



**Erdona  
Demiraj**


**DATE OF BIRTH:**

09/06/1986


## CONTACT

Nationality: Albanian

Gender: Female

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## ABOUT ME

PhD. Erdona DEMIRAJ was graduated in Agro-Environment Engineering at the Agricultural University of Tirana, Department of Environment and Natural Resources since 2008. In 2010 she was graduated "Master of Science" in "Agro-Environment Engineering" and since 2017 works as Lecturer near to this department. She was qualified in multidisciplinary training related to environmental chemistry, natural resources, environment issue, project coordination program and green energy (Kyoto Protocol, Renewable Energy, Urban Biodiversity, and Environmental Legislation). PhD Demiraj is an expert for "Environmental Impact Assessment" and expert in several different projects funded by EU, WB etc. During PhD studies conducted at AUT and University of Foggia (UNIFG, Italy) with the aim on: "Evaluation of the impact assessment of agricultural activity on the water quality of Shkodra Lake", she has published scientific articles in Journals with Impact Factor and has participated in international scientific conferences. In the teaching process she is engaged with courses such as: "Environmental Pollution and Risk Management", "Environmental Chemistry", "Research Methodology" and "Environmental Analysis".

## WORK EXPERIENCE

**01/05/2018 - CURRENT** - Tirana, Albania

### Lecturer

Agricultural University of Tirana

PhD Demiraj is an expert for "Environmental Impact Assessment" and expert in several different projects funded by [EU](#), WB etc. During PhD studies conducted at AUT and University of Foggia (UNIFG, Italy) with the aim on: "Evaluation of the impact assessment of agricultural activity on the water quality of Shkodra Lake", she has published scientific articles in Journals with Impact Factor and has participated in international scientific conferences. In the teaching process she is engaged with: "Environmental Pollution and Risk Management", "Environmental Chemistry", "Research Methodology" and "Environmental Issue Analysis" subjects.

## EDUCATION AND TRAINING

**28/09/2017 - 28/02/2018** - Via Antonio Gramsci, 89, 71122 Foggia FG, Italy, Foggia, Italy

### Research Activity on Evaluation of the impact assessment of agricultural activity on the water quality of Shkodra Lake

University of Foggia

<https://en.unifg.it/>



## LANGUAGE SKILLS

**MOTHER TONGUE(S):** Albanian

**OTHER LANGUAGE(S):**

### English

**Listening**  
C1

**Reading**  
C1

**Spoken  
production**  
C1

**Spoken  
interaction**  
C1

**Writing**  
C1

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### Italian

**Listening**  
B2

**Reading**  
B2

**Spoken  
production**  
B2

**Spoken  
interaction**  
B2

**Writing**  
B2

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## DIGITAL SKILLS

Microsoft Office / Microsoft Word / Microsoft Excel / Microsoft Powerpoint / Outlook / Zoom / Skype / LinkedIn / Social Media / JMP11 / Facebook / Arc GIS



## PUBLICATIONS

### Assessment of the Water Quality Index in the Semani River in Albania

2020 <https://doi.org/10.4236/jep.2020.1111063>

Nowadays the human activity has increased the pressure on surface water quality. The purpose of this study is to assess the environmental quality of the Seman River water (in Southern part of Albania) through a 5-year monitoring program of 14 parameters (pH, DO, EC, TSS, Cl<sup>-</sup>, NO<sup>-3</sup>, Total-N, Total-P, BOD<sub>5</sub>, Cu<sup>2+</sup>, Ni<sup>2+</sup>, Pb<sup>2+</sup>, Cd<sup>2+</sup> and Temp. °C), that determine the environmental status of this waterbody, as well as the application of WQI (CCME) through a multivariable approach. Based on the cluster dendrogram results, it can be concluded that during wet seasons such as winter-spring, there are more sediments which influence other physic-chemical parameters, while during dry seasons (summer-autumn) there are more decomposition reactions of elements released by sediments and influenced by temperature. PCA analysis determines whether the groups of factors correlate strongly or not, depending on the internal structures of the groups and variables "heavy" or latent and vary from season to season with differentiated contributions to the water quality. All three factors influence WQI to the extent of 56% in the summer and spring season and 64% and 40% in the autumn and winter season, respectively.

<https://doi.org/10.4236/jep.2020.1111063>

### Direct and residual impacts of zeolite on the remediation of harmful elements in multiple contaminated soils using cabbage in rotation with corn

2020 <https://doi.org/10.1016/j.chemosphere.2020.126317>

Direct and residual influences of zeolite on soil harmful elements immobilization were investigated.

Direct and residual influence of zeolite effectively increased cabbage growth than corn.

The mobility of Pb, Cd, Cu and Zn in contaminated soils was reduced after both crops.

The Pb, Cd, Cu and Zn in cabbage and corn root and shoot were reduced with application of zeolite.

<https://doi.org/10.1016/j.chemosphere.2020.126317>

### Limestone and Biochar Affect the Bioavailability and Geochemical Fractions of Cadmium and Zinc from Zn-Smelter Polluted Soils

2020 <https://doi.org/10.3390/su12208606>

Ca-bentonite (CB) alone and in a mixture with limestone (L), tobacco biochar (TB) and zeolite (Z) on the fixation, geochemical fractions and absorption of Cd and Zn by Chinese cabbage in smelter heavily polluted (S-HP) and smelter low polluted (S-LP) soils were investigated. The results showed that the CB + TB and CB + L + TB treatments significantly immobilized Cd up to 22.0% and 29.7%, respectively, and reduced uptake by Chinese cabbage shoot to 36.0% with CB + Z + L and 61.3% with CB + L in S-HP and S-LP soils compared with the control. The CB + Z + L + TB treatment mobilized Cd up to 4.4% and increased absorption in the shoot by 9.9% in S-HP soil. The greatest immobilization of Zn was 53.2% and 58.2% with the CB + Z + L + TB treatment, which reduced Zn uptake in the plant shoot by 10.0% with CB + L and 58.0% with CB + Z + L + TB in S-HP and S-LP soils. The CB + Z + TB and CB + TB treatments mobilized Zn up to 35.4% and 4.9%, respectively, in both soils. Furthermore, the uptake of Zn in plant shoot was observed by 59.0% and 7.9% with application of CB + Z and CB + TB treatments, respectively, in S-HP and S-LP soils. Overall, our results suggest that Ca-bentonite alone and in mixtures with different amendments can be used to reduce the phyto-extraction of Cd and Zn in Zn-smelter polluted soils.

<https://doi.org/10.3390/su12208606>



## **Effect of organic amendments on nitrate leaching and extraction in a sandy silty soil in Shkodra district, Albania**

**2018** <https://www.agronomy.it/index.php/agro/article/view/1136>

European lacustrine systems are frequently exposed to nitrate (NO<sub>3</sub><sup>-</sup>) pollution causing eutrophication processes. An example of these lakes is Shkodra Lake, a large, shallow lake shared by Albania and Montenegro, in the Balkans Peninsula. Shkodra Lake is a natural sink that collects NO<sub>3</sub><sup>-</sup> from agricultural activities, widely diffused in the surrounding area. The additions of wheat straw and biochar have been suggested to increase soil NO<sub>3</sub><sup>-</sup> retention of agricultural lands. To better understand the role of these two organic soil amendments in mitigating NO<sub>3</sub><sup>-</sup> leaching from arable lands, a pot experiment using a representative sandy loam soil of the Shkodra Lake basin was performed.

<https://www.agronomy.it/index.php/agro/article/view/1136>

## **Evaluation of Phosphorus Leaching in an Agricultural Soil under Different Soil Amendments**

**2017** [https://sites.google.com/a/ubt.edu.al/rssb/ajas\\_2017\\_2/8\\_erdona-demiraj](https://sites.google.com/a/ubt.edu.al/rssb/ajas_2017_2/8_erdona-demiraj)

The transport of Phosphorus (P) from agricultural soils to surface waters sensitive to eutrophication has long been a world-wide environmental concern. The intensive agricultural activity in the upper Shkodra fields, combined with others point source pollution, probably, intensify eutrophication of the Shkodra Lake. These Clay Loamy soils (calcaric Regosols) are characterized by low organic matter, N and P, with a high water percolation. An experiment was conducted at Greenhouse Research Station, Agriculture University of Tirana, Albania to evaluate Total P (TP) concentration in leaching and runoff waters.

[https://sites.google.com/a/ubt.edu.al/rssb/ajas\\_2017\\_2/8\\_erdona-demiraj](https://sites.google.com/a/ubt.edu.al/rssb/ajas_2017_2/8_erdona-demiraj)

## **Ecological quality status of the Erenik River in Kosovo: Physical parameters and macronutrients**

**2015** <https://www.wflpublisher.com/Abstract/5451>

The Erenik River in Kosovo encompasses an area of about 88 km<sup>2</sup> and is an important tributary of the Drin River watershed, which in turn covers an area of 19,000 km<sup>2</sup>. The ecological quality of the Erenik River affects the quality of four hydropower reservoirs and that of Drin River. This paper identifies the main sources of macronutrients, dissolved mineral forms, transfer and loading of nitrogen (N) and phosphorus (P) on the Erenik River and how it influences the water quality of the Drin River and Fierza Lake. Total forms in soil and sediment of C, N and P as well as soluble forms of N (NO<sub>3</sub><sup>-</sup>, NO<sub>2</sub><sup>-</sup> and NH<sub>4</sub><sup>+</sup>) and P (PO<sub>4</sub><sup>3-</sup>) in the water of Erenik River was measured at 13 stations, selected based on parental rock, topography, as well as identified point and diffuse sources.

<https://www.wflpublisher.com/Abstract/5451>