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# Environmental and Social Management Framework (ESMF)



Flood Emergency Response Project  
Republika Srpska and Brčko District  
Project preparation process

Banja Luka, October, 2014



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**Acronyms and abbreviations used**

FERP Flood Emergency Response Project

WB World Bank

BiH Bosnia and Herzegovina

ESMF Environmental and Social Management Framework

RPF Resettlement Policy Framework

EMP Environment Management Plan

EA Environment Assessment

EIA Environmental Impact Assessment

EC European Commission

EP Environmental permit

EU European Union

WHO World Health Organisation

IPA Instrument for Pre-Accession Assistance

NVO Nongovernmental organisation

PEIA Preliminary Environmental Impact Assessment

RS Republika Srpska

BD Brčko District

MSPCEE Republika Srpska Ministry of Spatial Planning, Civil Engineering and Ecology

SPPLAD Brčko District Spatial Planning and Property and Legal Affairs Department

PIU Project Implementation Unit

UNESCO United Nations Educational, Scientific and Cultural Organization

EMERALD European Ecological Network for Conservation of Wildlife and their Natural Habitats

IUCN International Union for Conservation of Nature

## **1. INTRODUCTION**

Diverse types of floods represent diverse types and degrees of the threat to people, property and environment due to different depths, speed, duration, inflow rate and other flood-related hazards. Flood-threatened property can be residential buildings, transport and public services infrastructure, commercial and industrial companies, agricultural land and environmental and cultural heritage. In a nutshell, flood impacts can be described as:

- Impacts on people: Flood can cause physical injuries, diseases and loss of life. Risks increase if flood water is loaded with waste. Floodwaters contaminated with sewers or other pollutants (for instance chemicals that are kept in garages or commercial facilities) can cause diseases, directly or as a result of a contact with polluted floodwater or indirectly as a result of the lingering sediment. The impact on people and communities as a result of stress of traumas caused by floods, or even a threat of floods can be enormous.
- Impacts on property: Floodwaters usually cause structural damages. Flood-generated damages to companies and infrastructure, such as transport or electro and water management, can have a large adverse impact on local and regional economy.
- Impacts on environment: Significant destructive impacts of floods on environment can be land erosion, bank erosion, landslide and damaged vegetation, as well as impacts on water quality, habitats, flora and fauna that caused by bacteria and other pollutants that are carried in floodwaters. Floods can play a useful role in wetland habitats that depend on annual floods.

Bosnia and Herzegovina is sensitive to natural disasters, especially floods, droughts, extensive snow and landslides. These phenomena have been more frequent and brought more severe consequences during the past years, especially floods. The most vulnerable regions are the regions along large rivers, such as Sava, Drina, Bosna, Sana and Vrbas, with a high number of agricultural estates, medium- and small-scale companies and industrial plants, including energy producing facilities and tourist locations.

During 2014, Bosnia and Herzegovina suffered floods never seen before. Rains started at the beginning/mid May 2014 and resulted in extensive floods and declaration of a state of emergency on 14 May 2014 in all affected municipalities in both entities, as well as in the Brčko District. Until the end of May 25 persons were killed, about 40,000 people were evacuated and close to 1 million or a quarter of the total populace were directly affected in 60 out of the total of 142 municipalities in BiH. The affected area covers more than a third of the entire territory of the country; massive floods caused more than 3,000 landslides.

Preliminary data show that infrastructure was most affected, especially residential units, local infrastructure, energy facilities, transportation, water supply and sewerage networks and agriculture. Many urban, industrial and rural areas were completely flooded, severed and without electricity, transport and communications. It was estimated that this disaster prevented 1 million people (25% of the total populace in the country) from having access to potable water. Sewerage network was damaged. Rough estimates show that about 100,000 homes and other buildings were destroyed, as well as 230 schools and hospitals, along with additional damages to other public infrastructure. Landslides and erosion caused by river sediments brought about significant damages to houses and public infrastructure in many places; water swept 20 bridges away. Traffic was on many main roads and railways in the region, telecommunication lines were disrupted too.

Accordingly, a need to implement a Flood Emergency Response Project in Bosnia and Herzegovina ensued. Project developmental objective is the provision of support to authorities in Bosnia and Herzegovina to resume public services and re-establish economic circumstances in the flood-affected areas.

Flood Emergency Response Project (component 2) planned activities to rehabilitate (reconstruct, repair) crucial public priority infrastructure for the provision of public services in the most affected areas in the Republika Srpska and Brčko District.

Project specially emphasises rural development, energy supply, transport lines and water supply and sewerage, but other public services (education, health protection) will be considered from case to case.

Since construction, handicraft and assembly works will be executed during the implementation of sub-project activities, some impact on environment and society at the location of works will inevitably occur.

In line with requirements of World Bank, an Environmental and Social Management Framework (ESMF) must be developed for adequate implementation of the Project; a Resettlement Policy Framework (RPF) must be done within the ESMF, which is the subject of this documentation.

The objective of ESMF development and implementation is to analyse all activities of rehabilitation from the aspect of social and environmental impact, as well as to identify and define measures that will contribute to the prevention, decrease or mitigation of identified adverse social and environmental impacts.

## 2. DESCRIPTION OF THE PROJECT

### 2.1. Consequences of the flood for priority sectors

**Consequences in the sector of agriculture and rural development.** Recent rains had devastating consequences for the western, central and north-eastern parts of the Republika Srpska, as well as in the almost entire territory of the Brčko District. Although mountain areas were not flooded, many landslides and extensive erosion occurred there, destroying cultivated fields, as well as buildings and facilities. The loss of crops in flooded areas is wide spread, especially in lowlands, where water lingered for more than 7 days and crops were completely lost. It will not be possible this year to use fruits of fruit trees that were completely underwater. Some areas suffered torrents that uprooted trees and perennial plants, so they will have to be completely replaced and the location cleaned prior to replanting and reconstruction. At places where water reached animal farms, entire space will have to be decontaminated, since manure and silt spread in the area and contaminated entire space, even though the cattle was timely dislocated. Auxiliary buildings, where forage for poultry, pigs and cows was kept, were damaged, wherever water reached them. Even if these buildings were not completely flooded, the remaining stock was probably soaked, which increases the risk of mycotoxins, rendering them unusable. Agricultural equipment and mechanisation are damaged, especially unmovable equipment that is used for the preparation of animal food, milking and cooling or equipment for classification, packing and processing.

**Consequences in energy sector.** The starting consequences of floods in electro energy sector are usually wide spread and frequently devastating. Several dozens of thousands of consumers were deprived of electricity supply. Main consequences of floods in electro energy sector comprise:

- Disruption and damages on medium and low voltage distribution lines; which could worsen due to landslides;
- Significant damages on many substations and transformers; etc.;
- Full or partial destruction of measuring equipment of final consumers, as well as of the monitoring system and control equipment;
- Localised consequences on distribution lines, poles and systems;
- Significant and potentially medium/long-lasting indirect consequences, since the consumption of final consumers cannot be measured and calculated for purpose of billing and/or consumption decreased due to reduced economic activities (e.g. in agriculture and industrial sector).

**Consequences in the transport sector.** Recent floods caused extensive damages to transport infrastructure in many places and swept several bridges away. Traffic was disrupted due to high water level and landslides, which affected parts of main, regional and local roads and a significant length of railways. Severely affected were also operative ports of Šamac and Brčko on the Sava River.

**Consequences in the sector of water supply and sewerage.** It is known that floods have long-lasting consequences for the water quality due to contamination with animal corpses, damaged sewerage systems, infiltration of chemicals, manure and pesticides into water etc. Thus, although water supply to many people will resume, it is likely that water will generally not be potable, which will lead to significant health risks. Besides, there is sporadic evidence that several water supply systems were severely affected, since crucial buildings were physically damaged by the flood.

## **2.2. Description of the project**

Flood Emergency Response Project, for which this Environment and Social Management Framework (ESMF) with the Resettlement Policy Framework (RPF) is developed, involves the rehabilitation of crucial public priority infrastructure for the provision of public services in the most severely affected areas in the Republika Srpska and Brčko District.

The Project will especially emphasise rural development, energy supply, transport lines and water supply and sewerage, but other public services (education, health protection) will be considered from case to case; these are unknown at the moment when this document is developed.

Projects for which ESMF and RPF are defined will be observed at two levels, notably:

- rehabilitation of regional infrastructure of strategic regional public infrastructure such as transport lines, distributive and transferring infrastructure, embankments and other strategic public infrastructure
- rehabilitation of local infrastructure, notably: local level infrastructure, such as water supply systems, local roads and bridges, etc.

### **2.2.1. Nature of envisaged activities**

Project does not involve any special technical challenges, and rehabilitation/reconstruction will be based on the principle of improvement with reconstruction. During the designing and rehabilitation or reconstruction of infrastructure, funded by the project, special attention will be paid to the increase in the resistance of infrastructure to future floods and landslides cause by an elevated precipice level, as well as to the application of better standards of construction and efficiency (concept „improvement with reconstruction“). Project will involve no new buildings, nor a more significant enlargement of the existing systems. The following paragraphs describe technical assessment of each of priority sectors.

**Sector of agriculture and rural development.** Supporting agricultural recovery will involve the works relating to the rehabilitation of rural infrastructure of public character, mainly rural roads and auxiliary infrastructure, with a possibility of including other structure with adequate explanation of local communities and authorities.

Works that will be done can comprise:

- cleaning and rehabilitation of access roads,
- strengthening shoulders,
- cleaning drainage canals, including siphons and bridges etc.

**Energy sector.** Basic activities that are expected in this sector will be the execution of works of:

- Replacement of temporarily installed electrical cables and lines, poles or columns with permanent ones, which can include the execution of works of the stabilisation of areas where landslides occurred;
- Reconstruction of damaged sections of transporting and/or distributive lines and poles/columns;
- Rehabilitation, reconstruction or replacement of entire installation/building (e.g. fully destroyed substations, transformers etc.);
- Massive replacement of damaged/destroyed equipment, e.g. equipment for consumption measurement, monitoring and control;
- Rehabilitation or replacement of mining equipment and infrastructure.

**Transport sector.** Measures of reconstruction considered by municipalities are expected to include:

- removal of the material deposited by flood, rockfalls and landslides,
- cleaning drainage structures such as culverts and canals along the road verge,
- reparation of holes in the road,
- pavement reconstruction,
- reparation and/or replacement of traffic equipment,
- and replacement of damaged structures such as bridges, discharges, recipient walls, without limitations thereto.

The reparation of pavement and replacement of traffic equipment will be mostly executed within the existing horizontal levelling, with the reparation and reconstruction of bridges, retaining walls and discharges as necessary.

**Sector of water supply system and sewerage.** Measures that are expected to be necessary for the sector of water supply system and sewerage include:

- rehabilitation or reconstruction of water supply systems, starting with the reconstruction of surface or underground water intake structures,
- reparation or replacement of electro and mechanical equipment in water treatment plants, pump stations or reservoirs,
- reparation of damaged transporting and distributive pipelines;
- as well as the rehabilitation of sewers or reconstruction, including the repair of the sewerage network and replacement of damaged equipment in waste water treatment plants.

## **2.3. Description of the properties of the project implementation location**

### **2.3.1. Republika Srpska**

The area of the Republika Srpska is 24,666 km<sup>2</sup>. About 1,326,991 residents<sup>1</sup> inhabit this area according to preliminary census data. The area of the Republika Srpska represents 48.5% of the territory of BiH. The length of the RS borders is about 2,102 km.

Republika Srpska occupies northern, eastern and larger part of southern parts of BiH. Eastern and southern parts lie from the Sava river in the north to Orjen Mount in the south in the length (straight) of 265 km; it has a maximal width of 80 km in direction of Sokolac–Rudo. Western part of the Republika Srpska lies in the direction of east-west from the Drina to Una in the length of 230 km and in the Vitorog–Sava direction with a maximal width of 115 km. Entirely observed, Republika Srpska is about 480 km long and about 52 km (in blue line) wide on average.

Republika Srpska is located at the contact of two large natural geographic and social and economic regional units – Pannonian and Mediterranean. Natural properties of the Republika Srpska are very complicated, which is a result of its belonging to different natural and geographic units and their geo-morphological evolution. Diverse forms interchange in the geomorphological appearance of the Republika Srpska. In the northern Peripannonian region hilly fields made of Cenozoic deposits gradually descend into lowlands with alluvial plateaus and river terraces, which simultaneously make the most fertile part of the Republika Srpska. This area only has several lone mountains – Kozara, Prosara, Motajica, Vučijak, Ozren and Trebovac, and finite north-eastern branches of Majevica. Towards the south, lowlands transform into hilly and then mountainous area that takes up the majority of the Republika Srpska.

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<sup>1</sup> Preliminary results of the 2013 census of population, houses and apartments in Bosnia and Herzegovini.

From the aspect of natural distinctions, the area of the Republika Srpska is very complex, which is a result of belonging to diverse natural geographic units and their geomorphological evolution. According to the geomorphological appearance, diverse forms interchange in the territory of the Republika Srpska. In the northern Peripannonian region hilly fields made of Cenozoic deposits gradually descend into lowlands with alluvial plateaus and river terraces, which simultaneously make the most fertile part of the Republika Srpska. This area only has several lone mountains – Kozara, Prosara, Motajica, Vučijak, Ozren and Trebovac, and finite north-eastern branches of Majevisa. Towards the south, lowlands transform into hilly and then mountainous area that takes up the majority of the Republika Srpska. Towards the south, lowlands transform into hilly and then mountainous area that takes up the majority of the Republika Srpska.

### **2.3.1.1. Flood-endangered areas**

According to the assessment of the Republic Civil Protection Administration, any watercourse can cause floods under certain circumstances. Watercourses that regularly cause floods to a greater or smaller extent are Sava, Una, Vrbas, Sana, Bosna, Drina, Željeznica, Ukrina and some other rivulets.

The most flood-endangered areas are around the rivers:

- Sava (Dubica, Gradiška, Srbac, Brod, Derventa, Šamac, Bijeljina),
- Sana (Novi Grad, Prijedor and Oštra Luka),
- Vrbas (Banjaluka and Laktaši),
- Bosna (Doboj),
- Drina (Foča, Novo Goražde, Zvornik and Janja),
- Ukrina (Prnjavor and Derventa),
- Željeznica (Istočna Ilidža),
- as well as road communications Doboj – Petrovo, in the region of the Kakmuža, Doboj – Šamac, in the region of Bušletić and Doboj – Banjaluka, in the Ukrina river region.

The regions or locations most endangered from groundwater refer to the watercourse of the river Sava.

In the April and May floods, most severely were affected the region of Doboj (the Bosna river overflowed its banks) and Šamac (from the river Sava and groundwater), whereas the regions of Bijeljina Banja Luka, Prijedor, Novi Grad, Modriča, Derventa, Prnjavor, Zvornik, Srbac, Gradiška, Dubica, Kostajnica, Čelinac, Kotor Varoš suffered huge damages. Thus, northern, north-western, north-eastern and some central parts of the Republika Srpska were most severely affected.

The basins in the territory of the Republika Srpska are seriously jeopardised by erosion processes and torrents. Erosion processes are possible at about 70% of the territory of the Republika Srpska, out of which 40% is the territory affected by strong erosion. The lower watercourse of the Drina downstream from Zvornik has the most unstable riverbed with very expressed fluvial erosion in the Republika Srpska. Torrential basins are most frequent in the Drina basin (over 250 small basins) and in the basins of the Neretva and Trebišnjica (more than 200). Especially lower parts of the river basins of the Una, parts of the river Sana basin (the Gomjenica basin), direct basin of the river Sava (rivers Vrbaška, Jablanica, parts of the basin of the rivers Tinja, Brka and Lukavac), lower parts of the Vrbas basin (Vrbanja, Turjanica, direct basin of the rivers Vrbas, Povelich), the Ukrina river basin (Vijaka, Mala Ukrina, Velika Ukrina and direct basin of the river Ukrina to Derventa), the Bosna river basin (the Usora river basin, basins of the Glogovica, Lovnica, Zarječje), the Drina river basin (the basin of the Janja, Tavana, parts of the Drinjača river basin, basin of the rivers Lim and Rzav) and the Sušica river basin (in the Trebišnjica river basin) are distinguished according to the erosion process development.

The table provides an overview of inhabited places that were most severely affected by the floods and landslides.

Table 1 Names and size of inhabited places most severely affected by the floods and landslides in the RS

No.	Inhabited places affected by the floods and landslides	Area* (km <sup>2</sup> )	Number of inhabitants**
1.	Doboj	809	77.223
2.	Šamac	185	19.041
3.	Bijeljina	725	114.663
4.	Banja Luka	1239	199.191
5.	Prijedor	843	97.588
6.	Novi Grad	483	28.799
7.	Modriča	314	27.799
8.	Derventa	516	30.177
9.	Prnjavor	630	38.399
10.	Zvornik	372	63.686
11.	Srbac	453	19.001
12.	Gradiška	762	56.727
13.	Laktaši	388	36.848
14.	Kozarska Dubica	498	23.074
15.	Kostajnica	85	6.308
16.	Čelinac	362	22.001
17.	Kotor Varoš	560	23.074
18.	Vukosavlje	87	5.426
19.	Pelagićevo	124	7.332
20.	Donji Žabar	50	4.043
21.	Lopare	284	16.568
22.	Petrovo	106	7.010
23.	Bratunac	292	21.619
24.	Milići	267	12.272
25.	Šekovići	219	7.771
26.	Brod	228	17.943

\*Source: Association of municipalities and towns of the Republika Srpska

\*\*Source: Statistics Agency of Bosnia and Herzegovina, Preliminary results of 2103 BiH census

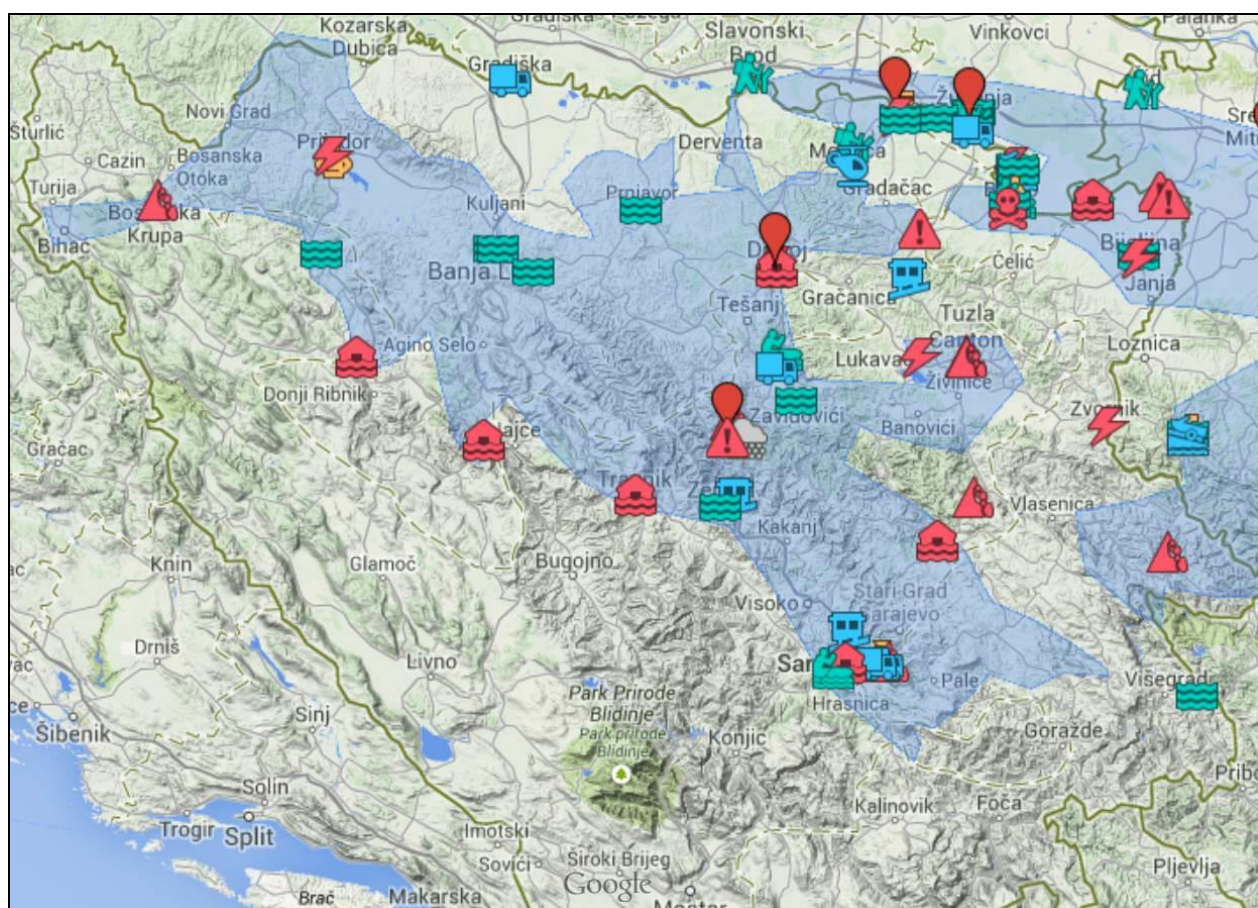


Figure No. 1 Map of flooded areas

### 2.3.1.2. Assessed impact scope

Velika količina padavina koja je pogodila Bosnu i Hercegovinu u maju 2014. godine prouzročila Extensive precipice quantities that affected Bosnia and Herzegovina in May 2014 caused devastating damages to diverse social sectors. Public infrastructural structures such as roads, bridges, electro grid, water supply and sewerage networks, embankments and canals were destroyed or damaged. Also, structures of social significance such as schools, hospitals, sporting, recreational, cultural facilities, public institution facilities and many residential and economic facilities suffered severe damages. Areas under agricultural and field crops suffered extensive damages.

The effects of precipice were aggravated by the already existing environment condition related to the factors such as soil erosion due to logging, river bed destruction and construction of residential structures in flood areas.

Assessed impact scope in the Republika Srpska by sectors is shown in the following table:

Table 2 Assessed impact scope in the Republika Srpska

Sector	Flood-caused damages (KM)
Transport and communications	278.300.000
Energy	31.720.000
Housing	434.000.000
Public services	18.650.000
Education	7.250.000
Health protection	8.000.000
Agriculture and forestry	105.550.000
Water supply and sewerage	4.260.000
Flood protection	44.000.000

<b>Economy and employment</b>	276.170.000
<b>Gender</b>	-
<b>TOTAL</b>	<b>1.207.900.000</b>

\* Source: Unofficial data of the World Bank

### 2.3.1.3. Description of environment in the flooded areas

#### *Climatic properties*

(a) Moderate climatic belt in Northern Bosnia and Posavina is characterised by humid continental climate, with severe winters and warm summers. The warmest zone of that belt is Posavina (average temperatures in July are about 21.3 °C to 21.7 °C), but with rather modest precipice quantities (average annual precipice quantity is about 700-800 mm). In northern valleys of the Drina, Bosna and Vrbas, crucial tributaries to the Sava, which belong to that climatic region, average annual and monthly temperatures decrease by 2-3 °C in comparison to those in Posavina; precipice increases to about 800, 1000 mm. The highest value of precipice is in Posavina in June and October, i.e. in mountainous, colder zones of that climatic area in April and October.

(b) Continental mountainous belt of Central Bosnia is characterised by continental mountainous climate, with significantly harsher winters (the coldest month is January, with average annual temperatures -3.5 to -6.8 °C, with extreme minimums that go as low as -30 °C), and moderately warm summers (average temperatures in July 14.8 to 18.7 °C, with maximums up to about 36 °C). Average annual precipice is higher (1000-1200 mm), with slightly prominent variations and the highest monthly values in the autumn and early spring period (the most extensive precipice in November, over 90 mm).

#### *Hydrological properties*

In line with natural factors, three climatic zones are perceived in the RS, with borders that overlap in the form of transition zones:

- moderate belt of Northern Bosnia and Posavina (the belt mostly affected by the floods),
- mountainous area in Central Bosnia,
- maritime belt of Herzegovina.

All climatic areas are ruled by "inversion of precipice" in relation to needs – both in space and time. The lowest quantity of precipice is in the zones where land resources are of the highest quality (Semberija, Posavina, with an average of about 700, 750 mm); their lowest quantity is precisely in the period of big needs for water in summer months. This phenomenon, noticeable in all climatic areas, points out a necessity to regulate waters in accumulations. Also, the 60-minute precipice intensity analyses indicate high intensity of precipice (over 60 l/s×ha for a one-year return period, i.e. over 100 l/s×ha for a five-year return period). The phenomenon of inequality of precipice in time, as well as large intensities of precipice indicate a necessity to build complex water drainage system, especially in valley zones and karst fields, as well as the need to make the adequate dispositional resolution and dimensioning of storm water sewers in settlements.

The Republika Srpska territory is divided into two regional river basins:

- Regional Sava river basin, that consists of the following river basins: Una, Vrbas, Ukrina, Bosna, Drina and direct Sava basin;
- Regional Trebišnjica river basin, that consists of the Trebišnjica and Neretva river basins.

In the RS can be separated three groundwater zones: northern, central and southern.

In the north part, in Posavina, Semberija and valley parts in the mouth zone of the Bosna, Vrbas and Una, groundwater is mostly located within alluvial loose sediments with a rather unequalled grading. The thickness of these sediments is mostly up to about 50 m. Recharging is mostly done from watercourses and from precipice in smaller part. The most significant springs of this type are:

- the Drina alluvions in the area of Semberija (capacity estimated at a gross of about 3 m<sup>3</sup>/s),
- the Bosna alluvion north of Modriča (about 2 m<sup>3</sup>/s), as well as in the line Doboj - Kotorsko (about 0.5 m<sup>3</sup>/s),
- the Vrbas alluvion, north of Laktaši (assessment of up to 5 m<sup>3</sup>/s),
- the Una alluvion north of Dubica (about 0.7 m<sup>3</sup>/s),
- the Sava alluvion in the territory of Orašje and Brčko (0.4 m<sup>3</sup>/s).

Subartesian and artesian water is found in the north zone, at the depth of about 100, 200 m in layers of Pliocene sand, but with small capacities, with a capacity per well of 2 l/s. The mentioned capacities are gross; only after research activities can be assessed which part (as a rule, not greater than 50%) can be exploited.

### **Phytogeographic properties**

The flood-affected area mostly occupies the north of the RS, which corresponds to the Pannonian area in the ecological-vegetation division into regions in BiH. The part in the RS has all properties of the transition towards Illyrian in the west and Moesian province in the east. Relief characteristics condition an incomplete division into vegetation regions.

Mountainous belt is occupied by climatogenic sessile oak and common hornbeam forest.

Especially economically significant are lowland forests of common oak and hornbeam (*Carpino betuli-Quercetum roboris*), edaphic (lowlands) variants of common oak with cherry (*Ceraso-Quercetum roboris*), then riparian common oak forests, communities of *Alno-Quercion*. In this belt occur some relict sessile oak and chestnut forests (communities *Quercion robori-petraeae*), communities with holly (*Ilex aquifolium*) and Butcher's broom (*Ruscus aculeatus*). Numerous hygrophilous plant communities have many more species here than in other provinces: Black Alder forests *Alnion glutinosae*, and coastal forests of tall willows community *Salicion albae* and poplar, *Populion albae*. Also, hygrophilous brush communities are present, *Salicetalia purpureae* order, wet meadows of *Molinietalia* order, *Deschampsietalia caespitosae*, and diverse non-forest hygrophytous vegetation. Besides, very frequent are beech forests of „sub mountainous " (underhill) character, as oro-edaphic stadium of vegetation in cold expositions (sub communities of *Primulo-Fagenion*), and diverse thermophilous forests with oriental hornbeam, black ash and silver lime (*Quercion petraeae-cerridis*).

Hilly belt is present on lone Peripannonian mountains. Original vegetation consists of beech and fir forests; they are distributed in the areas where the impact of the Pannonian basin is prominent, i.e. Atlantic climate. In North Bosnia they frequently have insular character (Kozara, Ljubić, Trebava, Majevisa). They are located on very diverse substrates. In the layer of trees, they do not have spruce (*Picea abies*) that is absent due to climatic impacts. On the other hand, fir (*Abies alba*) occurs relatively low, at spots descending into the lower oak belt (Uzlomac, Kozara). A specific quality of the province is oro-stages of south sides – clean sessile oak forests. Principal cliffs of Pannonian massifs are marked by noble deciduous woods, of nitrophilous character.

### **Soil properties**

The territory of the Republic can conditionally be divided into three basic agricultural regions (three agro-ecological environs):

- lowland-hilly (region that was most affected by the floods),

- hilly-mountainous and
- sub-Mediterranean region.

Lowland-hilly region occupies the north part of the Republika Srpska and can be marked as the first production area (it comprises a larger part of Krajina, Posavina, Semberija and partially Birač). This region is dominated by flat and mildly wave field, in river valleys, on terraces and in lower, hilly area. Climate is mild continental.

Most frequent are deep, hydromorphic soils that are good for intensive agricultural production, from relief-climatic aspect and with regard to the solum depth. This is a basic farming and vegeculture region in the RS.

Main limiting factor of intensive agricultural production on soil in this region is the unregulated water and air system due to excessive moistening, which is a result of soil properties, primarily heavy mechanical system on the one hand and excessive moistening of pedological profile with precipice, drainage and flood water on the other hand. Apart from that, soils in this region mostly have acid reaction and are poor in alkali, thus poor in phosphorus, humus and nitrogen. Only the application of a complex of hydro-melioration and agro-ameliorative measures will generate conditions for intensive agricultural production on these soils, they will be convenient to grow the most important agrarian and vegetable crops. Apart from hydromorphic, a high percentage of this area is covered by types of soils from automorph division. This is primarily in mild wave, hilly fields, convenient for fruit-growing, winegrowing, but also for other branches of agriculture.

With regard to soil types, this region is dominated by stagnosol, distric cambisol, luvisol, semigley, fluvisol and eugley soils. Apart from these, eutric cambisol, smonitza (vertisol), rendzina and calcocambisol are found here.

### **Fauna**

The majority of the flooded area is located in lowlands of Posavina and Semberija; in the zoogeographic sense it belongs to European subarea, Pannonian sub-province, whereas the remaining part of the flooded area belongs to Central European Alpine area. Both these areas, as well as the entire Republika Srpska is characterised by biological diversity of the animal kingdom.

Flooded areas have several types of habitats. This is mainly cultivated agricultural land, but water habitats, thickets and groves are also present. Given the diversity of habitats in flooded area and domination of agricultural areas, fauna is characterised by a great number of different taxa.

### **Mammals fauna (*Mammalia*)**

Given the flooded area size, characteristic European species are present, such as: *Erinaceus concolor* - hedgehog, *Sorex araneus* – common shrew, *Neomys fodiens* - Eurasian water shrew, *Clethrionomys glareolus* - bank vole, *Ondatra zibethicus* - muskbeaver, *Arvicola terrestris* – water mole, *Talpa auropea* – mole, *Microtus agrestis* - field vole, *Microtus arvalis* - common vole, *Apodemus agrarius* - striped field mouse, *Apodemus flavicollis* - yellow-necked field mouse, *Apodemus sylvaticus* - wood mouse, *Micromys minutus* - harvest mouse, *Micromys avellanarius* - hazel dormouse, *Sciurus vulgaris* - red squirrel.

Apart from the listed species, forests are inhabited by *Mustela erminea* – ermine, *Mustela putorius* – European polecat, *Martes sp.* - martens (European pine marten, beech marten), *Lutra lutra* – otter, *Meles meles* – badger, *Vulpes vulpes* – red fox, *Canis lupus* – wolf, *Felis silvestris* - wildcat, *Lepus silvestris* – rabbit, *Sus scrofa* - wild boar, *Capreolus capreolus* – roe deer, *Cervus elaphus* – red deer.

It is necessary to mention some species of bats that also inhabit areas, including: *Rhinolophus ferrumequinum* - greater horseshoe bat, *Nyctalus noctula* – common noctule, *Plecotus auritus* - brown long-eared bat, *Pipistrellus pipistrellus* - common pipistrelle, *Myotis mystacinus* - whiskered bat, *Myotis emarginatus* - Geoffroy's bat.

### **Birds fauna (Aves)**

In flooded areas are found diverse species of birds from different families, such as: migrating nesting birds: *Hirundo rustica* – barn swallow and *Delichon urbica* – common house martin (*Hirundinidae* - swallows and martins); *Acrocephalus arundinaceus* – great reed warbler, *Sylvia borin* – garden warbler, *Sylvia communis* – common whitethroat (*Sylviidae* - passerine birds); *Muscicapa striata* – spotted flycatcher (*Muscicapidae* - flycatchers); resident birds: *Trudus merula* – common blackbird, *Turdus viscivorus* – mistle thrush, *Luscinia megarhynchos* – common nightingale, *Erithacus rubecula* – robin, (*Turdidae* - thrushes); *Motacilla alba* – white wagtail, *Motacilla flava* – western yellow wagtail (migratory bird), *Motacilla cinerea* – grey wagtail (resident bird) (*Motacillidae* - wagtails, longclaws and pipits); *Fringilla montifringilla* – brambling, *Fringilla coelebs* – common chaffinch, *Serinus serinus* – European serin, *Acanthis flammea* – common redpoll, *Acanthis cannabina* – common linnet, several species of genus *Carduelis* spp. – greenfinches, *Pyrrhula pyrrhula* – Bullfinch, *Coccothraustes coccothraustes* – hawfinch, (*Fringillidae* – finches); *Miliaria calandra* – corn bunting, *Alauda arvensis* – skylark, *Galerida cristata* – crested lark (*Alaudidae* – larks); *Pica pica* – common magpie, *Garrulus glandarius* - Eurasian jay, *Corvus monedula* - western jackdaw, *Corvus corone cornix* - hooded crow, *Corvus corax* – common raven (*Corvidae*); *Cuculus canorus* – common cuckoo (*Cuculidae*); *Phasianus colchicus* – common pheasant, *Perdix perdix* – grey partridge, *Coturnix coturnix* – common quail, (*Phasianidae* – pheasants); *Crex crex* – corn crane, *Rallus aquaticus* – water rail (*Rallidae*); *Alcedo atthis* – common kingfisher, *Upupa epops* – hoopoe, (*Alcedinidae* – river kingfishers); *Coracias garullus* – European roller, (*Coraciidae* – rollers), etc.

White storks *Ciconia ciconia* nest in rural areas, and herons, mallard - *Anas* spp., great crested grebe - *Podiceps cristatus* and cormorants - *Phalacrocorax* spp., Eurasian coot - *Fulica atra*, sora – *Porzana* spp, common moorhen – *Gallinula chloropus*, great reed warbler – *Acrocephalus arundinaceus*, shanks – *Tringa* spp nest along ponds and swamps.

### **Fish fauna (Pisces)**

Ichthyofauna in water ecosystems in the flooded areas is very rich. Ichthyo population is dominated by species from the carp family (*Cyprinidae*). In this family of fish, apart from the common carp – *Cyprinus carpio*, we find other species such as: common bream – *Abramis brama*, blue bream - *Abramis ballerus*, white bream - *Blicca bjoerkna*, orfe - *Leuciscus idus*, common roach - *Rutilus rutilus*, common rudd - *Scardinius erythrophthalmus*, but also many other species of fish.

The *Esocidae* family is represented by northern pike - *Esox lucius*, and the family of catfishes – *Siluridae* is represented by wels catfish - *Silurus glanis*. The family of perches – *Percidae* is represented by the perch-pike - *Sander lucioperca*, common perch - *Perca fluviatilis*, blacktail - *Gymnocephalus cernuus*, rarely *Gymnocephalus schraetser* and other species.

### **Protected areas**

Ecological heterogeneity of the Republika Srpska, geomorphological and hydrological diversity, specific geological past and diversity of eco-climate have provided conditions for an especially rich living world. More than 450 species and subspecies of vascular plants are characterised by a certain degree of endemism, which makes the flora of the Republika Srpska (and the entire Bosnia and Herzegovina) one of special and unique ones in Europe. According to some scientific assessments, it is estimated that BiH has more than 15% of endemic flora and fauna. Biodiversity is characterised by a high degree of diversity, which, given the area of the

Republika Srpska, represents exquisite riches. Species diversity is shown through the diversity of eco-systems, plants, animals, fungi and lichen, and certain groups of prokaryotes. Habitat diversity richness in the Republika Srpska is confirmed by the data related to CORINE Land Cover program of habitat typification and diversity analysis, developed the European Environment Agency in Copenhagen. The data of LandCoverCLC show that it is possible to differentiate 28 classes in the Republika Srpska (31 classes in BiH) out of the total of 44 classes of CORINE Land Cover Nomenclature third level class registered in the territory of entire Europe.

Only 0.9% of the territory of the Republika Srpska is under protection, i.e. 22,153.48 ha. Fifteen natural goods are protected: four nature reserves, two national parks, eight natural monuments and one resources management area. One area (Bardača swamp complex – 3,500 ha) is registered in the list of Ramsar sites and IBA list (Important Bird Areas).

Apart from Kozara and Sutjeska National parks, which are members of the EUROPARC federation, none of natural goods in the Republika Srpska are registered in the World list of protected natural and cultural heritage (UNESCO), nor the list "Man and the Biosphere Programme list". During 2013, activities were implemented with regard to the preparation of the EMERALD sites proposal through the "Supporting the Birds Directive and Habitat Directive Implementation" Project funded by the European Commission. Within the IUCN "Sava river inundation lowland biodiversity protection" Project 12 „IUCN” sites were singled out for the Sava river biodiversity preservation.

Of the protected areas, Bardača swamp complex was most severely affected by the floods due to its position. This area with 11 lakes is a unique protected area and home and resting place for over 200 bird species that pass through this area; over 30 species are autochthonous. Bardača is a home to over 200 plant species, micro communities. This is an opulent unique natural oasis with large forest, swamp, river and lake wealth.

### **2.3.2. Brčko District**

Brčko District territory is located at 44°53' geographical latitude and 18°49' geographical longitude, in the north-eastern part of Bosnia and Herzegovina on the Sava river; it occupies the area of 493 km<sup>2</sup> i.e. 0.96 % of the total area of Bosnia and Herzegovina. The urban part area is 5,836 ha i.e. 11.8 % of the total territory; agricultural land covers 30,785 ha or 62.6 %, whereas the remaining part consisting of forests, covers the total area of 12,874 ha i.e. 26 % of the territory. District is situated in the central part of the Republika Srpska and borders two of ten cantons of the Federation of BiH, Tuzla Canton and Posavina Canton; in the northwest it borders the Municipality of Orašje, in the west the Municipality of Gradačac, in the southwest part the Municipality of Srebrenik, in the south the Municipality of Lopare and in the east the Municipality of Bijeljina. Northern part of the Brčko District border the Republic of Croatia.

According to the preliminary results of the census in Bosnia and Herzegovina, Brčko District has a 93,028 strong populace.

Spatial and natural structures with different elevation and dissimilar relief properties are present in the entire territory of the District. Lowland and hilly relief forms are found. Lowland area in a part of the Posavina agrarian region; conditions for agriculture are excellent. These fields are made of young Plio-Quaternary sediments and Quaternary sediments with heights of 90-150 m, whereas the field made of only Quaternary sediments area characterised by heights of 80-90 m. Wave hills and low terraces insignificantly rise above alluvial plains along the Tinja and Brka and their tributaries.

We find transitional forms of karst in the form of caves, rocky open profiles, water sources and sinkholes in the wider region of Rašljani, Maoča and south of Bosanska Bijela in southern part

of the District that is morphologically made up of hills and mounts of northern Majevisa piedmont, with average elevations (300-640 m Mount Granaš), with average inclination, due to geological composition that is consisted of watertight rocks. The highest inclinations in the District are found here.

North of the imaginary line Bosanska Bijela – Maoča – Šatorovići the field gradually descends, inclinations are lower and lower (nv 150-300m) and valleys of the Tinja, Brka and Zovičica get wider. In the relief terms, these are lowlands filled with alluvial deposits; rivers meander through them. Above them are mild terraces, hills and foothills that represent low watersheds among the mentioned. Unregulated riverbeds of the Tinja, Brka and Zovičica are periodically flooded.

Thus, northern part belongs to the accumulation-tectonic lowland relief of the Pannonian basin with inundation plains, and the southern part belongs to denudation-accumulation relief of the Pannonian basin perimeter that consists of foothills and low hills made of tertiary sediments of marine and limnic origin.

Geo-position within southern Peripannonian perimeter and lowland-hilly relief of the largest part of the Brčko District influenced the existence of humid continental climate in the largest part of the observed region.

BiH Brčko District territory has humid continental climate with high summer temperatures with slight changes that occur under the impact of the western cyclone; precipice reaches its maximum in the warmer part of the year and the minimum at the end of cold period. Average temperature is above 10°C, the coldest month is February with an average temperature of about -2.7°C; the warmest is July with an average temperature of about 21°C. Due to the impacts of continental climate this territory is more arid in comparison to other regions in BiH. Precipice is unequally distributed during the year; it amounts to 700-800 mm. More abundant precipice occurs at the end of spring and beginning of summer, which results in increased cloudiness. Snowing lasts up to one month per year on average, with a thin snowy cover and cold north wind. Rainfall occurs in spring, summer and autumn. Spring rainfall is a consequence of cyclonic disturbances over the Mediterranean, summer rainfall is a consequence of local overheating and autumn rainfall is a consequence of the western cyclone.

Windiness developed due to lowland relief. According to frequency, most intensive are the northwest and south winds. Depending on the season and activity of anticyclones at the Mediterranean and Atlantic, west and northwest wind generates in the spring; summer and autumn are characterised by northwest and southwest winds and the winter is dominated by the north and northeast wind.

The entire area of the Brčko District belongs to the Black Sea drainage basin, i.e. the Sava river hydro-system. In the territory of the Brčko District the Sava has two right tributaries Tinja and Brku. There is a number of small watercourses in the territory of the District such as: Lomnica, Tinja, Lukovac, Brka, Rašljanska rijeka, Štrepčačka rijeka and Zovičica.

All mentioned watercourses have the pluvio-nival regime, very small falls of the riverbed, and meander in the north and central part of the District, which is especially a characteristic of the Tinja watercourse.

The territory of the BiH Brčko District is characterised by a branchy hydrographic network, with the Sava river, a large border river as its backbone. It is navigable more than 260 days during the year, with its tributaries: Tinja, Brka, Lukavcem, Rašljanska rijeka, Zovičica, Lomnica and Štrepčačka rijeka. All watercourses, except the Brka river are characterised by many meanders. The Brka river (right tributary of the river Sava), flows through the District dividing this town into two parts. Its principal characteristics are a short course and area of the watershed of about 110 km<sup>2</sup>. Average annual flow of this river is 1.25 ml/sec according to the data of the water measuring station located in suburban settlement Brod. The river Tinja (also a right tributary of

the Sava river) is characteristic that it separates the area of Trebava from the entire Majevisa region. The length of the watercourse of this river is 69 km, drainage basin area is 163 km<sup>2</sup>, its average annual flow amounts to 2.28 ml/sec according to the data from the water measuring station in Srebrenik.

All watercourses in the area of the BiH Brčko District do not have developed riverbeds for which reason water overflows them and floods the surrounding land in periods of abundant quantities of precipice and this represents a big problem (e.g. about 6000-8000 ha land is exposed in the Tinja river drainage basin, some of it agricultural and some urbanised). Wells are polluted simultaneously with floods, and must be disinfected and cleaned several times during the year.

Basic problem of this area is the occurrence of high flood waters, notably: 1. external waters (water of the river Sava), 2. mountainous waters (from mountains Majevisa and Trebava) and its own water (storm water and groundwater). From the aspect of hydrography the territory of the BiH Brčko District can be divided into three areas, which all together make a unit defined as the Hydro-Melioration system, notably:

1. Tinja-Brka drainage basin, in the central and western part;
2. Objeda, in the north; and
3. Lukavac, in the east of the BiH Brčko District.

As a dynamic category and base for the development of plant species, land has changeable properties especially when it comes to agricultural land. Depending on temperature, water and other factors, soil is inhabited by many organisms, including microorganisms that greatly influence the soil properties. Soil in the territory of the BiH Brčko District is primarily stagnosol (pseudogley), although there are areas that belong to other types, notably: semi-gley soil, fluvisol, brown acid soil (distric cambisol) and vertisol. It is considered that the District has the most fertile soil in BiH, although the problem with flooding must be resolved.

Pseudogley (planosol) is hydro-morph soil that has a watertight layer (clayey loam) at the depth of 30-40 cm; above this layer collects water in a layer of usually dusty loam. This soil is erosion prone, hence forest composition is usually the best protection of these soils. Sessile oak and common hornbeam forests grow on it, whereas pedunculate oak forests grow in the wet phase. This type of soil is present in the central and northern District.

Acid brown soil is present in the southern part of the District; it is convenient for field crops growing. These soils are flat or slightly inclined. The valleys of the Tinja, Brka and their tributaries have these soils that began to undergo the gleying process. As a type of soil in which groundwater leads to the gleying process, semigley usually has a terrestrial part of the profile terestičnim dijelom profila with humus horizon. Fluvisol, or alluvial soil, forms in inundation plains of rivers; its composition is different, depending on deposits.

Valley brown soils are present at lower elevations in the valleys of the Tinja, Brka and tributaries. These soils fall into the most fertile soils in BiH. Hydro-morph, swamp gley soils were generated at lower parts, at depths of about 80 cm under the influence of groundwater. Lower lowlands have alluvial soils. They are very fertile. Hence, the territory of the District has the most fertile and productive soils in BiH, but the problem with flood waters must be stressed.

According to the properties of the relief, climate and other physical properties of natural environment elements, Brčko and its surroundings have natural vegetation cover characteristic of grass vegetation, i.e. a sort of steppe. Enclaves of hydrophilic vegetation of willows, poplars etc. along the watercourses banks as well as swamp vegetations of sedges and reed in permanently wet enclaves along the meanders of the Tinja, and swamp fields of the lowest terraces in the District. Forests of pedunculate oak and common hornbeam exist on mild slopes of Neogene terraces above river valleys. A significant part of central and north part of the District is under agricultural areas and settlements.

As a natural resource of special significance biodiversity has a very important role in the reconstruction and development of the BiH Brčko District. Convenient natural conditions show a possibility of organised herbal preparations and diverse organic products that are more and more in demand on the European market. BiH Brčko District area, and the entire territory Bosnia and Herzegovina, are distinguished for rich flora and fauna that are still not completely researched. There are lots of plant species (1500 species, subspecies, variants and forms of vascular plants identified so far), invertebrates, fish, amphibians, reptiles, birds and mammals. Apart from wild species, there are many domesticized species (a wide range of different fruit trees, diverse species of wheat, barley, rye and corn, species of potato, squashes, cabbage, peas, different forms of decorative, medicinal and aromatic plant species), which together with wild units make significant natural heritage, but also the potential of the entire area.

Forests are a significant, but sadly poor natural potential in the territory of the District. They cover an area of 10873.45 ha. Of the total forest area, state forests cover the area of 2463 ha, and privately owned forests cover the area of 8410.45 ha. A big problem with forest fund is the fragmentation of lots. Only a part is located in the complex, notably in the hilly area in the south of the District. Other lots that belong to lowlands are small and fragmented.

The entire territory of Bosnia and Herzegovina represents one of the most diversified areas with regard to biocenoses and species diversity in Europe due to its specific geographic position that enabled the influence of many different ecological factors. Forest biocenoses in the BiH Brčko District area distinguished for forests of pedunculate oak and common hornbeam (*Carpino betuli* – *Quercetum roboris*), forests of Hungarian oak and bitter oak (*Quercetum confertae* – *cerris*), forests of bitter oak and sessile oak (*Quercetum petrae* – *cerris*), forests of sessile oak and common hornbeam (*Quercus* – *Carpinetum*) and beech forests (*Fagetum montanum*), acidophilic beech forests (*Luzulo* – *Fagetum*) prevail upon them. Species that have commercial character are elder (*Sambucus nigra*), thyme (*Thymus serpyllum*), common dandelion (*Taraxacum officinale*), mistletoe (*Viscum sp.*), linden (*Tilia sp.*), marshmallow (*Althaea officinalis*), peppermint (*Mentha piperita*), hawthorn (*Crataegus sp.*), raspberry (*Rubus idaeus*), blackberry (*Rubus fruticosus*), wild rose (*Rosae sp.*), dogwood (*Cornus mas*) and common juniper (*Juniperus communis*).

District's biodiversity has large economic value; thus it must be managed in a sustainable manner. It should be pointed out that anthropogenic pressure on all mediums of environment is very prominent, which represents a great threat to the environment in the entire area. Recognising the significance of genetic resources can be economically paid back through the application of different programmes and projects such as growing medicinal herbs species that can be used in pharmacy, biotechnology and biomedicine, growing mushrooms, that also have a wide application, establishment of aqua culture, ecotourism.

Brčko District has no natural areas that are put under some sort of protection regime.

Zones marked by elements of natural and naturalistic beauties and values:

1. natural beauties at following areas:

- a) Sava river bank along Brezovo Polje,
- b) Ficibaj zone,
- c) Maoča (Islamovac) zone and
- d) zone below Bosanska Bijela;

2. forests near Šatorovići, Maoča, Rašljanska Rijeka, Brčko;

3. gazebos: Gornji Hrgovi (above Tinja near Bosanska Bijela), Bandera in Rašljani;

4. natural monuments:

- a) "Stara voda" hydrological monument in Ražljevo,

- b) “Kaludžerovac” spring u Bosanska Bijela,
- c) “Mračna pećina” geomorphological monument in Bosanska Bijela and
- d) geomorphological monuments in Brezovo polje, Bukvik, Maoča, Brka and in Bosanska Bijela.

### Areas jeopardised by floods

River courses in the territory of the District have pluvio-nival regime, very small falls of riverbeds, and meander in northern and central part, which is especially a characteristic of the Tinja watercourse. Lower lowlands part, at elevations of about 100 metres and lower, is abundant in groundwater that is very close to the topographic surface. This area is especially flooded in spring months. All watercourses have shallow and undeveloped riverbeds, which cannot receive large quantities of water thus water overflows and floods the area in valley especially they correspond with high water levels of the Sava river.

From the aspect of jeopardy from floods, the most critical part in the Brčko District is the Tinja – Brka melioration area, which is situated in the central-western part of the District.

Settlements that are most frequently exposed to flooding are:

- Tinja river basin: Gorice, Drenova, Gornji and Donji Vukšić, Gornji Bukvik, Jendek, Bašče, Poljaci, Jagodnjak, Donja Skakava, Cvijanovići, Bijela, Donji Rahić and Grbavica.
- Brka river basin: territory of the city (Klanac, Kolobara, Centar 5, Meraje, Broduša, Stari rasadnik, Brod), Brka, Palanka, Gornji Rahić, Maoča, Rašljani, Rijeke, Omerbegovača, Boće
- Sava river direct basin: Brezovo Polje, Vučilovac, Krepšić.

Figure No. 1 shows the map of flooded areas in the Brčko District

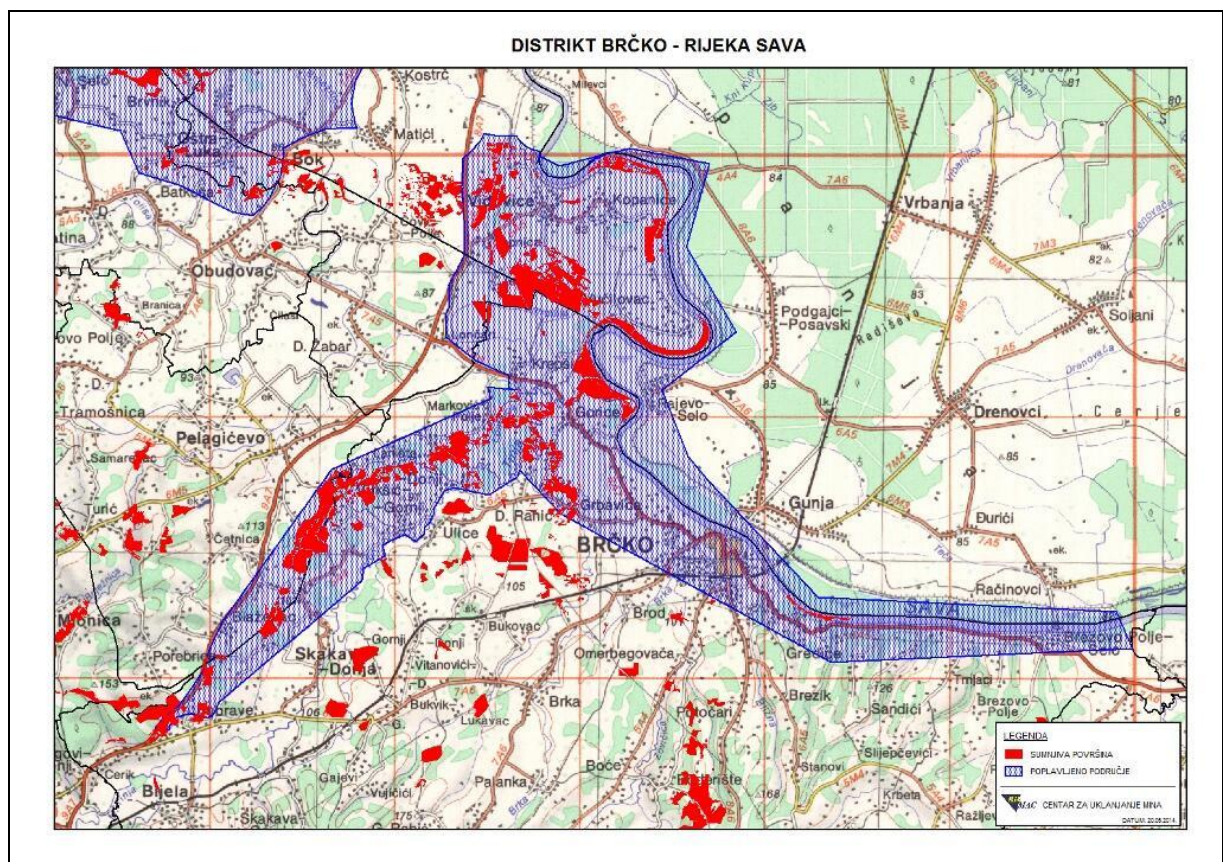


Figure No. 2 Map of flooded areas in the Brčko District

### 2.3.2.1. Assessed impact scope

Extensive precipice quantities that affected Bosnia and Herzegovina in May 2014 caused devastating damages to diverse social sectors in the territory of the Brčko District. Public infrastructural structures such as roads, bridges, electro grid, water supply and sewerage networks, embankments and canals were destroyed or damaged. Also, areas under agricultural and field crops, residential and economic structures suffered extensive damages.

The effects of precipice were aggravated by the already existing environment condition related to the factors such as river bed destruction and construction of residential structures in flood areas.

Assessed impact scope in the Brčko District by sectors is shown in the following table:

*Table 3 Assessed impact scope in the Brčko District*

<b>Sector</b>	<b>Štete od poplava (KM)</b>
<b>Transport and communications</b>	12.600.000
<b>Energy</b>	130.000
<b>Housing</b>	16.300.000
<b>Public services</b>	-
<b>Education</b>	10.000
<b>Health protection</b>	-
<b>Agriculture and forestry</b>	6.800.000
<b>Water supply and sewerage</b>	1.110.000
<b>Flood protection</b>	5.400.000
<b>Economy and employment</b>	3.900.000
<b>Gender</b>	-
<b>TOTAL</b>	<b>46.250.000</b>

\* Source: Unofficial data of the World Bank

### **3. OVERVIEW OF ENVIRONMENTAL CONDITIONS IN THE REPUBLIKA SRPSKA AND BRČKO DISTRICT**

#### **3.1. Environmental conditions in the Republika Srpska**

##### **3.1.1. Overview of legislation in the field of environment**

- Environment Protection Act (Republika Srpska Official Gazette, No. 71/12)
- Nature Protection Act (Republika Srpska Official Gazette, No. 20/14)
- Water Management Act (Republika Srpska Official Gazette, No. 50/06)
- Air Protection Act (Republika Srpska Official Gazette, No. 124/11)
- Waste Management Act (Republika Srpska Official Gazette, No. 111/13)
- Law on Spatial Planning and Civil Engineering (Republika Srpska Official Gazette, No. 43/13),
- Fire Protection Act (Republika Srpska Official Gazette, No. 71/12),
- Law on the Protection from Non-Ionising Radiation (Republika Srpska Official Gazette, No. 02/05),
- RS Cultural Goods Act (Republika Srpska Official Gazette, No. 11/95 i 103/08),
- Rulebook on projects for which environmental impact assessment is made and criteria for issuance of a decision on the need to implement and scope of the environmental impact assessment (Republika Srpska Official Gazette, No. 124/12)
- Rulebook on the plants that can be built and put into operation only if they have the environmental permit (Republika Srpska Official Gazette, No. 124/12)
- Rulebook on the conditions for discharging waste water into surface waters (Republika Srpska Official Gazette, No. 44/01),
- Instruction on the environmental impact assessment contents (RS Official Gazette, No. 108/13)
- Decree on Water Classification and Watercourses Categorisation (Republika Srpska Official Gazette, No. 42/01)
- Decree on Air Quality Values (Republika Srpska Official Gazette, No. 28/13),
- Decree on the Air Quality Monitoring Conditions (Republika Srpska Official Gazette, No. 28/13),
- Rulebook on limit values of emission from combustion plants into the air (Republika Srpska Official Gazette, No. 70/2002)
- Rulebook on the polluting substances emission into the air monitoring (Republika Srpska Official Gazette, No. 39/05),
- Rulebook on waste categories with catalogue (Republika Srpska Official Gazette, No. 3 9/05),
- Rulebook on methods of maintaining riverbeds and water land (Republika Srpska Official Gazette, No. 34/03),
- Rulebook on allowed values of noise and sound intensity (SRBiH Official Gazette, No. 46/89)

##### **3.1.2. Environmental impact assessment procedure in the Republika Srpska**

Republika Srpska Environment Protection Act (RS Official Gazette, No. 71/12), and applicable by-laws – Rulebook on projects for which environmental impact assessment is made and criteria for issuance of a decision on the need to implement and scope of the environmental impact assessment (Republika Srpska Official Gazette, No. 124/12), Rulebook on the plants that can be built and put into operation only if they have the environmental permit (Republika Srpska Official Gazette, No. 124/12), and Instruction on the environmental impact assessment contents (RS Official Gazette, No. 108/13), regulate the obligatory environmental impact assessment procedure and issuance of environmental permit for all plants that potentially jeopardise environment.

This legislation defines the environmental impact assessment (EIA) contents, environmental permit application contents, as well as the entire procedure including publication, public participation and involvement of the other entity or neighbouring state in the case of possible cross-border impacts.

The ministry in the RS that is authorised to approve environmental impact studies and issue environmental permits (EP) is the Republika Srpska Ministry of Spatial Planning, Civil Engineering and Ecology (MSPCEE).

Rulebook on projects for which environmental impact assessment is made and criteria for issuance of a decision on the need to implement and scope of the environmental impact assessment (Republika Srpska Official Gazette, No. 124/12), Rulebook on the plants that can be built and put into operation only if they have the environmental permit (Republika Srpska Official Gazette, No. 124/12), define the list of plants and projects with significant adverse impacts on environment, which are subject to compulsory environmental impact assessment as a part of the environmental permit issuance procedure.

This legislation regulates limit values of the plants and projects that are under the jurisdiction of the MSPCEE. The MSPCEE determines whether an EIA is necessary or not for certain plants from case to case. If the EIA is not required, the MSPCEE issues EP based on the request/application for the EP issuance. For the plants that do not require EIA, as well as for plants that are under limit values regulated in the regulations of the RS, EP is issued by local communities, i.e. relevant services in the municipality where the project is implemented.

In the continuation is given the analysis of activities that are envisaged in the Flood Emergency Response Project for priority sectors of population from the aspect of environmental impact assessment and a need to acquire environmental permit.

*Table 4* Overview of planned activities from the aspect of environmental impact assessment

Type of project	Mandatory EIA	EIA is made based on the MSPCEE evaluation	Mandatory EP
<b><i>Agriculture and rural development sector</i></b>			
Rehabilitation/Reconstruction of rural roads and auxiliary infrastructure	NO	NO	NO
Cleaning drainage canals, including siphons and bridges etc.	NO	NO	NO
<b><i>Energy sector</i></b>			
Reconstruction of damaged sections of transporting and/or distributive lines and posts/poles	NO	NO	NO
Rehabilitation, Reconstruction or replacement of the whole installation/building	NO	NO	NO
Replacement of temporary installed electrical cables and lines, posts or poles with the permanent, which could involve the execution of works with regard to the stabilisation of areas where landslides occurred	NO	NO	NO

Replacement of damaged/destroyed equipment, e.g. equipment for consumption measurement, monitoring and control	NO	NO	NO
<b>Type of project</b>	<b>Mandatory EIA</b>	<b>EIA is made based on the MSPCEE evaluation</b>	<b>Mandatory EP</b>
Rehabilitation or replacement of mining equipment and infrastructure	NO	NO	NO
<b>Transport sector</b>			
Removal of the material deposited by floods, rockfalls and landslides	NO	NO	NO
Cleaning drainage structures such as discharges and canals at the road verge	NO	NO	NO
Replacement of drainage structures such as bridges, discharges, retaining walls etc.	NO	NO	NO
Rehabilitation of local and/or regional roads	NO	NO	NO
<b>Water supply and sewerage sector</b>			
Rehabilitation or reconstruction of water supply systems	NO	NO	NO
Reparation or replacement of electro and mechanical equipment in waste treatment plants, pump stations or reservoirs	NO	NO	NO
Reparation of damaged transporting and distributive pipelines	NO	NO	NO
Rehabilitation of sewerage system or reconstruction, including the repairs of the sewerage network and replacement of damaged equipment in waste water treatment plants	NO	NO	NO

The analysis of project envisaged activities in relation to legislation that defines the environment impact assessment and environmental permit issuance has shown that neither EIA nor environmental permit are necessary for the activities that will be implemented within the Flood Emergency Response Project, since these activities relate to the repair, rehabilitation or reconstruction of the existing infrastructure and facilities or replacement of the existing equipment.

### **3.1.3. Process of the construction permit and water management acts acquiring**

#### ***Construction permit***

A procedure to acquire permits in the RS is conducted through the interaction with municipal services. In other words, when a request for permit is submitted, the municipality establishes whether the project approval is under their jurisdiction or not. If not, the municipality will ex officio deliver the request to the Ministry of Spatial Planning, Civil Engineering and Ecology.

Construction permit procedure is defined in the RS Law on Spatial Planning, Civil Engineering and Ecology, No. 40/13. This Law regulates the spatial planning system and landscaping preparation, development and issuance of spatial planning documents, location requirements, construction land development, construction permit issuance, type and contents of technical documentation, construction of buildings and mutual relations among the participants in construction, usage and removal of buildings, legalisation of buildings, supervision over the enforcement of this law, jurisdiction and work of the engineering chamber, and other issues of significance for spatial planning, construction land and building of facilities.

This law defines the types of works executed in the construction of buildings. This law defines the concept of repair that implies: *„execution of construction and other works on a damaged building (if the damage occurred as a consequence of building's age or as a consequence of disasters caused by natural and human activity) which bring the building into the condition prior to damages“*.

Article 126 of this law sets forth: *„In the case of present danger from great natural disasters or other destructions during these phenomena, i.e. immediately after their termination, facilities that serve to prevent the activity of these phenomena, i.e. removal of adverse consequences can be built without a construction permit“*.

The degree of damages to an infrastructural building is established by an expert damage evaluation commission consisting of authorised experts appointed by the relevant body of administration in the unit of local self-management.

Upon their visit to the location of a damaged infrastructural building, the expert commission establishes the degree of damages, as well as the works that must be done prior to their repair.

In the case that structural elements of a building are not damaged, the building can be restored into its original condition without a construction permit, in accordance with the construction permit based on which it was built.

If the expert commission establishes that a building has suffered greater damages to structural elements of the building, the investor is obliged to enclose technical documentation for the building reconstruction and attestations on building's structure testing with the repair request; the body of administration issues a permit for reconstruction based on the enclosed documentation, this permit must be harmonised with the construction permit based on which the building was constructed.

If the building was completely destroyed, new construction of other building at the same location can begin after a new construction permit was acquired.

Documentation required for acquiring a construction permit:

- Location requirements, with town planning requirements.
- Evidence of resolved property and legal relations.
- Main design in three copies.
- Technical documentation review report.

In line with Article 127 of the Law, construction permits issuance is under the jurisdiction of the bodies of local administration which are in charge of construction activities in the body of local self-management in whose territory the subproject activities are executed.

Given the mentioned, table No. 2, provides an overview of possible scenarios for subproject activities envisaged in the Flood Emergency Response Project:

*Table 5 Analysis of subproject activities with a need to acquire construction permits*

Type of scenario	Legal requirement
Tip 1: Structural elements are not damaged - Infrastructural structure is restored into the condition prior to damages	The building is restored to its original condition without a construction permit, in accordance with the construction permit based on which it was built.  Required technical documentation: Main design Technical documentation review report
Tip 2: Structural elements are damaged – Damaged infrastructural structure is reconstructed	Enclose technical documentation for the building reconstruction and attestations on building's structure testing with the repair request; the body of administration issues a permit for reconstruction based on the enclosed documentation, this permit must be harmonised with the construction permit based on which the building was constructed  Required technical documentation: Main design Technical documentation review report Attestations on building's structure testing
Tip 3: Structure is completely destroyed – A new identical facility is constructed at the same location (replacement of a damaged bridge)	The required construction permit issued by the bodies of administration which are in charge of construction activities in the body of local self-management in whose territory the subproject activities are executed or the relevant Ministry.  Required technical documentation: Location requirements, with town planning requirements. Evidence of resolved property and legal relations. Main design. Technical documentation review report

### **Water management acts**

The issuance of water management acts in the RS is regulated by the RS Water Management Act, No: 50/06. In order to ensure management of waters and for purpose of righteous access to water for all persons, this law regulates the manner in which the right to water is enjoyed by the issuance of following water management acts:

- a) guidelines,
- b) consents, and
- v) permits.

Water management acts are issued upon a written request of the investor, i.e. user, or the authorised third party, relevant body of administration or the body in charge of issuance of town planning consent according to the regulations on spatial planning.

Given the kind and nature of subproject activities that relate to the rehabilitation of the existing public infrastructure that is damaged/destroyed in the floods, without the construction of new one, in line with Article 125 of the Law the issuance of water management acts is under the

jurisdiction of the bodies in the unit of local self-management in whose territory subproject activities are implemented. In the procedure of the issuance of water management acts under its jurisdiction, the authorised body of local unit can request an expert opinion of the qualified scientific institution or an expert organisation that performs the activity in the field of water management. In order to ensure the resolution of conflict of interest and participation of public in activities, the relevant body is obliged to notify the interested parties prior to the issuance of a water management act; it notifies the public in the area of its activity by placing a notification on a notice board of the relevant body.

Necessary data on location, type and scope of activities that are intended for implementation, as well as technical documentation that addresses the concrete activity are enclosed with the water management act issuance request.

Given the mentioned, table No. 3 provides an overview of possible scenarios for subproject activities that are envisaged in the Flood Emergency Response Project:

*Table 6 Analysis of subproject activities with a need to acquire water management acts*

Type of scenario	Required water management act
Tip 1: Structural elements are not damaged - Infrastructural structure is restored into the condition prior to damages	Water management guidelines.
Tip 2: Structural elements are damaged – Damaged infrastructural structure is reconstructed	Water management guidelines
Tip 3: Structure is completely destroyed – A new identical facility is constructed at the same location (replacement of a damaged bridge)	Water management guidelines Water management consent

## **3.2. Environmental conditions in the Brčko District**

### **3.2.1. Overview of legislation in the field of environment protection**

- BiH Brčko District Environment Protection Act (BiH Brčko District Official Gazette, Nos. 24/04 and 01/05, 19/07, 9/09);
- Nature Protection Act (BiH Brčko District Official Gazette, Nos. 24/04, and 01/05, 19/07, 9/09)
- Water Protection Act (BiH Brčko District Official Gazette, Nos. 25/04 and 01/05, 19/07);
- Water Management Act RS Official Gazette, No. 10/98);
- Air Protection Act (BiH Brčko District Official Gazette, Nos. 25/04 and 01/05, 19/07, 9/09);
- Waste Management Act (BiH Brčko District Official Gazette, Nos. 25/04 and 01/05, 19/07, 2/08, 9/09);
- Rulebook on allowed limits of sound and noise (SR BiH Official Gazette, No. 46/89);
- Protection at Work Act (SR BiH Official Gazette, Nos. 31/84, 12/87, 22/90);
- Fire Protection Act (SR BiH Official Gazette, Nos. 15/87, 37/88 and 38/89);
- Rulebook on the plants for which an environmental impact assessment must be done, and plants that can be constructed and put into operation only if they have the environmental permit (BiH Brčko District Official Gazette, No. 30/06);
- Rulebook on the environmental impact assessment contents (BiH Brčko District Official Gazette, No. 2/07);
- Rulebook on waste categories with lists (BiH Brčko District Official Gazette, No. 32/06);
- Rulebook on deadlines for the submission of requests for environmental permit issuance for plants that have permits issued prior to the entry into force of the Environment Protection Act (BiH Brčko District Official Gazette, No. 2/07);
- Rulebook on air quality monitoring (BiH Brčko District Official Gazette, No. 30/06);

- Rulebook on the polluting substances emission into the air monitoring (BiH Brčko District Official Gazette, No. 30/06);
- Rulebook on limit values of polluting substances emission into the air (BiH Brčko District Official Gazette, No. 30/06);
- Rulebook on allowed limits of noise and sounds (SR BiH Official Gazette, No. 46/89);
- Rulebook on air quality limit values, and levels of notifications and alarms (BiH Brčko District Official Gazette, No. 18/11);

### 3.2.2. Environmental impact assessment procedure in the Brčko District

Similar as in the Republika Srpska, in the Brčko District, BiH Brčko District Environment Protection Act (BiH Brčko District Official Gazette, No. 24/04 i 01/05, 19/07, 9/09), and applicable by-laws – Rulebook on the plants for which an environmental impact assessment must be done, and plants that can be constructed and put into operation only if they have the environmental permit (BiH Brčko District Official Gazette, No.30/06), i Rulebook on the environmental impact assessment contents (BiH Brčko District Official Gazette, No. 2/07), regulate the obligatory environmental impact assessment procedure and issuance of environmental permit (EP) for all plants that potentially jeopardise environment.

This legislation defines the environmental impact assessment (EIA) contents, environmental permit application contents, as well as the entire procedure including publication, public participation and involvement of the other entity or neighbouring state in the case of possible cross-border impacts.

Authorised department in the Brčko District (BD), which approves environmental impact studies and issues environmental permits (EP), is the Spatial Planning and Property and Legal Affairs Department (SPPLAD).

Rulebook on the plants for which an environmental impact assessment must be done, and plants that can be constructed and put into operation only if they have the environmental permit (BiH Brčko District Official Gazette, No. 30/06) define the list of plants and projects with significant adverse impacts on environment, which are subject to compulsory environmental impact assessment as a part of the environmental permit issuance procedure.

This legislation regulates limit values of the plants and projects that require an EIA. The SPPLAD determines whether an EIA is necessary or not for certain plants from case to case. If the EIA is not required, the SPPLAD issues EP based on the request/application for the EP issuance.

In the continuation is given the analysis of activities that are envisaged in the Flood Emergency Response Project for priority sectors of population from the aspect of environmental impact assessment and a need to acquire environmental permit.

Table 7 Overview of planned activities from the aspect of environmental impact assessment

Type of project	Mandatory EIA	EIA made based on the evaluation of the SPPLAD	Mandatory EP
<b><i>Agriculture and rural development sector</i></b>			
Rehabilitation/Reconstruction of rural roads and auxiliary infrastructure	NO	NO	NO
Cleaning drainage canals, including siphons and bridges etc.	NO	NO	NO
<b><i>Energy sector</i></b>			

Reconstruction of damaged sections of transporting and/or distributive lines and posts/poles	NO	NO	NO
Rehabilitation, Reconstruction or replacement of the whole installation/building	NO	NO	NO
Replacement of temporary installed electrical cables and lines, posts or poles with the permanent, which could involve the execution of works with regard to the stabilisation of areas where landslides occurred	NO	NO	NO
Replacement of damaged/destroyed equipment, e.g. equipment for consumption measurement, monitoring and control	NO	NO	NO
Rehabilitation or replacement of mining equipment and infrastructure	NO	NO	NO
<b>Transport sector</b>			
Removal of the material deposited by floods, rockfalls and landslides	NO	NO	NO
Cleaning drainage structures such as discharges and canals at the road verge	NO	NO	NO
Replacement of drainage structures such as bridges, discharges, retaining walls etc.	NO	NO	NO
Rehabilitation of local and/or regional roads	NO	NO	NO
<b>Water supply and sewerage sector</b>			
Rehabilitation or reconstruction of water supply systems	NO	NO	NO
Reparation or replacement of electro and mechanical equipment in waste treatment plants, pump stations or reservoirs	NO	NO	NO
Reparation of damaged transporting and distributive pipelines	NO	NO	NO
Rehabilitation of sewerage system or reconstruction, including the repairs of the sewerage network and replacement of damaged equipment in waste water treatment plants	NO	NO	NO

The analysis of project envisaged activities in relation to legislation that defines the environment impact assessment and environmental permit issuance in the BD has shown that neither EIA nor environmental permit are necessary for the activities that will be implemented within the

Flood Emergency Response Project, since these activities relate to the repair, rehabilitation or reconstruction of the existing infrastructure and facilities or replacement of the existing equipment

### **3.2.3. Process of the construction permit and water management acts acquiring**

#### ***Construction permit***

The Assembly of the Brčko District adopted the Law on removal and mitigation of consequences that occurred during the disasters in the period April – May 2014. Chapter II REMOVAL AND MITIGATION OF CONSEQUENCES ON INFRASTRUCTURAL WATER MANAGEMENT BUILDINGS

The Law defines:

- (1) With the aim of removing damages on roads and bridges which occurred as a consequence of calamities, they can be constructed during or upon the termination of calamity without a building consent.
- (2) A building constructed based on this law can become a permanent facility provided that a construction permit for it is acquired within the deadline envisaged by the Law on Spatial Planning.
- (3) A bill of quantities instead of the building consent can be acquired for the execution of works relating to the removal of consequences of calamities on water management and communal buildings and water management infrastructure.

The procedure for issuance of a construction permit is defined in the Brčko District Law on Spatial Planning and Civil Engineering, No. 29/08. This law regulates basic principles of spatial planning and civil engineering, organisation of spatial planning, spatial planning documents information system on the space, location requirements, technical properties that are significant for the building, technical permits, project documentation, participants in construction, approval for construction, approval for usage, supervision and inspection.

Article 95 of this Law stipulates that a construction permit is not necessary for maintenance works and reparation of the existing building.

Article 96 of this law stipulates: *„In the case of present danger from great natural disasters or other destructions during these phenomena, i.e. immediately after their termination, facilities that serve to prevent the activity of these phenomena, i.e. removal of adverse consequences can be built without a construction permit“.*

The law defines that if damages to a building occurred as a consequence of natural disasters, the building can be restored into its original condition in accordance with the valid approval for construction or a design of the existing condition of the building without a new approval for construction.

Since public infrastructural buildings that were damaged in the floods will be repaired within the Flood Emergency Response Project, it is not necessary to acquire a construction permit for subproject activities.

In the case a new bridge or a part of road is constructed instead of the ones destroyed in the floods at the same location, it is necessary to subsequently acquire construction permit for these buildings.

### ***Water management acts***

Since the Government of the Brčko District has not adopted Water Management Act yet, the District applies the Republika Srpska Water Management Act 10/98, adjusted to the needs of the District, based on the decision of the Supervisor for the Brčko District from 2005. This law regulates the manners of exercising the right to water by the issuance of following water management acts:

- a) conditions and guidelines for designing,
- b) consents, and
- v) permits.

In line with this law, all subproject activities that occasionally, temporarily or permanently cause changes in natural or artificial system of water regime or in which way water regime is influenced, can only be executed based on the acquired water management consent.

## **4. OVERVIEW OF ENVIRONMENTAL CONDITIONS OF THE WORLD BANK**

All projects funded by the WB are subject to security policy of the WB and procedures, especially OP/BP/GP 4.01 EA and documentation relating to the public consultations and requests of public publications that describe instruments and procedures for the elimination of negative economic, social and environmental issues that can occur. EA in the proposed project is a process whose width, depth and type of analysis depend on the nature, size and potential impacts on environment. It evaluates potential environmental risks and impacts of the project; studies alternatives of the project; identifies manners for the improvement of project selection, aspect, planning, design and implementation preventing, minimising, mitigating or compensating for negative impacts on environment; and improving positive impacts.

World Bank's policy on environmental and social measures of protection is a backbone of its support to sustainable poverty reduction. The objective of these measures of protection is to prevent and mitigate inappropriate damage to humans and their environment in the project elaboration process. These measures provide guidelines for the Bank and loan users in the identification, preparation and implementation of programmes and projects.

### **OP/BP 4.01 On environmental impact assessment**

The objective of this rule is to aid the assurance of ecological and social integrity and sustainability of investment projects, as well as to support the integration of environmental and social aspects of the project in the decision-making process.

Environment assessment (EA) evaluates potential surroundings risks of the project and impacts in its area of activity, tests alternatives of the project and identifies manners for the project selection improvement, session, planning, design, and implementation by prevention, minimisation, mitigation and compensation for adverse impacts on environment.

Proposed projects are classified based on the type, location, sensitivity, nature and reversibility of the impact on environment. World Bank's system classifies projects into one of 3 categories based on environmental selection, in the following way:

- *Category A* – irreversible impacts on environment are wide, diverse, act outside the construction site location, irreversible; any bigger relocation or change/degradation of natural habitats; hazardous materials.
- *Category B* – possible irreversible impacts are more limited, fewer, exclusively possible at the construction site mainly reversible, ready and reliable reduction of consequences by known methods
- *Category C* – probably no adverse impacts, or minimal and lightly reduced

Flood Emergency Response Project is categorised as a B category project.

### **OP/BP 4.04 On natural habitats**

The rules of the World Bank on natural habitats have the goal to promote an environment friendly development by supporting protection, preservation, maintenance and rehabilitation of natural habitats and their functions.

Natural habitats are land and water areas where ecosystems of biological communities are formed mainly of original plant and animal species, where human activity did not significantly change primary environmental functions of the area. All natural habitats have a significant biological, social, economic and the value of existence. Significant habitats can be in tropical wet, dry or cloudy forest;

The forest of moderate belt and boreal forest; Mediterranean bushy soil; natural dry and semi-dry soil; mangrove swamps; coastal swamps, and other wet areas; estuaries, settlements of sea

glass; coral reefs; freshwater lakes and rivers; alpine and sub alpine environment, including plant fields, meadows, paramo ecosystems and moderate tropical sward.

The Bank does not support projects that in their opinion involve significant changes or degradations of critical natural habitats. Appropriate measures of preservation and reduction of consequences must be defined for the project in case of impact on natural habitats, for this reason ecology experts will be involved during the entire process.

The rule in certain cases can be induced by the subproject activities because the works proposed in this project can have certain adverse impacts on rivers and possibly forests located along riverbeds and contribute a lot to the sustainability of critical ecosystem. Natural river ecosystems and forests used to support different degrees of complexity of flora and fauna. This rule can also be encouraged to mark that the project will create a positive environmental impact on natural habitats.

This rule will be applied to ESMF because interventions relating to the project include rehabilitation or reconstruction of local and regional roads, reconstruction of the embankment on riverbanks, and possible cleaning of soil are located in/next to protected areas, including Ramsar construction sites; provisions on regular maintenance and reduction of consequences will be necessary during the construction of works.

The Bank does not support projects that include a significant change in natural habitats. Given that the planned subprojects imply the repair, reconstruction or rehabilitation of the existing infrastructure, buildings and equipment, and that their implementation will not cause any occupation and permanent loss of new land and space, the implementation of subproject activities will not change and degrade natural habitats.

#### **OP 4.07 – Water resources management**

The involvement of the Bank in the water resources management gives an inalienable support to the provision of potable water, water supply and sewerage projects, floods control and water for productive activities in a way that is economically viable, ecologically sustainable and socially righteous.

The Bank supports projects for prevention of water accumulation and problems with salinity that accompany investments for irrigation in a way that it will (I) monitor water levels and implement drainage networks where necessary, and (II) adopt the best practice of water pollution control management.

It also supports projects by establishing strong legal and regulatory frameworks to ensure that social interests are met, that environment resources are protected, and monopolistic pricing is prevented. The Bank demands legislation or other appropriate arrangements to establish effective coordination and procedures for cross-border water resources.

#### **OP 7.50 – Projects on international waterways**

This policy applies to the following types of international waterways:

- Any river, lake, canal or similar water body that forms the border between two units;
- Any river or surface water body that flows through two or more countries;
- Any tributary or other surface water body that is a component of any waterway;
- Any creek, bay, gorge or canal connecting two or more countries. Or, if within one state, that is recognised as a necessary communication canal between the open sea and other states and any river that flows into such waters.

International Sava river basin commission uses as an open communication canal with all countries on which the project could have impact (Serbia and Croatia) and project team notified the representatives of these countries in line with Operative policy OP 7.50. Notification is effected independently of the environmental impact plan elaboration.

This policy applies to the following project types:

- Hydro-electricity, flood management, navigation, drainage,
- Water supply and sewerage, industrial and similar projects that involve the usage or potential pollution of international waterways and
- Detailed design and engineering studies of the projects under a) above.

The Bank demands that an international waterway is addressed as soon as possible from the international aspect of the project. If such a project was proposed, the Bank demands from the beneficiary to state, unless he did it before, to officially notify other coastal states of the proposed project and its project details. If the given loan user issues a statement to the Bank that he does not want to issues such notification, the Bank normally does it itself. If the loan user complains about such Bank's action, the Bank disrupts the processing of the project proposal.

*Table 8 Overview of World Bank's policy relating to the environment preservation*

Environment preservation policy	Description
<b>OP/BP 4.01</b> On environmental impact	Ensure environmental and social reflection and sustainability of investment projects, as well as ensure a support to the involvement of environmental and social aspects of projects into the decision-making process. Flood Emergency Response Project is considered a PUO – category B.
<b>OP/BP 4.04</b> On natural habitats	Promote an environment friendly sustainable development through assurance of the support to protection, preservation, maintenance and restoration of natural habitats and their function. The Bank supports and expects loan users to apply a cautious approach to the natural resources management in order to ensure possibilities for ecologically sustainable development.
<b>OP 4.07</b> On water resources management	Ensure a support to the provision of potable water, to water supply and sewerage projects, flood management, and water for productive activities in a way that is economically acceptable, ecologically sustainable and socially righteous.
<b>OP 7.50</b> On projects concerning international navigable waterways	Promote ecologically sustainable development through assurance of a support to protection, preservation and restoration of natural habitats and their functions. The Bank supports and expects loan users to apply a cautious approach to the natural resources management in order to ensure possibilities for ecologically sustainable development. Interventions within the Flood Emergency Response Project are located or are close to protected areas; adequate mitigation and preservation measures will be assured during the works.

#### **4.1. Differences between the legislation of WB and RS/BD**

Environment protection acts in the BD and RS provide a framework of projects for which environmental activities are implemented; it will generally be possible to harmonise them with WB requirements. A short report on comparison of requirements of BD/RS and WB for the planned project:

Table 9 Comparison of WB and RS/BD EA requirements

<b>Issues</b>	<b>RS/BD requirements</b>	<b>WB requirements</b>
<b>Screening</b>	Categorisation and screening are based on the list of installations and plants for which the required EP was acquired or through EIA or without EIA <sup>2</sup>	Screening is based on the type, location, sensitivity and size of the proposed project by identifying crucial issues including any problems with resettlement, domicile people and cultural ownership
<b>Significant impacts</b>	Cat I: Installations and plants that will be evaluated due to their impact on environment, which requires a full EIA. In that case, EIA is a prerequisite for acquiring EP. EIA must include the results of PEIA. The study must also incorporate comments and suggestions of governmental and nongovernmental organisations, as well as the results of public consultations.	Category A: Projects that are likely to have significant negative impacts on environment, which are sensitive (irreversible).
<b>Moderate impacts</b>	Cat II: MSPCEE / SPPLAD performs the screening of projects and decide whether EIA is necessary. By-laws define plants/installations that are subject to screening and screening criteria such as size, cumulative impact, natural resources usage, sensitivity, etc.  Cat III: Installations and plants that do not require a full EIA and for which EP is issued by MSPCEE/unit of local self-management in the RS and SPPLAD in the BD, based on application documents.	Cat B: Projects with impact on environment that is less negative than the ones from Cat A.
<b>Low or no impact</b>	Cat IV: All projects, plants and installations for which EMP was not envisaged nor EP is required in the applicable bylaws of RS/BD	Cat C: Projects with minimal or no negative impact.
<b>Other</b>	None	List of activities that are not eligible for WB funding.
<b>Consultations</b>	Relevant authorities are responsible for public consultations. Cat I: Public consultations must be held after the EIA draft submission. Public consultations are also necessary during the PEIA phase. Authorised ministry will decide whether other consultations are necessary, hence a loan user should	A loan user is requested to consult the project-affected groups and local NGO on environmental aspects of the project and to take their viewpoints into consideration. For Category A projects, a loan user consults these groups at least two times: (i) shortly after screening and before the terms of reference for

<sup>2</sup> Rulebook on projects for which environmental impact assessment is made and criteria for making a decision on a need to implement and scope of the environmental impact assessment (Republika Srpska Official Gazette, No. 124/12), Rulebook of plants that can be constructed and put into function only if they have environmental permit (Republika Srpska Official Gazette, No. 124/12): Rulebook of plants for which environmental impact assessment is obligatory and plants that can be constructed and put into function only if they have environmental permit (BiH Brčko District, Official Gazette, No. 30/06)

	<p>previously consult the ministry.                  Cat II: Depending on screening results, Cat II is re-categorised either as Cat I or Cat III, hence it will inherit the requirements of these categories.                  Cat III: For the projects that do not require EIA consultations are conducted once, during the EP issuance procedure.                  Cat IV: For the projects that do not require EP public consultations are not conducted                  Cross-border impact: In case of negative cross-border (including inter-entity border) impacts on environment, representatives and public of the entity/foreign state are entitled to participate in consultations.</p>	<p>EA is finalised; and (ii) after the EA report draft is prepared.                  For Category B projects at least once during the EA process.</p>
<p><b>Publication</b></p>	<p>Cat I and Cat II: For the projects for which EIA is necessary or could be necessary based on a decision of MSPCEE / SPPLAD, PEIA report (that is a result of the submitted PEIA request) is published before consultations (in this phase 30 days are given for comments). For all projects that require EIA, and those projects for which MSPCEE / SPPLAD decided that they need EIS (after PEIA), MSPCEE / SPPLAD sends a copy of the EIS to relevant authorities and other interested entities, 30 days are given for the reception of comments on the report.                  Cat III: For projects that do not require EIA, an EP (and relevant documents) issuance request must be available to the public, where 30 days are given for comments.                  Cat IV: For the projects that do not require EP they are not published</p>	<p>Cat A: A loan user provides a summary of proposed project objectives, description and potential impacts for the beginning of consultations. After an EA report draft is prepared, the loan user provides a summary of EA conclusions. The loan user makes the EA report draft available in a public place (in local language).                  Category B: separate reports of Category B must be available to local NGO and affected groups (local language).                  Publication process is complete only after the EA report is officially received by the WB.</p>

In the RS/BD E(I)A process is based on EP, which in turn is a request for other necessary permits (such as town planning consent in the FBIH or a construction permit in the RS). Steps necessary to acquire EP are contained in both the categorisation and screening. Screening of the activities/subprojects that will be implemented within the Flood Emergency Response Project implemented in tables 1 and 2, in relation to applicable by-laws in the RS and BD, established that the project falls under Cat. IV, i.e. **projects for which neither EMP nor EP are necessary**. In line with the legislation in the RS/BD no consultations, i.e. publication or public debate are conducted for these projects.

In line with security policies and procedures of the WB, relevant protection policy and procedures relating to the environment protection during the implementation of this project is OP/BP 4.01 Environment assessment, which requires the elaboration of an Environment Management Plan (EMP), for every subproject activity that will be implemented within this project.

In the continuation is given an overview of environment assessment for subprojects in priority sectors that are in line with the requirements of the WB and RS/BD

Table 10 Common contents of environmental impact assessment documents for the planned subprojects in the RS/BD

<b>Contents of the Environment Management Plan according to the WB</b>	<b>Contents in line with the RS/BD requirements</b>	<b>Common contents that corresponds to the requirements of the WB and RS/BD requirements</b>
1.Introduction 2.Project description 3.Description of environment and social milieu 4. Possible impacts on social milieu related to the proposed project activities 5. Environment management plan 4.1. Environmental impact prevention/mitigation measures plan (table) 4.2. Environment monitoring plan (table) 4.3. Environment management plan implementation responsibility 4.4. Capacity building and training	Subprojects fall into Cat. IV, i.e. in projects for which neither EMP nor EP are necessary.	1.Introduction 2.Project description 3.Description of environment and social milieu 4. Possible impacts on social milieu related to the proposed project activities 5. Environment management plan 4.1. Environmental impact prevention/mitigation measures plan (table) 4.2. Environment monitoring plan (table) 4.3. Environment management plan implementation responsibility 4.4. Capacity building and training

## **5. OVERVIEW OF IMPACTS OF THE PROJECT ON ENVIRONMENT**

Since the existing infrastructure, facilities and equipment will be rehabilitated, reconstructed, repaired and replaced during the realisation of the project, impacts on environment will be a consequence of human presence and construction machines, and the nature of construction works at a location, which are limited to the location of works or its surrounding vicinity.

### **5.1.1. Impacts in the project preparation phase**

No different negative impacts on natural environment are expected in operative phase, since the rehabilitation of the existing public infrastructure is planned. Moreover, impacts in operative phase are considered very positive because the objective of the project is to prevent risks to environment, humans and property from the flood-induced consequences.

Entire project is implemented in the territory of the Republika Srpska and Brčko District, in a way that new soil will not be occupied so that project will have no impact on neighbouring countries or other Entity.

### **5.1.2. Impacts in the project implementation phase**

#### **5.1.2.1. General impacts for all sectors**

Impacts on environment which will occur during the project implementation are a direct consequence of human presence and construction machines, as well as the execution of civil engineering, assembly, construction works at a location.

Pollutions that occur in the phase of reconstruction, rehabilitation, repair are temporary in their scope and limited in intensity although they can cause serious consequences in cases of individual breakdowns.

Elementary pollutions that can occur during the works execution:

#### **Pollution of soil and agricultural land**

- Physical damages to soil,
- Soil degradation,
- Emission of gases, dust, heavy metals from construction machines and transportation vehicles leads to the contamination of surrounding soil,
- Using land to dispose of waste, temporary construction sites and temporary roads,

#### **Water pollution**

- Filling/backfilling of riverbeds with construction material due to contractor's lack of care can cause bed silting up, water contamination, water level rise in the upstream part or even complete clogging of the bed with stone material with watercourse continuing underground movement.
- Discharging diverse waste products from construction site process and construction site complex (liquids, particles and solid waste) on banks or directly into river beds leads to water pollution and pollution spreading along the watercourse.
- Discharging used waters from the construction site (technological and hygienic) into watercourses, or into soil leads to hazardous pollutants and biological agents' diffusion.
- Excavations in the field can cause the cutting – opening of aquifers, i.e. disruption of groundwater (water cycle).

- Fine fractions can be washed away during the execution of construction works under influence of material falls from temporary landfills. This will make surface courses turbid. Material is washed away under the same conditions during transport.
- Waste material, mechanical oil, fuel etc. can be disseminated by malfunctioning construction machines and vehicles or negligent personnel.
- Location of heavy machines, temporary construction material depots near rivers or surface watercourses.

### **Air**

An increased concentration of polluting substances, primarily dust and exhaust gases from vehicles is expected as a consequence of construction works. Air quality deterioration will be caused by:

- exhaust gases from trucks and mechanisation that will be engaged in the works execution,
- suspended particles (dust) that will rise from the construction site, transport roads when trucks and mechanisation pass,
- suspended particles from temporary landfills of stone aggregates.

Dust, as a consequence of transport and execution of works (excavation, loading and unloading of material), exhaust gases emitted by construction machines and motor vehicles can cause a decrease in air quality in the zone of construction works during the works. Impact on air is expected in the area that is several hundred metres away from the location of works. However, a significant impact on local population is not expected, nor violation of law-allowed concentration of emissions into the air. Thus all impacts are closely related to the location of works, they are temporary with tendency to restore into original condition upon the termination of works.

### **Noise levels**

Noise and vibrations can occur as a consequence of:

- execution of works at the location,
- activity of construction workers and
- movement of vehicles and heavy construction mechanisation.

### **Flora and fauna**

- Emissions of pollutants from trucks and construction machines have negative impacts on vegetation around the construction site;
- Disturbance of wildlife and other animals due to increased noise and human presence.

### **Impacts on settlements and population**

- Uncontrolled positioning of the construction site near residential units can lead to disruption of communication roads:
- Deterioration of life quality during the construction works through increased noise, vibrations, dust.

### **Impacts on habitats and biodiversity**

Since reconstruction, rehabilitation, repair of the flood-damaged existing infrastructure, facilities and equipment are implemented, no new infrastructural capacities will be built, which could lead to the occupation of new land, loss of habitat, fragmentation of habitat and thereby a significant negative impact on biodiversity.

### **Impacts on cultural and historic heritage**

If cultural and historic values are located in the zone of works, they can be jeopardised with construction works.

If during the works the contractor finds archaeological sites or archaeological objects or natural goods of geological and paleontological or mineral-petrographic origin, which are assumed to have a capacity of natural monument, he is obliged to immediately disrupt works and notify the Republic Institution for Protection of Cultural and Historic Heritage of the Republika Srpska or the Department for Spatial Planning and Property and Legal Affairs of the Brčko District (if works are executed in the territory of the Brčko District) and take measures to prevent the finding from destruction and damages and to keep it in the position where it was discovered.

### **Impacts on climate**

The implementation of subject project will have no impact on climate.

#### **5.1.2.2. Specific impacts for some sectors**

Overview of specific impacts on environment during the project implementation in priority sector activities.

#### **Agriculture and rural development sector**

This sector is not expected to have specific impacts on environment different from the earlier mentioned impacts during the implementation of works.

#### **Energy sector**

Beside earlier mentioned impacts, energy sector could have the impacts during the works execution as follow.

- Generation of waste transformer oil, during the repair of damaged transformer stations. Waste transformer oil represents hazardous waste and must be treated in line with law-defined rules for hazardous waste treatment.
- A large quantity of metal and wooden waste can occur during the repair and reconstruction of damaged electro distribution poles; this waste can be used as secondary raw material.

#### **Transport sector**

Beside earlier mentioned impacts, transport sector could have the impacts during the works execution as follow.

- Production of larger quantity of construction waste.
- Impacts on ichthyofauna during the works on bridges.
- Possibility of hazardous waste generation in material that is deposited by floods and that will be removed.
- Rehabilitation or reconstruction of local and regional roads requires intensive presence of mechanisation and lots of workers, which will lead to an increased production of communal waste at the location of works, as well as the production of waste sanitary waters.

## **Sector of water supply and sewerage**

Beside earlier mentioned impacts, water supply and sewerage sector could have the impacts during the works execution as follow.

- It is possible that asbestos-cement pipes are damaged during the replacement of damaged water supply and sewerage pipes and as such represent hazardous material that requires a special manner of treatment.
- The repair of sewerage network can cause an uncontrolled spilling of waste sanitary waters into the surrounding soil, surface or underground waters.

### **5.1.3. Impacts in the phase of exploitation**

The implementation of this project will have many positive effects in environment.

Among principal external effects, the following should be mentioned:

- Repaired damages on infrastructure and facilities and the normalisation of life in flood-affected areas;
- Medical effects due to water pollution decrease;
- Averted traffic disruptions (better traffic passability contributes to a lower emission of polluters into the air);
- Recreational benefits;
- Tourism development;
- Environment protection (removed different waste borne by the floods, improved system of waste sanitary water collection, prevention of further degradation and contamination of soil);
- Averted risk of human life loss.

### **5.1.4. Social impact of the project assessment**

The repair of flood-damaged infrastructure and facilities will bring economic, social, health and ecological benefits, to population and local community in this area. Experiences of similar projects show that the project will have many positive effects on society through the creation of conditions for population's standard growth in almost all segments (education, health protection, additional employment).

#### **Additional employment**

In case of unemployment and poverty in the project area, manpower resources will not be reduced. If some of the unemployed are employed or if employment has impact on unemployment, the project creates social benefits due to decreased social support or aid to the unemployed. That is the case in the flood emergency response project. The following social benefits will be generated through additional employment:

- Increase in the number of work positions during the investment implementation (temporary effect);
- Increase in the number of work positions due to needs for maintenance activities;
- New work positions as a consequence of economic development enabled by the investment implementation.

#### **Decrease in developmental differences between regions**

Project's impact on the decrease in developmental differences between regions mostly ensues from the enlargement of access to technical infrastructure. Tasks completed within the project have positive impacts on the increase in investments in the entire region. Two aspects which are crucial to a decrease in development degree between regions:

- Repair of infrastructure is a basic element of development in the region and inhabitants consider it a prerequisite. The lack of infrastructure leads toward degradation in the region and movement of people into developed areas;
- Second element in the decrease in developmental differences between regions is related to a close connection between the repair of infrastructure and adequate protection from floods. The project facilitates business development in the field of trade and services. Floods caused great damage, which represents a major obstacle to the development of these areas. This discourages potential investors to undertake developmental activities in the areas without basic infrastructure.

#### **Other social effects**

The most significant social effect of the project implementation is the normalisation of life in the flood-affected areas. This effect reflects through:

- Establishment of a normal process of education in flood-affected areas;
- Quality health protection of population;
- Increased possibility of movement and communication of population;
- Increased feeling of safety in population
- Averted losses in business due to uninterrupted production/services;
- Recreational benefits;
- Tourism development,
- Avoided costs of private protection and effects of economic development were not evaluated.

Potential size of these effects could be the same as the value of avoided damages.

## **6. ECOLOGICAL AND SOCIAL CHECK-UP FORM**

### **6.1. Introduction**

Main purpose of the FERP Screening Checklist is to provide a simple tool for identification of potential environmental impacts related to reconstruction of existing infrastructure that was damaged due to the recent floods. It will also help to simplify decision-making process on whether a detailed EMP needs to be developed for a project or not.

The term reconstruction is understood to cover rebuilding of infrastructure after being damaged or destroyed to a previous state without change in its original purpose or increase of capacities.

The FERP screening checklist provides a set of associated environmental mitigation measures as well as monitoring measures that will help assess the implementation of the selected mitigation measures.

The screening checklist is to be use for all smaller reconstruction subprojects on reconstruction or roads, railways and buildings where identified issues will not case significant effects on environment. For all other large reconstruction subprojects, specific EMPs will be developed.

The design and concept of the FERP Screening Checklist allow for it to be used either by specialists or non-specialists dealing with infrastructure reconstruction. The checklist-type format has been developed to provide “example good practices” and designed to be user friendly and compatible with the World Bank safeguard requirements.

### **6.2. Description of the Screening Checklist**

The checklist-type format attempts to cover typical core mitigation approaches to civil and other reconstruction works with small, localized impacts on environment and human health. It is accepted that this format provides the key elements of an Environmental Management Plan (EMP) or Environmental Management Framework (EMF) to meet World Bank Environmental Assessment requirements under OP 4.01. The intention of this checklist is that it would be applicable as guidelines for the rehabilitation works contractors and constitute an integral part of bidding documents and contracts for contractors carrying out said works under Bank-financed infrastructure rehabilitation subprojects.

It consists of two major sections:

1. Administrative and institutional data: includes a descriptive part that characterizes the project, including administrative and institutional data and short description of project’s technical content and location of works execution. This section could be up to two pages long. Attachments for additional information can be supplemented when needed.
2. Project exclusion criteria: includes set of four question that should help the evaluator to understood whether this project is suitable for financing under this financing scheme.
3. Environmental screening: includes set of question about possible environmental impact of a project where identified environmental issues can be checked in a simple Yes/No format. If any given issue is triggered by checking “yes”, the corresponding mitigation and monitoring measures are to be implemented.
4. Summary of features of project and of its location indicating the need for specific EMP development: includes a descriptive part that summarizes important conclusions about the identified environmental impacts, conclusion about

possibility to mitigate impacts with available measures and indicating the need to develop a more specific EMP for a specific subproject.

5. Recording of decision: includes several options related to the final decision on a specific subproject.

### **6.3. Directions for use and application of results**

The Administrative and Institutional Data section of the FERP Screening Checklist requires knowledge about basic general and technical information on sub-projects. Where asked, the boxes should be checked and values filled in. Supplemental information can be attached to the document.

The Environmental Screening section should be completed in four steps:

Step 1 – user should identify present or potential impacts of the project on environment among those listed in the column *Possible Environmental Impacts*. The appropriate Yes/No boxes adjacent to each impact identified should be checked.

Step 2 – for each impact identified, appropriate mitigation measures are listed in the column *Mitigation Measures*. One environmental impact can trigger one or several of the mitigation measures stated in the table. An attempt is to be made to implement all mitigation measures proposed. Following completion of monitoring activities, those measures that are actually implemented should be circled.

Step 3 – the monitoring parameters appropriate to mitigation measures among are listed in the column *Monitoring parameters*. The proposed monitoring parameters will be checked accordingly, as suitable. Decision on which of the monitoring parameters is optimal to monitor is based on the possibility of occurrence of the impact and its severity, cost of monitoring, etc. Following completion of monitoring activities, those parameters that are actually monitored should be circled.

- Step 4 –the Bodies (Proponent, Design Engineer, Contractor, etc.) listed in the column *Responsible body* are identified as responsible for implementing mitigation measure and/or conduct the monitoring. They should be notified of their obligations.

## 6.4. Checklist questionnaire

CHECKLIST QUESTIONNAIRE (to be filled in for every subproject separately)				
Administrative and institutional data				
1.	Sub-project name	<i>(Name of rehabilitation sub-project)</i>		
2.	Sub-Project location	<i>(Municipality / City, RS/BD)</i>		
3.	Proximity to nearest settlement (houses)			
4.	Proximity to nearest river/lake			
5.	Institutional Arrangements (names and contacts)	<u>WB (Task team leader)</u>	<u>Project Management (PIU)</u>	<u>Local Counterpart or Recipient</u>
6.	Implementation arrangements (names and contacts)	<u>Safeguard Supervision</u>	<u>PIU Supervision</u>	<u>Contractor</u>
7.	Project description <i>(Describe main project features and location of work execution)</i>			
Project exclusion criteria				
	Issue	Yes/No		Comment
8.	Is the project found of the FERP exclusion list (see the Attachment A)	Yes [ ] No [ ]		[ ] If yes, the project is not eligible for financing. Identify another project.
9.	Is the project found on the list of projects that must undergo environmental assessment based on national legislation (see Attachment B)	Yes [ ] No [ ]		[ ] If yes, the project is not eligible for financing. Identify another project.
10.	Will the project implementation result in the resettlement of population or permanent land occupation	Yes [ ] No [ ]		[ ] If yes, the project is not eligible for financing. Identify another project.
11.	Will the project involve actions which will cause new physical changes in the locality (topography, land use, waterbodies, etc.) compared to the state before reconstruction?	Yes [ ] No [ ]		[ ] Go back to original design and avoid any physical changes in the locality [ ] Develop a site specific EMP [ ] Exclude the project and identify another site
12.	Will the project result in increased use of natural resources such as land, water, materials or energy compared to the state before reconstruction?	Yes [ ] No [ ]		[ ] Go back to original design and avoid increase in natural resources use [ ] Develop a site specific EMP [ ] Exclude the project and identify another site
13.	Is the project satisfying general reconstruction requirements?	All legally required permits for reconstruction from local authorities are acquired. Yes [ ] No [ ] Water acts from responsible authorities are obtained. Yes [ ] No [ ] Reconstruction materials are		[ ] Temporary stop the project until required permits and water acts are obtained [ ] Ensure that Contractor is contractually obliged to purchase material from licensed companies [ ] It is not possible to fulfill all

		purchased from licensed sources/companies only? Yes [ ] No [ ]	general reconstruction requirements. Identify another site.
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Environmental screening					
	Possible environmental impacts	Yes/No?	Mitigation measures (circle those implemented upon completion of monitoring)	Monitoring parameters	Responsible Body
14.	Will project activities be implemented in protected areas or they will affect protected endemic plant-, fungi- or animal species or their habitats ?	[ ] Yes [ ] No	(a) A special EMP prepared to include all measures and best environment protection practice. (b) All necessary local permits are acquired. (c) The activity is in accordance with the management regime for the observed location (d) No endemic or protected species will be used.	(a) Visual inspection on site (b) Construction diary (c) Public complaints	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU
15.	Will project activities be implemented at/near archaeological or cultural sights?	[ ] Yes [ ] No	(a) Project will cause no harm to any such sight. (b) Special attention will be paid to the protection of such sights, or they will be incorporated into the EMP for construction works. (c) The project is implemented in cooperation with a person authorised for cultural/archaeological findings and in accordance with regulations	(a) Visual inspection on site (b) Construction diary (c) Public complaints	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU
16.	Are there any areas on or around the location which are important or sensitive for reasons of their ecology, e.g. wetlands, watercourses or other water bodies, mountains, forests or woodland, which could be affected by the project?	[ ] Yes [ ] No	(a) All recognized areas in the immediate vicinity of the activity will not be damaged or exploited (b) Staff will be strictly prohibited from foraging, logging or other damaging activities. (c) A survey and an inventory shall be made of large trees in the vicinity of the construction activity, large trees shall be marked and cordoned off with fencing, their root system protected, and any damage to the trees avoided (d) Adjacent wetlands and streams shall be protected from construction site run-off with appropriate erosion and sediment control feature to include by not limited to hay bales and silt fences (e) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas.	(a) Visual inspection on site (b) Construction diary (c) Public complaints	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU

Environmental screening					
	Possible environmental impacts	Yes/No?	Mitigation measures (circle those implemented upon completion of monitoring)	Monitoring parameters	Responsible Body
17.	Are there any areas on or around the location which are used by protected important or sensitive species of fauna or flora, e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) All recognized areas will be completely avoided (b) Staff will be strictly prohibited from hunting, foraging or other damaging activities.	(a) Visual inspection on site (b) Construction diary (c) Public complaints	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU
18.	Will the project lead to risk of contamination of land or water from releases of pollutants onto the ground or in surface/ground waters during construction and operation?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Set up sediment traps along rivers and/or gabions along banks to filter out eroded sediments (b) Provide slope protection through bank compaction, rip-rapping on critical sections, or vegetative stabilization (c) Designate a Spoils Storage Area, with topsoil set aside for later use and allow maximum re-use of spoils (d) Use material for restoration of degraded areas (e) Provide oil & grease traps in stilling ponds (f) Provide ring canals around fuelling tanks/motor pool/maintenance areas (g) Collect used oils in containers and hand over to authorized agency for handling (h) Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface water bodies. (i) The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities (j) Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment	(a) Complaints received (b) Visually for presence of turbidity in surface water (c) Analyze surface water quality in case of complaints (for pH, turbidity, conductivity and suspended solids and total mineral oils) (d) If groundwater is used for drinking water supply, analyze tap water for drinking water quality parameters as prescribed in national legislation (e) Appropriate approvals by the local authorities	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU

Environmental screening					
	Possible environmental impacts	Yes/No?	Mitigation measures (circle those implemented upon completion of monitoring)	Monitoring parameters	Responsible Body
19.	Will the project involve actions such as construction/demolition activities, use of machinery and/or transport vehicles, etc. that might release pollutants to air during construction or operation (e.g. exhaust fumes, dust, fire smoke, odors)?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Regular equipment maintenance (b) Contractor to present proof of compliance with emission standards as part of the annual vehicle registration process (c) Compact spoils storage piles (d) Wet areas of dust sources to minimize discomfort to nearby residents (e) Control of vehicle speed to lessen suspension of road dust (f) Keep the surrounding environment (sidewalks, roads) free of debris to minimize dust (g) During interior demolition debris-chutes shall be used above the first floor (h) No open fire at the site (i) Ensure no pollutants are released originating from building heating system (j) Increase energy performance of buildings	(a) Presence of black smoke from construction vehicles (b) Attestation documentation (c) Visual inspection of dust presence (d) Public complaints received	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU
20.	Will the project cause excess noise generation during construction?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Schedule equipment movement during non-peak hours of daytime vehicular traffic (b) Avoid night-time construction activities and abide by local laws on construction hours (c) Provide housing for gensets, if near residences (d) Provide silencers/mufflers for heavy equipment	(a) Public complaints received (b) Measure a noise level in case of complaints	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU

Environmental screening					
	Possible environmental impacts	Yes/No?	Mitigation measures (circle those implemented upon completion of monitoring)	Monitoring parameters	Responsible Body
21.	Will the project produce solid waste during construction and/or demolition and operation?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos) (b) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities. (c) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. (d) Construction waste will be collected and disposed properly by licensed collectors (e) No open burning of wastes on or off site (f) The approach to handling solid wastes from building sites must be approved by the local authorities	(a) Visual inspection of separate waste management piles (b) Written receipts of all separate waste streams handled by the designated authorities (c) Visual inspection of burn marks on site (d) Construction diary (e) Appropriate approvals by the local authorities	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU
22.	Will the project involve use of substances or materials which could be harmful to human health or the environment or raise concern about actual or perceived risks to human health?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Use renewable construction materials (e.g. use of ECO cement, wood fiber insulation boards, wooden floors and windows, etc.) if economically feasible. (b) Use low VOC paints and varnishes. (c) Do not use asbestos containing materials in construction.	(a) Construction diary (b) Visual inspection on site	(a) Contractor for execution of civil works (b) Supervising engineer on behalf of PIU

Environmental screening					
	Possible environmental impacts	Yes/No?	Mitigation measures (circle those implemented upon completion of monitoring)	Monitoring parameters	Responsible Body
23.	Will there be any risk of accidents during construction which could affect human health?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Notify the local construction and environment inspectorates of upcoming activities. (b) Notify the public of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works). (c) Formally agree with the Contractor that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. (d) Formally agree with the Contractor that workers health and safety requirements will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots). (e) Appropriate signposting of the sites will inform workers of key rules and regulations to follow and emergency contact numbers. (f) Provide on-site medical services and supplies for any emergency, through institutional and administrative arrangements with the local health unit. (g) Provide portable water & sanitary facilities for construction workers.	(a) Keep written proof of notifications, local permits, and/or media announcement clippings (b) Supervisor to ensure use of PPE (c) Supervisor to visually inspect adequate signage	(a) Site supervisor (b) PIU (c) Contractor for execution of civil works
24.	Are there any (transport) routes on or around the location which are used by public which could be negatively affected by the project?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Schedule vehicle movement during lean daytime traffic hours or at night. (b) Provide traffic aides/flagmen, traffic signs to help ensure the free and safe flow of traffic. (c) Maintain & Repair temporary alternative route of vehicles & pedestrians.	(a) Presence of traffic signs (b) Public complaints received (c) Occurrence of traffic jams	(a) Contractor for execution of civil works
25.	Are there any facilities on or around the location which are used by public which could be negatively affected by the project (e.g. difficult public access)?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Designate an alternate route for pedestrian and/or vehicles in coordination with the Municipal Authorities or provide safe passageway through the construction site.	(a) Public complaints received	(a) Contractor for execution of civil works

Environmental screening					
	Possible environmental impacts	Yes/No?	Mitigation measures (circle those implemented upon completion of monitoring)	Monitoring parameters	Responsible Body
26.	Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facility, agriculture, forestry, tourism, mining or quarrying which could be negatively affected by the project?	<input type="checkbox"/> Yes <input type="checkbox"/> No	(a) Address the issue of expropriation/ economic loss using appropriate resettlement instruments in accordance with the O.P. 4.12 Involuntarily Resettlement and national legislation.	(a) Public complaints received	(a) PIU
Summary of features of project and of its location indicating the need for specific EMP development					
Decision:					
<p><b>The following subprojects is:</b></p> <input type="checkbox"/> Approved without additional requirements. <input type="checkbox"/> Approved with use of readymade EMP. <input type="checkbox"/> Approved with requirement to produce specific EMP for this subproject. <input type="checkbox"/> Not approved.					
<p><b>Name of the evaluator:</b></p> <p><b>Date:</b></p> <p><b>Place:</b></p> <p><b>Signature:</b></p>					

## **7. ENVIRONMENT MANAGEMENT PLAN**

### **7.1. ENVIRONMENTAL IMPACT MITIGATION PLAN**

Environment management plan was prepared based on the results of the environmental impact assessment and includes measures to reduce possible negative impacts during the project implementation, that will be applied during the project implementation, including cost assessment and responsibility for their implementation. Mitigation measures were categorised as:

- Mitigation measures in the planning phase prior to construction;
- Mitigation measures in the project implementation phase;
- Mitigation measures in the works completion phase.

Mitigation measures in the phase prior to construction refer to the acquiring of all relevant permits.

Mitigation measures in the subproject activities implementation phase mainly refer to the implementation of good construction practices in order to avoid negative impacts on water and soil quality and noise level, air quality. The contractor is responsible for their implementation. They must be included into the contract with the contract together with the Environment Monitoring Plan.

Mitigation measures in the phase of exploitation refer to the mitigation of negative impacts that can occur as a consequence of inadequate usage and maintenance of repaired facilities.

Monitoring costs for these measures should be included into construction costs although they usually include measures of good management and do not require significant financial funds. The client and appointed supervising body will monitor the implementation of the Environment Monitoring Plan (EMP) and Environment Condition Monitoring Plan.

Mitigation measures in the works completion phase refer to the removal of all types of waste and restoration of the field where the works were executed.

Table 11 Environment management plan za Flood Emergency Response Project in the Republika Srpska and Brčko District

Phase	Problem/activity impact	Mitigation measures	Costs		Institutional responsibility		Comment
			Planning	implementation	Planning	implementation	
Planning/ Designing	Assure compliance with relevant construction field legislation	Acquire construction permit Provide Water management guidelines if subprojects are executed near surface watercourses,	n/a	n/a	Project applicant	Project applicant	
Planning/ Designing	Potential damages to the existing infrastructure and facilities, especially underground installations (water supply and sewerage pipeline etc.) which cause obstacles in the provision of services to consumers.	Precisely situate the position of infrastructural facilities and underground installations at the location of works in cooperation with relevant institutions at all levels of authority.	n/a	n/a	Designer	Project applicant in cooperation with designers and representatives of relevant institutions of local authority.	
Planning/ Designing	Increased possibility of employment and gaining income in the local community.	Prioritise qualified local population in employment.	n/a	n/a	Project applicant	Contractor	Problems should be regulated through tender documentation.
Rehabilitation/ Reconstruction/ Repair	Supply of material	Use the existing quarries, asphalt and concrete bases for the supply of material Use licenced suppliers for other materials	n/a	n/a	Contractor	Contractor	Borrow pits from which materials of asphalt and concrete base are supplied must have valid environmental permits.
Rehabilitation/ Reconstruction/ Repair	Transport of material.	Using trucks with awning and special vehicles depending on the type of material.	n/a	n/a	Contractor	Contractor	When transporting material, drivers must observe speed limitations
Rehabilitation/ Reconstruction/ Repair	Violation of vegetation cover	Replant or re-seed vegetation. Apply measures of good construction practice	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.

Phase	Problem/activity impact	Mitigation measures	Costs		Institutional responsibility		Comment
			Planning	implementation	Planning	implementation	
Rehabilitation/ Reconstruction/ Repair	Emissions of dust from the landfill of earth material, due to vehicles' movement on macadam roads and construction works execution.	Compact deposited earth material. Sprinkle dust sources with water in order to reduce impacts on the surrounding population and vegetation. Control the speed of vehicles in order to reduce dust rising. Prepare and implement a Plan for construction site organisation that includes good construction practices.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Emission of gases and particles from vehicles, mechanisation and generators.	Regular equipment maintenance. The contractor is obliged to submit evidence of vehicle roadworthiness in line with the regulations on hazardous gases emission. Prepare and implement the Construction Site Organisation Plan that incorporates good construction practice measures.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Noise in the operation of heavy mechanisation and generators.	Observe law-defined working hours at the construction site. Make the generator casings sound proof if they are located near residential units. Ensure mufflers for heavy machinery. Prepare and implement the Construction Site Organisation Plan that incorporates good construction practice measures.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.

Phase	Problem/activity impact	Mitigation measures	Costs		Institutional responsibility		Comment
			Planning	implementation	Planning	implementation	
Rehabilitation/ Reconstruction/ Repair	Increased water turbidity as a consequence of the works.	Construction works should be executed in a way that surfaces and natural contents outside the project are not damaged and that works are performed so that watercourses are not unnecessarily made turbid and watercourses discontinued. Works should be executed in dry weather. Prepare and implement a Construction Site Organisation	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Soil, groundwater and surface water pollution, with oils and lubricants due to equipment poor maintenance and repairs and refuelling at the construction site.	Avoid servicing and refuelling at the site. Use protective foils during possible vehicle refuelling and maintenance at the construction site. Provide absorbing material in case of fuel spills. Used oiled materials and agents should be managed in line with the Waste management report. Procedure for actions in case of incidental oil and lubrication spills. Prepare and implement the Construction Site Organisation Plan that incorporates good construction practice measures, measures from water management documents and measures from the Waste management report.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.

Phase	Problem/activity impact	Mitigation measures	Costs		Institutional responsibility		Comment
			Planning	implementation	Planning	implementation	
Rehabilitation/ Reconstruction/ Repair	Water and soil pollution due to inadequate disposal of communal, inert and hazardous waste.	Typical containers for solid communal waste are placed at the construction site locations; Acceptance of collected communal waste and its disposal by authorised institutions; Hazardous waste fractions (used waste oils, oiled packaging, bitumen agents waste, waste transformer oils, waste asbestos-cement pipes etc.) are separately collected into typical containers or metal barrels; they are to be consigned to entities authorised for hazardous waste management; Re-usage and recycle of waste whenever possible. It is prohibited to incinerate waste in the open and at the location. Actions in line with the waste management report.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Reconstruction of damaged bridges	Avoid driving on the riverbank or river; Ensure riverbed and bank in the zone of bridges, upstream and downstream from bridges, as to ensure their protection from erosion processes.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.

Phase	Problem/activity impact	Mitigation measures	Costs		Institutional responsibility		Comment
			Planning	implementation	Planning	implementation	
Rehabilitation/ Reconstruction/ Repair	Reduced passability through the area where the works are executed.	Plan the relocation of equipment at times when daily traffic is not jammed; Provide alternative passage for pedestrians and vehicles in cooperation with local authorities or provide a safe passage through the construction site; Avoid roads through inhabited areas especially near schools and hospitals; Prepare and implement the Construction Site Organisation Plan that incorporates good construction practice measures.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Potential pollution of soil and water due to the discharge of waste sanitary waters from the construction site	Installation of ecological toilettes for workers	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Population at increased risks of traffic accidents and construction works to population.	Assure adequate warning signs, lighting, protective fencing etc. Observe traffic rules. Clean construction waste from the construction site both in the construction phase and after works completion, when closing the construction site. Assure medical supplies and aid through institutional and administrative arrangements with municipal hospitals at the construction site Implement the Construction Site Organisation Plan.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.

Phase	Problem/activity impact	Mitigation measures	Costs		Institutional responsibility		Comment
			Planning	implementation	Planning	implementation	
Rehabilitation/ Reconstruction/ Repair	Risk of injuries at work.	Demand from all workers to abide by the Protection at work measures; Provide protective equipment; Install warning signs at the construction site; Prepare and implement the Construction Site Organisation Plan and Protection at work measures plan.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	"Chance findings" of cultural and historic heritage, unexploded material and similar	Notify the relevant bodies and Republic Institution for the Protection of Cultural and Historic Heritage of the Republika Srpska and Brčko District and take all measures in order to prevent damages to the found objects until the arrival of the authorised person.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.
Construction site closure	Construction material leftovers of after the closure of temporary construction sites	All shivers and material that remain after the closure of temporary construction sites are to be removed from the location and re-used/recycled where possible. All remains are to be disposed of in a manner that will not be harmful to environment; this is to be done by companies that have permits to perform such works.	n/a	n/a	Contractor	Contractor	Problems should be regulated through the Works execution contract.

Phase	Problem/activity impact	Mitigation measures	Costs		Institutional responsibility		Comment
			Planning	implementation	Planning	implementation	
Operative phase	Maintain repaired roads, bridges, water supply and sewerage systems etc.	Implement measures of good construction site practice Properly treat construction, communal waste Install adequate notification signs during the execution of maintenance works Disable control of access to unauthorised persons Use eco paints for metal structures Prevent the occurrence of weed	n/a	n/a	Local unit, Local utility companies, RJ Elektro prenos PC Roads of Srpska	Contractor	

*n/a – not applicable*

## 7.2. Environment condition monitoring plan

Table 12 Environment condition monitoring plan for the Flood Emergency Response Project in the Republika Srpska and Brčko District

Phases	Monitoring parameter	Monitoring location	Monitoring manner / monitoring equipment	Monitoring time – measurement frequency or permanently	Why is monitoring necessary	Costs		Responsibility	
						Planning	Implement.	Planning	Implement.
Supply of material	Possession of environmental permits for plants of quarries, asphalt and concrete bases from which material is supplied	Legal entities that own the plants	Insight into the documentation	During material supply	Assure that the plant conforms to the requirements of environment protection, health protection and human safety		Incorporated into the supervision implementation costs	Supervising body	Supervising body
Transport of material	If trucks are covered during powdered material transport	At the construction site and transport roads	Visual supervision	During material transport	See that no dust is emitted into the air and material spilled into environment		Incorporated into the supervision implementation costs	Supervising body	Supervising body
Rehabilitation/ Reconstruction/ Repair	Degradation and soil pollution	At the construction site and directly around the construction site	Visual supervision	Weekly	To establish if liquid oil derivatives leaked, soil erosion and landslide occurred due to construction works		Incorporated into the supervision implementation costs	Supervising body	Supervising body
Rehabilitation/ Reconstruction/ Repair	Does the construction site meet the criteria from the guidelines for good construction practice	At the construction site	Visual supervision, insight into the documentation.	During the works execution	To assure environment protection and prevent the occurrence of incident situations at the construction site.		Incorporated into the supervision implementation costs	Supervising body	Supervising body

Phases	Monitoring parameter	Monitoring location	Monitoring manner / monitoring equipment	Monitoring time – measurement frequency or permanently	Why is monitoring necessary	Costs		Responsibility	
						Planning	Implement.	Planning	Implement.
Rehabilitation/ Reconstruction/ Repair	Occurrence of noise and air pollution	At the works execution location	Standard air quality and noise level measurement equipment.	Upon received citizens' complaints	In order to establish the level of air pollution and noise and make comparison with legal limit values. In case of aberration additional mitigation measures.		1100 KM/ per measurement spot	Contractor	Company that has licence to perform environment monitoring works
Rehabilitation/ Reconstruction/ Repair	Destruction of crops, woods, meadows etc.	At the works execution location and in the vicinity	Visually	Upon received citizens' complaints	In order to establish that works are only executed at project-envisaged locations		Incorporated into the supervision implementation costs	Supervising body	Supervising body
Rehabilitation/ Reconstruction/ Repair	Working hours control.	At the works execution location	Visually and comparison with the construction site organisation plan.	Upon received citizens' complaints	In order to establish that working hours and noise emission limitations are observed during daily working hours.			Supervising body	Supervising body
Rehabilitation/ Reconstruction/ Repair	Waste management during the works execution	At the construction site	Visually and by comparison with the waste management report.	Permanently	Are containers/bins for communal waste installed, is hazardous waste treated in adequate manners, in order to prevent uncontrolled waste disposal		Incorporated into the supervision implementation costs	Contractor	Supervising body

Phases	Monitoring parameter	Monitoring location	Monitoring manner / monitoring equipment	Monitoring time – measurement frequency or permanently	Why is monitoring necessary	Costs		Responsibility	
						Planning	Implement.	Planning	Implement.
Rehabilitation/ Reconstruction/ Repair	Number of registered accidents Existence of hygienic conditions for workers, Protective equipment application	At the construction site	Visually and insight into the register	Permanently during the works execution	In order to establish that protection at work measures are implemented.		Incorporated into the supervision implementation costs	Contractor	Supervising body
Rehabilitation/ Reconstruction/ Repair	Impact on population due to the limitation of business activity and right to use land	Local community	Insight into the register	Upon received citizens' complaints	In order to timely prevent impact		Incorporated into the supervision implementation costs	Project applicant	Project applicant
Rehabilitation/ Reconstruction/ Repair	Quality of executed works Quality of material that is installed	At the construction site	Visual monitoring and through register	Permanently during the works execution and construction site removal	Poor monitoring and works execution quality assessment can cause damages to environment, bad quality structures and usage of poor quality material, can result in damages to structures and expose inhabitants to risks and possible accidents		Incorporated into the supervision implementation costs	Contractor	Supervising body
Construction site closure	Waste remnants and soil degradation	At the project location	Visually	After the works completion	In order to establish whether all waste was removed from the construction site whether field was restored		Incorporated into the supervision implementation costs	Contractor	Supervising body

Phases	Monitoring parameter	Monitoring location	Monitoring manner / monitoring equipment	Monitoring time – measurement frequency or permanently	Why is monitoring necessary	Costs		Responsibility	
						Planning	Implement.	Planning	Implement.
Operative phase	Does the construction site meet the criteria from the guidelines of good construction practice Is there control of access and traffic management plan	At the location where facility maintenance works are executed	Visually	During the maintenance works execution	In order to assure protection of environment and prevent occurrence of incident situations at the construction site		Plan into the maintenance costs budget	Facility owner	Appointed expert

### **7.3. Responsibility for implementation**

The Contractor should appoint a person responsible for environment protection (B.Sc. environmental engineering) with adequate experience to be responsible for the implementation of all demands of environment protection and the Environment Monitoring Plan implementation.

The person responsible for environment protection, independently of other responsibilities, has precisely defined tasks, responsibilities and authorisations to:

- assure that works are executed in line with good construction practice,
- assure that waste is adequately managed at the construction site,
- communicate with supervising body with regard to issues of environment protection,
- communicate with local community with regard to issues of environment protection.

Elected supervising body controls the activities that are taken in line with the environment management plan.

### **7.4. Capacities building and need for training**

No special training will be required for the Environment Monitoring Plan implementation.

With the aim of achieving as good environment protection as possible, the Contractor should enhance the proficiency of all employees through training and mobilisation of all persons involved in the project.

All employees at the construction site should be familiarised with:

- guidelines for the implementation of good construction practice,
- Environment Monitoring Plan requirements,
- their tasks and responsibilities for achievement of the conformity with Environment Monitoring Plan requirements,
- possible consequences in the case of aberration from established procedures.

Supervising body that supervises the works execution should have adequate qualifications, i.e. to have a diploma of a civil engineer with at least 5 years of experience in the supervising body activities execution.

## **8. RESETTLEMENT POLICY FRAMEWORK (RPF)**

### **8.1. Introduction**

Flood Emergency Response Project in the Republika Srpska and Brčko District BiH involves the rehabilitation of crucial public infrastructure for public services provision in the most affected areas in the Republika Srpska and Brčko District BiH, notably reconstruction and rehabilitation of local and regional roads, water supply network and protective embankments.

A need to temporary occupy land located next to the project zone can occur during the implementation of these projects, meaning need to partially or fully dispossess owners of their immovable property, i.e. to establish easement of such immovable property.

This procedure is connected with a multitude of different circumstances of social, legal, socio-economic and cultural character; it is regulated by many different regulations and rules issued by several institutions in Bosnia and Herzegovina, i.e. in the Republika Srpska and Brčko District.

Besides, when it comes to the right to property, it is necessary to point out that this is one of basic human rights that is protected by both domestic legislation (constitution and laws), and international conventions and standards for the protection of human rights. Apart from that with the aim of as quality protection of ownership right and owners as possible, certain rights were established by special institutions; this especially refers to directives, standards and requirements of the World Bank.

It is a fact that in the situations when general (public) interest exists, when law-prescribed requirements are met, the right to ownership, i.e. property can be limited or completely disposed in the prescribed procedure. In this case, however, the Republika Srpska i.e. BiH Brčko District as well as the parties in whose favour dispossession is effected are obliged to provide adequate compensation for that property, and to protect the person whose property was dispossessed in other adequate manners, i.e. to keep this person's achieved life standard and generally their life, social, economic, social, cultural and similar circumstances.

### **8.2. LEGAL AND POLITICAL FRAMEWORK**

#### **8.2.1. World Bank's requirements – Operational Policies OP 4.12**

Specific requirements of the World Bank relating to resettlement are contained in Operational Policies OP 4.12 which relate to involuntary (forcible) resettlement.

The most significant issues to resettlement policy are the ones that refer to insurance and settlement of the compensation for dispossessed property and aid to persons whose property is dispossessed and who relocate, through the implementation of measures in dispossession procedure during and after resettlement. With this regard, a special position and care are given to vulnerable groups of populace.

Protective policy of the World Bank on social aspects - OP 4.12 involuntary resettlement is based on the following principles:

- Involuntary resettlement should be avoided wherever possible or reduce it to minimum;
- Where it is not possible to avoid resettlement, resettlement activities should be organised and implemented through a sustainable development programme, with the provision of sufficient financial funds and division of project benefits to relocated persons.

- Relocated persons should be consulted in detail and given an opportunity to participate in the planning and implementation of the resettlement programme.
- Relocated persons should be aided in their endeavours to improve life conditions and life standard or at least provided, under real circumstances, with life quality that existed prior to relocation or with circumstances under which they lived prior to the project implementation, depending on which life quality is higher.
- Obligation to aid relocated persons and provide them with adequate protection exists regardless of the way in which property and possession were acquired, i.e. legality thereof (hence even in the case when they do not have legal grounds, but are squatters)
- Relocated persons are compensated for relocation costs in full amount, and compensation for dispossessed property in the amount that enables compensation, i.e. replacement of the dispossessed property with a new one.

Aid during the process of compensation and relocation involves:

- Aid during census,
- Organisation of individual meetings with the aim of clarifying the right to compensation and other rights,
- Aid during the process of compensation payment (assurance that all documents relating to compensation are comprehensible, and that vulnerable persons will be able to collect checks and similar), and
- Assurance of money after the payment (e.g. depositing it on bank account) with the aim of preventing theft or inappropriate use of money.

Aid during relocation involves:

- Aid during movement of personal belongings,
- Keeping, transport and/or sale of materials from old building,
- Transport of household members with medical aid if necessary and
- Aid with entering into possession of new real estates.

Compulsory aid with relocation due to dispossession of property is especially stressed with previously cited Operational Policies of the World Bank. Within this, special attention is paid to affected groups of population. In the sense of these rules, affected population (AP) are groups of people affected by the project, which can be jeopardised by project-conditioned relocation more than other groups of population, or they can have a limited access and possibility to acquire aid with relocation due to their gender, ethnicity, age, physical or mental disability, economic situation or their social status.

Affected groups of population include, among others:

- Socially vulnerable persons, persons without land, aged persons, women and children, autochthonous populace, ethnic minorities, persons with disabilities, refugees and displaced persons, and other displaced persons, whose rights to compensation are not envisaged in, meaning protected by national legislation.

Aid to vulnerable population groups, depending on the analysis of individual cases, involves adequate compensation supported by relevant bodies and institutions, (in form of other real estate or in financial form), providing employment or self-employment opportunities, and settling down in a place with approximately the same standards with regard to infrastructure, education opportunities, health protection, social protection and cultural events.

## **8.2.2. National framework**

### **8.2.2.1. Constitution-guaranteed rights**

Rights to property, including rights over real estates, are generally protected by international conventions, Constitution and laws; apart from the right to life and right to freedoms, the protection of citizens' property integrity represents one of basic postulates of numerous international conventions that observe the mentioned principles by protecting the right to property<sup>3</sup> among other things. With this regard, it is very important to bear in mind the fact that these rights were frequently unprotected in Bosnia and Herzegovina, meaning, their holders were forcibly dispossessed of them by the state.

#### **THE CONSTITUTION OF BIH**

The Constitution of BiH<sup>4</sup> protects the mentioned rights in a way that Article II 2 defines that "The rights and freedoms set forth in the European Convention for the Protection of Human Rights and Fundamental Freedoms and its Protocols shall apply directly in Bosnia and Herzegovina. These shall have priority over all other law".

#### **THE CONSTITUTION OF THE REPUBLIKA SRPSKA**

The Constitution of the Republika Srpska<sup>5</sup> in Article 49 prescribes that "Freedoms and rights shall be exercised, and duties fulfilled directly pursuant to the Constitution, unless the Constitution provides that conditions for exercising particular freedoms and rights are spelled out by law. The manner of exercising particular rights and freedoms may be determined by law only when it is necessary for their exercise", and that "in the case there are differences between the provisions on rights and freedoms of the Constitution of Republika Srpska and those of the Constitution of Bosnia and Herzegovina, the provisions which are more favourable for the individual shall be applied".

#### **STATUTE OF THE BRČKO DISTRICT**

The Statute of the Brčko District of Bosnia and Herzegovina<sup>6</sup> follows the solutions provided in the Constitution of BiH with regard to the protection of the rights to property. Its Article 1 paragraph 4 prescribes that the Constitution of Bosnia and Herzegovina, as well as relevant laws and decisions of the institutions of Bosnia and Herzegovina, are directly applicable throughout the territory of the Brčko District and that the laws and decisions of all District authorities must be in conformity with the relevant laws and decisions of the institutions of Bosnia and Herzegovina.

## **8.2.3. Property and legal regulations significant for the project**

<sup>3</sup> The Universal Declaration of Human Rights of 10. XII 1948 in Article 17 establishes the principle that "No one shall be arbitrarily deprived of his property" – Article 1 of Protocol I to the Convention for the Protection of Human Rights and Fundamental Freedoms from 1950, which refers to the protection of property prescribes that: "Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law" - International Covenant on Civil and Political Rights in Article 26 prescribes: "All persons are equal before the law and are entitled without any discrimination to the equal protection of the law. In this respect, the law shall prohibit any discrimination and guarantee to all persons equal and effective protection against discrimination on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status"; International Covenant on Economic, Social and Cultural Rights of 16 December 1966, proclaiming a non-discriminatory access to elementary rights of man sets forth in Article 4 as follows: "the State may subject elementary economic, social and cultural rights only to such limitations as are determined by law only in so far as this may be compatible with the nature of these rights and solely for the purpose of promoting the general welfare in a democratic society".

<sup>4</sup> The Constitution of Bosnia and Herzegovina (The General Framework Agreement for Peace in Bosnia and Herzegovina - Annex IV, Initialled in Dayton on 21 November 1995 and signed in Paris on 14 December 1995, when it entered into force).

<sup>5</sup> The Constitution of the Republika Srpska (Republika Srpska Official Gazette, Nos: 3/92, 6/92, 8/92, 15/92 and 19/92).

<sup>6</sup> Statute of the Brčko District (BiH Brčko District Official Gazette, No. 2/10)

In the continuation is given the legislation of the Republika Srpska, Brčko District and BiH which are relevant for this project and their basic summary:

1. Law on the removal and mitigation of consequences that occurred in natural disasters in the period April-May 2014 (adopted by the Brčko District Assembly in the 37<sup>th</sup> regular session held on 9 July 2014)
2. Expropriation Act (Republika Srpska Official Gazette, No. 112/06, 37/07 and 110/08)
3. Real Estates Expropriation Act in the Brčko District of Bosnia and Herzegovina (BiH Brčko District Official Gazette, Nos. 26/04, 19/07, 2/08, 19/10, 15/11)
4. Proprietary Rights Act RS (Republika Srpska Official Gazette, No. 124/08 and 58/09, 95/11)
5. Law on Ownership and Other Proprietary Rights in the BD BiH (Brčko District Official Gazette, No. 11/01, 8/03, 40/04, and 19/07)
6. Law on the Registration of Proprietary Rights over Real Estates in Ownership of the Brčko District of Bosnia and Herzegovina (Brčko District Official Gazette, No. 26/04)
7. RS Water Management Act (Republika Srpska Official Gazette, No. 50/06, 92/09, 121/12)
8. RS Water Management Act (Republika Srpska Official Gazette, No. 10/98)
9. Public Roads Act of the Republika Srpska (Republika Srpska Official Gazette, No. 89/13)
10. Roads Act of the Brčko District of Bosnia and Herzegovina (Brčko District Official Gazette, No. 43/04)
11. RS Law on Extra-Judicial Proceedings (RS Official Gazette, No. 74/05 and 36/09);
12. Law on Extra-Judicial Proceedings of the Brčko District of Bosnia and Herzegovina (Brčko District Official Gazette, No. 5/01)
13. RS Agricultural Land Act (RS Official Gazette, Nos. 93/06, 86/07, 14/10 and 5/12)
14. BD BiH Agricultural Land Act (Brčko District Official Gazette, No. 32/04, 20/06, 19/07)
15. Law on Legalisation of Illegally Constructed Buildings of the BD BiH (Brčko District Official Gazette, No. 29/08)
16. Spatial Planning and Civil Engineering Act (Republika Srpska Official Gazette, No. 40/13)
17. Spatial Planning and Civil Engineering Act of the BD BiH (Brčko District Official Gazette, Nos. 21/03, 3/04, 29/04 and 19/07)
18. Rulebook on the calculation of compensation for city construction land landscaping costs (Republika Srpska Official Gazette, No. 95/13)
19. Decree of Conditions, Calculation Method and Payment of Building Legalisation Compensation (Republika Srpska Official Gazette, No. 97/13)
20. Construction Land Act (Republika Srpska Official Gazette, No. 112/06) – Article 44
21. RS Forest Act (RS Official Gazette, No.: 75/08, 60/13)
22. BD BiH Forest Act (Brčko District Official Gazette, No. 14/10)
23. RS General Administrative Procedure Act (RS Official Gazette, No.: 13/02, 87/07, 50/10);
24. BD BiH Administrative Procedure Act, revised text (Brčko District Official Gazette, No. 48/11)
25. RS Administrative Litigation Act (RS Official Gazette, No. 109/05, 63/11);
26. BD BiH Administrative Litigation Act (Brčko District Official Gazette, No. 4/00, 1/01)
27. Law on the establishment and transfer of rights to dispose of property to local self-management units (Republika Srpska Official Gazette, No. 70/06)
28. Agricultural Land Act (Republika Srpska Official Gazette, Nos. 93/06, 86/07, 14/10 and 5/12)
29. Agricultural Land Act (Brčko District Official Gazette, No. 32/04, 20/06, 19/07)
30. RS Law on State Survey and Cadastre (Republika Srpska Official Gazette, No. 6/12)
31. Law on State Survey and Cadastre of Real Estates of the Brčko District BiH (Brčko District Official Gazette, No. 2/12, 31/13)
32. Land Books Act RS (Republika Srpska Official Gazette, Nos. 67/03, 46/04, 109/05 and 119/08)
33. RS Law on Concessions (Republika Srpska Official Gazette, No. 59/13)

34. BD BiH Law on Concessions (Brčko District Official Gazette, No. 41/06, 19/07, 2/08)
35. RS Public Notaries Act (RS Official Gazette, Nos. 86/04, 2/05, 74/05, 76/05, 91/06, 37/07 and 50/10, 78/11)
36. BD BiH Public Notaries Act (Brčko District Official Gazette, Nos. 9/03, 17/06)

➤ **Law on the removal and mitigation of consequences that occurred in natural disasters in the period April-May 2014**

These laws prescribe measures and methods for the removal and mitigation of consequences that were caused by the floods and landslides, i.e. natural disasters in the territory of the Brčko District of Bosnia and Herzegovina in the period April-May 2014 and establish the obligations of relevant bodies of public administration in the prescribed measures implementation.

Article 4 of this Law prescribes that measures for the removal and mitigation of consequences that were caused by natural disasters are established in the Programme for removal and mitigation of consequences that were caused by natural disasters, which is issued by the Government, with consent of the Brčko District of Bosnia and Herzegovina Assembly. It must contain: location of the area where the measures are implemented; analysis of state of reference and incurred damage; list of users; proposed measures for furnishing buildings with essential furniture and appliances; method and scope of measures implementation, as well as implementation criteria; measures implementation deadlines; bodies in charge of coordination and holders of the implementation of some measures; assessment of necessary financial funds and sources of funding; periodic mechanism for funds expenditure control; and other necessary elements.

➤ **Expropriation Acts in the Republika Srpska and Brčko District of Bosnia and Herzegovina**

These laws regulate the conditions, manners and procedure of real estate expropriation for the construction of buildings of general interest to the Republika Srpska /Brčko District BiH, meaning the execution of works of general interest. Stress is on the observance of the righteous compensation principle, which cannot be lower than market value if expropriation, i.e. deprivation or limitation of the right over the real estates occur.

The provisions of the RS Expropriation Act, CHAPTER IV – EXPROPRIATION IN THE AREAS AFFECTED BY LARGE NATURAL DISASTERS have a special significance for the implementation of this project, meaning *Article 29* of the BiH BD Real Estates Expropriation Act.

➤ **Proprietary Rights Act of the Republika Srpska/ Brčko District of Bosnia and Herzegovina Law on the Registration of Proprietary Rights over Real Estates in Ownership**

RS Proprietary Rights Act is a law that regulates the issues of significance for the acquiring, use, disposal, protection and termination of rights of ownership, other proprietary rights and possession.

Proprietary Rights Act represents a certain type of proprietary rights<sup>7</sup> regulations codification, and creates a modern civic and legal system that is characteristic of the European civic legal system, meaning, creates suitable legislative and legal solutions with the aid of transition from the present property law system, regulated by many regulations that refer to proprietary rights, into a new proprietary right system distinctively regulated by that law.

The new legal system and defined proprietary rights framework lies on basic principles defined by the cited Proprietary Rights Act, such as the principle of real estate unity, unimodality of

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<sup>7</sup> It distinctively regulates the issues with regard to proprietary rights, and abolishes special regulations that regulated proprietary rights over some types of property.

ownership, equal position of the state, i.e. public legal persons with other owners, and the principle that ownership is binding. When this Act entered into force, the Law on Usurpation ceased to be in force (Republika Srpska Official Gazette, No. 70/06).

The Law on Ownership and Other Proprietary Rights of the Brčko District follows in great deal the contents of the RS Proprietary Rights Act, with certain specific items that were incorporated into that law. It can be stated that there are no differences between these laws in the part relating to the Project (easement for example).

➤ **Water Management Act of the Republika Srpska**

The RS Water Management Act regulates water management, usage and protection of waters, as well as funding and bodies of administration, public services and institutions in the sector of water management. The RS Water Management Act provisions that regulate the issues relating to flood management and protection against natural disasters are significant for the Flood Emergency Response Project.

According to this law, the actions and activities of general interest are: preparation and implementation of flood management, river beds and banks development, management of water structures and systems of interest for the Republika Srpska, flood risk assessment and management, as well as other activities prescribed by this law. Direct activities of the implementation of actions and activities that are of general interest, and defined as such in this law, such as flood management activities, river beds and banks development, management of water structures and systems of interest for the Republika Srpska, and other similar activities in the fields that are defined by this law are performed by Public Institution „Vode Srpske“.

Since the Government of the Brčko District has still not adopted Water Management Act, based on the Decision of the Supervisor for the Brčko District issued in 2005, the District applies the Water Management Act of the Republika Srpska 10/98, adjusted to the needs of the District. Thus, this is a law that had been prepared before the EU Water Management Directive was adopted. The RS Law adopted in 1998 did not meet basic criteria for the harmonisation of the law with EU jurisprudence.

➤ **Public Roads Act of the Republika Srpska / Roads Act of the Brčko District of Bosnia and Herzegovina**

This law regulates legal status of road operators, manners of usage of public and uncategorised roads; management, funding, planning, construction, reconstruction, maintenance and protection of roads; public roads concessions; exercising public-private partnership and supervision over the implementation of this law.

In line with Article 12 of the RS Law, public roads are planned, designed, constructed, reconstructed and maintained: a) in accordance with the most recent expert know-how in the field of designing and construction, and with economic principles and measures for construction feasibility assessment, b) to enable safety of all participants in traffic, as well as conformity of public roads with the surroundings where they are aligned, v) in accordance with conditions prescribed in this law and regulations issued based on it, regulations that regulate spatial planning, construction and environment protection, and regulations on traffic safety on roads.

In line with Article 16 of the RS Law (paragraphs 3-6), management and entrusting of the activities of construction, reconstruction, rehabilitation, maintenance and protection of motorways and express-roads are executed by Public Company "Republika Srpska Motorways" limited liability company Banja Luka, whereas management and entrusting of the activities of construction, reconstruction, rehabilitation, maintenance and protection of the network of trunk and regional roads are performed by Public Company " Republika Srpska Roads" limited liability

company Banja Luka. Management and entrusting of the activities of construction, reconstruction, rehabilitation, maintenance and protection of local roads, streets in settlements and road structures on them are performed by the relevant body of local self-management unit. Local self-management unit is obliged to issue a special document on management, construction, reconstruction, maintenance and protection of local roads, streets in settlements and road structures on them.

Maintenance, protection, usage, reconstruction, development and management of some trunk and all regional roads are provided by the Department for Public Affairs of the Brčko District BiH based on the agreement with entities. Maintenance, protection, usage, reconstruction, development and management of all local and part of uncategorised roads are provided by the Department for Public Affairs of the Brčko District BiH.

*In terms of this law, reconstruction of roads implies the works in part of the existing road, which change its basic properties, with the aid of increasing the capacity of the road or service level.*

Department for public affairs is the holder of designing the construction and reconstruction of roads, and the Department for Communal Affairs is the holder of designing in part of underground installations it manages. Consent for the construction and reconstruction of all public and uncategorised roads in the Brčko District of BiH is issued by the Department for Spatial Planning and Property and Legal Affairs, and approval for construction by the Department for Public Safety. Department for Public Affairs is obliged to announce in the media when a public road is put into operation upon a permit for usage is acquired.

➤ **Laws on Extra-Judicial Procedure of the Republika Srpska and Brčko District of Bosnia and Herzegovina**

This law regulates the rules of extra-judicial procedure that the courts of law or other bodies of the Republika Srpska apply when they act in and decide on personal, family, property and other rights and legal interests that are resolved in extra-judicial procedures by law, meaning this law regulates the rules that the courts of law in the Brčko District of Bosnia and Herzegovina apply when they act in and decide on personal, family, property and other rights and legal interests that are resolved in extra-judicial procedures by law.

In case of the failure to conclude the agreement on compensation for the expropriated property before the administrative authority within two months from the issue of the final expropriation decisions, the authority is obliged to submit the concerned decision with all documents to the competent court, which, ex officio, shall decide on the amount of compensation through non-contentious proceedings in accordance with the Law on Extra-Judicial Proceedings.

Proceedings for determination of the compensation for expropriated real property are carried out by the court ex officio and must be completed in the shortest possible period and latest within 30 days from the date of initiating the proceedings before the court. The court thereby defines the hearing for the parties to express their attitudes in the form and scope, or amount, of the compensation, as well as on the property value evidence. The costs of the procedure above are borne by the expropriation beneficiary, except the costs caused by unjustified actions of the previous owner.

If the parties conclude the agreement to determine the compensation for the expropriated building or an apartment in form of a replacement building or apartment, the deadline for execution of mutual obligations is defined by amicable agreement. In case of the failure to define the deadline above, the court shall decide on the deadline for eviction from the expropriated building, or apartment as a separate part of the building, in compliance with the Expropriation Law. These provisions are applicable to an agrarian whereby the compensation for expropriated agricultural land is determined in form of a replacement property by amicable agreement with the expropriation beneficiary or per his request.

Following the proceedings and identification of major facts, the court issues the decision to define the form and the scope, or amount of the compensation for expropriated real property. If the parties conclude the agreement on form and scope, or amount of the compensation, the court bases its decision on such agreement, provided it determines that the agreement is not in opposition to the regulations governing the property relations on real estates.

➤ **Agricultural Land Act of the RS and Brčko District of BiH**

In terms of this Law, agricultural land includes the following: fields, gardens, orchards, vineyards, meadows, pastures, ponds, reeds and marshes, as well as other land that can be the most rational use for agricultural production based on its natural and economic characteristics.

According to Article 27 of this Law, a permanent or temporary change of use of arable agricultural land which belongs to I, II, III, IV and V cadastral or capability class into non-agricultural purposes can be made only in accordance with the law when there is adopted appropriate planning document which prescribes construction of objects of public interest in the field of: health, education, social welfare, culture, water management, sports, transport, energy and municipal infrastructure, facilities for the state authorities and local community facilities for the defence of the country, ensuring environmental protection and protection of natural disasters, for exploitation of mineral resources, as well as for the construction of objects, if there is regulation plan or other planning document according to which the construction is considered as construction of public interest (fee for change of use in accordance with this law is not payable in case of construction of facilities that are used for flood protection - Article 36).

Public interest for construction is determined by the Government of the Republic.

In line with Article 6 of the Agricultural Land Act of the BD BiH, change of arable agricultural land – for residential and other construction, for water accumulations or other non-agricultural purpose, is possible **only on the basis of planning documents of the *Brčko District of BiH*** harmonised with the special law that regulates planning and town planning requirements for the change of purpose of arable land. Department in charge of agriculture issues an opinion on the proposed Strategy and Programme of Spatial Planning of the Brčko District of BiH. The department in charge of agriculture issues its opinion on spatial plan of the Brčko District.

In accordance with Article 9 of the same Law, Mayor Issues consent to spatial plans of the Brčko District in the part relating to the usage of agricultural land, especially for non-agricultural purposes, upon a proposal of the Department for Agriculture, Forestry and Water Management.

In line with Article 24 approval for activities on agricultural land, which are not permanent, issues the relevant body of the Brčko District BiH Government only for specific purposes, such as disposal on agricultural land (tailings, ash, dross and other substances).

In line with Article 32 of this law, compensation for permanent or temporary change of purpose of agricultural land is not paid in the case of: construction of structures that serve as flood defence, for drainage and irrigation of land or for training of torrents; regulation of watercourses in the function of agricultural land development as well as in the case when road and railway infrastructure is constructed.

➤ **Regulations on legalisation of illegally built structures in the Republika Srpska and Brčko District BiH**

The facts of elementary importance include facts that a legal construction requires provision of the location permit, construction approval and use permit in accordance with the Law on Spatial Development and Construction, to pursue registration of the pertaining structure into the land registry thereafter in compliance with the Land/Real Property Surveying and Registry Law and

registration into the land registry in compliance with the Land Registry Law. However, in field of physical planning, organising and construction, to enable rational space use, the construction in accordance with the planning documentation, and fulfilment and harmonisation of individual population demands on one side and wider demands of a social community on the other side, specific and widespread problems are observed in the Republic of Srpska and Bosnia and Herzegovina in urban areas, areas to be urbanised and areas not planned for construction. It is the phenomenon of an illegal construction, non-existent and very difficult to apprehend by the west. Some of the reasons of illegal construction include: legal system non-functioning, difficult economic situation of a large number of population (frequent construction of structures without adequate location-technical and construction documentation, required permits and licences due to excessive funds required for payment of different fees to obtain them), as well as construction of numerous settlements during and after the war without required documentation.

The process of Legalisation of Illegal Constructions in the Republika Srpska is regulated by the provisions of Law on Spatial Development and Construction of the Republic of Srpska, while the Regulation on conditions, method of calculation and payment of the object legalization closely defines conditions, method of calculation and payment of the legalization object. These problems in the Brčko District of BiH are regulated by the Law on the Legalisation of Illegally Built Structures in the BD BiH.

Legalisation implies enactment of decisions on subsequent location permit, construction permit and use permit for the objects, i.e. parts of the objects constructed, reconstructed or started without a building permit, as well as for the objects constructed on the basis of building permit which construction has deviated from the final design, and which are constructed or the construction of which began before the entry into force of this law. According to provisions of the Law on Spatial Development and Construction the Request for Legalisation of Illegal Constructions can be submitted within two years from the date of entry into force of this Law. In line with the provisions of the Law on Spatial Planning and Civil Engineering, the legalisation request is submitted within two years as of the day when this law entered into force. The Law on Amendments to the Law on the Legalisation of Illegally Built Structures of the BD BiH (Brčko District Official Gazette, No. 29/04, Article 1), prescribes that *"Legalisation requests can be submitted by 31 December 2004"*.

Concerning the regulations above, it can be concluded that they are important for the Flood Emergency Response Project, provided they enable determination of ownership rights for structures, under the prescribed conditions in favour of owners or beneficiaries, as well as registration into the cadastre and land registry also offering the possibility of being provided the required protection in sense of the World Bank Operational Policies.

➤ **Law on the Legalisation of Illegally Built Structures of the BD BiH**

Legalisation procedure is implemented by the Department for Spatial Planning and Property and Legal Affairs of the Brčko District Government based on this law and the Administrative Procedure Act of the Brčko District of Bosnia and Herzegovina, revised text (BiH Brčko District Official Gazette, No. 48/11).

➤ **Construction Land Act of the Republika Srpska**

According to Law on Construction Land of the Republic of Srpska from 2006 (Official Gazette of the Republic of Srpska No: 112/06) land may be in the state and private ownership (private ownership was first mentioned in Law on Construction Land from 2003, unlike former statutory resolutions based on which the construction land became exclusively state/society owned upon its determination, and after that there were no legal grounds for changing the ownership character).

Afore mentioned Law was normally the first step in transformation of the right of use and disposal into the ownership right for construction land, and the RS Law from 2006 made the next step and reprivatized and nationalised the construction land, as well as the land proclaimed

construction land by special laws. The process was finally concluded by the RS Law on Property Rights, whose transition and final provisions anticipate definitive transformation of the right of disposal and right to use the construction land into the ownership right, and the provisions of the Law on Construction Land regulating property rights are thereby abolished.

With the entry into force of the new Law on Spatial Development and Construction (Republika Srpska Official Gazette, No. 40/13) ceased to exist above mentioned Construction Land Act of the Republika Srpska (112/06), except the Article 44.

The aforementioned Article 44 includes the following:

- (1) With the entry into force of this law, by force of law the state ownership on construction land which has not been used in accordance with defined purpose by regulatory plan, and in public i.e. state ownership is passed on the basis of:
  - a) Law on Nationalization of leased constructions and construction lands ("Official Gazette of FNRJ", No 52 58),
  - b) Law on determination of construction land in certain urban settlements ("Official Gazette of SRBiH", No 24.68), referred to municipalities Banja Luka, Doboј, Rudo, Visegrad and Zvornik.
- (2) Termination of property under paragraphs 1 and 2 of this article, as well as the establishment of former ownership legal rights, determined by the decision of the competent administrative authority for property and legal affairs
- (3) The decision referred to paragraph 2 of this Article may be challenged by an appeal in front of the Republic Administration for Geodetic and Property Affairs
- (4) A final decision under paragraph 2 of this Article shall be delivered ex officio to the authority responsible for registration of property rights for implementation.

➤ **Laws on Forests of the Republika Srpska and BD BiH**

Law on Forests regulates the issues related to the status, ownership, usage, disposal and acquisition, as well as protection of this natural resource. Deforestation and permanent change of use of forest land can be made, inter alia, if it complies with the law governing spatial planning, with delivery of investment and technical documentation based on which is necessary deforestation or changes in land use for specific soil, then on the basis of Act of relevant Authority on determining the public interest, as well as for the construction of facilities for the protection of people and property from natural disasters and defence of the country as well as in the process of consolidation of agricultural land and forests.

Proposal for deforestation and permanent change of use of forest land due to existence of public interest may be submitted by legal entities beneficiaries of the expropriation for the activities the expropriation regulations allowed the determination of public interest.

According to the Law on Forests of the BD BiH (Article 5) logging can be done if forest land should be allocated other purpose due to general interest, as well as if that is necessary in order to implement a spatial plan. This refers to buildings, road alignments, construction of electro and PTT lines, surface excavations and other structures that are planned for construction in forests and at a distance of up to 50 m from the edge of forest.

In line with Article 8 of this Law, spatial plans can envisage the construction of structures in the forest, on forest land, for the needs of infrastructure, sport, recreation, hunting and fishing if they cannot be planned outside the forest and forest land for technical or economic reasons.

➤ **General Administrative Act of the Republika Srpska and BD BiH**

Civil authorities are obliged to act according to this Law when in administrative matters, direct enforcement of legislation, dealing with the rights, obligations or legal interests of individuals, legal entities or other parties, as well as perform other tasks specified in this law. Also the city and municipality administrative organs are obliged to act according to this law when carrying out tasks of the state administration. Besides, enterprises, institutions and other organizations are obliged to follow the Law in proceeding of public authorities entrusted to them by law, i.e. when performing the above mentioned activities.

Decisions of administrative bodies, cities and municipalities shall be made in the form of a decision after carrying out the procedure prescribed by this Law. Against the Decision adopted in the first instance may be appealed. Only the Law may provide that in certain administrative matters may not be appealed, provided that the protection of rights, legal interests of the parties and legality protection is ensured otherwise.

The law of RS in Article 43 gives the possibility for setting up a temporary representative if incompetent party has no legal representative, or if any action should be taken against the person whose residence or temporary residence are unknown, and who has no legal representative, the Authority will set up a temporary representative for such a party in the case of urgency i.e. if the procedure must be conducted.

If a legal entity, an organization, a settlement, a group of persons and others who have not capacity of legal entity, legal representative or authorized representative, the Authority of this party will set up a temporary representative to the party and inform it immediately about the same. As a rule, the temporary representative for the legal entity sets from among the officials of the legal entity.

Likewise, the temporary representative will be appointed if a prompt action has to be performed and there is no possibility for timely invitation of the party or its legal representative or authorized representative or attorney. The party or legal representative or authorized representative or attorney will be immediately notified about this.

A person who is appointed as a temporary representative is obliged to accept the representation unless special regulations provided differently. Temporary representative participates only in the procedure for which is explicitly appointed, and until the legal representative or authorized representative, or a party or its attorney.

Article 11 of the Administrative Procedure Act of the BD BiH, prescribes that a party is entitled to appeal against a first-instance decision to the Appellate Commission. Only the Law can prescribe that appeals are not admissible in some administrative matters, provided that protection of right and lawfulness is otherwise assured. Under the conditions of this law, a party is entitled to appeal to the Appellate Commission in the case when a first-instance body has not issued a decision on their request within the prescribed deadline, too. No appeal is admissible against a decision of the Appellate Commission.

It is also possible to appoint a temporary representative (Article 41 of the Law of BD BiH) if a party without procedural capacity has no legal representative or some action is to be taken against a person whose residence is unknown and who does not have a proxy. In this case, the body that conducts a procedure will appoint a temporary representative for such party if the urgency of the case requires so and the procedure must be conducted. The body that conducts the procedure will notify the body of guardian; if a temporary representative is appointed for a person whose domicile is unknown, the conclusion shall be published on the notice board and in the Brčko District of Bosnia and Herzegovina Official Gazette.

### **8.2.3.1. Combined requirements of National legislation and the World Bank to be applied to the project**

The World Bank Operational Policies OP 4.12, as well as the internationally recognized standards, concurrently contain certain elements to pursue property rights (for example, ownership right - protection, compensation, and similar), as well as some other, or additional socio - economic rights of vulnerable population groups. Therefore, based on the scope of the protection subject, and providing societal, social and cultural elements, World Bank Operational Policies go substantially beyond the content of the protection of property rights in the immovable property expropriation procedure.

Thereby, it is necessary to bear in mind the fact that the issues of ownership, definition, protection and transfer of this right in Bosnia and Herzegovina, the Republika Srpska and the Brčko District are regulated by the Constitution, and a set of numerous property regulations. The issue of a special status of certain (vulnerable) population group, and the assistance to it, are regulated by another set of status and social regulations.

To provide protection and implementation of the right in certain cases, prior implementation of procedures for settlement of ownership issues, or determination of this right, would be required.

Afore mentioned is facilitated by, for example, the procedure for legalisation of illegally constructed buildings, as well as the procedure for settlement of state owned land usurpations. Legalisation and usurpation settlement procedures above are regulated by current regulations and may result in determination of the ownership right of a property owner (user) providing the prescribed requirements have been fulfilled. It is advisable to use these possibilities, as well as the possibilities of a contractual settlement of issues related to property acquisition, as much as possible as it would enable protection of rights required by above quoted World Bank Operational Policies.

In this case, settlement of compensation, resettlement and assistance issues within the Flood Emergency Response Project in the Republika Srpska and Brčko District, through expropriation processes and in compliance with afore mentioned regulations, policies and standards, would require provision and consolidation of the property right, status and social components. Aimed at implementation of the afore mentioned activities, it would be necessary to provide inclusion of more entities authorized for status issues, social aid and protection (Ministry of Health and Social Welfare of the Republika Srpska, social work centres in some municipalities, and the Social Work Centre of the Brčko District), and pursue the transfer of certain obligations and responsibilities to them.

Providing the above indicated circumstances, it shall be considered that, apart from the regulations that generally regulate property rights and pertaining procedures, there is the possibility of amicable settlement of expropriation and corresponding compensation issues, as well as adoption of special decisions to regulate certain issues or provide an additional right. The obligation for settlement of significant issues in such a way can be determined by a special Protocol and Contract with the government of the Republic of Srpska, meaning the Government of the Brčko District.

### **8.2.4. Procedure of acquisition / expropriation and resettlement**

Property acquisition is mostly carried out in the process of expropriation, in accordance with the Law on Expropriation. In the process of limited expropriation can be established easement. Besides, the easement can be established by agreement or by a court decision, in accordance with the provisions of the Law on Property Rights of the Republika Srpska, i.e. the BiH Brčko District Law on the Registration of Proprietary Rights over Real Estates in Ownership.

For the essence of resettlement policy the most important issues are those related to insurance and addressing the fees for property acquisition, as well as help to those whose assets are exempt and which are relocated through the measures during the acquisition and after the relocation. Regarding to this, special attention is devoted to vulnerable population groups.

#### **8.2.4.1. Expropriation**

Current Law on Expropriation of the Republic of Srpska and Brčko District prescribes that expropriation means requisition or restriction of ownership rights over real property with certain compensation (Article 1). It defines expropriation as full (real property acquisition) or limited (restriction of ownership rights - for example by means of creating an easement). The Laws define compensations in the case of expropriation as an equitable compensation that may be below the market value.

Pursuant to the Law, a real property can be expropriated for construction of business, residential, communal, medical, educational and cultural structures, civil defence structures and other structures of public interest, with exhaustive listing of specific cases (Article 2 of the RS law), i.e. when it is necessary for the construction of structures or execution of works of public interest for the Brčko District of Bosnia and Herzegovina (Article 1 of the Law of the BD BiH) and when it assesses that the usage of the real estate that is envisaged for expropriation, will gain greater benefits with the new purpose than the benefits gained in the usage of the real estate in the so-far manner.

In line with *Article 41 of the Expropriation Act of the RS (chapter V – expropriation in the areas affected by natural disasters of greater scope)*, i.e. in line with *Article 29 of the Law on Real Estate Expropriation in the BH BiH*, the provisions of this chapter shall be applied to expropriation cases in the areas affected by natural disasters of greater scope (earthquake, fire etc.) in order to construct buildings and execute works relating to the removal of disaster-inflicted consequences. Areas in which the provisions of this chapter shall be applied, as well as the period of their application will be determined by the Government. According to these provisions, the expropriation beneficiary acquires the right to possession of the expropriated real estate when the expropriation decision becomes final, regardless of whether the compensation is paid.

The Government issues a decision on determination of general interest in the mentioned cases. No administrative litigation can be instigated against it.

Also, privately owned and state-owned land can be temporarily occupied when necessary in order to set up and construct temporary structures (business facilities, human accommodation facilities, property etc.), for the needs defined in the above mentioned articles (Article 41 of the RS Law and Article 29 of the BD BiH Law). In this case, a decision that decides on the need for temporary occupation of land has the capacity of a decision on determination of general interest. The appeal against a decision that established temporary occupation of land does not defer the enforcement of the decision. A decision on temporary occupation of land will be revoked as soon as the need for which it was established is terminated.

The expropriation target includes real property owned by individuals and legal entities (Article 4 of the RS Law), which is generally an important novelty when compared to former arrangements when expropriation included real property owned exclusively by citizens and civil entities (association of citizens, religious communities, religious institutions and endowments).

Presence of the previously determined public interest is an expropriation assumption, while the construction of structures and execution of works must be in compliance with the planning documents. Expropriation can be pursued for needs of the BiH Brčko District, for the needs of the Republika Srpska and local self-government (these beneficiaries are further authorised to transfer the expropriated real property to investors for construction purposes).

Through the process of expropriation, a real property becomes the ownership of the expropriation beneficiary, allowing also the creation of an easement over land and structure, as well as land lease, and anticipating the possibility of implementing preparatory works on the real property for expropriation purposes (Articles 7 – 9 of the RS Law, Article 3-5 of the BiH BD Law).

According to the Law of the BD BiH, expropriation can establish easement of land and buildings, as well as land lease for a definite time (partial expropriation); *land that is necessary for the construction of buildings or execution of other general interest activities (for accommodation of workers, materials, machines etc.) can be temporarily occupied*. Temporary possession will be revoked when the need for which it was taken is terminated or works on the main structure finished. The provisions of this law, which refer to full expropriation, apply to temporary occupation unless otherwise regulated by the provisions of this law.

Expropriation beneficiary is entitled to use the real property exclusively for the purpose the expropriation has been pursued for.

Based on the owner's request, the remainder of the real property can be expropriated as well, providing it has been determined that the owner holds no business interest in using it, or if previous livelihood was blocked or seriously deteriorated on the referred part of the property, or if its normal usage has been disabled (Article 11 of the RS Law, Article 7 of the BiH BD Law).

The owner is entitled to a compensation for the expropriated property in form of a replacement property, and if the expropriation beneficiary is unable to provide a replacement property, the compensation (equitable or based on market value) is defined in cash. If the owner lives in an expropriated residential structure or an apartment as a special part of the residential structure, the expropriation beneficiary is obliged to provide use another corresponding apartment prior to demolition. The same policies are applied also to expropriation of commercial premises in which the owner performed his business activities (Article 12 of the RS Law).

#### **8.2.4.2. Compensation for Expropriated Real Property**

The Laws on expropriation of the Republika Srpska and BiH BD define expropriation as an equitable compensation that cannot be below the real estate market value. Expropriation beneficiary bears the compensation for expropriated real estate .

Concerning the compensation for expropriated real property, it is prescribed that upon determination of compensations for agricultural and construction land, it is necessary to evaluate the benefit a land can offer through its regular usage, the benefit the owner achieved from the land in the past, especially taking the account of the market price, with the definition of compensation for expropriated orchard land, compensation for fruit trees and vines, forest land, wood mass, young plants, older trees, wastelands and rocky lands, and civil structures. Personal and family circumstances of a former owner are taken into account as a corrective to increase the compensation if essentially important for his existence. The Laws define also the compensation rules concerning expropriation of a residential structure or an apartment as a special part of the structure. The amount of the compensation in the proceedings before the administrative authority is determined in accordance with the circumstances at the time of signing the compensation contract, and in court procedure at the time of signing settlement, or at the time of issuing the first-instance decision on compensation. The compensation, in principle, is provided by replacement, full or limited, with another corresponding property, and if not feasible, in cash, leaving the parties the possibility of amicable agreement on another form of compensation as well.

The expropriated real estate value in the full expropriation procedure is established by the Department for Spatial Planning and Property and Legal Affairs based on the data on market value of real estates delivered by the Funding Directorate to the Department.

In the partial expropriation procedure, the compensation for easement, lease or temporary occupation is established by the Commission appointed by the Mayor of the Brčko District of Bosnia and Herzegovina for every case of partial expropriation individually.

It is significant to point out that the Law of the RS stipulates for illegally built structures that the constructor is entitled to compensation in the amount of implemented investments, provided the requirements for legalisation of the construction were fulfilled during the time of construction. Therefore, there is an apparent discrepancy between these provisions and the World Bank Operational Policies, requiring protection of user rights, regardless of legal justification of their property grounds (including illegal constructors as well). On the other hand, Real Estates Expropriation Act in the Brčko District (Article 33) sets forth that if a building or a special part of a building that were constructed without consent of the relevant body is expropriated, earlier owner *is not entitled* to compensation for such real estate. Earlier owner can demolish a building and remove the material of that building within a deadline determined by the Department for Spatial Planning and Property and Legal Affairs.

It is also anticipated that a former owner is entitled to compensation for lost gaining. In case of a lease set-up, the compensation is determined in the amount of the rent market value, as a one-time payment or as periodical payments starting from the day of taking the possession of the land. The compensation for temporary occupation of the land is regulated alike.

In case of an easement set-up, the compensation is determined in the amount of the reduction of a real property market value caused by the easement set-up, as well as for the damage occurred on the referred real property (Articles 53 - 67 of the RS Law, Article 42 of the BiH Law).

It can be concluded that the provisions prescribing equitable compensation, benefits from land, personal and family circumstances of a former owner, compensation in the amount of paid investments, damages, and compensation for the lost gaining provide, in principle, accomplishment of the protections standards prescribed by the World Bank Operational Policies.

#### **8.2.4.3. Property easements**

Issues related to property easements as property rights are regulated by Articles 186 - 263 of the Law on Property Rights of the Republic of Srpska, i.e. provisions of Articles 138-166 of the Law on Ownership and Other Proprietary Rights of the Brčko District of BiH.

In sense of the laws above, property easement is the right of the owner of a real property (dominant estate) to perform for needs of that property certain actions on the real property of a different owner (servient estate) or to request from the owner of the servient estate to refrain from execution of certain activities that he is usually entitled to execute on his real property. Normally, property easement can be created on the definite time basis or for certain season. Provisions above recognise and prescribe usurpation (acquisitive prescription) as the possibility of acquiring easement, thus the property easement is achieved based on adverse possession when the owner of the dominant estate has actually pursued easement during the period of twenty years, and the owner of the servient estate never objected to it. The attention herein is drawn to the fact that the property easement cannot be entitled based on usurpation if it was pursued with misuse of trust of the servient estate owner or occupant, by means of force, fraud or if easement is consigned until revocation. Usurpation is normally a method of acquiring entitlement by force of law (ex lege), provided the entitlement shall be define by court decision,

whereby such court decision is not of constitutive but a declarative character (it declaratively states the existence of certain entitlement).

Pursuant to the law, property easement is terminated: if the owner of the servient estate objects to it, and the owner of the dominant estate has not pursued his right for three years consecutively, if the easement is not pursued during the period required for its acquisition by usurpation, if the same person becomes the owner of both servient and dominant estate, and if dominant or servient estate are destructed. If the dominant estate is divided, property easement remains in favour of all its parts.

Property easement may be constituted also in the process of limited expropriation under the responsibility of an administration authority, or a municipal department for property affairs, i.e. Spatial Planning and Property and Legal Affairs Department BD BiH, in accordance with the Law on Expropriation of the RS and BiH BD.

#### **8.2.4.4. Compensation for established easement**

If the property easement is created by a legal affair, the parties-owners of dominant and servient estates shall settle issues related to the easement to be created by amicable agreement, thus including the compensation issue as well. In case of the other two ways of easement creation, the will of the parties is not crucial, provided the easement is created based on the competent authority decision following the authority's affirmation of the fulfilment of requirements prescribed for it, or pursuant to and by force of law upon expiration of the statutory deadline of twenty years during which the easement has been actually exercised and the servient estate owner did not object to it. In any case, pursuant to the law and based on the request of the servient estate owner, the competent authority is obliged to determine the compensation the dominant estate owner owes to the servient estate owner. Also, the servient estate owner cannot refuse the creation of easement provided the existence of statutory requirements, and concerning the creation of easement, the servient estate owner is entitled to compensation.

#### **8.2.4.5. Expropriation procedure**

The laws prescribe public interests defining procedure to the Government of the Republic of Srpska and legal assumption that in case there is a regulation plan, preliminary design or town-planning scheme with land subdivision, there is also a public interest, as well as the procedure related to the expropriation preparatory works (Articles 14 - 22 of the RS Law), i.e. previous acquiring of spatial plan extract with expert opinion issued by the Department for Spatial Planning and Property and Legal Affairs or land subdivision plan or regulation plan extract or town planning project extract or town planning documents extract, in accordance with the spatial plan (Article 9 of the Law of the BD BiH). The procedure is carried out by the department for property affairs, on the proposal of the expropriation beneficiary with precise indication of the beneficiary, real property and its owner, structure, or works due to which the expropriation is proposed, decision on construction of an investment structure, corresponding document as a proof that the expropriation beneficiary is in possession of funds for compensation secured and allocated on a separate bank account, and evidence of the affirmed public interest. Special accent is put on the prescribed requirement based on which the expropriation proposer, in addition to the proposal, must submit an evidence of his prior attempt to settle the property acquisition issue for the related real estate by amicable agreement. If there is a discrepancy between the land registry and the actual situation of the real property, the first instance administrative authority is authorised to resolve the property issue as a preliminary issue, thus representing a significant opportunity for the Project, or provision of the protection standards in sense of the World Bank Operational Policies. The decision on expropriation is issued in accordance with the General Administrative Procedure Act of the Republika Srpska and BiH BD and the appeal against it can be submitted with the Republic Administration for Geodetic and Property Affairs (Articles 23 - 31 of the RS Law), i.e. Department for Spatial Planning and Property and Legal Affairs of the BiH BD (Article 17 of the BiH BD Law).

#### **8.2.4.6. Taking Possession of Expropriated Real Property**

Right to possession of expropriated real estates (in the case when the provisions of *chapter V – expropriation in the areas affected by wide-ranging natural disasters – Article 41 of the RS Expropriation Act and Article 29 of the Real Estates Expropriation Act of the BD BiH, respectively are applied*) is acquired when a decision on expropriation becomes final, regardless of whether compensation was paid or not.

Besides, land in private and state ownership can temporarily be occupied when necessary in order to set up and construct temporary buildings (business buildings, accommodation buildings for population, property etc.), for the needs defined in the abovementioned articles (Article 41 of the RS Law and Article 29 of the BD BiH Law); in this case, a decision that decides on the needs for temporary occupation of land has the capacity of a decision on general interest establishment. An appeal against a decision on temporary occupation of land does not defer enforcement. A decision on temporary occupation of land will be revoked as soon as the need for which it was issued is terminated.

If the expropriation beneficiary has taken the possession of the real property prior to the decision enforcement, provided the expropriation proposal is rejected, he is obliged to compensate the owner the damage caused thereby (Articles 33 and 34 of the RS Law, Article 30 of the BiH BD Law).

##### **8.2.4.6.1. De-expropriation**

Expropriation beneficiary is entitled to fully or partially abandon the expropriation proposal until the irrevocability, i.e. finality of the expropriation decision, provided no owner's rights are violated, i.e. if the previous owner of construction right holder concur with that. Final decision will be cancelled or amended if jointly required by the expropriation beneficiary and the former owner, upon a request of the former owner if the beneficiary implemented no significant works on the structure within three years from the final decision issue (in line with the RS Law), i.e. within two years (in line with the BiH BD Law), (in this case, both full and limited de-expropriation are possible).

If the expropriated real property was co-owned, deexpropriation requires provision of the request of the major co-owner, possible to be submitted upon expiration of the time limit of three years from the entry into force of the decision, and until the implementation of significant works by the expropriation beneficiary. The authority responsible for the expropriation proposal decides on this request, and in case of a dispute over the property rights between the expropriation beneficiary and the former owner, it shall be resolved by the competent court. The above indicated time limit of three years shall not include the period during natural disasters (Articles 35 - 37 of the Law of the RS Law, Article 32 of the BiH BD Law).

##### **8.2.4.7. Expropriation procedure costs**

The costs of the expropriation process are borne by the beneficiary. The process is defined as urgent (Articles 39 and 40 of the RS Law, Article 17 of the BiH BD Law).

##### **8.2.4.8. Procedure for determination of compensation for expropriated real estates**

Compensation determining process is carried out by the department for property affairs of the Republika Srpska for real estates located in the territory of the Republika Srpska, whereas the Department for Spatial Planning and Property and Legal Affairs of the BD BiH establishes the market value of expropriated real estate in the territory of the Brčko District in a full expropriation procedure based on the data on real estate market value delivered to the Department by the Funding Directorate. The expert Commission appointed by the Mayor of the Brčko District of Bosnia and Herzegovina establishes the amount of compensation for easement, lease or

temporary occupation in a partial expropriation procedure for every case of partial expropriation individually (Article 8 of the BD BiH Law).

Compensation determination procedures are conducted after the irrevocability of expropriation decisions with the aim of acquiring an agreement between the user and former owner. The agreement is concluded upon signing by both parties, and as such it has the power of an executive decision.

If the agreement is not reached within two days from the issue of the final expropriation decision, the department for property and legal affairs (in line with the RS law), i.e. Department for Spatial Planning and Property and Legal Affairs of the BiH BD (in line with the BiH BD law) is obliged to submit all relevant documents to the competent court to, ex officio, decide on the amount of the compensation through a non-contentious procedure.

The costs of the process for determining compensation by amicable agreement are borne by the expropriation beneficiary, while the court defines the costs of the court procedure in proportion to success of the parties.

### **8.2.5. Appeal procedure**

Protecting the rights of the owners or users of properties that are subject of expropriation is provided through two steps regulated administrative and judicial procedure, along with guaranteed right to appeal.

The following principles will be respected:

- An appeal is admissible against a decision that adopts a proposal for expropriation; the Republic Administration for Geodetic and Property and Legal Affairs of the Republika Srpska decides on the appeal in the Republika Srpska, and the Appellate Commission in the Brčko District of BiH;
- The appeal can be submitted to first-instance authority that issued Decision on Expropriation; the Appeal can be submitted within 15 days;
- All appeals will be answered and addressed within the statutory period of 30 days;
- No administrative litigation can be instigated against a second-instance body.

#### **8.2.5.1. Right to build**

As the right to build enables usage of a real property owned by another individual, it may bear certain importance for the Flood Emergency Response Project. Provided it refers to a new institute of property right, currently applied in the Republika Srpska only, a slightly detail review is given below. The right to build is the traditional institute of the property right, with its origin in the Roman law (superficies), and is regulated by the Law on Property Rights. The referred law is based on the authorisation to build a structure on someone else's land or beneath it, as well as on the obligation of the land owner to tolerate it.

The land can be encumbered in a way that the encumberment beneficiary is entitled to own a structure on or beneath the land, whereby the entitlement can be alienated or inherited. The individual in whose favour the encumberment is pursued acquires certain rights both on the structure and on the land; right to build can be constituted on the already existing structure.

The holder of the relevant right can build on or beneath the surface of someone else's land a permanent or physically attached structure and acquire the right to own it. The individual above acquires rights and obligations of a usufruct on the land owned by another individual.

It arises from the agreement and registration in the land registries. The parties agree to create, or acquire, the right to build. A notary processing is required for the validity of the agreement

above, in compliance with the Article 68 of the RS Notary Law, i.e. Article 47 of the BiH BD Notary Law.

Unless otherwise regulated by the agreement, the right to build is a permanent right. The duration of the right to build can be limited to a definite period of time, with the obligation to respect the legal nature of this institute and its long-term intentions.

Apart from the duration restrictions, the agreement may contain a clause pursuant to which the owner of the land becomes also the owner of the structure (return to the owner) upon expiration of the agreed period of time. However, even if not containing such clause, the owner of the land becomes the owner of the structure upon expiration of the right to build. In that case, the land owner can agree to a lower rent or perhaps renounce it.

The meaning of the right to build is the allow the real property owner to use the benefits of a land on a long-term basis, thereby without losing the ownership over the property, and concurrently allow another individual, not in possession of resources to purchase a real property, to build certain structure.

The right to build terminates upon deletion from the land registry. The basis for the deletion can be the expiration of the agreed period of time or occurrence of other circumstances regulated by the agreement and may result in the deletion of the right to build, such as for example destruction and renouncement by holder of the right to build.

The right to build grants its holder the possibility to use the land in accordance with his needs. Thus his right to usage cannot be restricted in a way of disabling management over a construction or secondary structures. The right to build refers neither to the land beneath the structure nor installations or the surface required for regular usage of the relevant structure.

A structure or an installation constructed pursuant to the right to build are the constituent part of such right (ownership over a structure, or ownership over an installation), and separate it from the land. A structure or an installation as a constituent part of the right to build shares its fate. By transfer of the right to build, the acquirer acquires also the ownership over the structure (already existing or newly built).

The holder of the right to build is the owner of the structure, and is allowed to encumber the structure and dispose of it as every other owner in accordance with the regulations and possibilities pursuant to the construction agreement. As only a whole plot and not part of it is subject to encumbrance, material validity of the agreement targeted at encumbrance of the right to build requires precise definition of the agreement subject, to enable registration into the land registry.

The right to build is an encumbrance to the land it is created for, and is recorded as such in the encumbrance sheet of the encumbered land. Concurrently, a separate land registry file is created ex officio for the structure or the right to build, whereby the holder of the right and all encumbrances related to the right to build are being recorded.

**8.2.6. Process of acquisition/ expropriation and resettlement (table 10)**

Below is shown review of activities per phases in the process of acquisition/ expropriation and resettlement in accordance with National legislation requirements and requirements of World Bank Operational OP 4.12.

*Table 13 Expropriation procedure*

PROCESS PHASE	LEGAL FRAMEWORK	ACTION/ ACTIVITIES	REMARK
Prior to initiation of the expropriation process	Expropriation Act	Public interest determination	Requirement for initiation of the expropriation process
Prior to initiation of the expropriation process		Informing and public discussions	Requirement in sense of the World Bank Operational Policies 4.12
Prior to initiation of the official expropriation process	Expropriation Act	Agreeable transfer of ownership right	Suitable also for settlement of certain disputable or problematic cases (for example construction of a structure without obtained permits and licences)
Expropriation procedure instigation	Expropriation Act	Proposal submission	Precise in the proposal: beneficiary, real property and its owner. Enclose to the proposal: decision on construction of an investment structure, proof that the expropriation beneficiary has secured and allocated funds for compensation payment on a separate bank account, proof of defined public interest, and proof of the proposer's attempt to resolve the ownership acquisition issue with the property owner in prior.
Expropriation procedure instigated	Expropriation Act General Administrative Procedure Act	Determination of ownership rights	If there is a discrepancy between the land registry and actual situation of the real property, relevant department for property affairs, i.e. Department for Spatial Planning and Property and Legal Affairs of the BiH BD shall settle the ownership right as a preliminary issue, in compliance with Article 27, Para 3 of the RS Law and Article 23 of the BiH BD Law, respectively. This prescribed option is of special significance as it authorizes the department above to preliminary settle, or determine the ownership right, which is a far more efficient way if compared to special procedures carried out before other authorities.
Issuance of a decision on expropriation procedure	Expropriation Act	Expropriation of the real property remainder	Expropriation of the remainder of the real property can also be expropriated on the owner's request, provided the owner holds no business interest in using the related part, or if the former existence has been disabled or substantially deteriorated on the remainder property or if normal usage of it has been disabled.

Expropriation decision making process	Expropriation Act	Taking possession of the expropriated real property	Rule: the property shall be taken into possession after the expropriation decision enters into force, regardless of whether compensation was paid or not, which is defined by Article 41 of the RS Law and Article 29 of the BD BiH Law respectively.
Expropriation decision making process	Expropriation Act General Administrative Procedure Act	Abandonment of the expropriation proposal	Procedure deferred
Second-instance administrative procedure per appeal	Expropriation Act General Administrative Procedure Act	Settlement of appeals to the expropriation decisions	Decided by the Administration for geodetic and property and legal affairs of the RS Decided by the Appellate commission of the BD BiH
Expropriation decision is not final	Expropriation Act	Acquiring the right to possession	Exceptionally, the Government may decide that the real estate be transferred into possession to the user upon expropriation user's request before an expropriation decision becomes final if established that this is necessary due to case urgency.
Expropriation decision is final	Expropriation Act	Acquiring the right to possession, Registration of ownership and other proprietary rights	Registration of ownership and other property rights on expropriated real estate, as well as the real estate granted to a former owner on behalf of the compensation, is carried out according to the final expropriation decision and proof of compensation paid, or proof of the acquisition of ownership right over another corresponding estate by the former owner.
Expropriation procedure ended irrevocably	Expropriation Act General Administrative Procedure Act	Determining the amount of the compensation in an administrative procedure	By amicable agreement before the municipal department for property and legal affairs of the RS, and before the Department for Spatial Planning and Property and Legal Affairs of the BD BiH (Funding Directorate)
Expropriation procedure ended irrevocably	Expropriation Act Administrative Procedure Act	Request for real property deexpropriation	Cancellation of the final expropriation decision due to the failure to accomplish intended usage of the acquired real property or failure to use the property for purposes it has been acquired for.

**8.2.7. Compensation matrix (table 11)**

Below is a tabulation of the compensation rights in accordance with the applicable laws of the RS, BiH BD or specific World Bank requirements depending on the type of rights or assets which can optionally be found under the influence of the Flood Emergency Response Project:

Table 14 Compensation matrix

TYPE OF PROJECT AFFECTED RIGHT OR PROPERTY	LEGAL FRAMEWORK	COMPENSATION ENTITLEMENTS	PROCESS AND SPECIFIC REQUIREMENTS
Registered plot of land with registered residential structure	Expropriation Act Construction Land Act	<p><i>OPTION 1: Resettlement with replacement property</i> Replacement property including residential plot of similar size and characteristics, and residential structure of similar size and characteristics</p> <p>OR</p> <p><i>OPTION 2: Cash compensation</i></p> <ul style="list-style-type: none"> <li>- Cash compensation for plot and structure at market, or full value,</li> </ul> <p>And</p> <ul style="list-style-type: none"> <li>- Moving allowance</li> </ul>	<p>Transfer of property right through amicable agreement or expropriation</p> <p>Requirements from the World Bank Operational Policies 4.12</p>
Registered non-residential structure, on registered plot of land	Expropriation Act Construction Land Act	<p>Cash compensation to the structure owner at market, or full values,</p> <p>and</p> <p>Cash compensation for the plot at market value</p>	<p>Transfer of property right through amicable agreement or expropriation</p> <p>Requirements of the World Bank Operational Policies 4.12</p>
Registered agricultural land plot	Expropriation Act	<p>Provision of a replacement agricultural plot of similar size and characteristics,</p> <p>or</p> <p>Cash compensation at replacement value</p>	<p>Transfer of property right through amicable agreement or expropriation.</p> <p>If the Project affected part of the relevant plot accounts 10% for an irrelevant part of its total surface, the replacement plot option will not be available, but only the cash compensation option.</p> <p>If the plot remainder after the expropriation of the affected part is unusable, the owner will be entitled to expropriation of the remainder (whole) plot.</p>

Annual crops [yield)	Expropriation Act Agricultural Land Act	Cash compensation at market value to the owner of the crop if he has evidence of lease of land plot from the landowner Cash compensation to the landowner at market value	Cash compensation for the crop will be available only if the annual yield cannot be harvested within the period of notice  Requirements of the World Bank Operational Policies 4.12
Perennial crops	Expropriation Act Agricultural Land Act	Cash compensation at market value to the owner of the crop if he has evidence of lease of land plot from the landowner Cash compensation to the landowner at market value	Requirements of the World Bank Operational Policies 4.12
Business	Expropriation Act	Replacement property will be given as compensation to the previous owner of the expropriated premises used for business purposes by the expropriation beneficiary before demolition of the business premises.	Requirements of the World Bank Operational Policies 4.12
Privately owned forest land	Expropriation Act Law on Forests	Cash compensation at market value of the plot to the landowner and Cash compensation at market value of the lost timber to the timber owner	Transfer of property right through amicable agreement or expropriation Requirements of the World Bank Operational Policies 4.12
<b>COMPENSATION ENTITLEMENTS NOT COVERED BY LEGISLATION OR DOUBTFUL</b>			
Agricultural land plot registered in the name of the individual distinct from the user (not in the name of the user)	Expropriation Act Proprietary Rights Act Agricultural Land Act Land Books Act	Cash compensation at replacement value of the plot to land owner or his/her successors and Cash compensation for any developments (development activities) to the owner of these developments (applicable to irrigation or drainage structures, perennial plantations, structures, etc.)	Determination of the ownership right for the beneficiary, (for example in usurpation settlement process, and transfer of property right through amicable agreement or full expropriation  Requirements of the World Bank Operational Policies 4.12

<p>Registered plot of land with residential structure without construction permit, built by the owner of the plot</p>	<p>Expropriation Act Regulations on legalisation</p>	<p>Provided that the legalisation process is successfully implemented:</p> <p><i>OPTION 1: Resettlement with replacement property</i></p> <ul style="list-style-type: none"> <li>- Replacement property including the plot and residential structure of similar size and characteristics (replacement property) and plot attached to the property, and</li> <li>- Moving allowance,</li> </ul> <p>OR</p> <p><i>OPTION 2: Cash compensation</i></p> <ul style="list-style-type: none"> <li>- Cash compensation both for the plot and the residential structure at market, or full value, and</li> <li>- Moving allowance</li> </ul>	<p>Expropriation can be implemented after a successfully ended legalisation process until a decision on expropriation is issued</p> <p>Requirements of the World Bank Operational Policies 4.12</p>
<p>Residential structure illegally built on the plot owned by another individual</p>	<p>Expropriation Act Regulations on legalisation Proprietary Rights Act</p>	<p>Provided that the legalisation process is successfully implemented: Cash compensation at market value to the structure owner, and Moving allowance to the structure owner, and Cash compensation at market value of the plot to the plot owner and/or his successors</p>	<p>Expropriation can be implemented after a successfully ended legalisation process until a decision on expropriation is issued</p> <p>Requirements of the World Bank Operational Policies 4.12</p>
<p>Residential structure illegally built on the plot under public ownership</p>	<p>Expropriation Act Regulations on legalisation Construction Land Act</p>	<p>Provided that the legalisation process is successfully implemented: Cash compensation at market value of the structure to the structure owner, and Moving allowance to the structure owner</p>	<p>Expropriation can be implemented after a successfully ended legalisation process until a decision on expropriation is issued</p> <p>Requirements of the World Bank Operational Policies 4.12</p>
<p>Illegally built nonresidential structures on the registered land</p>	<p>Expropriation Act Regulations on legalisation Construction Land Act Proprietary Rights Act</p>	<p>Provided that the legalisation process is successfully implemented: Cash compensation at market value of the structure - to the structure owner, and Cash compensation at market value of the plot to the plot owner and/or his successors</p>	<p>Expropriation can be implemented after a successfully ended legalisation process until a decision on expropriation is issued</p> <p>Requirements of the World Bank Operational Policies 4.12</p>

<p>Illegally built non-residential structures on the plot owned by another individual</p>	<p>Expropriation Act Regulations on legalisation Construction Land Act Proprietary Rights Act</p>	<p>Provided that the legalisation process is successfully implemented: Cash compensation at market value of the structure to the structure owner, and Cash compensation at market value of the plot to the plot owner and/or his successors</p>	<p>Expropriation can be implemented when the determination of the ownership right for construction on someone else's land And the legalization were completed successfully before the expropriation decision was issued  Requirements of the World Bank Operational Policies 4.12</p>
<p>Illegally built non-residential structures on a public plot</p>	<p>Expropriation Act Regulations on legalisation Construction Land Act</p>	<p>Provided that the legalisation process is successfully implemented: Cash compensation at market value of the structure - to the owner And Cash compensation at market value for the plot</p>	<p>Expropriation can be implemented after a successfully ended legalisation process until a decision on expropriation is issued  Requirements of the World Bank Operational Policies 4.12</p>

### **8.2.8. Gender equality and impact mitigation measures**

Establishing gender equality is one of the key objectives and priorities for development of any modern society. Gender equality means an equal visibility, empowerment and participation of both genders in all spheres of public and private life as well as aims to promote the full participation of women and men in society.

The term Gender represents socially conditioned roles of women and men, their responsibilities and capabilities, and their mutual relations. Gender indicates the sociological and cultural differences between women and men. This term applies to all those roles and features that are not conditioned or determined solely by natural or biological factors, but primarily the product of norms, conventions and traditions, and they are variable categories over time.

In the project coverage area women have important economic roles in project areas and engage in all income making activities.

During the realization of the Flood Emergency Response Project, special attention will be paid to ensuring that women who are potential recipients of compensation for land expropriation as well as women who are de facto "head of the family" are clearly listed as recipients of benefits in order to achieve the mentioned compensation.

In order to ensure the above the following actions will be considered:

- Include women in the impact enumerators
- Impact assessment of AH/AP indicating the total number of families and people must be gender-disaggregated to pinpoint how many women are likely to be affected by the Project and establish their pre-Project conditions.
- Women will be major participants in the consultation processes to determine and negotiate for compensation entitlements and implement the Resettlement Plan.
- Special attention will be given to the impact of resettlement on women and other vulnerable groups during monitoring and evaluation of the Resettlement Plan.

### **8.2.9. Institutional framework**

Institutional framework is the system of state institutions, authorities and organisations which, in accordance with the law and other regulations, are given certain authorities, or obligations to undertake appropriate measures, and implement activities and specific procedures for deciding on issues relevant to the Flood Emergency Response Project in the Republika Srpska and Brčko District BiH.

First of all, significant role in this regard belongs to the Government of the Republika Srpska and the Government of the Brčko District of Bosnia and Herzegovina, i.e. Ministry for Agriculture, Forestry and Water Management of the Republika Srpska. The role of Government of the Republika Srpska and the Government of the Brčko District of Bosnia and Herzegovina is of exceptional significance especially from the aspect of establishing general interest for the construction of buildings and execution of works relating to the removal of natural disasters caused consequences in the areas affected by extensive natural disasters (earthquake, fire etc.).

Jurisdiction for the expropriation process and settlement of compensations for expropriated property belongs to the municipal service for property and legal affairs of some municipalities in the Republika Srpska, and the Department for Spatial Planning and Property and Legal Affairs of the Brčko District of BiH. Republic Administration for Geodetic and Property and Legal Affairs of the Republika Srpska is the second-instance

body that decides on appeals lodged against the decisions of the municipal service for property and legal affairs, whereas the Appellate Commission of the Brčko District is the decision making body in the Brčko District. When expropriation decisions become final, no administrative dispute can be conducted.

Apart from the afore mentioned institutions and authorities, providing specific requirements of the World Bank Operational Policies 4.12, the Ministry of Health and Social Welfare of the Republika Srpska and Municipal Social Work Centres of some municipalities of the RS and the Social Work Centre of the Brčko District.

Municipal service for spatial planning has jurisdiction to decide in legalisation procedures for illegally built structures, and Republika Srpska Ministry of Spatial Planning, Civil Engineering and Ecology, whereas in the territory of the Brčko District this role is played by the Department for Spatial Planning and Property and Legal Affairs of the Brčko District Government.

Major competences belong also to the Public Institution "Vode Srpske" Bijeljina, since Public Institution "Vode Srpske" executes direct activities of works execution and activities of general interest, which are as such defined in the RS Water Management Act, such as flood management, river bed and bank development, management of water structures and systems of interest for the Republika Srpska, and other similar activities in the fields defined in this Act.

Concerning forests, apart from Ministry for Agriculture, Forestry and Water Management of the Republika Srpska, major authorisations for management and usage are statutorily allocated to the Public Enterprise "Šume Republike Srpske", J.S.C Sokolac the Srpska, in the case of the Brčko District the Department of Agriculture, Forestry and Water Management of the District Government.

Therefore, the institutional framework related and important for the Flood Emergency Response Project in the Republika Srpska and Brčko District, with above mentioned institutions, authorities and their statutory competences, offers the possibility to conduct processes, undertake appropriate measures and thus resolve problems and task, as well as to implement the Project goals.

#### **8.2.10. Monitoring and evaluation**

Land acquisition within the Flood Emergency Response Project in the Republika Srpska and Brčko District will be subject to monitoring by both the Project Implementation Unit at the Ministry of Agriculture, Forestry and Water Management of the Republika Srpska, as well as the Republic Administration for Geodetic and Property Affairs and Department for Spatial Planning and Property and Legal Affairs of the Brčko District of BiH.

Monitoring conducted by the Project Implementation Unit will be carried out routinely by either directly or through the services of a consultant. The results will be communicated to WB through the quarterly project implementation reports.

Specific monitoring benchmarks will be:

- Report on all consultation conducted with APs;
- Status of land acquisition and payments on land compensation;
- Compensation for affected structures and other assets;
- Payments for loss of income;

According to the Law on the Republic Administration (Republika Srpska Official Gazette, Nos. 118/08 and 74/10), The Republic administration for geodetic and property affairs performs administrative and other professional tasks related to:

- survey and the establishment of the real estate cadastre,
- renewal of the survey and real estate cadastre,
- maintenance of the survey, real estate cadastre, cadastre of communal services, except for works that are legally transferred to the jurisdiction of local governments,
- cadastral classification and land quality evaluation,
- mapping the territory of the Republic,
- keeping an technical archive of original plans and maps,
- primary surveying work,
- supervision of survey work and work on real estate, land and communal services cadastres,
- land consolidation and surveying for special purposes,
- property and other affairs related to publicly owned real estate,
- property affairs on land, buildings, expropriation, land acquisition, agrarian relations, termination of state ownership,
- establishment of earlier property rights on state owned land-denationalization,
- records of properties and property rights,
- property affairs related to real estate to which the Republic has the right of use,
- supervisory, normative, legal and analytical activities and other activities in accordance with the law.

Spatial Planning and Property and Legal Affairs Department of the BD BiH is responsible to execute expert, administrative and other activities under its jurisdiction relating to:

- Spatial and town planning,
- Issuance of town planning consents, extracts and other documents under the jurisdiction of the Department,
- Environment protection of and environmental permits,
- Illegally built structures legalisation,
- Property and legal affairs,
- Protection of facilities and cultural and historic significance and natural heritage from the aspect of issuing town planning consents and establishing procedures for a protected buildings list
- and other activities under the jurisdiction of the Department, defined by law and other regulations.

## **9. ANNEXES**

**ANNEX 1: CHECKLISTS**

Checklists can serve units for the implementation of projects in the Republika Srpska and Brčko District as part of tender documentation for the selection of Supervising Body, where the obligations to perform supervision of the Environment Management Plan are specified, in a way that checklists are enclosed to be filled in by the Supervising Body during monitoring, and supervision respectively.

Table 15 General requirements - checklist

Measure	Responsibility	Execution	Confirmation source
<b>Appoint a person responsible for the Environment Monitoring Plan implementation</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Decision on appointment
<b>Construction material (asphalt, concrete, stone) is to be supplied from producers /suppliers that have valid environmental permits</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Contract on supply with enclosed environmental permit
<b>Construction equipment is licenced and approved in line with local regulations and if possible certified in line with the EU standards</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Licences copies

Table 16 Works execution - checklist

Measure	Responsibility	Execution	Confirmation source
<b>Develop a construction site development design</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Copy of the construction site development design
<b>Install ecological toilettes at the construction site</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Copy of the construction site development design Visual examinations
<b>Parking plots for machines and vehicles are not located within forest or agricultural areas, do not affect watercourses and do not jeopardise flora and fauna</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Copy of the construction site development design Visual examinations
<b>Establish a temporary landfill for construction material.</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Copy of the construction site development design Visual examinations
<b>Installed containers /bins for communal waste collection.</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Copy of the construction site development design Visual examinations
<b>Planned special space and necessary containers /bins for hazardous waste collection.</b>	Contractor	YES <input type="checkbox"/> NO <input type="checkbox"/>	Copy of the construction site development design Visual examinations

<b>Fence off and mark open trenches in order to prevent possible accidents</b>	Contractor	YES <input type="checkbox"/>	Copy of the construction site development design
		NO <input type="checkbox"/>	Visual examinations
<b>Provide sand bags for absorption of incidental spills of oil and lubricants, keep them at a visible and marked place at the construction site</b>	Contractor	YES <input type="checkbox"/>	Visual examination at the construction site
		NO <input type="checkbox"/>	

*Table 17* Construction site closure - checklist

<b>Measure</b>	<b>Responsibility</b>	<b>Execution</b>	<b>Confirmation source</b>
<b>Temporary occupied land for the needs or works must be restored to original condition</b>	Contractor	YES <input type="checkbox"/>	Visual examination
		NO <input type="checkbox"/>	
<b>Removed all types of waste from the works execution location</b>	Contractor	YES <input type="checkbox"/>	Visual examination
		NO <input type="checkbox"/>	

**ANNEX 2: List of subproject activities NOT eligible for funding**

List of Sub-project activities **NOT** eligible for funding:

***General properties***

- 1) Projects that have a significant impact on environment, which require environmental permits, based on the elaborated full EIA or Application for environmental permit issuance in line with environment protection laws of the Republika Srpska and Brčko District, and by-laws issued based on these laws.
- 2) Projects involving significant changes or degradation of natural habitats, which includes protected areas (national parks, natural parks, protected landscapes and seascapes, Bardača special reserve). Such areas allow no other activities but flood deposits removal and reparation of infrastructure that already existed.
- 3) Projects involving works that could cause damages to the cultural and historic heritage and facilities declared as such by the Commission for the protection of monuments of BiH, and relevant institutions for the protection of monuments in the Republika Srpska and Brčko District.
- 4) Projects involving works that require the usage of pesticides of IA, IB, or II WHO class.
- 5) Projects involving works that require relocation/resettlement of population.
- 6) Projects involving works of reparation of productive or residential facilities in private ownership.
- 7) Projects involving works in commercial or sanitary logging.

***Water supply and sewerage sector***

- 8) Projects involving the construction of new or extension of the existing water supply network for the supply of 500 or more households.
- 9) Projects involving the construction of new or extension of the existing sewerage network or waste water treatment plants.
- 10) Projects involving rehabilitation/reconstruction of the existing waste water treatment plants.

***Transport sector***

- 11) Projects involving the construction of new roads.
- 12) Projects involving widening of the existing trunk roads.
- 13) Projects whose activities require the construction of new temporary or permanent infrastructure to visit devastated areas, with length of individual sections longer than 500 m, or with total length longer than 2,000 m, within the 10 km corridor or less.

***Agriculture and rural development sector***

- 14) Projects involving provision of seeds and seedlings for crops intended for consumption, if soil was not previously tested in order to assure that it is not contaminated and/or has no heavy metals therein.
- 15) Projects involving provision of seeds and seedlings without instruction from relevant institutions in the RS/BD that are in charge of agriculture/planting.
- 16) Projects involving the construction of new irrigation systems or enlargement of the existing ones that demand additional water quantity intake.
- 17) Projects involving drilling new wells with irrigation pipes.

***Energy sector***

- 18) Projects involving the construction of new productive capacities.

- 19) Projects involving rehabilitation of hydro power plants with dams, or which change the water course regime.

***Waste management sector***

- 20) Projects involving the construction of new or significant widening of the existing sanitary landfills and waste disposal locations.
- 21) Projects involving the widening of open communal waste disposal locations.

***Water basin management***

- 22) Projects involving the repair of embankments or dams higher than 5 m, or which accumulate more than 1,000,000 m<sup>3</sup> water.
- 23) Projects involving the construction of new or significant widening of the existing flood protection structures, including transformation of flood plains into river forests.

***Oil and gas***

- 24) Projects involving the construction of a new distribution line.

***Income generating activities***

- 25) Projects involving unsustainable logging of forest or firewood.
- 26) Projects whose implementation shall use hazardous substances such as: pesticides / herbicides, explosives, substances that are illegal by domestic laws, PCB (polychlorinated biphenyl), radio-active substances, free asbestos fibres.