






## PERSONAL INFORMATION

## Manjola Banja

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Sex Female | Date of birth 10/03/1967 | Nationality Albanian

## WORK EXPERIENCE

Experienced Scientific Officer with a demonstrated history of working in the environmental and energy services to support policy. Strong research professional skills in Energy, Renewable Energy Policy, Air Pollution Monitoring and Modelling, Water Management, Project Management and Evaluation, Data Analysis, Data Visualisation, Climate Change, Sustainable Development, Bioenergy, Environmental Impact Assessment, Environmental Management Systems.

01.06.2021 - now

**Scientific/Technical Officer (Contract Agent FG IV)**

Directorate C – Energy, Climate and Transport, Air and Climate Unit, Joint Research Centre, European Commission, Ispra, Italy, <https://ec.europa.eu/jrc/en>.

Perform studies related to changes of greenhouse gases (GHG) and air pollutant emissions in time and in space to measure the impact on climate change.

Involved in the development and update of the JRC EDGAR (Emissions Database for Global Atmospheric Research) database on GHG and air pollutant activity data, technology, and emission reduction measures.

Scientific leader of the JRC Agricultural Emission Estimation (AgrEE) Tool supporting the EU Member States to improve national inventories on air pollutant and greenhouse gas emissions from agricultural sector.

Leader of the work to create a communication platform between EDGAR and POLES -JRC model allowing EDGAR to project emissions using POLES-JRC model information and providing POLES the latest up to date historical emissions. Building synergies for emission computation, data sharing, etc

10.03.2020 – 31.03.2021

**Expert Intra-Muros at Air and Climate Unit, Directorate for Energy, Transport and Climate, Joint Research Centre, European Commission**

Technical support for the development of the JRC Emissions Database for Global Atmospheric Research (EDGAR) database and applications. Developing a database which collects all the information needed to update the EDGAR agricultural emissions to serve the needs of policy makers (e.g. DG ENV, DG AGRI, etc.) and Member States.

Responsibilities:

Task 1 – Evaluation of the state of the art of air pollutant emissions in the agricultural sector. For each agricultural sub-sector (i.e. agricultural waste burning, agricultural soils, manure and fertiliser management and application, livestock feeding and housing, and enteric fermentation), the report will summarize the methodologies (Tier 2 and higher) relevant to compute air pollutant emissions, following EMEP/EEA and IPCC guidelines. Tables including all parameters required at Member State level (or more detailed level) to feed into the equations for emission factors and Activity Data calculations will be also provided. A technical evaluation of the methodological information from the JRC CAPRI model can be used to feed the EDGAR database will be also performed.

Task 2 – Update the information already available in EDGAR regarding the activity data and emission factors and the different type of technologies for the agricultural sector at the EU and global level (e.g. for manure management (burned for fuel, dropped in Pasture/ Range/Paddock, digester, dry lot, daily spread of manure, lagoon, liquid slurry, pit, solid storage) and rice cultivation (deep water, irrigated, rainfed, upland)). This update will be performed based on FAO statistics and the analysis done under Task 1.

Task 3 – Collect additional information (on the technologies used and on activity data) available in the JRC CAPRI model as possible input for improvement of the information available in EDGAR. Complement missing elements on agricultural practices and techniques with information from Member States (or more detailed level). All this information (from EDGAR, CAPRI and from Member States) will be collected into a database, which would compile the input information for the activity data and emission factors calculation at the EU and global level.

Task 4 – Test and assess the improvements in the quality of inventories of air pollutant emissions from agriculture computed using the updated information tool in comparison with the previous estimates from Member States and EDGAR.

07.02.2020 – 28.02.2020

**Expert at HEAT GmbH**

Market study on “Mitigation potential for heat pump and commercial refrigeration equipment in EnC countries – Ukraine case” - In the framework of the Heat GmbH project “Capacity Building for the Innovative Application of Energy-Efficient and Climate-Safe Technologies RACHP in Ukraine, Umweltbundesamt, German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

- Responsible for the market study structure and the final edition of the study
- Responsible for data collection on heat pump market in EU and EnC countries having in focus Ukraine
- Writing the sections of the market study related to the
  - Country background,
  - Heating/Cooling demand drivers and gas usage in Ukraine
  - Legal and regulatory framework in EU and Ukraine related to renewable energy and energy efficiency
  - Heat pumps market in EU and Ukraine-progress and projections
  - Comparison of climate friendly and conventional heat pumps vs gas boilers
  - Development of mitigation scenarios up to 2050 on emission savings potential in Ukraine when introducing heat pumps
  - Development of scenarios up to 2050 on heat pump penetration in the Ukraine household stock

14.06.2019 – 31.01.2020

**Expert at Air and Climate Unit, Directorate for Energy, Transport and Climate, Joint Research Centre, EC**

Work Package “Air and Climate in Western Balkans” supports the process of accession of the Western Balkans Countries as envisaged in the EU strategy for the Western Balkans (COM (2018)65) and the Enlargement package (COM (2018) 450).

Responsibilities:

- Analysis of the alignment of Western Balkans countries with EU environment and climate change *acquis*;
- Design and drafting of a Science for Policy Report on the status of air quality, air pollutants emissions and GHG emissions in Western Balkans;
- Design and drafting of a Technical Report on Western Balkans countries profiles on the status of air quality and GHG emissions;
- Establishment of the database on air quality (concentrations) in six countries of Western Balkans: Albania, Kosovo, Serbia, Montenegro, North Macedonia and Bosnia & Herzegovina;
- Establishment of the database on air pollutants emissions in six countries of Western Balkans: Albania, Kosovo, Serbia, Montenegro, North Macedonia and Bosnia & Herzegovina;
- Establishment of the database on GHG emissions in six countries of Western Balkans: Albania, Kosovo, Serbia, Montenegro, North Macedonia and Bosnia & Herzegovina;
- Preparation of collections for publishing in JRC Data Catalogue and EU Open Data Portal

07.09.2018 – 31.10.2018

**Expert at Abcons Sh.p.k**

Air quality legislation and air pollution background – Case study Korca (Albania)

Air pollution dispersion modelling of combined cycle cogeneration power plant Korca (Albania)

Responsibilities:

- Identify and point out relevant legal requirements (IFC/EU/Albanian) to be considered for placing and operation of the plant and its ancillaries; combine in a table format the maximum allowed levels for each of the air quality parameters in accordance with the relevant Standard (IFC/EU/Albanian);
- Describe the air quality conditions of the project area: expected (due to air contamination sources in the area) or based in air quality monitoring station results (if they occur in the project area).
- Confirm/change air quality parameters that will be measured and sampling/testing methodology toward national and international standards.
- Prepare a summary – Evaluate/compare the measured results and air exercise results toward national and international standards (EU/IFC/IBRD), risks and mitigation measures/ recommendations;
- Determine air modelling methodology, including codes, standards, limits and finalize the methodology;
- Perform air pollutants dispersion modelling for the interested area;
- Prepare air modelling report and associated maps.

15.03.2015 – 15.03.2018

**Scientific/Technical Officer (Contract Agent FG IV)**

Directorate C – Energy, Climate and Transport, Energy Efficiency and Renewables Unit, Joint Research Centre, European Commission, Ispra, Italy, <https://ec.europa.eu/jrc/en>

- Leader of work packages
  1. Monitoring Actual and Foreseeable Renewable Energy Deployment
  2. Bioenergy Assessment and Modelling
- Responsible and contact point for a multi-dimensional energy database, which is transformed in an interactive tool and accessible for the public, the dedicated space in EU Science Hub -NREAPs and progress reports data portal- . <https://ec.europa.eu/jrc/en/scientific-tool/nreap-data-portal>
- Responsible for (i) an integrated analysis in line with the EU long term energy and climate policy (ii) renewable energy deployment in the EU towards 2020 and 2030 targets; (iii) impact of this deployment to the greenhouse gas emissions; (iv)

renewable energy regulatory and financial measures in place or planned, and (v) renewable energy policy developments within the Europe energy market.

- Supporting DG Energy on the impact assessment of bioenergy sustainability SWD (2014) 259 final and SWD (2016) 418 final in the process of Renewable Energy Directive recast.
- Representing JRC at the Energy Statistics Working Group (Eurostat).

01/05/2011–31/12/2014 **Detached National Expert**

Institute for Energy, Climate and Transport, Renewables and Energy Efficiency Unit, Joint Research Centre, European Commission, Ispra, Italy, <https://ec.europa.eu/jrc/en>

Assessment of legislations related to lifecycle of greenhouse gases of fuels in Europe, USA, Canada; Sustainability of bioenergy; Water and bioenergy; Analysis of EU and non-EU countries progress towards their 2020 targets/plans; Establishing a multidimensional renewable energy database; Part of JRC team supporting DG MARE on marine technologies and their potential in EU; Writing science for policy/technical reports, participation in conferences, workshops, training; representing JRC at the Energy Statistics Working Group (Eurostat).

01/01/2008–31/12/2014 **Scientific Researcher**

Polytechnic University, Tirana, Albania, Tirana (Albania)

Air and water pollution monitoring; Air pollution dispersion modelling (local distribution); Coordinator of national projects in the environment field; Writing scientific/technical reports/papers; Participating in conferences, workshops, training

01/05/2003–31/12/2007 **Deputy Director**

Institute of Hydrometeorology, Academy of Sciences of Albania, Tirana (Albania)

Management of hydrometeorological activities, coordinator of national and international projects in the field of environment (air and water); Writing management/scientific/technical/evaluation reports; Representing nationally and internationally hydrometeorological activities; Participation in conferences, workshops.

01/09/1990–30/04/2003 **Scientific Researcher**

Institute of Hydrometeorology, Academy of Sciences of Albania, Tirana (Albania)

Air pollution monitoring and modelling; statistics analysis of meteorological elements and air pollutants time series; writing technical reports; participation in conferences and workshops.

EDUCATION

01/01/2005–15/12/2008 **Doctor of Science in Atmospheric Physics**

University of Tirana, Faculty of Natural Sciences, Tirana (Albania)

The influence of meteorological elements in air pollutants transport in atmosphere

01/01/2002–20/12/2004 **Master of Science**

University of Tirana, Faculty of Natural Sciences, Tirana (Albania)

Instrumental Chemistry

01/09/1985 – 31/08/1990 **Bachelor Diploma**

University of Tirana, Faculty of Natural Sciences, Tirana (Albania)

Engineering Chemistry

MAIN ACHIEVEMENTS

- Establishment of the first Air Pollution Monitoring Network in Albania
- Deputy Director of Hydrometeorological Institute, Academy of Sciences of Albania
- Coordinator/Expert in National and International Projects
- Leader WPK "Monitoring Actual and Foreseeable Renewable Energy Deployment"
- Leader WPK "Bioenergy Assessment and Modeling"
- Contribution to WPK "Development of the European Energy Efficiency Platform"
- Contribution to WPK "Nexus perspectives for the Mediterranean region and Africa".
- Contribution to JRC initiative to support Danube region
- Leader author of JRC Science for Policy reports. (<https://ec.europa.eu/jrc/en/publications-list/banja>)
- Author of the renewable energy data portal sourced from EU and non-EU countries reporting under existing Renewable Energy Directive and complemented with the latest data collected through the indicative SHARES Tool (Eurostat) (<https://ec.europa.eu/jrc/en/scientific-tool/nreap-data-portal>)
- NREAPs data set at [JRC Data Catalogue](#) and [EU Open Data](#)

- Contribution to SWD (2016) 418 final on “Proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (recast)” (Part ¼ and 4/4)
- Contribution to [SWD \(2014\) 259 final](#) “ State of play on the sustainability of solid and gaseous biomass used for electricity, heating and cooling in the EU”
- Contribution to EEA reports “Renewable Energy in Europe – recent growth and knock-on effects”, 2015-2017 editions.
- Contribution to REN21 2016-2019 editions “Renewable Global Status Report”,
- Contribution to IRENA-IEA-REN21 “Renewable Energy Policies in a Time of Transition” paper (2018)
- Expert Reviewer of REN21 “Asia and the Pacific Renewable Energy Status Report” (2019)
- Expert Reviewer of “WGIII Contribution to the IPCC Sixth Assessment Report (AR6)” (January 2020)
- Reviewer at Energy Policy Journal (Certificate of Reviewing)
- Reviewer of IRENA-IEA-REN21 report “Renewable Energy Policies in a Time of Transition: Heating and Cooling”, (2020)

## TRAINING / WORKSHOPS

- Ambient Air Quality Expert Group Meeting – The Implementation of the Directive in the Reduction of National Emissions of certain Air Pollutants, DG Environment, 11.02.2021, Oral Presentation, Virtual event
- JRC Virtual Training “Screening for High Emissions Reduction Potential on Air (SHERPA) tool for beginners”, 24.11.2020
- Joint IRENA – JRC Expert Workshop on “Benchmarking long-term scenario comparison studies for the clean energy transition”, 10.09.2020, Virtual event
- Community of Practice “Composite Indicators and Scoreboards”, 07-08 November 2019, Joint Research Centre, Ispra, Italy
- Training on “Composite Indicators and Scoreboards”, 04-06 November 2019, Joint Research Centre, Ispra, Italy
- Workshop “Extreme events and energy transitions: tackling the challenges of climate change by integrating social and complex systems science”, 23-27 September 2019, Joint Research Centre, Ispra, Italy
- Training on “Composite Indicators and Scoreboards”, 05-07 November 2018, Joint Research Centre, Ispra, Italy
- Meeting on “Energy Statistics Working Group”, 08-09 November 2017, Eurostat (ESTAT 5), Luxembourg
- Training on “Application of decomposition analysis techniques to investigate energy consumption trends in Europe”, 11-12 July 2016, Joint Research Centre, EC, Ispra, Italy
- Meeting on “Energy Statistics Working Group”, 15-17 June 2016, Eurostat (ESTAT 5), Luxembourg
- European Statistical Advisory Committee (ESAC) workshop “Indicators: user requirements, methodological issues and communication challenges”, 09-10 May 2016, Hague, Netherlands
- Meeting on “Energy Statistics Working Group”, 02 March 2016, Eurostat (ESTAT 5), Luxembourg
- Meeting on “Energy Statistics Working Group”, 28 October 2015, Eurostat (ESTAT 5), Luxembourg
- Training on “INSPIRE Basics – INSPIRE Utilisation”, 10-11 September 2015, Joint Research Centre, EC, Ispra, Italy
- Meeting “Energy Statistics Working Group”, 24-25 June 2015, Eurostat (ESTAT 5), Luxembourg
- Meeting on “Energy Statistics Working Group”, 14 November 2014, Eurostat (ESTAT 5), Luxembourg
- Meeting on “Energy Statistics Working Group”, 26-27 June 2014, Eurostat (ESTAT 5), Luxembourg
- Meeting on “Energy Statistics Working Group”, 28 June 2013, Eurostat (ESTAT 5), Luxembourg
- Training on “Clear writing”, 19-20 June 2013, Joint Research Centre, EC, Ispra, Italy
- Training on “Scientific writing”, 07-08 March 2013, Joint Research Centre, EC, Ispra, Italy
- Workshop on “Assessment of the potential of pumped hydropower storage”, 03-04 April 2012, SETIS, IET-Joint Research Centre, EC, Petten, Netherlands
- Training on “Introduction Linux”, 17-18 October 2011, Joint Research Centre, EC, Ispra, Italy
- Training on “ArcGis Desktop”, March 2011, Albania GIS DATA, Tirana, Albania
- Training on “The Community Multiscale Air Quality Modeling System – CMAQ”, 14-15 October 2010, CMAS Centre, University of North Carolina, USA
- Workshop on “Uncertainty in air pollution measurements”, 15-17 September 2009, IES, Joint Research Centre, EC, Ispra, Italy
- Training on “Practical Air Dispersion Modelling”, 12-14 November 2008, Trinity Consultants, Albany, USA
- Training on “International Research Program on EU project development and management”, 07-11 July 2008, Academy of Sciences of Albania and Genardo Ltd., Tirana, Albania
- Training on “Measurement of uncertainty linked with ISO 17025” and “Quality control at analytical laboratories”, 08-09 July 2008, Directorate of Accreditation of Albania, Tirana, Albania
- Workshop on “Air Pollution Management”, 20-26 April 2008, SIDA, Bangkok, Thailand
- Workshop on “Legal and technical aspects of certified emission reduction (CERs) and carbon market transactions”, 26 February 2008, Italian Ministry of Environment, Land and Sea / University of Siena Italy
- Workshop on “Air Quality Methods and Equipment’s”, 24 January 2008, EU Project “Strengthening of Environmental Monitoring in Albania” (StEMA), Tirana, Albania
- Training on “Quality control/assurance of analytical analysis”, 11-13 December 2007, EU Project “Strengthening of Environmental Monitoring in Albania” (StEMA), Tirana, Albania
- Workshop on “Environmental features and sustainable development of the Albanian and Apulia wetlands”, 23-24 November 2007, Academy of Science of Albania/ University of Bari, Italy. Interreg IIIA Italy – Albania
- Workshop on “Intercomparison exercise on air quality”, 07-12 October 2007, IES, JRC, EC, Ispra / WHO-Berlin, Essen, Germany
- Training on “Modelling transport and transformation in the atmosphere (SMOKE, WRF and CAMx models)”, 01-10 August 2007, NMHI-Bulgaria and CMAS-USA, Sofia, Bulgaria
- Training on “Air pollution management”, 02 September-05 October 2007, SIDA and SMHI, Norrköping, Sweden
- Workshop on “CARDS 2003 Program” Support for Standards, Certification and Accreditation in Albania” Europe Aid/120467/C/SV/AL”, 24 April 2007, General Directory of Accreditation of Albania, Tirana, Albania

- Workshop on “DMCSEE (Drought Management Center for South Eastern Europe)”, 17 April 2007, World Meteorological Organization (WMO), Tirana, Albania
- Training on “Ion-Chromatography”, June 2006, EC / ISIC, Rogla, Slovenia
- Workshop on “Intercomparison exercise on air quality”, 02-07 April 2006, World Health Organization, Langen, Germany
- Workshop on “Key issues for sustainable management of transboundary aquifers in Mediterranean and in South Eastern Europe”, 21-23 October 2004, INWEB/UNESCO-ISARM, Thessaloniki, Greece
- Training on “Landscape integrity for sustainability in the coastal zone”, 20-24 September 2004, ICS-UNIDO/ International Environment University of Malta, Gozo, Malta
- NATO Advanced Research Workshop “Air pollution processes in regional scale” 13-15 June 2002, Halkidiki, Greece
- “On-Job training course in the field of air pollution monitoring”, 20 September – 15 October 1999, IMGW Poland
- Training on “Background atmospheric composition monitoring”, 11-15 October 1993, WMO/BERDI, Halkidiki, Greece
- Training on “Monitoring and assessment of airborne pollution in Mediterranean”, 09-18 February 1993, WMO/UNEP/ University of Malta, Valleta, Malta.

PERSONAL SKILLS

Mother tongue(s) Albanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Italian	C2	C2	C2	C2	C2
German	B 1	B 1	B 1	B 1	B 1
French	A1	A1	A1	A1	A1

Levels: A1/A2: Basic user – B1/B2: Independent user – C1/C2 Proficient user, [Common European Framework of Reference for Languages](#)

Communication skills

Very good written and verbal communication skills. I am confident and have professional speaking abilities and experience through participation in many national and international activities. I have a good experience in writing papers, reports, briefings, background papers, conference presentations, interservice groups consultations.

Organisational / managerial skills

Very good organisational and managerial skills gained during my long activity as researcher and manager. I have a demonstrated ability to manage and organize a large set of projects and publications ensuring quantitative and analytical excellence, and ability to explain complex technical issues for a more general policy audience.

Main skills

- Management and project coordination/evaluation activities
- Energy Policy (including renewables),
- Database management (Excel, Access, SQL),
- Data collection and statistical analysis (R, Stata, Matlab, Minitab, PCA, Multivariate analysis),
- Risk Analysis (Monte Carlo Simulation),
- Spatial Data Analysis (ArcGIS, Tableau v.2019.3 for advanced spatial analysis, LandViewer-EOS, QGIS).
- Data dissemination & visualisation (Tableau Desktop v.2019.3, Drupal, PHP),
- Air Pollution Modelling (AERMOD, Screen3, Breeze-Screen, ADMS),
- Sustainability of bioenergy,
- Decomposition analysis of final energy consumption,
- Big data analysis,
- Composite Indicators and Scoreboards,
- Climate change mitigation,
- Sustainable Development and Management.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user – Independent user – Proficient user

[Digital competences – Self-assessment grid](#)

Driving licence

B

ADDITIONAL INFORMATION  
 Main Publications

- **Support to the improvement of national air pollutant emissions inventories for the agricultural sector in Europe**, EUR 31015 EN, Publications Office of the European Union, Ispra, 2022, ISBN 978-92-76-49350-1, doi:10.2760/188866, JRC128653, <https://publications.jrc.ec.europa.eu/repository/handle/JRC128653>
- **GHG emissions of all countries**, EUR 30831 EN, Publication Office of the European Union, 2021, ISBN: 978-92-76-41546-6, doi: 10.2760/773513, JRC126363, <https://publications.jrc.ec.europa.eu/repository/handle/JRC126363>
- **Biomass flows in the European Union: The EU Biomass Flows tool, version 2020**, EUR 30454 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-25378-5 (online), doi:10.2760/14342 (online), JRC122379, <https://ec.europa.eu/jrc/en/publication/biomass-flows-european-union>
- **How can solid biomass contribute to the EU's renewable energy targets in 2020, 2030 and what are the GHG drivers and safeguards in energy- and forestry sectors?** 2020, Renewable Energy Journal, Vol.165, Part 1, (peer review), co-author, <https://www.sciencedirect.com/science/article/pii/S0960148120317900#!>
- **Methodological overview on the calculation of air pollutant and greenhouse gas emissions from agricultural activities**, EUR 30338 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-21415-1 (online), doi:10.2760/240 (online), JRC121579, <https://publications.jrc.ec.europa.eu/repository/bitstream/JRC121579/kjna30338enn.pdf>
- **How are the EU Member States contributing to the biomass target for EU's renewable energy consumption and environmental impact?**, doi: 10.5071/28thEUBCE2020-4CO.10.3, 28th European Biomass Conference & Exhibition, Marseille, France, 2020, <http://www.etaflorence.it/proceedings>
- **Market study on mitigation potential for heat pump and commercial refrigeration equipment in Ukraine**, 2020, HEAT GmbH, Umwelt Bundesamt, Refrigeration Association of Ukraine, [http://ref.org.ua/upload/block/420/Ukraine-Market-Study\\_Heat-pumps-and-refrigeration.pdf](http://ref.org.ua/upload/block/420/Ukraine-Market-Study_Heat-pumps-and-refrigeration.pdf)
- **Status of air pollutants and greenhouse gases in the Western Balkans- Benchmarking the accession process progress on environment**, EUR 30113 EN, Publications Office of the European Union, 2020, ISBN 978-92-76-16860-7, doi:10.2760/48321, JRC118679, [https://publications.jrc.ec.europa.eu/repository/bitstream/JRC118679/air\\_qualityghg\\_western\\_balkans\\_online.pdf](https://publications.jrc.ec.europa.eu/repository/bitstream/JRC118679/air_qualityghg_western_balkans_online.pdf)
- **Support for biogas in the EU electricity sector – a comparative analysis**, 2019, Biomass and Bioenergy Journal, Vol. 128 (peer review), (leader coauth.), <https://www.sciencedirect.com/science/article/pii/S0961953419302624#ack0010>
- **Biomass for energy in the EU – the support framework**, 2019, Energy Policy Journal Vol. 131, pp.215-228, (peer review), (Leader coauth), <https://www.sciencedirect.com/science/article/pii/S0301421519302873#gs1>
- **Role of national fossil fuel comparators in the nominal emission savings through bioenergy under the RED - case study in six EU countries, 2019** – Accepted as Visual Presentation at EUBCE 2019 <http://programme.eubce.com/abstract.php?idabs=15927&idses=859&idtopic=22> (Leader coauth)
- **Resource Efficiency and GHG Emissions of Wood Product Cascading & Bioenergy in the European Union, 2019** – Accepted as Oral Presentation at EUBCE 2019, <http://programme.eubce.com/abstract.php?idabs=15922&idses=898&idtopic=27> (coauth)
- **An analysis of capacity market mechanism for solar photovoltaics in France**, 2019, Peer Review, International Journal of Smart Grid- ijSmartGrid, Vol. 3, No 1. March 2019, <https://www.ijsmartgrid.org/index.php/ijsmartgridnew/article/view/36/pdf> (Leader coauth).
- **How can solid biomass contribute to the EU's renewable energy targets in 2020, 2030 and what are the GHG drivers and safeguards in energy- and forestry sectors?** 2019, submitted for publication at Renewable Energy Journal (peer review), (coauth), Abstract available at <https://manjolanbanja.com/publications>.
- **Support for solar photovoltaics in France: a shift towards capacity market mechanism**, 2018, Peer Review paper, Oral presentation at 7<sup>th</sup> International Conference on Renewable Energy Research and Applications, 14-17 October 2018, Paris, France, (Leader coauth). Abstract available at <https://manjolanbanja.com> . Paper available at <https://ieeexplore.ieee.org/document/8566800>
- **Support schemes and measures enabling the use of biomass for energy in the EU**, 2018, In: European Biomass Conference and Exhibition, 14-17 May 2018, Copenhagen, Denmark, ISSN 0973-0826, JRC108922 <http://programme.eubce.com/2018/B/PDF/BOA.pdf> (Leader coauth)
- **Renewables in the EU: an overview of support schemes and measures**, 2017, Publication Office of European Commission, May 2018, ISBN 978-92-79-79361-5, doi:10.2760/521847, (Leader coauth). <https://publications.europa.eu/en/publication-detail/-/publication/83d9ab2f-647d-11e8-ab9c-01aa75ed71a1/language-en/format-PDF>
- **Biomass flows in the European Union - The Sankey biomass diagram towards a cross-set integration of biomass**. 2017, Publication Office of European Commission, 978-92-79-68047-2, doi: 10.2760/352412, (co-author)
- **Renewables in the EU: the support framework towards a single energy market** - EUR 29100 EN,, Publication Office of the European Union, Luxembourg, 2017, ISBN 978-92-79-79362-2, doi:10.2760/69943, JRC 110415, <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/renewables-eu-support-framework-towards-single-energy-market-eu-countries-reporting-under> (Leader coauth)
- **Water-Energy-Food nexus interactions assessment: Renewable energy sources to support water access and quality in West Africa**, Publication Office of European Commission, 2018, EUR 29196 EN, ISBN 978-92-79-84034-0, doi:10.2760/1796., <https://ec.europa.eu/jrc/en/publication/water-energy-food-nexus-interactions-assessment-renewable-energy-sources-support-water-access-and> (coauth)

- **Renewable technologies in the EU electricity sector: trends and projections - Analysis in the framework of the EU 2030 climate and energy strategy**", EUR 28897 EN, Publications Office of the European Union, Luxembourg, 2017, ISBN 978-92-79-76903-0; doi:10.2760/733769, JRC109254, <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/renewable-technologies-eu-electricity-sector-trends-and-projections-analysis-framework-eu> (Leader coauth)
- **Mitigating Climate Change: renewables in the EU - Cutting greenhouse gas emissions through renewables - Volume 2**, EUR 28677 EN, Publications Office of the European Union, Luxembourg, 2017, ISBN 978-92-79-70479-6, doi:10.2760/6520, JRC106826 <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/mitigating-climatechange-renewables-eu-cutting-greenhouse-gas-emissions-through-renewables> (Leader coauth)
- **Renewable energy deployment in the European Union – Volume 3**, 2016 – Report EUR 28512 EN, Directorate C: Energy, Transport and Climate, Joint Research Centre, European Commission, <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/renewable-energydeployment-european-union-renewable-energy-european-union-further-renewable> (Leader coauth)
- **Sustainable energy in the Danube region as an integral part of EU 2020 strategy** – 2016, Report 27730 EN, Directorate C: Energy, Transport and Climate, Joint Research Centre, European Commission, <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/sustainable-energy-danube-region-integral-part-eu-2020-strategy-analysis-nreaps-neeaps-and> (Leader coauth)
- **Renewable energy technologies/sources path within EU 2020 strategy**, 2015, Report 27447 EN, Institute for Energy and Transport, Joint Research Centre, European Commission, <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/renewable-energytechnologysources-path-within-eu-2020-strategy> (Leader coauth)
- **Renewable Energy in Europe for Climate Change Mitigation - GHG emission savings due to renewable energy (2009-2012)**", 2015, Report EUR 27253 EN, Institute for Energy and Transport, Joint Research Centre, European Commission, <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/renewable-energyeuropean-union-climate-change-mitigation-greenhouse-gas-emission-savings> (Leader coauth)
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- **Statistical characteristics of ozone and NO<sub>2</sub> in Tirana area**, International Conference on Biological and Environmental Sciences, 26 – 29 September 2008, Tirana-Albania, Book of Abstracts, ISBN 978-99956-686-7-9.
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### Projects

- JRC Working Programme Project DETECT – Scientific Officer (2021 – now)
- JRC Working Programme Project IPPA – Scientific Officer (2021-2022)
- JRC EDGAR Database – GHG emissions from agriculture – Expert (2020-2021)
- German Environment Agency (UBA), HEAT GmbH - Capacity Building for the Innovative Application of Energy-Efficient and Climate-Safe Technologies RACHP in Ukraine – Expert (February 2020)
- JRC Working Programme Work Package “Air and Climate in Western Balkans” (AC – WB) – Scientific Officer (2019-2020)
- JRC Working Programme Project “Renewable energies inside and outside the EU (REEU+)”, – Leader WPK “Monitoring Actual and Foreseeable Renewable Energy Deployment” (2012-2018)
- JRC Working Programme Project “Bioeconomy” — Leader WPK “Bioenergy Assessment and Modelling”, (2016-2018)
- JRC Working Programme “Development of the European Energy Efficiency Platform”, Scientific Officer, (2015-2018)
- JRC Working Programme Project “Nexus perspectives for the Mediterranean region and Africa”, Scientific Officer (2017-2018)
- JRC Working Programme Project “ASBIO” Biomass Assessment Study, Scientific Officer, (2015-2016)
- JRC ‘Scientific Support to the Danube Strategy’ Initiative, Bioenergy Nexus Cluster, Scientific Officer, (2013 – 2016)
- EU CARDS Project “Implementation of the National Plan for Approximation of Environmental Legislation in Albania” – Expert (2009-2010)
- S&T cooperation program Albania-Italy Project “Use of diffusive sampling monitoring for the evaluation and prevention of air pollution” – Coordinator/Expert (2008-2010)
- NATO SfP Project “Modelling system for emergency response to the release of harmful substances in the atmosphere” (MM5 and CAMx models) – Coordinator/Expert (2006-2009)
- World Bank Project “Disaster risk mitigation and adaptation” – Expert (2008)
- World Bank/ISDR/WMO Project “Meteorological and hydrological information sharing – status, needs, capacity building in South-East Europe” – Expert (2007)
- S&T cooperation program Albania-Italy Project “Environmental isotopic composition of precipitations and their application in the climate change” – Expert (2005-2007)
- Science & Technology cooperation program Albania-Greece Project “Influence of meteorological elements in the air pollutants transport in the atmosphere” – Coordinator/Expert (2005-2007)
- UNESCO/IOC Project “Adriatic Sea integrated coastal areas and river basin management: System pilot project-extension”, ADRICOSM-EXT – Expert (2005-2007)
- Albanian Ministry of Environment, Forestry and Water Administration “Monitoring Air Quality in Albania” – Coordinator/Expert (2005-2009)
- ISMAR/CNR Project “Study of environmental conditions of the industrial area of Porto-Romano, Maritime system” – Coordinator/Expert (2005-2006)
- WMO Project “Country – Level Disaster Prevention and Mitigation Program” – Expert (2006)
- WMO Pilot Project “Development and upgrade of hydrometeorological information and forecasting system for Sava River Basin” – Coordinator/Expert (2004-2006)
- European Commission Project “Albania – Environmental Legislation and Planning” (Reference no. Europe Aid/118904/C/SV/AL), ELPA – Expert (2005)
- UNESCO/GWP-Med/INWEB/Zinke Environment Consulting - Internationally Shared Surface Water Bodies in the Balkan Region, Characteristics and state of policies of River basins – Expert (2004)
- EC, PECO Program Project/ CNR Italy “South European cycle of air pollutants” (SECAP) – Coordinator/Expert (1995-1996)

### Presentations / Posters/ Briefs

- How to handle ammonia abatement measures in AgrEE tool, TAIEX-EIR Workshop on Ammonia reducing technology & measures: how to include the reduction effect in the national emission inventory and projections, 16 November 2021, online, <https://webgate.ec.europa.eu/TMSWebRestrict/resources/js/app/#/library/detail/81159>



- How to use AgrEE tool to estimate air pollutant and GHG emissions from agricultural sector, Webinars organized in collaboration with DG ENV on 12th and 19th of October 2021, <https://img1.wsimg.com/blobby/go/cacacd14-b43b-4e80-8617-46683c8b6233/downloads/How%20to%20use%20AgrEE%20tool%20to%20estimate%20air%20pollutan.pdf?ver=1648284348814>
- Agricultural Emission Estimation (AgrEE) tool – Improving national emission inventories for the agricultural sector in Europe'
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