

## Rioni river

The Rioni or Rion River is the main river of western Georgia. Length of the river is 327 km and the drainage area around 13,400 km<sup>2</sup>. It starts on the southern slopes of the Caucasus Mountains at 2,960 meters above the Sea level.

The river Rioni basin includes important parts of the regions, coastal zones, towns and villages of western Georgia, as conditionally protected territory of Racha, Borjom-Kharagauli National Park, Ajameti natural reserve, Sataflia natural reserve, Katsoburi managed reserve, Kolkheti National park and Black Sea Resort territories, most part of what is endangered ecologically by the river Rioni.

Among pollution sources of the river Rioni should be separated the worldwide richest manganese mining enterprises located on river's tributary river Kvirila in Chiatura municipality. One of the main polluters of the river Rioni basin is agriculture, as it appears the only source of income for the most of the basin inhabitants.

There are such water pollution sources in all basin area as livestock farms, chicken farms, agricultural fields, agricultural outputs production and processing enterprises, etc. Almost none of these areas follow the environment protection standards and norms and appear significant pollution sources for environment and waters.

## Sakarya river

Sakarya stream has 824 km length. It has 58160 km<sup>2</sup> of catchment area and 188.70 m<sup>3</sup>/s flow rate annually. The catchment consists of 3 regions; these are upper, middle and lower Sakarya. Porsuk and Ankara streams are the most important distributaries of Sakarya stream.

Sakarya delta in the lower Sakarya region has the feature of natural conservation area and holding important ecological values of our country. 28 of plants from region are in the red book list. Being on migrating birds route, being rich by wetlands and wildlife and game are among other ecological values of catchment area.

Porsuk stream which is connected Sakarya stream in the middle part carries wastes especially of food and textile industry to the stream. According to researches, it seems that heavy metal levels especially Ni and Cu are above acceptable levels. In the lower parts of the stream forest industries and irrigation areas are present.

According to the information above, it could be said that, Sakarya stream and its catchment area are being subject to various negative effects, especially terrestrial origin. Polycyclic aromatic hydrocarbons (PAHs), heavy metals and above all, pesticides should be monitored in both water and sediment. Because these pollutants accumulate in living tissue, attach to the food chain and affecting both humans and other living organisms' life quality.

## Contacts

### Agro-Business Consulting



12, Sulkhan Tsintsadze Street, office 3/11  
Tbilisi, 0164, Georgia  
Tel: (+995 32) 2905365  
Fax: (+995 32) 2905365  
E-mail: abc@abcgroup.ge  
Web page: www.abcgroup.ge

### Disaster Preparedness and Earthquake Training Association



Buyukdere Caddesi Kugu Ishani No:81, D:1  
Mecidiyeköy - Sisli Istanbul, Turkey  
Tel: (+90 212) 213 02 40  
Fax: (+90 212) 212 73 96  
E-mail: info@ahder.org  
Web page: www.ahder.org

### Regional Environmental Centre Moldova



31, Alexei Mateevici street, MD 2009  
Chisinau, Republic of Moldova  
Tel: (+373 22) 240997  
Fax: (+373 22) 240998  
E-mail: info@rec.md  
Web page: www.rec.md

### ProRuralInvest



98, 31 August 1989 street, office 411, MD-2004  
Chisinau, Republic of Moldova  
Tel: (+373 22) 23 78 02  
Fax: (+373 22) 23 50 80  
E-mail: vgherciu@gmail.com  
Web page: www.rural.md

### Black Sea - Danube Coastal Association for Research and Development



Asparuhovo quarter, office 213, 9000  
Varna Bulgaria  
Tel: (+35952) 383713  
Fax: (+35952) 383719  
E-mail: office@bdcabg.org  
Web page: www.bdcabg.org

### Eco Counselling Centre Galati



2, Basarabiei Street, 800201  
Galati, Romania  
Tel: (+40 236) 49 99 57  
Fax: (+40 236) 31 23 31  
E-mail: eco@cceg.ro  
Web page: www.cceg.ro

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Common borders. Common solutions.



# REPAIR

Regional Cooperation for Black Sea  
River Basins Environment Protection  
from Agricultural Polluters



## Kamchia river

The Kamchia is a 244.5 km long river in eastern Bulgaria, the longest river on the Balkan Peninsula to flow directly into the Black Sea. It starts from the confluence of two rivers springing from Eastern Stara Planina, Golyama Kamchiya and Luda Kamchiya, flows eastward to the Black Sea and empties into it 25 km south of Varna, in the Resort of Kamchiya.

The area around the mouth and lower course of the river is remarkable for its variety of habitats - frequently flooded, old growth forests of a riverine type, up to 450 m-wide beaches with up to 19 m-high, forested or grass-covered sand dunes, freshwater marshes and marshy remnants of old riverbeds, cutting deep into the forest. The unusual coexistence of ash, oak, elm, alder and maple trees sometimes rising up to 40-50 m with lianas climbing between the branches creates the impression of a tropical forest, a real tangle of woods. The total area of the protected habitats in the reserve, together with Kamchia Sands Protected Area, adds up to 1.200 ha.

A very common problem in the mouth of the river are flooding, worsening the ecological parameters of adjacent areas. As a consequence of river discharge the close coastal zone water quality does not correspond to the Bulgarian standards, not only for nutrients. The main features of the river influenced waters in the coastal area are the lower salinity, higher nutrients and suspended matter content.

## Prut river

Located in the south-east part of Europe, the Prut River springs in Ukraine from Carpathians Mountains and flows into the Danube near Reni locality on Romanian-Moldova border, crossing landforms represented by mountains, plateaus, hills and plains.

The River Prut is the second largest tributary of Danube with a total length of 952,9 km. It is a typical border river defining the border between Romania and Ukraine on 31 km and between Romania and Republic of Moldova on 711 km of its length.

The main characteristic which defines Prut is biodiversity. Despite the fact that the floodplain was reduced due to the dykes for flood protection, the natural habitats and species are still well preserved and their conservation status led to designate the Prut River as Natura 2000 site and natural park and reserves.

Nevertheless, during the centuries, essential activities to the livelihoods of the people in the basin contributed to management issues in the form of pollution and changes to the natural form of the Prut. Discharges of non-treated or insufficiently treated wastewater, municipal, industrial and animal, uncontrolled landfills, illegal dumping of household waste, changes in land-use and river engineering as well as inappropriate agricultural practices, had represented a major widespread pressure factor.

## Overall Objectives

To contribute to strengthening partnership and cooperation in the Black Sea region, especially in the project implementation area that covers regions of Working together to promote the solution of common problems of environment protection sustainability.

**Duration of the project:** 22 months

## Locations of the joint Action

- **Georgia** - Tbilisi, Racha Letchkhumi Qvemo Svaneti, Samegrelo Zemo Svaneti, Imereti, Samtskhe-Javakheti Regions;
- **Bulgaria** - Severoiztochen Region;
- **Turkey** - Istanbul, Sakaray, Golu, Kocaeli Provinces;
- **Moldova** - Chisinau, Cantemir, Leova, Nisporeni, Ungheni, Falesti, Cahul Districts;
- **Romania** - Braila, Buzau, Constanta, Galati, Tulcea Counties.

## Target groups

- Project area environment direction NGOs;
- Public organizations and local authorities;
- Farmer unions;
- Agricultural production producing and processing companies;
- Women associations.

## Estimated results

- Strengthened cross border partnership and integration in the fields of environment protection of the black sea coastal zones and river basins;
- Elaborated and delivered data extending data networks regarding the Black Sea coastal zone and river basins pollution sources especially caused by agricultural activities;
- Extended innovations and increased joint knowledge in 'River Basin Environmental Action Program' methodology;
- Prepared, published and disseminated model 'River Basins Protection from Agricultural Polluters - Environmental Action Program' for chosen river basins;
- Increased possibility for civil society participation with active involvement of women in the preparation of Black Sea region environmental action programs;
- Provided scientific collaboration by ensuring harmony and coordination between the Black Sea Regional Research Programs;
- Contribute to connection network between collaborating countries.

## Final beneficiaries

- Tourist companies and complexes;
- Environmental governmental structures;
- Local authorities;
- Project area population and communities in the protected areas.