

Coastal erosion in Albania

by

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Climate change (sea level rise) coupled with damming of rivers and riverbed exploitation in Albania has brought extensive coastal erosion along the shores of the Adriatic Sea in Albania. In some places erosion is so grave that the sea has advanced 400-500 meters inland, swallowing beaches, forests and land, destroying agricultural land through salt water intrusion, creating serious material damages for touristic investments on the seashore, and destroying wetlands and lagoons which provided precious habitat for fish and birds. The areas most seriously affected by coastal erosion are not surprisingly areas where there is lack of sediments, gravel and sand by rivers or streams, or where a river has been dammed, trapping sediments behind the dam. The shores affected are in Buna River Delta, Shëngjin, Kune-Vain, Rrushkull, Golem, and the shore south of Seman River and north of Vjosa River, Fier region. While in the north Velipoja beach is not yet directly heavily suffering from coastal erosion due to sediments still being brought by tributaries of Drin, Kir and Gjadër, it is expected that the amount of sand and gravel being deposited on Buna estuary and delta will be smaller, due to a part of Gjadër River sediments being trapped behind HPP Ashta 1 and 2, which started operating in 2012. The delta of Buna River has receded hundreds of meters, due to the decreasing of alluvial sediments which were before transported by Drin River. Shëngjin and Kune-Vain area are suffering heavily from coastal erosion, due to a lack of sediments being brought in the bay from the Old Drin branch, which receives very little water after most of Drin River waters crossed to Buna River after the flood of 1858 and then later were channeled almost entirely to Buna through levees in the 1960s. Environmentalists have continuously asked from the Ashta HPP to allow more water to pass through the Old Drin branch crossing Lezha, which at the moment receives some water only during three months of the year, with the rest of the year being a still canal. Erosion in Shëngjin and Kune-Vain has threatened the chain of lagoons in that area, destroyed forests and human-made structures by eroding almost 400m inland in the last 15 years.¹

Mat River estuary is still existing due to sediments being brought so far by Fan River. Since two big dams will soon finish construction on this river, the shore and Patok Lagoon will suffer from coastal erosion. The other shores have suffered from coastal erosion due to lack of major streams or rivers to replenish their sand, or to removal and exploitation of gravel from riverbeds in Mat, Erzen, Ishëm, Seman and Vjosa River.

Pictures from field trip in September 2015, in Shëngjin and Kune-Vain, Lezhë, Albania

¹ Institute for Environmental Policy: http://iep-al.org/?page_id=52



Salt intrusion is killing the coastal pine forest in Shëngjin, Albania.



Comparison of the same location. The first picture (left) was taken in 2008 whereas the second one (right) was taken in 2015



The advance of the sea towards the pine forest is killing the trees year by year



Bunkers are not anymore inside the forest, but surrounded by sea