventions and international agreements in the field of food and feed safety. According to the aforementioned Law, the Agency has to contribute to a high level of

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<sup>56</sup> Official Gazette BiH, no. 63/03, 9/09

<sup>57</sup> Official Gazette BiH, no. 23/04

<sup>58</sup> Official Gazette BiH no. 23/03

<sup>59</sup> Official Gazette BiH, International Agreements, no. 8/03

<sup>60</sup> Official Gazette BiH, no. 15/10

<sup>61</sup> Official Gazette of BiH, no. 22/05

<sup>62</sup> Official Gazette of BiH, no. 50/04

protection of human life and health and, in that sense, take into account the health and welfare of animals, plant health and the environment on BiH territory.

The **Agency for Medication and Medical Devices of BiH** was established by the Law on Ministries and Other Administrative Bodies of BiH<sup>63</sup> as an independent administrative body. In addition, according to the Law on Medication and Medical Devices<sup>64</sup>, this Agency is the authorized body in the field of medication and medical devices used in BiH. This Agency is also responsible for the adoption and amendment of legislation in the field of pharmaceutical waste management.

## **Federation of BiH**

**Federal Ministry of Environment and Tourism (FMET)** is responsible for air, water and soil protection<sup>65</sup>. Among its tasks are development of environmental protection strategies and policies, as well as waste management plans at level of Federation of BiH, environmental monitoring and development of environmental standards, issuance of environmental permits, and tourism development activities.

**Federal Ministry of Agriculture, Water Management and Forestry** is responsible for administrative, professional and other activities specified by laws related to the responsibilities of Federation in the field of agriculture, water management and forestry related services<sup>66</sup>. The Ministry performs tasks related to protection and use of agricultural land, protection of agricultural crops and products; health protection of animals, food industry, protection of forests, water sources, planning in field of water, use of water and water supply.

**Federal Administration for Inspection Affairs**<sup>67</sup> conducts activities regulated by the Law on Inspections in FBiH<sup>68</sup>. The two inspections are relevant for the sector of environment and climate action:

- Physical planning- ecological inspection which is competent, inter alia, for the Protection of environment and natural resources; Protection of environment, cultural historical monuments and natural heritage; Protection of waters; Control of used and waste waters and implementation of plans for protection of water resources from pollution; Improvements of ecological quality;
- Water inspection which is competent, inter alia, for the following: Waters, water quality and use of waters; Exploitation of mineral resources from water bodies beds (grovel, sand, stone); Implementation of international and inter-governmental obligations pertaining to waters; Carrying out of public duties in regards to implementation of the law and by-laws on waters.

**Agency for Watershed of Sava river and Agency for Watershed of Adriatic Sea** which are, among the others, responsible for conduction of water management activities which are specified and placed under their competences by Law on Water of FBiH and regulations enacted based on that law, including the preparation of management plans and programs of measures for watersheds under their competences

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<sup>63</sup> Official Gazette of BiH, no. 5/03, 42/03, 26/04, 42/04, 45/06, 88/07, 35/09, 59/09 and 103/09

<sup>64</sup> Official Gazette of BiH, no.58/08

<sup>65</sup> Article 20a of the Law on Ministries and other Administrative Bodies of FBiH (Official Gazette FBiH, 58/02, 19/03, 38/05, 58/02 and 61/06 )

<sup>66</sup> Article 19 of the Law on Ministries and other Administrative Bodies of FBiH (Official Gazette FBiH, 58/02, 19/03, 38/05, 58/02 and 61/06)

<sup>67</sup> Article 23a of the Law on Ministries and other Administrative Authorities of FBiH (Official Gazette FBiH, 58/02, 19/03, 38/05, 58/02 and 61/06)

<sup>68</sup> Official Gazette FBiH, No. 73/14.

**FBiH Hydrometeorology Institute** performs the control, processing and archiving of data, preparation of water balance and hydrological yearbooks. Responsibilities related to water monitoring are shared by the Water Agencies and the FBiH.

**Fund for Environmental Protection FBiH** which is, among the others, competent for collection and distribution of financial resources for environment protection in the territory of Federation as well as for keeping register and statistical information on waste.

**Federal Institute for Statistics (FIS)** gathers and organizes statistical data and undertakes relevant statistical research for the Federation.<sup>69</sup> The Department of Industry, Construction, Agriculture, Forestry and Environmental Protection Statistics is responsible for environmental statistics including waste. The Federal Institute for Statistics (FIS) is in charge for preparation, collection, storing, processing, compilation, analysis and distribution of statistical data at FBiH(entity) level (including collection of relevant municipal waste) and submits the statistical reports to the Agency for Statistics of BiH. According to the Law on Statistics in FBiH<sup>70</sup>, cantonal authorities and other cantonal institutions, as well as city and municipal administrative services and other urban and municipal institutions and all other waste generators are obligated to submit data upon the request and as specified in the detailed Annual Work Plans of the FIS.

## **Republika Srpska**

**Ministry of Civil Engineering, Physical Planning and Ecology of Republika Srpska** has competencies as stipulated in Article 29 of the Law on Republic Administration of RS<sup>71</sup>. Ministry is competent for, inter alia, the following: Drafting of physical plan of RS and revision and approval of physical plans of cities and municipalities; Municipal public utility affairs (municipal solid waste); Protection and improvements pertaining to the quality of environment; Protection of natural resources, nature and cultural heritage.

**Ministry of Agriculture, Forestry and Water Management** which is competent for, inter alia, protection and use of agricultural land, implementation of integrated water management, organising water management, prevention of derogation of surface and underground water, organisation and preparation of Strategy, RBMPs and their update every six years, organisation and preparation of Programme of Measures taking into account economic analyses results, in order to achieve environmental and water objectives, within the RBM Plans, organisation and preparation of flood protection plans, organisation and preparation of the programme of sanitation of the consequences of the harmful effects of water, reparation of water protection plans, proposing programmes for system control of water and wastewater and other regulations relating to the methods of control and defining rules for harmful and dangerous substances and sanitary-technical water control, determination and proposing Government the basic rate for general and special water fees, management of integrated water information system of Republika Srpska (WIS), takes care of creating a register of polluters, water management facilities and water resources in each category, adoption of relevant regulations, definition of erosion zones, zones for irrigation, determine the need and propose to the Government number and organisation of public companies in the field of water.

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<sup>69</sup> The Federal Institute for Statistics was established in April 1997, under the Law on Federal Ministries and Other Bodies (Official Gazette of FBiH, no. 8/95 and 9/96).

<sup>70</sup> Official Gazette of FBiH, no. 63 / 03 and 09/09

<sup>71</sup> Official Gazette of RS, no. 118/2008, 11/2009, 74/2010, 86/2010 - correction, 24/2012, 121/2012, 15/2016, 57/2016 and 31/2018

**Public Institution “Vode Srpske”**, which is responsible for water management and development of plans and policies in this regard, implementation of tasks in the domain of water-management sector; they organize the collection, management and distribution of data on water resources; organize monitoring of the current state and water usage, the hydrology state, the qualitative state, the environmental state, the condition of the groundwaters; they prepare river basin management plans for their river basin district; prepare plans, elaborate studies and projects to prevent and reduce the harmful effects of water, take urgent measures to prevent or reduce the occurrence of adverse effects on water, water-management legal acts, etc.

**Hydro-Meteorological Institute of Republika Srpska** performs its activities in line the Law On Meteorological and Hydrological Activities<sup>72</sup>. The Institute performs tasks related to the development and functioning of hydrological, meteorological and seismological activity, exploration of the atmosphere, of water resources, of air water and quality, collecting, processing and publishing information of public interest, etc. The Institute monitors water, i.e. water quantities (water level and flow), as well as make regular and special hydrological bulletins on water levels at gauging stations on rivers in the RS, issue flood warnings and announcements and plans to strengthen the establishment of a network of hydrological stations and define the Q-H curve for all the hydrological stations in the RS. The Institute also maintains and manages Pollutants Release and Transfer Register (PRTR).

**Administration for Inspection Activities of Republika Srpska** is an independent institution which carries out inspection tasks, and administrative and other specialised affairs pertaining to inspection supervision. The Inspectorate consists of inter alia the following inspections:

- Physical planning – construction and ecological inspection – carries out inspection supervision if regulations pertaining to, inter alia, environmental protection, ecology, physical planning and waste management are obeyed;
- Water inspection – carries out inspection supervision if regulations pertaining to water, protection of nature in regards to water and other areas as stipulated in legislation are obeyed.

Local communities may establish a municipal inspection by municipal assembly decision, but with the prior approval of the Inspectorate of RS. Inspection at the local level must be in a functional connection with national inspectorate. The local inspector can perform inspection in another municipality, on the basis of a prior agreement between the municipalities, which must be confirmed by the inspectors at the level of the RS.

**Fund for Environmental Protection and Energy Efficiency of Republika of Srpska** which is, among the others, competent for collection and distribution of financial resources for environment protection in the territory of Republic of Srpska;

City/municipal legislative bodies which are competent to ensure public water supply, as well as collection and treatment of waste waters in the territory of city/municipality.

**Institute for Statistics of Republika Srpska** is an administrative organisation whose core task is to produce official statistical data for all categories of users. These include, the governmental organisations, businesses, academia, medias, and general public. The Institute implements the regular researches and introduces new environmental statistics research in accordance with the plan and programme. Sector of labour, prices, living standard and environmental statistics together with the

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<sup>72</sup>Official Gazette of RS, No. 20/2000

Department of labour and environmental protection statistics are competent for the area of environmental protection. According to the Law on Statistics of Republika Srpska<sup>73</sup> statistical reports are submitted to the Agency for Statistics of BiH.

#### **Brčko District BiH**

**Department for Urban Planning and Property Affairs of Government of Brčko District of BiH** In accordance with Article 21 of the Law on Public Administration of BD of BiH<sup>74</sup> this Department is competent for carrying out administrative, technical and other affairs falling under competence of BD of BiH Government. These are *inter alia* physical planning, issuance of urban consents and other permits and approvals, protection of environment and issuance of environmental permits and Protection of natural heritage.

**Department for Agriculture, Forestry and Water Management of Government of Brčko District of BiH.** In accordance with article 27 of the Law on Public Administration of BD of BiH, the Department is competent for technical, administrative and other affairs falling under competences of BD of BiH Government and which pertain to, *inter alia*, implementation of laws and by-laws falling under water management field. In accordance with the regulation on internal organisation, Department contains a sub-department for forestry and water management.

**Department for Health Care and other Services of Government of Brčko District of BiH.** Competencies of the Department for health and other services of BD BiH are, *inter alia*, stipulated in Article 25 of the Law on Public Administration of BD of BiH. In accordance with the Law, the Department is competent for the following: prevention and protection of health of the general population and function of the health institutions of BD of BiH, social aid and protection of citizens.

**Department for Municipal Public Utility Affairs of Brčko District of BiH.** In accordance with Article 24 of the Law on Public Administration of BD BiH, the Department is competent for: Analysing trends in the development of municipal public utility affairs; Preparing draft strategy for the development of municipal public utility affairs; Improving and modernising municipal public utility infrastructure; Preparing of draft legislation.

**Inspectorate of Brčko District of BiH** is a sector of BD BiH of Government which independently carries out tasks stipulated in the BD of BiH legislation. The Law on Inspections of BD of BiH governs, *inter alia* the work of the Inspectorate. BD of BiH Inspectorate is responsible to the BD of BiH Government and BD of BiH major. The most important inspections within the inspectorate are: Municipal Public Utility Services Inspection, competent *inter alia* for inspection of: Water supply and sewage; Collection, transport and treatment of municipal solid waste; Water Inspection, competent *inter alia* for inspection of the: Use and management of water resources; Water permits; and water supply.

#### **Institutional leadership**

The whole system of institutions in BiH is established on the principle of subordination and coordination. The principle of subordination is characterized and expressed in the observation of the institutional framework within one level in BiH. From this point of view, there are no legal impediments

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<sup>73</sup> Official Gazette RS, no. 85/03

<sup>74</sup> Official Gazette BD of BiH, no.19/7, 2/08 and 43/08

to the proper functioning of the institutions and the system is logically set up with the aim to fulfil its duties, and to adopt and implement regulations governing relations at certain levels.

The legislation governing establishment of institutions of the system and those that define powers and duties of institutions, points out the principles of all institutions to ensure the implementation of the constitution, laws and regulations, and that the institutions shall act in a manner so as to efficiently and rationally carry out their tasks in order to ensure highest standards to meet the specific needs of the society.

The system involves coordinating relations between levels, particularly between the level of the State of BiH on the one hand and the entities on the other. Coordination is very much needed in communicating these levels given that the Constitution limits the functions of BiH authorities to only certain segments of the action, and most of the powers, especially those related to jobs in the field of environment, are defined as functions the entities and BD of BiH.

BiH Constitution stipulates that the State level shall be responsible for international cooperation. Considering the way the system is set, there is the important question of how and by what means the State level can influence or determine the behaviour of the Federation of BiH, Republika Srpska and Brčko District of BiH in the context of international obligations in the areas where there is an exclusive competence of the entities and of district. This situation sets the issue of coordination of different levels as a fundamental issue, especially if one keep in mind the consideration focus of this analysis - the fulfilment of international obligations arising from the SAA, regarding environmental information.

At the level of the administration, coordination tasks of EU accession are performed by the Direction of European Integrations (DEI). Coordination activities in the field of environment are performed by Ministry of Foreign Trade and Economic Relations. These institutions have the right to draft certain legislation. They also maintain the right to submit proposals to the Council of Ministers or to the Parliamentary Assembly for the adoption of legislation to specify operation and performance of certain functions.

In any case, the work of the BiH administrative level relies to a greater or lesser degree to the work of the lower administrative levels. Mutual relations between the levels are not specified and this may lead to insufficient organ functionality at the State level.

### **Institutional capacities**

Civil servants undertake trainings on general issues of civil service organized by the Civil Service Agencies. Some trainings are organized by the Directorate for European Integration. However, there is no systematic training and professional development of civil servants on environment and sustainable development issues. Training and professional development of staff of the institutions responsible for environmental issues takes place sporadically as part of international projects such as ECRAN/RENA or EnvIS, or networks such as the Themis Network. It also takes place during workshops organized in the framework of conventions. There is no system of training and professional development on environmental issues of staff in sectoral (line) ministries and in the private sector.

Some of the institutions listed above are seriously understaffed to efficiently perform their duties. The expansion of public administration in the country is banned in line with the conditions imposed by the IMF. The Ministry of Foreign Trade and Economic Relations and the entity ministries with environment-

related competences cannot employ additional staff to address new tasks. When existing posts are become free (e.g. in case of retirement), the recruitment is frozen and the tasks of outgoing employees are distributed among existing staff or remain not assigned to anyone. In these circumstances, training and professional development of civil servants is of outmost importance to enable the public administration system to implement its functions.

### **2.1.3 Sector and donor coordination**

#### **Sector coordination**

BiH Council of Ministers adopted the Decision on the coordination system of the European integration process in Bosnia and Herzegovina<sup>75</sup>. This decision establishes the institutional and operational system and method of achieving the coordination of BiH institutions on the implementation of activities related to the process of BiH's accession into the European Union, as well as common bodies within the coordination system, their structure, responsibilities and relationships. The new system of vertical coordination defines the communication between different levels of organisation of BiH's authorities, which, in order to be realised, requires the establishment of common implementing bodies involving all levels of government in Bosnia and Herzegovina.

Ministry of Foreign Trade and Economic Relations of BiH is responsible for sector coordination relevant to international obligations of BiH, that is, obligations arising from the signed conventions, agreements, multilateral contracts, etc., as well as project based cooperation with international organizations and donors in the Sector. Through its Department of Water Resources, Tourism and Environmental Protection, the Ministry conducts regular consultations, coordination and harmonization of activities and opinions of relevant actors in Federation of BiH, Republika Srpska and Brčko District. The Ministry is setting up expert teams, permanent or ad hoc working groups to ensure required level of coordination and involvement of relevant institutions in decisions that will result in implementation of countrywide coordinated, harmonised and sustainable solutions. Joint meetings of representatives of all key institutions for environmental management are organized several times during the year in accordance with the needs and issues requiring agreement for further actions. It is regular practice to organise quarterly coordination meetings of all level institutions in the water sub-sector. According to needs, the Ministry also engages country experts from the Sector in various international working groups as members of such bodies or as contact points. Written, electronic and any other communication between the representatives of key institutions is done on a daily basis.

Laws on Environmental Protection of Federation of BiH and Republika Srpska set the basis for coordination of various subjects in their territories, considering that environmental management at the entity level involves many subjects. Government of Brčko District of BiH coordinates activities conducted by the bodies and institutions involved in the environmental policy planning and implementation in the Brčko District of BiH.

Inter-entity cooperation has been strengthened through the Inter-Entity Steering Committee for the Environment. This Committee functions reasonably well in coordination and harmonization of environmental law and policy between the two entities and provides a good example of inter-entity

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<sup>75</sup> Official Gazette, no. 72/16



cooperation. However, it has had limited impact in raising environmental issues to State level and in ensuring the necessary level of vertical and horizontal coordination and communication.

### **Donor coordination**

Overall donor coordination in Bosnia and Herzegovina is joint responsibility of the Directorate for European Integration (DEI) and the Ministry of Finance and Treasury (MoFT). DEI is coordinating EU donors (including EU Member States and the Commission), while MoFT is coordinating other donors and IFIs. Consultations with donors take place also at other levels of government. The MoFT regularly organises Donor Coordination Forum meetings and on annual basis publishes donor-mapping reports on sector by sector basis. The EU Delegation also holds regular coordination meetings with EU Member States to exchange policy views and to ensure coherence and complementarity in the EU assistance to Bosnia and Herzegovina.

Regular donor coordination in the Sector is not in place and currently operates as required on an ad hoc or project-by-project basis. Coordination activities are mainly initiated by donors or international organisations managing the funds (e.g. UNDP, UNEP, IFIs) through project management structures (e.g. Project Steering Committee, Supervisory Body, etc.) that usually consist of representatives of Ministry of Foreign Trade and Economic Relations of BiH, Federal Ministry of Environment and Tourism, Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska and Department for Urban Planning and Property Affairs of Government of Brčko District of BiH, as well as other ministries depending on the project thematic. Number and time of coordination meetings are determined by the donor or international organisation implementing the project.

Ministries responsible for environment and water management in Federation of BiH and Republika Srpska have formed Project Implementation Units. Project implementation units are responsible for smooth and effective implementation of investment projects in the Sector.

#### ***2.1.4 Mid-term budgetary perspectives***

BiH Council of Ministers adopted the Decision on the Process of Short-term Planning, Monitoring and Reporting in the Institutions of Bosnia and Herzegovina<sup>76</sup> and Instruction on Methodology in the Process of Midterm Planning, Monitoring and Reporting in the Institutions of Bosnia and Herzegovina<sup>77</sup> which regulate developing more efficient program budgeting and improved linkages with public institutions by introducing strategic planning into BiH institutions. Specific objectives of the Decision are (i) to harmonise and coordinate the planning process in the Council of Ministers and BiH institutions, (ii) to achieve optimal allocation of resources for priority tasks and projects, and (iii) to improve the monitoring process for programmes and plans, and reporting on their implementation. The Decision was enforced from the budget year 2015. This Decision created the assumptions that BiH institutions are developing a better strategic basis for medium-term planning and budgeting.

Based on these above mentioned decision and instructions, BiH Council of Ministers, at the proposal of the Department for Economic Planning, adopted Medium Term Work Programme of the Council of Ministers of Bosnia and Herzegovina 2018-2020. The medium-term work program of the Council of

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<sup>76</sup> Official Gazette of BiH, no. 62/14

<sup>77</sup> Official Gazette of BiH, no. 63/08

Ministers is the basis for the preparation of medium-term work plans of BiH institutions. Therefore, the medium-term work plans of BiH institutions should be consistent with the Medium-Term Program of Work and bound with the budget. This mid-term program is consistent with the sector policy proposal. It ensures quality management of development in accordance with competencies of the Council of Ministers and the Institutions of Bosnia and Herzegovina. This Program follows the Reform Agenda, and contains general, medium-term, strategic goals and activities to be implemented by 57 BiH institutions reporting to the Council of Ministers, and establishes, for the first time, the system for planning which is essential to obtain funds from the EU and other development partners. The medium-term work plans of the institutions are technical documents.

In the Medium Term Work Program of the Council of Ministers of BiH for the period 2018-2020, allocations for programs in the environmental sector and climate change are clearly stated and identified. Thus, the Medium Term Work Program can be considered as an overall Medium Term Expenditure Framework (MTEF). With regard to allocations in the state budget, it is not possible to identify whether allocations for the environment and climate change are made because they are listed in the form of Current transfers and grants and Capital Expenditures.

The new Economic Reform Program (ERP) 2016-2018 outlines the fiscal framework of the general government at the country level, and was prepared on the basis of inputs submitted by the governments of Federation of BiH, Republika Srpska and Brčko District and institutions of BiH. It indicates firm dedication of all the levels of government to decrease spending below 40% of GDP through various measures and policies and reforms described in the ERP.

**Table 1 Fiscal framework of the general government in BiH for the 2014-2018 period; Source: ERP 2016-2018, DEP**

Fiscal indicators (%GDP)	2014	2015	2016	2017	2018
Total income	41.2	41.3	39.7	38.2	36.4
Total spending	43.1	42.6	40.9	38.2	35.3
<i>Fiscal balance</i>	-1.9	-1.4	-1.2	-0.1	1.1
Interest expenditures	0.7	0.9	1.0	1.0	0.9
<i>Primary fiscal balance</i>	-1.1	-0.4	-0.2	0.9	2.0

Fiscal consolidation and deficit decrease will be achieved mainly on the expenditure side, while on the revenue side, measures will be taken, including policies, for mitigating grey economy and evasion of tax systems.

The legislative framework for the budget systems of governments at all levels is defined by the relevant laws on budget: Law on Financing of Institutions of BiH<sup>78</sup>; Law on Budgets of the Federation of BiH<sup>79</sup>;

<sup>78</sup> Official Gazette BiH, no. 61/04

<sup>79</sup> Official Gazette FBiH, no 102/13

Law on the Budget System of Republika Srpska<sup>80</sup>, Law on Budget of Brčko District<sup>81</sup>. As for the description of the sectoral budgets on an annual level, they must be based on and comply with the government fiscal data, particularly with the Medium Term Expenditure Framework (MTEF).

Unfortunately, sector budget cannot be easily identified in the state budget. The budget classification system used in BiH is in accordance with the International Accounting Standards (IAS) and the accompanying instructions, explanations and guidelines issued by the International Accounting Standards Board (IASB). It is based on: administrative classification (by institutions / users), economic classification (by type of budget item, e.g. capital expenditures), but also by classification by sources of funding (if donor funds are present). What is still not published in the Law on Financing of Institutions of BiH is a functional classification by sector. However, in the Framework Budget Document for Institutions of Bosnia and Herzegovina 2018-2020<sup>82</sup>, functional codes were assigned by sector and reflected in a review and plan of approved budgetary funds.

Based on the insight into the budget structure for line ministries, it cannot be concluded whether the share of the sector in total government spending is increasing. Currently, it is very difficult to determine the overall level of sectoral financing. Significant financial support to the Sector comes from grants, loans, different international programmes and donors and IFIs. Ministry of Finances and Treasury of BiH developed an integrated, functional and transparent Public Investment Management Information System. According to the information from this database in period 2013 – 2015, total budget allocation for the Sector was EUR 526.06 million, of that payment was made in amount of EUR 152.77 million. The total amount of investments in the Sector in Federation of BiH (at federal and cantonal level) in period 2013-2016, according to preliminary information, is around BAM 282.6 million (approx. EUR 141 million EUR). The main domestic source of budgetary funds is from water management fees in annual amount of BAM 44 million (approx. EUR 22 million). In Republika Srpska, according to the Public Investments Program 2017-2019 that is prepared in line with standard budget classifications and COFOG Classification of the Functions of the Government, total planned investments in the planning period are EUR 105 million.

COFOG Classification	Planned investment for 2017-2019 (in EUR 000)				
	2017	2018	2019	Total	%
05- Environmental protection (waste and wastewater management, pollution reduction, biodiversity protection, etc.)	72.912	30.675	1.743	105.331	25.81

### 2.1.5 Performance assessment framework

Sectoral performance assessment framework is not established. No system of control of duties of approximation the EU in BiH is established. Certain acts in this area are performed by the EU itself

<sup>80</sup> Official Gazette RS, no. 121/2012, 52/2014, 103/2015 and 15/2016

<sup>81</sup> Official Gazette BD, no. 34/08, 40/15, 39/17

<sup>82</sup>

<https://www.mft.gov.ba/bos/images/stories/budzet/2017/Dokument%20okvirnog%20proracuna%20Institucija%20BiH%20za%20razdoblje%202018.-2020..pdf>

through the financing of projects that through specific methodologies try to conduct a review of the progress of BiH. The impression is that a monitoring mechanism would be much more effective if it were a task of BiH institutions and if all administrative levels are unconditionally committed to joining the EU as a top strategic goal of the country.

The national monitoring system based on performance criteria for the environment and climate change is currently based on the process of collecting statistical data and processing it in form of environmental indicators. This process is managed by the Agency for Statistics of BiH with the help of the Federal Institute of Statistics and the Republic Institute of Statistics. The indicators that the Agency deals with are in the annual reports and can serve, in part, to monitor the success of implementation of the sectoral and sub-sectoral policies. The reporting system to the European Commission and the EEA is currently regulated through the adopted Mechanism of Coordination<sup>83</sup>. The regulation in the entities and the BD BiH should allow for information to be shared between the entity and state level institutions in order to facilitate obligatory reporting process.

The communication between responsible institutions about best model for effective performance assessment framework is currently on-going.

#### **2.1.6 Public finance management (incl. budget transparency)**

Public finance management in Bosnia and Herzegovina is decentralised and within a responsibility of each of the administration levels, except for the indirect taxes and the system of public procurements, which are being applied in the whole territory of BiH and is within the competency of the institutions of BiH.

Bosnia and Herzegovina has no strategy, or strategy framework for public finance management for the whole country, but each administration level of authority enacts their own strategy. After adoption of the strategies at all the levels, a coherent framework of reforms will start to be compiled: compiling four adopted documents into one strategy framework for the whole country. So far, public finance management reform strategies have been drafted in the institutions of BiH, the Federation of BiH and the District of Brčko where, in accordance with a decentralised public finance management, all aspects and key subsystems of public finance management of the given level of authority were covered. The Strategy of public finance management reform in the institutions of BiH 2017 - 2020 is supported and complemented by the Strategy of development of the system of internal financial controls in the institutions of BiH for the period 2016 - 2018, the Strategy of public procurements development in BiH (2016 – 2020), the Strategy for combat against corruption in BiH 2015 - 2019 and the Medium term strategy of debt management of Bosnia and Herzegovina.

Regarding tax revenues, the competency is shared, so indirect taxes are within the competency of the institutions of BiH, and direct taxes are within the competency of the entities and the DB.

A fiscal consolidation foreseen by the last adopted Programme of economic reforms (ERP) 2017-2019 covers mostly measures at the side of spending, but also at the side of revenues.

In the field of budget planning, a Budget Framework Document (BFD) for the period of three years is prepared each year and adopted by the competent government in a harmonised manner in the “Principle of 10 steps”. The next step in the reforms was establishment of the budget planning and

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<sup>83</sup> Decision on system of coordination of the EU integration process in Bosnia and Herzegovina (Official Gazette BiH no. 8/16)

management information system (BPMIS) linking all the budget users in the FBiH, the RS, the BD and at the level of institutions of BiH. The budgeting process in Bosnia and Herzegovina starts by adoption of the Global framework of fiscal balance and policies in BiH (GFFBP) for the next three years which, in accordance with the law on Fiscal Council in BiH, represents a general framework for draft of the Document of framework budgets (DFB) and annual budgets of all the levels of authority. Budget framework documents set the upper limits of spending within the available funds. External reviews of public finance management in BiH (PEFA – World Bank 2014, SIGMA baseline measurement of principles of public administration in BiH 2015) point to the weaknesses in budget planning, because a medium term budget planning is based more on the legal obligation at the side of expenses, then on future expenses and objectives of the planned policies.

Further improvements are necessary regarding budget transparency and participation of the public in the process of budgeting. Open Budget index for BiH for 2015 is 43 of 100, because limited information is provided on the budget for the public and the public is weakly involved in the process of budgeting. This result is worse in relation to 2012, when the Open Budget Index was 50.

In the domain of budget execution, introduction of treasury operations at all the levels of authority represents a very important reform, in order to have a more efficient disposal and management of budget funds. However, the scope is not full, so a special attention in the next period is dedicated to widening the scope of treasury operations on the users that did not establish a treasury system of operations. Additionally, a special attention is to be dedicated to reporting in accordance with the ESA 2010, including public debt management.

Public procurements are an important segment within budget execution. The adopted Law on Public Procurements (2014) is to a large extent harmonised with the *acquis* (except for concessions and the PPP). The administrative capacities of the contracting bodies and professional capability for proper implementation of the public procurement procedures are not at a satisfactory level. The public has access to bid opportunities and awards. Public Review Body decisions are published while contracting authorities are obliged to publish procurement plans on their website. Particularly, entities seem to use less open competition methods. The high incidence of complaints that come to the independent Procurement Review Board (PRB) and the fact that a large number of these complaints are resolved in favour of the complainant indicates some inefficiency in the system. On top of that, there is a backlog of complaints, because the PRB is understaffed, and therefore most decisions on complaints are issued after the contract is already awarded; thus imposing a significant cost on the Treasury due to the compensations that the governments must provide to complainants for whom the PRB rules in favour.

Regarding the PIFC system, a detailed review of the public finance management system implemented by the World Bank through the PEFA assessment of public expenses and financial accountability from 2014, then in 2015 by the SIGMA report on baseline measurement of the principles of public administration in Bosnia and Herzegovina, the report of the EC DG BUDGET, which was completed after the mission on PIFC and the external audit in late 2014, demonstrate that the PIFC system is in an initial stage.

Recent activities were directed to establishment of internal audit and draft of bylaws treating the issues of financial management and control, but the main concepts are still not widely known, accepted and integrated in the system of internal control.

In the context of budget scrutiny, despite recent improvements, governments' level of implementing Supreme Audit Institutions' recommendations is low and better follow-up on external audit findings and recommendations is missing. There is a space for improvement of coverage and quality of internal audits by the institutions and a greater focus on performance audits by Supreme Audit Institutions. Although the Supreme Audit Institutions (SAI) reports progress on institutional developments, the independence of the SAIs is not anchored in the Constitution and therefore government interferences into the independence of the SAI remain a concern.

PEFA Assessment (May 2014) developed by the World Bank, through the EU funded SAFE (Strengthening the Accountability and the Fiduciary Environment) Trust Fund in a nutshell, describes PFM systems in BiH as being characterised by a lack of fully adequate internal controls (especially in public procurement); therefore the different PFM systems are considered vulnerable to inefficiency and waste.

### **2.1.7 Macro-economic framework**

According to preliminary data of BiH Agency for statistics (BHAS), in 2016 BiH economy recorded a growth of 3% y/y (while average growth rate in the last five years was only 1,5%). Export and final consumption were the main drivers of growth accompanied with weak growth of investments in fixed assets. Growth in imports apparently resulted from developments in final consumption, as well as increasingly more intensive growth in exports. The main driver of total increase in investments was strong growth in budget expenditures for public works. Private investments were almost steady.

Continuation of positive economic trends from 2016, together with growth of export demand and implementation of the structural reforms, led to growth of the BiH economy by 3.1% in 2017, and should lead to growth of the BiH economy by 3.4% in 2018, while a further pick-up of growth is projected for the period 2019-2020.

Available indicators for 2017 imply that economic growth in second and third quarter was similar to growth in first quarter when (according to BHAS data) real growth rate of 2,7% y/y was recorded. The main driver of growth was strong rise in exports by somewhat above 10% in the first half of the year. Increase in domestic demand and exports brought to real import growth by 4% while trade deficit shrunk by almost 4%. Strong increase (by 36%) in external debt service payments in first 7 months of 2017 the most probably lowered the funds for financing public investments and consumption. However, continuation of intensive economic activity was recorded in the second half of 2017 with growth rate of GDP by 3.1%. Positive developments in the labour market in BiH brought to the lowest ever registered rate of unemployed (20.5% in April 2017 according to BHAS Labour Force Survey).

The implementation of economic reforms, supported by credit arrangements with the international financial creditors, as well as further strengthening of economic growth in the region, should mark the economic developments in the period 2018-2019. This should bring further expansion of growth of the economic activity in BiH to the real GDP annual growth rate of 3.4% in 2018, 3.8% in 2019 and 3.9 in 2020. Economic growth in EU and the region should encourage higher growth rates of BiH exports and investments. Furthermore, private investments should be spurred by further improvement of the business environment resulting from progress in the reform processes, which would also encourage foreign investments. The period 2018-2020 is also expected to see more intensive use of available

credit funds from international creditors, thus the expected annual growth of public works is set to approximately 30% per year.

**Table 2 Main macroeconomic indicators**

Main Macroeconomic Indicators	2015	2016	2017	2018	2019	2020
	Official data			Projections		
Nominal GDP (BAM million)	29,666	30,977	31,937	33,366	35,139	37,078
Gross investment (in percent of GDP)	17	19	19	18	19	20
Real GDP (percent change)	3.8	3.0	3.1	3.4	3.8	3.9
CPI (period average)	-1	-1.1	1.8	1.2	1.4	1.5
Total consumption – real growth rate	1.4	1.8	1.2	2.1	2.0	2.1
Gross fixed capital formation-real growth rate	-3.5	2.5	6.2	10.6	10.5	9.8
Import – nominal growth rate	-1.7	2.8	12.2	6.4	6.3	6.4
Exports nominal growth rate	6.3	7.1	17.4	9.3	8.4	7.9
Current account balance (in percent of GDP)	-5.3	-4.3	-4.3	-4.3	-4.3	-4.4
Gross official reserves (BAM million)	4,413	4,674	5,005	5,254	5,558	5,855

Note: GDP is calculated using expenditure approach

The main challenges for the labour market in BiH are primarily related to the deficit of productive employment and decent work, which are issues closely linked to the underdeveloped labour market. With the assumption of positive developments in the region and EU, BiH can expect to see a gradual continuation of the employment growth. Rise in demand, as well as better business environment in the private sector, would have a positive impact on operations of BiH companies and increase employment opportunities. This way, the number of employees in the public administration should not have a significant contribution to the overall growth of employment in BiH. In midterm period BiH can expect to see gradual decrease of unemployment rate with the increase of employment rate by 2,5%-2,6% and moderate growth of average net salary.

In 2016, public debt of Bosnia and Herzegovina participated in GDP with 39.78 % compared to 40.56% in 2015.

The level of inflation in the period 2018-2020 is expected to be affected by moderate growth of food and oil prices on the global market. Assuming that there would be no major changes in prices of domestic factors that determine the price level, the expected inflation in the observed years can be set at 1%-1.5% annually. The current account deficit was 4.6% of GDP in 2017, it is expected to be 4.3% of GDP in 2018/9, while in 2020 deficit is expected to amount to 4.4% of GDP. Foreign Direct Investments (FDI) could range from 1.7%, 1.9%, 2.1% to 2.3% of GDP up to 2020.

It is important to highlight that abovementioned projected economic growth for BiH is fairly modest bearing in mind very low base. According to EUROSTAT living standard in BiH per capita (measured in PPP) is/was on the level of 30% of EU average, which place/placed BiH at the end of the list of EU countries. In order to converge to the EU average (in 30 years) BiH needs average growth rates that are three times higher than in EU.

## **2.2 Overall assessment**

The following paragraphs give the summary of the sector approach assessment based on the detailed reasoning in the section above

Concerning **national sector policies and strategies**, a countrywide Environmental Approximation Strategy is adopted in 2017. Several countrywide sub-sector strategies in the field water management, waste management, biological diversity, climate change, and chemicals are also developed and adopted. With the support of the EU IPA 2011, Draft Environmental Policy and Four Directive Specific Implementation and Financing Plans (DSIPs) are prepared but never submitted for approval. Pipeline of Projects for co-financing from IPA II programme is not prepared, although the methodology and criteria for selection are developed with support of the EU IPA 2011.

Concerning **institutional setting, leadership and capacity**, the state Ministry of Foreign Trade and Economic Relations of BiH has the responsibility for overall coordination of the activities in the sector particularly in domain of country's international obligation. Entity ministries for environment and water management and relevant department of Government of Brčko District are responsible for policy, relevant legal and regulatory framework, and ensuring the provision of appropriate levels of funding to ensure the maintenance and development of the infrastructure in the territory of the respective entity and district. Entity and Brčko District inspectorates are responsible for monitoring of implementation of legislation in the sector. The whole system of institutions in BiH is established on the principle of subordination and coordination. Coordination between institutions needs to improve to ensure more effective approach to environmental protection. Institutional capacities also need to be improved.

Concerning **sector and donor coordination**, sector coordination takes place as required within the scope of work of sectoral institutions. No specific sectorial coordination is in place. In term of EU integration, sector coordination is ensured through Mechanisms of Coordination, number of coordination bodies established with decision of Council of Ministers in 2016. Coordination with donors currently operates on an ad hoc on or project-by-project basis. General donor coordination is



carried out by BiH Ministry of Finance and Treasury through Donor Coordination Forum meetings and Donor Mapping database, including international financial institutions. To a certain extent, BiH Ministry of Foreign Trade and Economic Relations is performing donor coordination in the sector of environment through meetings/project steering committees initiated by donors active in the sector. Entity ministries have formed Project Implementation Units. As the Pipeline of Projects is not prepared, each donor is acting according to its own foreign policy agenda.

Concerning **mid-term budgetary perspectives**, Medium Term Expenditure Framework with three-year general budget planning of institutions in BiH is in place. General annual budget planning of institutions in BiH is also in place. Public Investment Management Information System is developed and maintained by MoFT to provide information on all public investment program proposals and funded investment projects.

Concerning **performance assessment framework**, national monitoring system based on success criteria does not exist. Sector Performance Assessment Framework (PAF) is not in place. Monitoring capacities are weak and performance indicators are not developed.

Concerning **public finance management (incl. budget transparency)**, public finance management is decentralised and within the competency of each administration level of authority. There is no public finance management strategy at the level of BiH, but strategies of individual levels of authority have been drafted. Transparency of the budget reflects legal frameworks and the public is not sufficiently included in the budgeting process. Lack of fully adequate internal controls (especially in public procurement) make the PFM systems in BiH still remarkably vulnerable to inefficiency and waste. Fiscal system in BiH is highly decentralized. A Fiscal Council was created in 2008, to coordinate fiscal policies in BiH in order to ensure macroeconomic stability and fiscal sustainability of Bosnia and Herzegovina state level, Federation of Bosnia and Herzegovina, Republika Srpska and Brčko District

Concerning **macro-economic framework**, in 2017 the real GDP growth rate in BiH was 3.1%. In 2018, 2019 and 2020 the real GDP growth rate in BiH is expected to further increase. According to national statistical data, public debt of BiH (at the end of 2017) was at the level of 40.6% of GDP.

Based on the above, it can be concluded that the sector advanced towards the sector approach and basic requirements are fulfilled. The national sector strategy exists and as well as the lead institution/ministry responsible for the sector. Mechanism of coordination related to EU integrations is established and needs to be strengthened in order to fully undertake the role of sector coordination. With the Decision on mechanism of coordination adopted in 2016, BiH Government clearly demonstrated commitment to establish a functional system that will respond to the EU sector approach requirements. In order for this sector to be considered ready in full capacity, it is necessary to strengthen the role and capacities of lead ministry, the Ministry of Foreign Trade and Economic Relations BiH, to coordinate and monitor sector activities, as well as entity ministries to develop and implement policies on their territory. Issues that have been detected by a negative assessment are more of a political nature and require increased cooperation between state and entity actors in the sector. The capacity building activities can be financed with resources from domestic sources, IPA funds or other sources as part of the next year's programming. Therefore, the sector gaps can be overcome with appropriate technical assistance and increased cooperation.

A ROADMAP for the introduction of sector support highlighting targets and steps to move towards a fully-fledged Sector Approach is given in Annex 1.

### 3 RELEVANCE WITH OTHER POLICIES AND STRATEGIES

#### Stabilisation and Association Agreement (SAA)

BiH signed the **SAA<sup>84</sup> with the EU** in 2008, and thereby entered into its first contractual relationship with the EU. The SAA entered into force in June 2015, and is the main framework for the relations between the EU and BiH, further preparing the country for future EU membership. Article 108 defines a cooperation policy in environmental field with the vital task of halting further degradation and start improving the environmental situation with the aim of sustainable development. In addition, BiH shall establish cooperation with the aim of strengthening administrative structures and procedures to ensure strategic planning of environment issues and coordination between relevant actors and shall focus on the alignment of BiH legislation to the EU *Acquis*. Cooperation could also centre on the development of strategies to significantly reduce local, regional and trans-boundary air and water pollution, including waste and chemicals, to establish a system for efficient, clean, sustainable and renewable production and consumption of energy, and to execute environmental impact assessment and strategic environmental assessment. Special attention shall be paid to the ratification and the implementation of the Kyoto Protocol.

#### EC Bosnia and Herzegovina 2018 Report<sup>85</sup>

The EC Report 2018 for BiH states that sector strategy for environment was adopted in May 2017, thus enabling IPA support in this sector. The adoption of the Approximation Strategy of EU *Acquis* in Field of Environmental Protection of BiH represents the fulfilment of one of the goals set in the previous Report (EC Bosnia and Herzegovina 2016 Report)<sup>86</sup>. What remains is to (i) enhance the legal framework, strengthen administrative capacity and monitoring systems and improve inter-institutional coordination among all authorities on environmental protection; (ii) formalise the procedures for appointment and the functions of the National Focal Point for Bosnia and Herzegovina for the implementation of environmental conventions.

#### South East Europe Strategy 2020 (SEE 2020)

The Regional Cooperation Council (RCC) SEE 2020<sup>87</sup>, aimed to improve living conditions, competitiveness and development South East region, defines strategy actions for 5 development pillars. Environment is under the pillar “Sustainable Growth” which promotes the development of infrastructure and encourages greener and more energy-efficient growth. According to the table containing the correlation between proposed SEE 2020 measures and EU accession negotiation chapters, the following key measures under Dimension J ‘Environment’ are of relevance for EU Chapter 27:

- Increase adaptive capacity through awareness raising and education on climate change adaptation
- Develop and put in place measures to increase volume of annual forestation

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<sup>84</sup>[https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22015A0630\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22015A0630(01)&from=EN)

<sup>85</sup><http://europa.ba/wp-content/uploads/2018/04/20180417-bosnia-and-herzegovina-report.pdf>

<sup>86</sup>[https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/key\\_documents/2016/20161109\\_report\\_bosnia\\_and\\_herzegovina.pdf](https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/key_documents/2016/20161109_report_bosnia_and_herzegovina.pdf)

<sup>87</sup><https://www.rcc.int/files/user/docs/reports/SEE2020-Strategy.pdf>

- Identify steps and measures necessary for advancing the water, energy and food nexus approach at national and transboundary levels and investigate opportunities for launching a political process under the RCC for the enhancement of cooperation in the SEE in the field of TWRM
- Expand the level of SEE countries' understanding of the enabling environment for private sector participation in financing water infrastructure and identify key bottlenecks and prospects in the process
- Develop and put in place measures necessary for commencement of the Regional Integral Water Management Framework Agreement implementation

### **EU Strategy for the Adriatic and Ionian Region (EUSAIR)**

The EUSAIR<sup>88</sup> is a macro-regional strategy adopted by the European Commission and endorsed by the European Council in 2014. The EUSAIR is divided into four pillars and, in this case, Pillar 3 – Environmental Quality is of relevance for this SPD. The specific objectives for this pillar are:

- to ensure a good environmental and ecological status of the marine and coastal environment by 2020 in line with the relevant EU acquis and the ecosystem approach of the Barcelona Convention,
- to contribute to the goal of the EU Biodiversity Strategy to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them in so far as feasible, by addressing threats to marine and terrestrial biodiversity and
- to improve waste management by reducing waste flows to the sea and, to reduce nutrient flows and other pollutants to the rivers and the sea.

Two topics are identified as pivotal in relation to environmental quality in the Adriatic-Ionian Region:

- Topic 1 – The marine environment
- Topic 2 – Transnational terrestrial habitats and biodiversity

### **EU Strategy for the Danube Region (EUSDR)**

The EUSDR<sup>89</sup> addresses wide range of issues in 12 identified priority areas aimed at economic, social and territorial cohesion in the Danube region. Four Pillars address the major issues, among which Pillar 2 - Protecting the Environment in the Danube Region which includes topics related to this SDP (i.e. water quality, environmental risks and biodiversity and landscapes) under the priority actions 4, 5 and 6. There are also cross cutting issues that are in connection with other priority actions that need to be foreseen under this SPD.

**A Strategic Framework for BiH<sup>90</sup>** was prepared by the Directorate for Economic Planning of BiH and was adopted by the Council of Ministers of BiH in 2015. According to this document BiH need to develop a comprehensive countrywide climate policy and strategy in line with the expected EU 2030 policy framework on climate and energy. This Strategic Framework has identified the development goals for BiH and relies on development areas identified within the goals adopted within the SEE 2020. One of the strategic goals of the Strategic Framework is the improvement of environmental

<sup>88</sup> [http://ec.europa.eu/regional\\_policy/index.cfm/en/policy/cooperation/macro-regional-strategies/adriatic-ionian/library/#1](http://ec.europa.eu/regional_policy/index.cfm/en/policy/cooperation/macro-regional-strategies/adriatic-ionian/library/#1)

<sup>89</sup> <https://www.danube-region.eu/component/edocman/communication-of-the-commission-eusdr-pdf>

<sup>90</sup> <http://www.dep.gov.ba/naslovna/DEP%20Strateski%20okvir%20za%20BiH.pdf>

management and the development of environmental infrastructure, with increasing resistance to climate change. Among the priorities for environmental and climate action sectors are:

- Strengthen institutional and professional capacities for development and implementation of environmental and climate change policy, monitoring greenhouse gas emissions, and planning, implementation, monitoring, reporting and verification of measures for mitigation of climate change effects.
- Harmonise legal framework for environmental protection and climate actions
- Improve waste management efficiency and promote eco (green) industry

**The Framework Transport Policy**<sup>91</sup> was adopted by the Parliament and Council of Ministers of BiH in 2015, upon the proposal of the Ministry of Communications and Transport. The Policy contains a multi-annual framework for the development of transport infrastructure and created the possibility for developing a transport strategy and action plans. According to this Policy, main objectives that transport sector has to reach are: to have minimal permissible environmental impact and to comply with EU standards and regulations.

The **Framework Transport Strategy of Bosnia and Herzegovina**<sup>92</sup> was adopted by the Council of Ministers of BiH in July 2016. The Strategy contains the same objectives contained in the Framework Transport Policy. In addition, according to this Strategy it is necessary to reduce environmental impacts by stimulating the import of new and more ecologic vehicles, implementation of environmental impact assessment for infrastructure projects and harmonisation with EU standards on vehicle emissions (cars and heavy vehicles).

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<sup>91</sup>[http://vijekeministara.gov.ba/akti/prijedlozi\\_zakona/default.aspx?id=20287&langTag=hr-HR](http://vijekeministara.gov.ba/akti/prijedlozi_zakona/default.aspx?id=20287&langTag=hr-HR)

<sup>92</sup><http://www.mkt.gov.ba/aktivnosti/default.aspx?id=5026&langTag=bs-BA>

### 4 FINANCIAL ASSISTANCE CONTEXT

#### 4.1 Relevance with the IPA II Indicative Strategy Paper

According to the IPA II Indicative Strategic Paper for BiH 2012-2020 (Revised version), the IPA II assistance to Bosnia and Herzegovina will aim, *inter alia*, to support compliance with the EU environmental *acquis*. ISP recognises that the main needs of the country in the environment and climate action sector are related to the progress in EU *acquis* transposition and compliance, as well as infrastructure investments to support the policy objectives, primarily in the fields of waste and water management. Further objectives are to improve implementation of the existing environmental policies and adaptation to climate change, including adequate investments for policy implementation, particularly in the waste, water management, industrial emission areas and air quality as well as energy efficiency. An additional objective is to prepare a pipeline of feasible, mature, and implementable environmental infrastructure investments.

The results to be achieved with EU support relevant to the sector programming till 2020 include, *inter alia*, following:

- Environment legislation further aligned with the EU *acquis*;
- Sustainability of investments in the environment sector improved through better coordination of relevant stakeholders and support to operation, monitoring and maintenance of investments provided;
- Institutional capacities of relevant ministries, regulators, and other actors in the environment and energy sectors enhanced;
- Waste water collection and treatment improved;
- A well-functioning mechanism (Single Project Pipeline) for identifying priority investments in water, waste management, industrial emissions, air quality, nature protection, climate change as well as energy sector (considered for blending IPA II grants with IFI loans) in place;
- System for monitoring quality of environment-related parameters, including inspection and surveillance, established and secured;
- BiH prepared to join the EU Civil Protection Mechanism as a result of improved disaster risk management systems and emergency preparedness.

The support largely reflects the objectives of the Indicative Strategy Paper enabling the country to achieve progress in areas covered by the Stabilisation and Association Agreement such as: strengthening administrative structures and procedures to ensure strategic planning of environment issues and coordination between relevant actors; the alignment of Bosnia and Herzegovina's legislation to the Community *acquis*; development of strategies to significantly reduce local, regional and trans-boundary air and water pollution, including waste and chemicals, to establish a system for efficient, clean, sustainable and renewable production and consumption of energy, and to execute environmental impact assessment and strategic environmental assessment.

Implementation of priorities identified in the Sector Strategy provides the essential framework for the sector-wide approach enabling the country to improve cooperation and coordination between different government levels.

The actions supported by IPA II will differentiate between development of policies, legislation, planning and preparation of investments, and the support to implementation of policies and actual investments, incl. ensuring their operation and maintenance. This will highly contribute to the achievement of the sector objective(s) given in the country wide Environmental Approximation Strategy and adopted sub-strategies at BiH and entity level (listed in Chapter 2.1.1).

## **4.2 Lessons learned from past and on-going assistance**

Considerable technical assistance projects financed by international donors that were affecting the strengthening of the environment sector were implemented in the last years in BiH. The indicative table with listed project is given in Annex 2.

Bosnia and Herzegovina was a beneficiary of IPA I funds for the period from 2007 to 2012. During this period, a number of environmental institutional and infrastructural projects were approved, with a total value of EUR 87,1 million. In the past insufficient readiness and immature project proposals faced obstacles, slowdowns and delays during execution Building on the lessons learned from its experience with the initially slow implementation, the country is committed to strengthening administrative capacities at all government levels. In 2015, Bosnia and Herzegovina established the National Investment Committee (NIC) framework and adopted a methodology for the selection and prioritisation of infrastructure projects, primarily financed through donors and IFIs in form of loans. While the establishment of NIC is a step forward in infrastructure investment planning, sectorial donor coordination is still not in place. Lacking sector specific strategic focus donor coordination in the past has not produced the desired impact. Therefore, understanding that cost effectiveness and benefits come with sector specific strategic focus in donor coordination, IPA support needs to be coupled with effective communication with donors and IFIs. Furthermore, understanding that effective donor coordination is essential for sustainability of investments, the key stakeholders will create a basis to initiate regular donor coordination for the sector.

The projects funded by IPA were mainly related to institutional strengthening and the capacity building of key BiH institutions that are involved in the management of environmental policies in both entities, as well as infrastructure development projects including water and wastewater systems, wastewater treatment plants and regional sanitary landfills. The implementation of infrastructure projects in both water and solid waste sectors faced many risks and problems. Institutions at all levels, especially local communities, gained significant experience and learned a number of lessons from the past experience. Among the most important lessons learned are:

- The municipal infrastructure projects should only be implemented if the funds from all financial sources are secured;
- Preparation of project technical documentation, the development of various studies, the timely acquisition of necessary permits and other obligations, respecting the principles of good practice and EU regulations in this field must be ensured;
- The strengthening of professional capacities at all levels of government, in particular in local communities, in the processes of environmental planning, development and management should be supported;
- Capacities for faster absorption of EU funds and other funds must be strengthened;

- During the preparation of the project, a plan for the long-term sustainability and functional operation of facilities and systems including the projection of the necessary operational assets, maintenance assets and depreciation should be developed;
- Public utility companies needs to be strengthened by e.g. twinning projects with European organizations with the same interest, or with professional associations in their fields of work, which will enable the improvement of work and business and the exchange of experience;
- Training of project implementation staff needs to be carried out, which will include the opportunities for acquiring practical knowledge and professional challenges.
- Post-project technical and environmental monitoring to meet planned achievements must be established.

One of the most important ongoing projects is the WATSAN project<sup>93</sup>. The project is implemented in 48 municipalities and both entities<sup>94</sup>. The total value of the projects is 220 million EUR<sup>95</sup> (50% is the loan provided by EIB<sup>96</sup>, and 50% are local contributions and grant component). Currently, high level of the loan component allocation is achieved, however its disbursement is hampered due to lack of the grant component. It is proposed to use IPA 2018-2020 funds to speed up implementation of the infrastructure investments contributing to the grant component of the WATSAN project. Co-financing from IPA is highlighted as a critically important action.

## 5 PURPOSE OF IPA II SECTOR SUPPORT AND DESCRIPTION OF THE PRIORITIES FOR ASSISTANCE

### 5.1 Description of the sector priorities for assistance

On the basis of the issues identified in the previous chapters of the Sector Planning Document, especially recommendations for the sector given in the Indicative Strategic Paper for BiH 2012-2020 and BiH Environmental Approximation Strategy, the priorities for IPA II assistance to environment and climate action sector will include (i) capacity building, (ii) policy development, (iii) legislation approximation, and (iv) investments in environment sector in view of achieving adequate sector policy implementation.

**Overall objective** is to achieve better protection of the environment therefore facilitating sustainable development in BiH.

**Specific objective** for the Sector is to give contribution and support targeted reforms and further development of infrastructure in environment sector in BiH.

Therefore, several priority areas are identified, with specific objectives, expected results and set of Actions related to each priority area, and listed in the table below. Those include:

Priority 1 Horizontal issues

Priority 2 Water Management

Priority 3 Waste Management

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<sup>93</sup> Water and Sanitation

<sup>94</sup> 28 municipalities in RS and 20 municipalities in FBiH

<sup>95</sup> 120 million in FBiH and 100 million in RS

<sup>96</sup> European Investment Bank

Priority 4 Nature Protection

Priority 5 Air quality

Priority 6 Civil protection

The reasoning behind selection of these sectors is:

- Sector approach assessment concluded that identified problems can be mitigated with (i) appropriate **technical assistance** to strengthen the role and capacities of state ministry to coordinate and monitor the sector activities as well as entity ministries to develop and implement sector policies on their territory, and (ii) **increased cooperation** between all actors. In addition, one of the objectives of Indicative Strategic Paper for BiH is to prepare a pipeline of feasible, mature, and implementable environmental infrastructure investments.
- Indicative Strategic Paper for BiH specifically mentions need for adequate investments for policy implementation, particularly in the **waste, water management, and air quality**.
- Sector analysis indicate least progress in **nature protection area**. This is confirmed by Bosnia and Herzegovina 2016 Report that concludes that alignment with the *acquis* in the field of **nature protection**, in particular the Habitats and Birds Directive, is at an early stage. This sub-sector is stagnant for several years now and interventions toward improved efficiency in nature protection is necessary.
- Indicative Strategic Paper for BiH puts emphasis on preparation of the sector to join the EU **Civil Protection Mechanism** as a result of improved disaster risk management systems and emergency preparedness.

Description of each Priority is given in tabular form below. The list of activities foreseen under each Priority are arising from supported by Environmental Approximation Strategy and sub-sector strategies and is adopted at the joint meetings of Reduced WG 27 for coordination of sector programming held in 2018/2019.

Priority area 1	Horizontal issues
Overall objective	To increase readiness of the sector for EU integrations in field of environment
Specific objective	<ul style="list-style-type: none"><li>• To support further implementation of the EU environmental <i>acquis</i> in BiH</li><li>• To support the establishment of a country-wide environmental information system</li></ul>
Expected results	<b>Result 1.1</b> Policy and legal framework in BiH further developed and strategically important projects prioritized  <b>Result 1.2</b> Increased efficiency to manage environmental information and capacities for environmental reporting
Indicative foreseen activities to fulfil the results	<b>Activity 1.1</b> Support to further implementation of the EU environmental <i>acquis</i> in BiH (2019)



Priority area 1	Horizontal issues
	<p>Description of eligible interventions:</p> <ul style="list-style-type: none"> <li>• Revision of Environmental Approximation Strategy</li> <li>• Revision of draft Environmental Policy developed under ENVIS project</li> <li>• Revision of Four Directive DSIPs and APIDs developed under ENVIS project</li> <li>• Development of new DSIPs and APIDs documents for implementation of selected horizontal legislation (EIA, SEA), nature protection and air quality related EU <i>acquis</i></li> <li>• Further harmonisation of entity and Brčko District water and waste legislative with EU <i>acquis</i> in line with Four Directive DSIPs and APIDs</li> <li>• Development and implementation of capacity building programme for state and entity ministries and Brčko district departments on obligations stemming from new harmonised legislative</li> <li>• Development of list of sector project priority pipeline projects</li> </ul> <p><b>Activity 1.2</b> Establishment of a country-wide environmental information system (2019)</p> <p>Description of eligible interventions:</p> <ul style="list-style-type: none"> <li>• Development of legal framework to align with INSPIRE Directive</li> <li>• Setting up EIONET BiH in line with rules and standards of European Environmental Agency</li> <li>• Setting up a country-wide environmental information system (design and purchase of ICT equipment)</li> <li>• Harmonisation of entity environmental statistical information system with the country-wide environmental information system</li> <li>• Development and implementation of GIS application for visualisation of environmental statistical data with corresponding GISCO sub-system of EUROSTAT</li> <li>• Development of protocol on cooperation and exchange of data with European Environmental Agency</li> <li>• Capacity building of relevant state and entity institutions for management of environmental information system and reporting toward European Environmental Agency and other EU structures responsible for environment in line with the EU <i>acquis</i>.</li> </ul>
<b>Implementation arrangements</b>	<p>Ministry of Foreign Trade and Economic Relations BiH is in charge of implementation.</p> <p>Activities related to Result 1.1 and Result 2.2 will be implemented through service contracts to provide technical assistance as well as supplies contracts for purchase of equipment.</p>
<b>Justification for the choice of implementation arrangements</b>	<p>Results 1.1 and 1.2 can be achieved only if relevant external expertise would be provided, thus service contracts providing technical assistance seems as the most appropriate implementation mode.</p>

<b>Priority area 2</b>	<b>Water Management</b>
<b>Overall objective</b>	To accelerate water sector reform, including infrastructure development
<b>Specific objective</b>	Support reform and infrastructure development of in the water sub-sector.
<b>Expected results</b>	<p><b>Result 2.1</b> Documents necessary for sustainable planning and management of the water supply and sanitation services in BiH are developed</p> <p><b>Result 2.2</b> River basin management planning further developed</p> <p><b>Result 2.3</b> Extended water supply and sewage network</p> <p><b>Result 2.4</b> Increased human and technical capacities for protection from flood</p>
<b>Indicative foreseen activities to fulfil the results</b>	<p><b>Activity 2.1 Water Sector Reform (2018-2019)</b></p> <p>Description of eligible interventions in 2018:</p> <ul style="list-style-type: none"> <li>• Data collection and assessment of the various issues and status of wastewater collection in BiH;</li> <li>• Development of the Master Plan of Agglomerations in BiH;</li> <li>• Assessment of the current status of the water supply and sanitation services in BiH;</li> <li>• Development of Water Supply Strategy for households and industry in Brčko District</li> </ul> <p>Description of eligible interventions in 2019:</p> <ul style="list-style-type: none"> <li>• Development of the legal framework addressing sustainable organisation and management of the water services in BiH;</li> <li>• Development of the cost reflective tariff system including relevant issues such as: asset management, non-revenue water management, human resources management etc.;</li> <li>• Development of the benchmarking system for all communal utilities;</li> <li>• Development of the institutional capacities at the entity, cantonal, municipal and district level including ministries, municipalities and communal utilities for implementation of reforms in water sector.</li> </ul> <p><b>Activity 2.2 River Basin Management planning (2018)</b></p> <p>Description of eligible interventions:</p> <ul style="list-style-type: none"> <li>• Data collection, analysis of biological parameters and status of water bodies, anthropogenic pressures, determination of referent conditions for surface waters, analysis of hydro-morphological pressures, research and data collection for qualitative and quantitative assessment of ground water bodies;</li> </ul>

Priority area 2	Water Management
	<ul style="list-style-type: none"> <li>• Preparation of background documents for the next planning cycle 2022-2027;</li> <li>• Analysis of the monitoring of surface waters, groundwater and protected areas and recommendation for its improvements;</li> <li>• Upgrade of Water Information System to support full implementation of river basin management planning including transparency of the processes and reporting;</li> <li>• Institutional capacity development of the responsible institutions for River Basin Management planning.</li> </ul> <p><b>Activity 2.3 Water supply and sewage infrastructure (2018-2020)</b></p> <p>Description of eligible interventions in 2018, 2019 and 2020:</p> <ul style="list-style-type: none"> <li>• Support to implementation of water supply, sanitation and wastewater treatment infrastructure projects in selected municipalities.</li> </ul> <p><b>Activity 2.4 Flood protection (2019-2020)</b></p> <p>Description of eligible interventions in 2019:</p> <ul style="list-style-type: none"> <li>• Technical assistance in the form of twinning to support water agencies to improve current standards and methodologies related to regular inspections of the stability, reliability as well as operational and investment maintenance of the flood protection infrastructure.</li> </ul> <p>Description of eligible interventions in 2020:</p> <ul style="list-style-type: none"> <li>• Technical assistance and supply of monitoring equipment in order to increase flood-forecasting capacities in the selected areas those were not subject to any previous support actions.</li> <li>• Direct investments to support implementation of no regret/high priority infrastructure development based on the results of the flood risk maps and flood risk management plans.</li> </ul>
<b>Implementation arrangements</b>	<p>Ministry of Foreign Trade and Economic Relations BiH is in charge of coordination of implementation. The implementation will be carried out by entity ministries and BD department responsible for water management</p> <p>Activities related to Result 2.1 will be implemented through service contracts to provide technical assistance.</p> <p>Activities related to Result 2.2 will be implemented through service contracts to provide technical assistance.</p> <p>Activities related to Result 2.3 will be implemented through Procurement/Supply Contracts to support implementation of water supply, sanitation and wastewater treatment infrastructure projects. Funds will be implemented through financial arrangements with IFIs.</p>

Priority area 2	Water Management
	Activities related to Result 2.4 will be implemented through twinning modalities, procurement contracts to support construction of the flood protection infrastructure and supply contract for procurement of equipment.
<b>Justification for the choice of implementation arrangements</b>	<p>Results 2.1 and 2.2 can be achieved only if relevant external expertise would be provided, thus service contracts providing technical assistance seems as the most appropriate implementation mode.</p> <p>Resources allocated to achieve Result 2.3 would be blended with already contracted loans and budgetary resources to contribute to the grant component of the agreed financial mechanism<sup>97</sup>. Loan component of financial mechanism cannot be contracted if grant component is not in place.</p> <p>Result 2.4 can be achieved through construction of flood protection infrastructure thus works contracts are the most appropriate implementation mode. Monitoring equipment can be delivered through supply contract. Improvements of standards and Inspection and maintenance of the flood protection infrastructure has to be implemented directly on the ground thus twinning grant is the most appropriate for implementation.</p>

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<sup>97</sup> Proportion of the loan, local contribution and grants are already agreed under current loan agreement contracted with EIB. Additional loan arrangements with EIB are under negotiations, while brand new-once are expected to be contracted.

Priority area 3	Waste Management
Overall objective	To accelerate waste management sector reform, including infrastructure development
Specific objective	Effective implementation of the environmental acquis and pertinent principles related to waste management throughout BiH.
Expected results	<p><b>Result 3.1</b> Increased amount of waste disposed at sanitary landfills and increased amount of waste recycled</p> <p><b>Result 3.2</b> Old dumpsites closed and locations remediated</p> <p><b>Result 3.3</b> Further alignment with Waste Framework Directive achieved</p> <p><b>Result 3.4</b> Awareness raising campaign implemented</p>
Indicative foreseen activities to fulfil the results	<p><b>Activity 3.1 Increasing capacities for integrated waste management (2018-2020)</b></p> <p>Description of eligible interventions in 2018:</p> <ul style="list-style-type: none"> <li>• Construction of new regional waste management centre (RWMC) in Živinice: construction of leachate lagoon, service centre and other objects in entrance zone; recycling yard; purchase of machine and equipment for landfill operation; purchase of leachate treatment plant.</li> <li>• Expanding disposal capacities at existing RWMCs in Prijedor: Construction of additional disposal cells and other facilities as well as procurement of supplies and services and construction of the sanitary cell at the existing RWMC <i>Stara pruga - Kurevo</i> in Prijedor. Construction works on the second phase of the sanitary cell. The project documentation was made for the sanitary cell and the building permit is underway. The sanitary cell is estimated to meet the needs of a total waste volume of 273,000 m<sup>3</sup>. The purchase of bulldozers and trenchers for work on the new cell is included.</li> <li>• Expanding disposal capacities at existing RWMCs in Bijeljina: Construction of sanitary cell number 3, at the existing RWMC <i>Brijesnica</i> in Bijeljina. The project involves construction works on the third sanitary cell that would be put into use immediately after the completion of the works, because the existing sanitary cells 1 and 2 are completely filled with about 99%. For the sanitary cell number 3, the design documentation was completed and a building permit was obtained. The landfill has an environmental and waste management license. Sanitary cell number 3 is estimated to meet the needs for the next 20 years, with a total waste volume of 620,000m<sup>3</sup>. The purchase of bulldozers and trenchers for work on the new cell is included.</li> </ul> <p>Description of eligible interventions in 2019:</p> <ul style="list-style-type: none"> <li>• Increasing treatment efficiency at existing RWMCs in Banja Luka, Zvornik and Zenica <ul style="list-style-type: none"> <li>✓ Building dam on sanitary cell, lagoon for leachate, interim degasification on active cell, road, covering inactive part of landfill and purchase of compactor in Banja Luka RWMC</li> </ul> </li> </ul>

Priority area 3	Waste Management
	<ul style="list-style-type: none"> <li>✓ Installation of leachate treatment plant, development of capacities for waste selection and introduction of primary selection of municipal waste in Zvornik RWMC</li> <li>✓ Construction of recycling facility and purchase of sorting plant in Zenica RWMC</li> <li>• Construction of transfer stations (TSs) <ul style="list-style-type: none"> <li>✓ Construction of TSs in regions served with regional waste management centres including: (i) Banja Luka region: TS Gradiska and TS Prnjavor, (ii) Prijedor region: TS Kozarska Dubica and TS Novi Grad, (iii) Zvornik region: TS Bratunac and TS Vlasenica.</li> <li>✓ Purchase of large waste transportation trucks for each TS</li> <li>✓ Development of feasibility study, study on selection of location and technical (design) documentation for new RWMC for regions of Gacko and Foča</li> </ul> </li> </ul> <p>Description of eligible interventions in 2020:</p> <ul style="list-style-type: none"> <li>• Implementation of separate collection in selected cities in BiH: Purchase and installation of containers for separation of waste and trucks for collection of separated waste based on the feasibility analysis carried out in the study “Assessment of Options for the Implementation of Separate Collection and Sorting for Recyclable Waste in Selected Cities in BiH” developed under WB and SIDA project “Building Long-term Sustainability for Integrated Solid Waste Management Technical Assistance”.</li> <li>• Treatment of waste sludge from wastewater treatment plant Butila in Canton Sarajevo: Development of project documents; Construction works, supply and installation of necessary equipment for sludge drying on strips 45.000 t/g with 25% ST; Training for employees</li> </ul> <p><b>Activity 3.2 Closure of old municipal waste disposal sites (2018-2019)</b></p> <p>Description of eligible interventions in 2018:</p> <ul style="list-style-type: none"> <li>• Remediation, closure and rehabilitation of old municipal waste disposal sites in Uborak Mostar, Zavidovići and Busovača.</li> </ul> <p>Description of eligible interventions in 2019:</p> <ul style="list-style-type: none"> <li>• Remediation, closure and rehabilitation of old municipal waste disposal sites in waste disposal regions of Banja Luka, Bijeljina and Prijedor.</li> </ul> <p><b>Activity 3.3 Further alignment with Waste Framework Directive with focus on hazardous waste and specific types of waste (2018)</b></p> <ul style="list-style-type: none"> <li>• Further transposition and implementation of relevant EU acquis into BiH legal system, such as development of Implementation plans for WFD, Sewage Sludge Directive and other Directives related to waste. Furthermore, capacity building of relevant institutions at all government levels in BiH will be ensured.</li> </ul>

Priority area 3	Waste Management
	<p><b>Activity 3.4 BiH awareness raising campaign (2019)</b></p> <ul style="list-style-type: none"> <li>• Implementation of country wide awareness raising campaign developed under WB and SIDA project “Building Long-term Sustainability for Integrated Solid Waste Management Technical Assistance”.</li> </ul>
<b>Implementation arrangements</b>	<p>Ministry of Foreign Trade and Economic Relations BiH is in charge of coordination of implementation. The implementation will be carried out by entity ministries and BD department responsible for environmental protection (through Project implementation units).</p> <p>Activities related to Result 3.1 will be implemented through Service Contracts for development of project documents and Procurement Contract for construction works.</p> <p>Activities related to Result 3.2 will be implemented through Service Contracts for development of project documents and Procurement Contract for landfill closure works.</p> <p>Activities related to Result 3.3 will be implemented through Service Contract and twinning modalities.</p> <p>Activities related to Result 3.4 will be implemented through Services Contract.</p>
<b>Justification for the choice of implementation arrangements</b>	<p>The most appropriate setting for implementation arrangements for works, supply of equipment and services are selected.</p> <p>Result 3.1 can be achieved only if relevant documentation is developed, equipment purchased and installed and construction works carried out. Thus combination of Service Contracts and Procurement Contracts for different type of works/services seems as the most appropriate implementation mode</p> <p>Result 3.2 can be achieved only if relevant documentation is developed and rehabilitation works carried out. Thus combination of Service Contracts and Procurement Contracts for different type of works/services seems as the most appropriate implementation mode.</p> <p>Result 3.3 can be achieved only if relevant external expertise would be provided, thus service contracts providing technical assistance coupled with twinning modalities seems as the most appropriate implementation mode.</p> <p>Result 3.4 can be achieved only if relevant external expertise would be provided, thus service contracts providing technical assistance seems as the most appropriate implementation mode.</p>

<b>Priority area 4</b>	<b>Nature protection</b>
<b>Overall objective</b>	To improve nature protection in the country in line with EU waste <i>acquis</i> .
<b>Specific objective</b>	<p><b>Specific objective 4.1.</b> To obtain baseline data on state of biodiversity in BiH</p> <p><b>Specific objective 4.2.</b> To ensure sustainable management of protected areas</p>
<b>Expected results</b>	<p><b>Result 4.1</b> Inventory of species of flora, fauna and fungi and identification of habitat types; with maps and GIS data base.</p> <p><b>Result 4.2</b> Tourists infrastructure in National Parks developed</p>
<b>Indicative foreseen activities to fulfil the results</b>	<p><b>Activity 4.1.</b> Inventory development (2020)</p> <p>Description of eligible interventions in 2020:</p> <ul style="list-style-type: none"> <li>• Inventory of flora, fauna and fungi of BiH with geographic interpretation.</li> <li>• Inventory of ecosystems and types of habitats of BiH</li> </ul> <p><b>Activity 4.2</b> Sustainable management of National Parks in BiH (2020)</p> <p>Description of eligible interventions in 2020<sup>98</sup>:</p> <ul style="list-style-type: none"> <li>• Construction of research-education centre</li> <li>• Reconstruction of accommodation capacities</li> <li>• Reconstruction of the existing road infrastructure in protected areas</li> <li>• Building various recreational infrastructure with informative content</li> <li>• Purchase of equipment for visitor centres and park rangers</li> </ul>
<b>Implementation arrangements</b>	<p>Ministry of Foreign Trade and Economic Relations BiH is in charge of coordination of implementation. Entity ministries and BD department responsible for environmental protection will carry out the implementation.</p> <p>Activities related to Result 4.1 will be implemented through service contracts providing technical assistance.</p> <p>Activities related to Result 4.2 will be implemented using combination of Service Contracts and Procurement Contracts for different type of works/services.</p>
<b>Justification for the choice of implementation arrangements</b>	<p>Result 4.1 can be achieved only if relevant external expertise would be provided, thus service contracts providing technical assistance seems as the most appropriate implementation mode.</p> <p>Result 4.2 can be achieved only if relevant project documentation is developed and (re)construction works carried out. Thus combination of Service Contracts and Procurement Contracts for different type of works/services seems as the most appropriate implementation mode.</p>

<sup>98</sup> All activities are in line with the existing National Parks Management Plans



<b>Priority area 5</b>	<b>Air quality</b>
<b>Overall objective</b>	To improve air quality monitoring system in the country
<b>Specific objective</b>	To have reliable data on quality of air in BiH
<b>Expected results</b>	<b>Result 5.1</b> Modern and efficient air quality monitoring system in place
<b>Indicative foreseen activities to fulfil the results</b>	<p><b>Activity 5.1</b> Improvement of air monitoring network in BiH (2020)</p> <p>Description of eligible interventions in 2020:</p> <ul style="list-style-type: none"> <li>• Equipping of air quality monitoring stations with equipment to monitor SO<sub>2</sub>, NO<sub>2</sub>, NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, led, benzene, CO, ground-level ozone, arsenic, cadmium, nickel, benzo(a)pyrene in accordance with standards BAS ISO/IEC 17025 and temperature profiler for 11 air quality monitoring stations in selected cities in BiH (Sarajevo, Banja Luka, Prijedor, Brod, Doboj, Bijeljina Ugljevik, Sokolac, Foča, Gacko, Trebinje)</li> </ul>
<b>Implementation arrangements</b>	<p>Ministry of Foreign Trade and Economic Relations BiH is in charge of coordination of implementation. Federal Hydro-Meteorological Institute and Republic Hydro-Meteorological Institute will carry out the implementation.</p> <p>Activities related to Result 5.1 will be implemented through Procurement Contracts that will include both delivery of necessary equipment and training for its use.</p>
<b>Justification for the choice of implementation arrangements</b>	Result 5.1 can be achieved only if relevant equipment is procured and installed and employees trained for its use. The Procurement Contracts that will include delivery of equipment and training seems as the most appropriate implementation mode.

<b>Priority area 6</b>	<b>Civil Protection</b>
<b>Overall objective</b>	To strengthen the Protection and Rescue System in Bosnia and Herzegovina
<b>Specific objective</b>	To improve the efficiency of the Protection and Rescue System in Bosnia and Herzegovina for the prevention and response in the case of natural or other disasters.
<b>Expected results</b>	<b>Result 6.1</b> Unique European Emergency Number 112 established <b>Result 6.2</b> Better response in case of earthquake with higher intensity achieved
<b>Indicative foreseen activities to fulfil the results</b>	<p><b>Activity 6.1 Establishment of Unique European Emergency Number 112 (2019)</b></p> <p>Description of eligible interventions in 2019:</p> <ul style="list-style-type: none"> <li>• Development of studies for establishing of emergency number 112 for BiH (entities and BD);</li> <li>• Procurement of equipment;</li> <li>• Conducting training;</li> <li>• Provided technical and instructive assistance.</li> </ul> <p><b>Activity 6.1 Building capacities for better response in case of earthquake with higher intensity (2020)</b></p> <p>Description of eligible interventions in 2020:</p> <ul style="list-style-type: none"> <li>• Procurement and installation of necessary equipment for Hydro-Meteorological Institutes in BiH and Rescue Teams,</li> <li>• Establishment of Rescue Teams in line with INSARAG guidelines;</li> <li>• Training for employees of Hydro-Meteorological Institutes in BiH, Rescue Teams and relevant entity institutions for protection and rescue in BiH in accordance with INSARAG guidelines;</li> <li>• Technical assistance for implementation of legal requirement related to risks mapping (Seismic Atlas for BiH), monitoring of seismic activity, information exchange, coordination and earthquake training exercise.</li> </ul>
<b>Implementation arrangements</b>	<p>Ministry of Security of BiH is in charge of coordination of implementation. Entity Directions and BD department responsible for civil protection will carry out the implementation.</p> <p>Activities related to Result 6.1 will be implemented using combination of Service Contracts and Procurement Contracts for different type of works/services.</p> <p>Activities related to Result 6.2 will be implemented using combination of Service Contracts and Procurement Contracts for different type of works/services.</p>
<b>Justification for the choice of implementation arrangements</b>	Results 6.1 and 6.2 can be achieved only if relevant external expertise would be provided and appropriate equipment purchased, thus service contracts providing technical assistance and procurement contracts for equipment seems as the most appropriate implementation mode.

## 5.2 Indicator table

Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
CSP indicator (impact/outcome)....(1)						
<i>This column should provide the NAME/TITLE of the indicator; e.g. Number of xxx (it must be an outcome indicator at sector level)</i>	<i>In this column, a very short description (few words only) of the indicator should be provided (if needed).</i>	<i>The value should be indicated (2)</i>	<i>The last available data/value (and year of reference)</i>	<i>The value expected by the first quarter of 2017 (or end 2016) should be indicated</i>	<i>The value expected by 2020 should be indicated</i>	<i>Include here the source of the information required to measure the indicator.</i>
<b>Priority area 1 Horizontal issues</b>						
<b>Result 1.1</b> Policy and legal framework in BiH further developed and strategically important projects prioritized						
<b>Result 1.2</b> Increased efficiency to manage environmental information and capacities for environmental reporting						
Number of policy documents developed at the state level	Number of revised environmental and water policies developed and ready for adoption	0	2 drafted but never adopted (2013)	2 drafted but never adopted	2 (revised and ready for adoption)	Final Environmental Policy document  Final Water Policy document
Number of Directive Specific Implementation Plans (with	Number of DSIPs (with entity and BD action plans)	0	4 drafted but never adopted (2013)	4 drafted but never adopted	Total 8 (4 revised from water and waste sub-sectors and 4 new from EIA,	Final DSIPs

Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
entity and BD action plans) developed at the state level	developed and ready for adoption				SEA, nature and air sub-sectors)	
List of sector project priority pipeline projects	List of sector project priority pipeline projects developed and ready for adoption	0	0	0	1	Final list of sector project priority pipeline projects
% of alignment with environmental <i>acquis</i> in water and waste sector	Level of alignment of entity environmental legislation with EU environmental <i>acquis</i>	Low level of alignment	Low level of alignment (2017)	Low level of alignment	Medium level of alignment	EC Progress report for Bosnia and Herzegovina  Report on % of alignment with environmental <i>acquis</i> in water and waste sector (if available at the time of assessment)
Progress toward EU integrations	Assessment of BiH progress toward EU integrations	Baseline	Baseline	Positive progress comparing to baseline	Positive progress comparing to baseline	Progress report for Bosnia and Herzegovina
<b>Priority area 2 Water management</b>						
<b>Result 2.1:</b> Legal framework is to great extent in line with relevant EU <i>acquis</i> , particularly with WFD, DWD, UWWDD, Nitrate directive etc.						

Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
Level of alignment with the EU acquis		Low level of alignment	Medium level of alignment (2017)	Medium level of alignment	High level of alignment	EC BiH Reports
<b>Result 2.2:</b> Sustainable planning and management of the water supply and sanitation services are in place						
Status of Master Plan of Agglomerations in BiH as baseline for the effective planning and implementation of UWWD in BiH		No Master plan of Agglomerations in BiH	No Master plan of Agglomerations in BiH (2017)	No Master plan of Agglomerations in BiH	Master Plan of Agglomerations in BiH under development	MOFTER annual report
Cost reflective tariff system in place		System is not in place	System is not in place (2016)	System is not in place	Development of the system under development	EC BiH Reports
<b>Result 2.3.</b> River basin management concept is implemented in BiH						
Status of alignment of River Basin Management planning in BiH with WFD		No River basin management plans	River basin management plans for first planning cycle in preparation	River basin management plans prepared for adoption in	Up-date of the background documents and River basin management plans for second planning	River Basin analysis reports EC BiH reports

Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
			(2015)	first planning cycle <sup>1</sup>	cycle in under preparation <sup>2</sup>	
<b>Result 2.4. Water supply and sewage infrastructure in targeted communities developed</b>						
No. of new household connections to the new systems for water supply and sewerage		0	0 (2016)	0	New systems for water supply and sewerage under construction (2020)	Project Progress report
<b>Result 2.5. Flood protection infrastructure in targeted areas developed</b>						
Length of the flood protection facilities	Length of the regulated river bed or length of the embankment constructed	0	0 (2016)	0	(2020) New facilities for flood protection under construction	Project Progress report
<b>Priority area 3 Waste management</b>						
<b>Result 3.1 Increased percentage of waste disposed safely in controlled landfills and reduced impact on the environment from improperly disposed waste</b>						

<sup>1</sup>First planning cycle 2017-2021

<sup>2</sup> Second planning cycle 2022-2027

Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
% waste disposed on controlled landfills	Percentage of waste disposed at fully sanitary regional landfills (bottom layer, daily coverings, groundwater monitoring, landfill gas management and leachate treatment) comparing to the total amount of waste generated.	3%	9% (2015)	9% (2015)	40% (2020)	Report from Agency of Statistic BiH for data on total waste generated in BiH  Data from regional waste management centres on annual quantities of waste disposed
Number of environmentally acceptable, new, remediated and properly closed municipal landfills	Number of environmentally acceptable, new, remediated and properly closed municipal landfills	( 2017) 3		6	All in next 20 years	Information form the field  Reports of PIU in entity ministries of environment
Percent of waste recycled	Amount of waste separated at sorting plants and send to recycling comparing to the	0.2%	1% (2015)	1%	10%	Reports of Agency of Statistic BiH on total amount of waste collected

Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
	total amount of waste collected					Information from the sorting plants on total amount of waste sorted and recycled.
Level of alignment with Waste Framework Directive, Sewage Sludge Directive		(2017) WFD in RS 54 % WFD in FBiH 27 %  SSD in RS 0 % SSD in FBiH 38 %		WFD in RS 65 % WFD in FBiH 40 %  SSD in RS 20 % SSD in FBiH 50 %	(2023) WFD in RS 75 % WFD in FBiH 50 %  SSD in RS 50 % SSD in FBiH 70 %	Project Progress Report
<b>Priority area 4 Nature protection</b>						
<b>Result 4.1</b> Inventory of species of flora, fauna and fungi and identification of habitat types; with maps and GIS data base.						
Inventory of species of flora, fauna and fungi and identification of habitat types	Creating these documents is the basis for making any sustainable use of biological resources as well as sustainable spatial and social planning and also baseline	No inventory	No inventory	No inventory	Inventory developed	The inventorywith maps and GIS data base



Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
	for expansion of protected areas					
<b>Result 4.2</b> Sustainable management of National Parks Sutjeska and Kozara						
% of reduction of financing the two national parks from the budget	The reduction in annual amount of financing for the two national parks from the budget of Republika Srpska comparing to the baseline year	70%	70%	70%	Reduction of budget financing by 15%	Financial reports of National Parks
<b>Priority area 5 Air quality</b>						
Number of air monitoring stations	Improvement of network for air quality monitoring in the Republic of Srpska	0	2 (2017)	2	12	Number of air monitoring stations

Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
<b>Priority 6 Civil Protection</b>						
<b>Result 6.1</b> Achieved better response in case of earthquake with higher intensity						
Number of established Urban Search And Rescue (USAR) teams for response in case of earthquakes	Number of equipped and trained teams for response in the case of earthquake of larger intensity	0	0 (2017)	0	2	Reports on the work of competent institutions for protection and rescue in BiH
Level of readiness of institutions for protection and rescue and hydro meteorological institutes in terms of availability of equipment for monitoring and alerting	Competent institutions for protection and rescue and hydro meteorological institutes equipped with appropriate equipment and trained for monitoring and alerting in case of earthquake	0%	20% (2017)	20%	85%	Reports on the work of hydrometeorological institutes in BiH
<b>Result 6.2</b> Unique European Emergency Number 112 established						

Indicator	Description	Baseline (2010) (2)	Last available (year) (3)	Milestone 2017(4)	Target 2020(5)	Source of information
Functional Unique European Emergency Number 112	Unique European Emergency Number 112 established and is available to the citizens	112 is not operational	112 is not operational	112 is not operational	112 number is operations	Operational 112 number

(1) This is the indicator as included in the Indicative Strategy Paper.

(2) The agreed baseline is 2010 (to be inserted in brackets in the top row). If for the chosen indicator, there are no available data for 2010, it is advisable to refer to the following years – 2011, 2012. The year of reference may not be the same either for all indicators selected due to a lack of data availability; in this case, the year should then be inserted in each cell in brackets.

(3) The last available data (and reference year)

(4) The milestone year CANNOT be modified: it refers to the mid-term review of IPA II.

(5) The target year CANNOT be modified.

### 5.3 Assumptions, preconditions and risks

Main assumptions:

The proposed objectives, results and operations are based on the following assumptions:

- Continuous political support and commitment of all stakeholders to develop environmental sector according to EU integration priorities and improve environmental management and the monitoring system in Bosnia and Herzegovina;
- Authorities at all levels remain committed to the fulfilment of EU environmental standards and implementation of the environmental *acquis*;
- Sufficient technical and professional capacity available to carry out the operations;
- Timely implementation of the operations.

Main risks:

- Insufficient resources available, both in terms of funds and human resources.
- Fragmentation of competences at multiple levels may create problems of coordination, compounded by potential diverging priorities and political blockages.
- Delays in adoption of the relevant countrywide strategies.

## 6 COMPLEMENTARITY WITH OTHER FINANCIAL ASSISTANCE

The commitment of Bosnia and Herzegovina to join the European Union has been formally set by signing the Stabilization and Association Agreement (SAA) in 2008. In countries claiming to join the EU approximation of regulations is a unique obligation, accepted by signing the SAA.

Necessary investments, for which actively seek donor funding, must be implemented before EU accession. It is desirable, though in the short term, that the maintenance of protected areas is directly funded from the entity and BD BiH budgets.

However, in view of the medium and long term, it will be necessary to increase funding for nature conservation and biodiversity protection by introducing user fees. Such benefits will, through the development of rural enterprises, internalize the external benefits of better protection of natural resources. In this respect, cooperation between the various institutions in BiH will be important for the programming of financial assistance through EU - IPA II funds. This is also the case with the preparation of agri-environmental pilot measures that could be used to support the preservation of NATURA 2000 network in BiH. Other funding options, including state research programs and bilateral donors, need to be considered.

There will be three main sources of financial resources:

- EU funds and international donations;
- Local sources of financial resources;
- loans / loans from foreign banks and international financial institutions (IFIs).

For the purpose of adopting these strategies, relevant activities have been undertaken by the Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina concerning the issue of the relevant document at the level of BiH, including the Federal Ministry of Environment and Tourism, as well as other branches in the Federation of Bosnia and Herzegovina, and the competent cantonal ministries.

Besides the EU (including IPA and loans from WB, IBRD, EIB, EBRD, etc.), the Environment sector has also attracted several bilateral donors such as Germany, Austria, Japan, Sweden, etc. and multilateral donors, with the strong involvement of the World Bank through GEF, UNEP, and UNDP.

The WBIF will provide additional support to investment in the environment sector, with a focus on wastewater collection and treatment and waste management in the largest agglomerations (densely populated and industrialised areas) and environmentally sensitive areas, as well as energy efficiency. For this purpose, a consistent (single) project pipeline of investment priorities will need to be set up as a precondition.

A necessary precondition for the implementation of the Methodology is to establish Sector Working Groups (SWG) by the line ministries in the field of transport, energy, environment and social activities (education, health care, justice).

Based on Sector Single Project Pipelines and Project Identification Forms, the Secretariat for Development Projects forms a List of Relevant Projects and these projects are subject to Gap Assessment Analysis (GAP Analysis). Following this analysis, the Secretariat for Development Projects will draft a Single Project Pipeline. The draft Single Project Pipeline is submitted to the National Investment Commission by the Secretariat for Development Projects. The National Investment Commission submits the adopted Single Project Pipeline to the Council of Ministers of Bosnia and Herzegovina for adoption.

Based on national Single Project Pipelines, a more coherent decision will be taken on which relevant infrastructure projects will be supported with the funds from the Western Balkans Investment Framework, any other EU funding, including IPA, for the period 2014-2020, or other donors.

As regards international donors other than the EU, WB and the EIB support Bosnia and Herzegovina in wastewater management, solid waste disposal and Climate Action. UNDP has been active in the area of environmental remediation and the transition towards a low-emission and resource-efficient economy, and UNEP in environmental awareness raising and implementation of procedures related to environment impact assessment.

The Environment sector has also attracted several bilateral donors such as Germany, Italy, Japan, Austria, Sweden etc. and multilateral donors, with the strong involvement of the World Bank through GEF, UNEP, and UNDP.

Bosna and Herzegovina will also participate in the Environment and Climate Regional Accession Network (ECRAN), funded under the multi-country programme, which provides an interface between regional aspects and national priorities in this sector.

IPA II assistance will also support the achievement of the objectives established by Bosnia and Herzegovina and the other participating countries in the context of the EUSDR and EUSAIR macro-

regional strategies, e.g. the protection of marine and coastal ecosystems, as well as transnational terrestrial habitats and biodiversity.

It will also contribute to meeting BiH needs in relation to compliance with the European Partnership, Interim Agreement and SAA with main emphasis to: Continue work on progressive transposition and implementation of the EU acquis with particular attention on waste management, water quality, air quality, nature protection and implement strategic plans, including investment strategies with particular attention on wastewater collection and treatment, drinking water supply and solid waste management with vital task of halting further degradation and start improving the environmental situation with the aim of sustainable development.

However, there are number of on-going projects, both infrastructural and institutional, in the environmental sector and particularly in water management sub-sector, financed through the loans and/or supported by other donors. This document aims to assess projects that are complementary with comprehensive donor programs such as water management projects:

- „WATSAN“ is financed through the EIB loans in both entities;
- „Plava Voda Regional Water Supply“ is financed by EBRD
- „Construction of the sewerage system and WWTP in city of Zenica“ financed by KfW
- „Visoko Water Supply“, financed through the KfW's Water Sector Program II in BH.

## **7 CROSS-CUTTING ISSUES**

### **Equal opportunities and gender mainstreaming:**

Based on the fundamental principles of promoting equality and combating discrimination, participation in the Sector Planning Document design, implementation, monitoring and evaluation will be guaranteed on the basis of equal access regardless of sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation. Equal opportunities principles and practices in ensuring equitable participation and non-discrimination within the action will be guaranteed. Equal opportunities for participation of men and women will be assured in all aspects of action implementation. The foreseen interventions related to the water supply, wastewater collection and treatment in municipalities, as well interventions related to waste management will have equal positive impact on the well-being and health of all categories of population in the society. Activities financed under this AD will thus be implemented by complying with the principles of preventing all forms of discrimination, and promoting gender equality.

This Sector Planning Document will give equal opportunities to men and women to be an integral part of its design, implementation, monitoring and evaluation. Gender mainstreaming will be ensured in all aspects whenever possible, e.g. composition of various implementing, administrative or supervising bodies, gender sensitive language etc. The impact of the Action is considered to be beneficial for both men and women. Due attention will be given to gender aspect within Action activities, including ensuring participation of both women and men, recognising different needs of women and men, ensuring benefits for both men and women, ensuring gender sensitive data. In general, a gender perspective will be maintained ensuring that the results of the Action impact positively on gender equality as well.

### **Minorities and vulnerable groups:**

Participation in the activities will be guaranteed on the basis of equal access regardless of racial or ethnic origin, religion or belief, disability, sex or sexual orientation. Since the proposed activities will deal with environmental issues targeting a general improvement of the priority areas, its outcomes will be beneficial to all citizens, especially national minorities and underprivileged social groups, having in mind that these groups often live in areas where solving environmental problems is one of the top priorities. Further improvements in environmental protection and management will assist in poverty reduction and increase the potential for economic activity. It is expected that through the citizen feedback on the policy issues, the public concerns and aspirations of all citizens including minorities and disadvantaged or marginalised groups will be properly understood and addressed.

### **Engagement with civil society:**

In order to ensure that public concerns and aspirations are understood and addressed in the field of environment, civil society is expected to be actively involved in the consultation process during development of policy documents and action plans and in related public hearings, according to the applicable domestic laws. To the extent possible, proposed activities will also support the involvement of the civil society in monitoring of the implementation of the policy documents. Consultation with the public is also a key feature of environmental assessment procedures. Representatives of non-governmental organizations and civil society will be consulted and invited to actively take part in the different consultation events foreseen during the implementation of the activities specified in this document.

In the sector of civil protection the following memorandums of cooperation are signed with the civil society sector:

- (2008) Memorandum of Cooperation was signed with the Red Cross Society of B&H, which regulates the activities of mutual cooperation in the area of protection and rescue and humanitarian activities.
- (2008) Memorandum of Cooperation with the Faculty of Political Sciences in Sarajevo regulating cooperation in the scientific area was signed.
- (2012) Memorandum of Cooperation with the international organization "Save the Children" regulating issues of mutual cooperation in the event of natural or other disasters, training of children and teaching staff was signed.
- (2017) Memorandum of Cooperation with the World Vision Organization regulating issues of mutual cooperation in the event of natural or other disasters, training of children and teaching staff was signed.

### **Environment and climate change:**

Proposed activities will contribute to the protection of the environment and facilitate sustainable development in Bosnia and Herzegovina and support targeted reforms and further development of capacities and infrastructure in environment sector in Bosnia and Herzegovina.

This will be achieved by a functional system of regional waste management and successful implementation of several water and sanitation projects, as well as by transposition of environmental acquis.

The benefit for Bosnia and Herzegovina and the EU is that degradation of the environment in Bosnia and Herzegovina will be mitigated, situation in the sector substantially improved and further steps taken to ensure approximation to EU acquis, standards and systems in this important, yet challenging, sector.

The interventions in the water sub-sector are directly linked with the implementation of the Urban Waste Water Directive and Water Framework Directive, while the interventions in the waste management sub-sector are directly linked with the implementation of the Waste Management Framework Directive and the Sewage Sludge Directive. All interventions are aimed to further approaching of BiH to the EU environmental standards in these areas.

## **8 SUSTAINABILITY**

Bosnia and Herzegovina has a responsibility to ensure the outputs of proposed activities are fully used and necessary resources are allocated to ensure the sustainability. The harmonisation of the legal framework with the EU acquis and the establishment of the institutional mechanisms and administrative capacity for implementation represent the prerequisites for the full enforcement of the transposed legislation.

The sustainability of results will be achieved through ensuring that the design of the Master Plan of Agglomerations in BiH and the River Basin Management Planning, as well as the implementation of the infrastructure water and waste management interventions will be done with full involvement of all relevant authorities of Bosnia and Herzegovina on municipal, cantonal, entity, BD level and the BiH level.

The high involvement of stakeholders in the preparation of the planning documents and the technical documentation (necessary permits/approvals, including urban planning and environmental permits, and construction permits), regarding the infrastructure interventions in the water and waste management sub-sectors, will ensure ownership and commitment among relevant authorities. This will consequently contribute to further effective transposition and implementation of the EU water and waste Directives in BiH. Most of the technical documentation for water management and waste management component is prepared.

Public Companies will provide all necessary permits, approvals including: detailed land expropriation studies, spatial planning, environmental permits, and the construction permits. In this way, all the preconditions for obtaining domestic and/or international funding and beginning of construction works will be in place. Once the institutional building part of this action is implemented. All the institutions involved will continue using the methodology and approach developed by the consultants engaged in the action implementation.

Proposal for upgrade of relevant legislation which are expected through the action will be used and further elaborated by the competent ministries in BiH. The Public Utilities are managing Regional Centres for waste management, established by Municipalities and Inter-municipal council, and fee for waste treatment will be formed to ensure economic viability and to include all costs.

The proposed activities will produce sustainable results in the long-term environmental management and ensure good living and health conditions for the population. The proposed activities relevant to



the horizontal issues are based on the coordination of national and international institutions efforts to implement EU Directives in the water management and waste management sectors and support to further economic growth.

In the long-term, implementation of the proposed actions will provide the chance for a strong and sustainable economic and social development across country. It is expected that living and health condition will be improved by continues waste supply in the municipalities, management of the wastewater and safe discharged of the treated wastewater into environment, and effective waste management, recycling and disposal of the waste in the terms of key economic and social indicators.

The intended projects will ensure adoption of best practices and fulfilment of commitments under the SAA and the EU Acquis and the best European practices in the field of construction. For all civil infrastructural projects is necessary to ensure through the application, professional trainings/workshops for beneficiaries/ municipalities aiming to inform and train staff how to operate and maintain constructed facilities will be provide. The trainings will be specified through the each project application.

For the projects' applications, beneficiaries/municipalities should prepare the long-term business plan for sustainable maintenance of their investments. If necessary, new tariffs for the water management/ waste management services should be considered and discussed by the beneficiaries/municipalities.

## 9 SECTOR SUPPORT BUDGET

Programming period: 2018 – 2020

	ESTIMATED COSTS (EUR)	COMMENTS
<b>IPA 2018</b>		
<b>Waste Management</b>		
Construction of Regional centre for waste management in Živinice Region	3.000.000	Works on building of objects for regional centre are as follows: tanks and lagoon, wastewater treatment plant for leachate, service centre and other objects in entrance zone; recycling yard; and purchase of machine and equipment for landfill operation.
Expand capacities at regional landfills in Prijedor and Bijeljina	3.500.000	Building additional disposal cells, construction of wastewater treatment plant, construction of cell number 3, purchase of bulldozer and trenchers.
Remediation and rehabilitation of old municipal waste disposal sites	2.500.000	This activity will include remediation, closure and rehabilitation of old municipal waste disposal sites in the municipalities of Mostar - Uborak, Zavidovići and Busovača in line with EU environmental standards
Further alignment with Waste Framework Directive with focus on hazardous waste and specific types of waste.	1.500.000	This activity includes further transposition and implementation of relevant EU acquis into BiH legal system, such as development of Implementation plans for WFD, Sewage Sludge Directive and other Directives related to waste. Furthermore, capacity building of relevant institutions at all government levels in BiH will be ensured.
<b>Water Management</b>		
Water sector reform (Development of Master Plan of Agglomerations in BiH)	2.000.000	Technical assistance to assess technical and financial capacities and all other relevant issues for each municipality in BiH and to develop set of comprehensive recommendations for sustainable solutions to be applied in each municipality.
River Basin Management planning	1.500.000	Technical assistance to collect missing data and analysis of the water bodies status and pressures on water and water related eco-systems, to improve

		existing characterization of river basins; to upgrade water information system. Based on this and during upcoming planning cycle, relevant background documents will be developed. This is key precondition for determination of significant water management issues and elaborations of Program of Measures within river basin management plans.
Water supply and sewage infrastructure	6.000.000	Direct investments and support to construction of water supply, waste water collection and treatment facilities in BiH. This will speed up finalization of infrastructure development projects in local communities.
SUB-TOTAL FOR 2018	20.000.000	
<b>IPA 2019</b>		
<b>Horizontal issues</b>		
Support to further implementation of the EU environmental <i>acquis</i> in BiH	3.000.000	Revision of EAS, draft Environmental Policy (containing Water Management Policy, Waste Management Policy, Air protection policy, etc.) and Four Directive DSIPs and APIDs developed under ENVIS project; Drafting of primary and relevant secondary legislation for waste and water management sub-sector in line with Four Directive DSIPs and APIDs; Development of new selected DSIPs and APIDs documents for implementation of horizontal legislation (EIA, SEA) and selected nature protection and air quality related EU <i>acquis</i> ; Development of list of sector project priority pipeline projects; Development and implementation of capacity building programme
Establishment of a country-wide environmental information system	1.500.000	Development of necessary legal framework; Design and purchase of ICT equipment; Harmonisation of environmental statistical information system; Development and implementation of GIS application for visualisation of environmental statistical data; Capacity building

<b>Water Management</b>		
Water sector reform	1.500.000	Technical assistance to support respective institutions in implementing DSIPs <sup>101</sup> in the water services sector. Assistance will support development of comprehensive legal framework, establishment of cost reflective tariff system including all other relevant issues, implementation of the benchmarking system and strengthening of institutional capacities.
Water supply and sewage infrastructure	7.000.000	Direct investments and support to construction of water supply, waste water collection and treatment facilities in BiH. This will speed up finalization of infrastructure development projects in local communities.
Flood protection	700.000	Technical assistance in the form of twinning to support water agencies to improve current standards and methodologies related to regular inspections of the stability, reliability as well as operational and investment maintenance of the flood protection infrastructure.
<b>Waste Management</b>		
Closure of old municipal waste disposal sites	2.500.000	This activity will include remediation, closure and rehabilitation of old municipal waste disposal sites in waste disposal regions of Banja Luka, Bijeljina and Prijedor in line with EU environmental standards.
Increasing treatment efficiency at existing RWMCs	8.500.000	<p>Building dam on sanitary cell, lagoon for leachate, interim degasification on active cell, road, covering inactive part of landfill and purchase of compactor in Banja Luka RWMC</p> <p>Installation of leachate treatment plant, development of capacities for waste selection and introduction of primary selection of municipal waste in Zvornik RWMC</p> <p>Construction of recycling facility and purchase of sorting plant in Zenica RWMC</p>

<sup>101</sup> Drinking Water Directive and Urban Waste Water Directive

Construction of transfer stations	4.500.000	Development of feasibility studies for TSs, construction of six TSs in 3 regions (Banja Luka, Prijedor and Zvornik) served with regional landfills to reduce waste transportation costs, purchase of large trucks for transportation of waste from transfer stations to landfills.
BiH awareness raising campaign	500.000	Implementation of country wide awareness raising campaign developed under WB and SIDA project "Building Long-term Sustainability for Integrated Solid Waste Management Technical Assistance".
Development of documentation for new RWMC for regions of Gacko and Foča	700.000	Preparation of feasibility study, study on selection of location and technical (design) documentation for regional waste management centre for regions of Gacko and Foča.
<b>Civil protection</b>		
Establishment of Unique European Emergency Number 112	2.300.000	Development of studies for establishing of emergency number 112 for BiH (entities and BD); Procurement of equipment; Conducting training; Provided technical and instructive assistance.
SUB-TOTAL FOR 2019	32.700.000	
<b>IPA 2020</b>		
<b>Water Management</b>		
Water supply and sewage infrastructure	7.000.000	Direct investments and support to construction of water supply, waste water collection and treatment facilities in BiH. This will speed up finalization of infrastructure development projects in local communities.
Flood protection	5.000.000	<p>Technical assistance and supply of monitoring equipment in order to increase flood forecasting capacities in the selected areas that were not subject to any previous support actions.</p> <p>Direct investments to support implementation of no regret/high priority infrastructure development based on the results of the flood risk maps and flood risk management plans.</p>

<b>Waste Management</b>		
Implementation of separate collection in selected cities in BiH	2.000.000	Purchase and installation of containers for separation of waste and trucks for collection of separated waste in Banja Luka and Trebinje based on the feasibility analysis carried out in the study "Assessment of Options for the Implementation of Separate Collection and Sorting for Recyclable Waste in Selected Cities in BiH" developed under WB and SIDA project "Building Long-term Sustainability for Integrated Solid Waste Management Technical Assistance".
Treatment of waste sludge from wastewater treatment plant Butila in Canton Sarajevo	6.000.000	Development of project documents; Construction works, supply and installation of necessary equipment for sludge drying on strips 45.000 t/g with 25% ST; Training for employees
<b>Nature Protection</b>		
Inventory of species of flora, fauna and fungi and identification of habitat types; with maps and GIS data base.	2.000.000	Development of inventory of flora, fauna and fungi of BiH with geographic interpretation; Development of inventory of ecosystems and types of habitats of BiH
Sustainable management of National Parks in BiH	6.000.000	Construction of necessary touristic infrastructure for sustainable tourism development in national parks in BiH (Sutjeska, Kozara, Drina and Una) in line with the National Park Management Plans
<b>Air protection</b>		
Improvement of air monitoring network in BiH	4.160.000	Procurement and installation of 11 air quality monitoring stations in selected cities in BiH (Sarajevo, Banja Luka, Prijedor, Brod, Dobo, Bijeljina Ugljevik, Sokolac, Foča, Gacko, Trebinje)
<b>Civil protection</b>		
Building capacities for better response in case of earthquake with higher intensity	830.000	Procurement and installation of necessary equipment for Hydro-Meteorological Institutes in BiH and Rescue Teams; Establishment of Rescue Teams in line with INSARAG guidelines; Training for employees of Hydro-meteorological Institutes in BiH, Rescue

		Teams and relevant entity institutions for protection and rescue in BiH in accordance with INSARAG guidelines; Technical assistance for implementation of legal requirement related to risks mapping (Seismic Atlas for BiH), monitoring of seismic activity, information exchange, coordination and earthquake training exercise.
SUB-TOTAL FOR 2020	32.990.000	

## 10 CHRONOGRAM FOR PROGRAMMING AND IMPLEMENTATION

Example below

SECTOR TITLE	2018				2019				2020				2021				2022			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
PRIORITY 1	I	I	I	I	I															
Activity 1.1	I	I	I																	
Activity 1.2	I	I	I	I	I															
...																				
PRIORITY 2	I	I	I	I	I	I	I	I	I	I	I	I								
Activity 2.1	I	I	I	I	I	I	I	I	I	I	I	I								
Activity 2.2	I	I	I	I	I	I	I	I	I	I	I									
...																				

P = Programming (i.e. period when the IPA Action Programme is expected to be adopted)

C = Procurement and grant award procedures (i.e. up to Contracting)

I = Implementation period

Note re. Programming: all planned Activities under a given Action may not necessarily become part of the same IPA Action Programme but spread over successive programmes (e.g. 60% of Action 1 to be part of a Country Action Programme in 2014 and the remaining 40% - i.e. Action 1 part 2 - to feed into a Country Action Programme in 2016)