CURRICULUM VITAE

Family name: Minčev
 First name: Ivan

3. Date of birth: March 01, 19814. Nationality: Macedonian

5. Civil status: Married

6. Education:

Contact: Aminta Treti 65-1/7, 1000 Skopje

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Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained:
Ss. Cyril and Methodius University, Faculty of Forestry, Skopje, Macedonia, 2015	Dr.Sci.: Biotechnical sciences PhD thesis: "Development of methodology for establishing protection zones in the proximity of water reservoirs from erosion and sediment transport aspect"
Mediterranean Agronomic Institute of Chania, Department: Environmental Management (GIS, RS, EIA), Chania, Island of Crete, Greece, 2008	Master of Science ECTS:120 (MSc - 2 years study) Master thesis: "Land cover mapping using object based classification of medium-high and high resolution imagery"
Ss. Cyril and Methodius University, Faculty of Forestry, Skopje, Macedonia, 2004	Graduated Forestry Engineer (Dipl.For.Eng 4 years study)
Mediterranean Agronomic Institute of Chania, Department: Environmental Management (GIS, RS, EIA), Chania, Island of Crete, Greece, 2006	Diploma of Specialized post-graduate studies in Environmental Management, 1 year study

7. Language skills: Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
English	1	1	1
Macedonian (mother tongue)	1	1	1
Serbian	1	1	2

- 8. Membership of professional bodies: WASWC (World Association of Soil and Water Conservation)
- **9. Other skills:** Advanced knowledge in GIS and Remote sensing software, Arc Map, QGIS, Leica Photogrammetry suite (Erdas Imagine), e-Cognition, Idrisi, ENVI, Use of GPS devices, SPSS, drone mapping and drone operator.
- **10. Present position:** Associate Professor, dept. Land and Water, Hans Em Faculty of Forest Sciences, Landscape Architecture and Environmental Engineering, Ss. Cyril and Methodius University in Skopje.
- 11. Years within the firm: 10
- 12. Key qualifications:
- Extensive knowledge in GIS and spatial data management.
- More than 15 years of experience with GIS in several projects through local and international working teams. Most projects were implemented in Macedonia and neighbouring Balkan countries.
- Strong experience in soil erosion mapping, sediment management and torrent control; PhD thesis: "Development of methodology for establishing protection zones in the proximity of water reservoirs from erosion and sediment transport aspect"
- Extensive knowledge in Remote Sensing: photointerpretation, semiautomatic pixel-based and object-based classification of imagery and further analyses. Master thesis: "Land cover mapping using object based classification of medium-high and high resolution imagery";
- Implemented several trainings concerning GIS, Remotes sensing, Drone flying and drone image processing.
- Member of relevant NGO's associated with forestry and the environment;
- Very strong interpersonal skills and proven experience assisting experts in the field in collecting and analysing data

13. Specific experience:

Country	Date from - Date to
Macedonia	Since 2000
Montenegro	2018, 2020-22
Albania	2012-2014, 2016, 2019-2022
Serbia	2008, 2020-2022
Kosovo	2013-2014, 2020-22
UAE	2020
Abkhazia, Georgia	2021

14. Professional experience:

Date	Location	Company & ref person	Position	Description
4.2022- ongoing	Drina catchment	Point Pro consulting (North Macedonia) contact: angel.panov@pointpro.com Funded by ADA (Austrian development agency) Implemented by GWP-MED	Expert for sediment management	Project: Promoting the Sustainable Management of Natural Resources in South-eastern Europe, through the use of the Nexus approach Development of a Project Document for an intervention on improving sediment management in the Drina River Basin Description: To prepare a full Project Document for an intervention on improving sediment management in the Drina River Basin, and to identify viable opportunities for its financing, thus assisting the implementation of the Sediment Management Plan for the Sava basin, with regard to its Drina sub-basin.
11/2021- 2/2022	Kosovo	Skat Consulting Ltd. Branch in Kosovo Dimitar Sekovski dimitrija.sekovski@skat.ch	Expert on Drone Operation, Maintenance, and Basic Application	Integrated Water Resource Management Program (IWRM-K) The objective of the assignment is to provide initial capacity development support to appointed MESPI staff (7-10 people) on drone operation, maintenance, and application. When it comes to drone operation & maintenance, the training included drone maintenance & care (storing, planning of spare parts, servicing needs), planning and executing flying missions, data collection using different drone capabilities (cameras, including thermal). The second part of the training included drone application by using/processing the acquired areal/field data from the drone's flying missions.
9/2021- ongoing	Montenegro	CAOS Lda, Client UNDP Montenegro Inês Mourão, imourao@caos.com.pt	GIS/ Spatial planning, modelling and Spatial data representation export	RFP No.: 010-21 Project: Enhancing Montenegro's capacity to integrate climate change risks into planning "Data consolidation and additional gender-sensitive climate risk assessments of the four priority sectors (water, agriculture, health and tourism) in Montenegro"
4-10/2021	North Macedonia	Hans Em Faculty of Forest Sciences, Landscape Architecture and Environmental Engineering, Ss. Cyril and Methodius University in Skopje UNDP ljubica.teofilovska@undp.or	Geomorphology analyses and modelling expert	RQF 10-2021 Development of technical documentation for anti-erosive arrangement of the watersheds of Skopska Crna Gora Development of basic and final design for anti-erosive measures of several torrential flows on Skopska Crna Gora mountain. The anti-erosive measures are consisted of afforestation measures and construction of low check dams in the torrents and gullies.
3-11/2021	Abkhazia, Georgia	Point Pro consulting (North Macedonia) contact: angel.panov@pointpro.com. mk UNDP Georgia, Financed by SIDA	Drone photogrammetr y expert	Improved resilience of communities to climate risks Technical Trainings in DRR / Flood Risk Management. Separate task: Preparing training for using UAV/drone for photogrammetry. Drone photogrammetry mission for creating DTM and ortho photo imagery for the Gumista river. The DTM will be input for the hydraulic flooding analyses.

Date	Location	Company & ref person	Position	Description
	Struga, North Macedonia and Shkoder/Ska dar, Albania and Montenegro	GTI together with Danish Hydraulic Institute, DHI Hungary LLC; Teodor Conevski, teocon@hotmail.com Client: MIO ECSDE Tirana Albania, representing GWP Med Athens, Greece	GIS expert	Flood insurance in the areas of Skadar/Shkoder Lake – Buna/Bojana River, and Struga in Ohrid Lake Overview of the water sector in RN Macedonia, with particular focus on floods hazards; Collection of flood related information (flood hazard and risk map related); Flood vulnerability, flood damages and losses in the study areas (GIS dataset of flood lines, and any dataset available historical damage data); Collection of flood related information (flood hazard and risk map related);
10/2020- 3/2021	Montenegro , Albania, Kosovo, North Macedonia	GWP-MED, c/o MIO-ECSDE, Novak Cadjenovic, novak.cadjenovic@gwpmed .org	GIS expert	Enabling Transboundary Cooperation and Integrated Water Resources Management in the Extended Drin Basin, The GEF Drin Project already prepared a web mapping application as an internal ArcGIS Online app, and which holds 27 layers and respective datasets. The respective task of the expert is to clean up the datasets and reorganize it into relational database. Second task is delineation of water bodies on a catchment level creating two hydrographic layers (catchments and streams) before they can be handed over to the winning software developer of a DIS 1.0 (water information system).
07/2020 – 10/2020	UAE	Hidrokonsult Skopje, Electra Surveying Engineering Services, Dubai- UAE Contact: info@electra- surveys.com Client: EWEC – Emirates Water & Electricity Company, Abu Dhabi, United Arab Emirates	GIS expert	Soil erosion 1.5 GW SOLAR PHOTOVOLTAIC PROJECT AT AL DHAFRA, ABU DHABY - Hydrological and Hydraulic study PHASE I Development of GIS maps and analyses of climatic parameters for the development of the study.
· .	Serbia, West Morava and Tamiš Sub- river Basins	_ =	GIS expert, soil erosion mapping	Infrastructure Programme for Integrated Water Management, Pre-feasibility Study West Morava River Sub-basin Soil erosion mapping of the West Morava catchment in order to assess the sediment yield and sediment transport in the catchment. The soil erosion map was input to estimate sedimentation of current and planned water reservoirs in the catchment. Anti-erosion measures, torrent control and improvement of the retention capacity of existing and twenty two planned reservoirs in the Western Morava catchment. Calculation of technical and biological measures in the catchments. Analyses of the natural and anthropogenic conditions and impacts, Defining the intensity of erosion processes within the catchment and sub-catchments, general mitigation measures for anti-erosion and torrent control, defining general costs per measures (technical, bio-technical and biological), defining the priority sub-catchments and phases of the mitigation measures. Bill of quantities for the proposed measures and lifespan analyses before and after implemented measures.
II * .	North Macedonia	Sustainable Development	Soil erosion mapping, GIS/RS Expert	Project "Achieving Biodiversity Conservation through Creation and Effective Management of Protected Areas and Mainstreaming Biodiversity into Land Use Planning" Activity 3.1.1.1 Preparation of national erosion and drought sensitivity map, and identification of high risk zones and their impact to biodiversity, Gather field data necessary for erosion modelling using EPM methodology; Develop national erosion map using a combination of EPM methodology and corresponding data in a GIS environment and modelling; Develop national erosion map using a combination of RUSLE methodology (description and tabular data) in a GIS environment and modelling; Identify high-risk erosion zones and their impact to biodiversity; Develop final report and thematic maps

Date	Location	Company & ref person	Position	Description
9/2019 – 12/2020	North Macedonia		Soil sealing, GIS/RS Expert	Project "Achieving Biodiversity Conservation through Creation and Effective Management of Protected Areas and Mainstreaming Biodiversity into Land Use Planning", Activity 3.1.1.2 Database development of soil sealing rate and loss of soil organic matter on 3 pilot sites in Macedonia and analysis of their impact to biodiversity, Development of soil sealing maps for 3 pilot sites using remote sensing imagery: Sentinel 2 and Landsat 7 and 8 using semiautomatic pixel based classification.
II -	North Macedonia		GIS/ Remote sensing expert	Supporting the preparation of the 3 rd Biennial Update Report and the 4 th National Communication on Climate Change in AFOLU sector Update the GHG Inventory for 2015 - 2019 for the sectors Agriculture, Forestry, Land Use Change and Livestock (AFOLU), in accordance with 2006 IPCC guidelines and update the Inventory Database; Improve the quality and accuracy of the GHG Inventory by introduction of higher Tier to the extent possible; Use satellite imaging as alternative source for introducing higher Tier in the AFOLU sectors, to the extent possible, and establish procedures to ensure sustainability and future assessment; Enter data derived from the satellite imaging in a geo-data base and make it publicly available; Compare data obtained from the satellite imaging with data provided by state statistical office and estimate land use changes on annual basis.
9-12/2019	Macedonia	_	GIS expert, soil erosion mapping	Feasibility study for restoring Sateska River in the natural riverbed. Soil erosion mapping of the Sateska catchment in order to assess the sediment yield and sediment transport in the catchment. The soil erosion map was input to estimate the sedimentation in Ohrid Lake and the impact of the sediment of the natural riverbed and Globochica reservoir.
· ·	Macedonia and Albania	CNVP – Macedonia and Albania, Saso Petrovski saso.petrovski@cnv-eu.org	GIS expert, soil erosion, runoff modelling	Generating momentum on water and forests in the Balkans - Balkans GeM, The project aims to bring together expertise (practitioners, politicians and other stakeholders) from forestry, agriculture and water management and economics around pilot areas to improve the effectiveness of forest ecosystem services for water and monetization of ecosystem services. Overall goal of the project is to improve the planning practices in forestry by integrating water aspects in the forest management practices in North Macedonia, Albania. Specific tasks: GIS modelling of soil erosion, runoff modelling in forest ecosystems.
11/2018 – 12/2019	Macedonia	FAO Cheng Fang cheng.fang@fao.org	National NAEZ Expert	TCP/MCD/3602 Assessment of Agricultural production through NAEZ and LRIMS and scenario development Tasks: Support quality control of the available information, selection and processing of appropriate remote sensing data to be used for monitoring agriculture, testing recent high-resolution geospatial information, and development of a geo-referenced database for NAEZ. Support the validation, geo-referencing and storing of existing information. Provide technical assistance for the preparation of geographical and tabular data and populate the geodatabase, with specific attention on preparing the crop data, Land Utilisation Types (LUTs), climate data and ETo calculations required. Provide technical assistance to improve the available Land Resource Database (LRD) by compiling the required local/National dataset from the National sources, and by integrating the compiled datasets into the current Global-sourced LRD. Support International NAEZ consultant on integrating the available Land-cover data, socio-economic data, climate, soil, and terrain data for AEZ analysis.
4-12 2019	Macedonia	TRIFOR	Expert for mapping ecosystem services, GIS, RS	Mapping and valuation of biodiversity services in peri-urban forest, Transnational Cooperation Programme Interreg Balkan-Mediterranean 2014-2020 CCI 2014TC16M4TN003 "Conservation and sustainable capitalization of biodiversity in forested areas".

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ongoing	Macedonia, Serbia, Bosnia and Herzegovina, Bulgaria Italy, Austria	European commission, ERASMUS +, Giulia Moro Giulia.MORO@ec.europa.eu	Researcher	Soil Erosion and Torren Flood Prevention: Curriculum Development at the Universities of Western Balkan Countries/SETOF - EU ERASMUS + project
10-12/2018	Macedonia	TRIFOR – Skopje UNDP/ City of Skopje pavlina.zdraveva@undp.org	Team leader/ GIS expert	RFQ 23/2018 Inventorization of Trees as part of the Skopje Green Cadaster - Phase 2 The objective is to carry out an inventory of 20,000 trees on selected territory of the City of Skopje within the Skopje Green Cadaster, by entering the attributes for each of the registered three.
01-09/2018	Macedonia	Point Pro consulting, UNDP Dimitar Sekovski dimitar.sekovski@undp.org	GIS, erosion, torrent modelling	RFP 53/2017 Flood risk management plan for the Up Vardar river basin Tasks: Erosion risk mapping; Prospection of torrential river beds and catchments; Analyses of loss of forest cover and connection with intensified risk on the downstream inhabited areas
04-07/2018	Macedonia	Forestry faculty – Skopje, FAO Winkler Norbert (REU) norbert.winkler@fao.org	Remote Sensing (RS)/GIS specialist	TCP/MCD/3604 Methodological support of Collect Earth survey in the Former Yugoslav Republic of Macedonia (FYROM) Tasks: Establishes necessary infrastructure for Collect Earth (CE) Interpretation; Supervises the team of CE operators; Actively compiles and updates documentation on technological solutions, working procedures and methodological background in the area of his expertise; Compiles working procedures for Collect Earth survey; Is responsible for the technical implementation of Collect Earth survey; Designs and implements measures to assure high quality of data acquired by Collect Earth; Collaborates with international NFI/NFM consultant on the evaluation of total Forest Cover and it's change between 2007 and 2017; Tasks assigned to him by NPC and international NFI/NFM consultant.
03-08/2018	Montenegro	UNDP, Environmental Protection Agency of Montenegro Lidija Scepanovic lidija.scepanovic@epa.org. me	Lead consultant	IPCC inventory – sector AFOLU (2014-2015) Develop GHG inventory for the Forestry sector for 2014-2017 using IPCC 2006 software; Assist in identification of innovative tools for collection of data from the AFOLU sector; In close cooperation with relevant institutions and other contracted consultants within the project, implement satellite imaging as alternative source for introducing higher Tier in the Forestry sector, to the extent possible; Use datasets of CORINE 2000, 2006 and 2012 in GIS to determine six land use categories (as defined in the IPCC 2006 software and develop a database on land-use changes; Revise the previous time-series of the GHG inventory if needed, in order to provide consistency of data; Improve the quality of the GHG Inventory by introduction of higher Tier to the extent possible, following the recommendations of the technical review of the FBUR and the latest UNFCCC guidance; Develop report serving as a chapter for the AFOLU sector within the Montenegro TNC; Develop a report, serving as part of the mitigation chapter of the Second Biennial Update Report on Climate Change;
08-11/2017	Skopje region	UNDP Anita Kodjoman	GIS modelling of natural hazards, erosion and torrents	Study on Erosion and Action Plan for the City of Skopje UNDP - 15/2017 Establishment of basic principles and guidelines for preparation of other Studies on Erosion and Action Plans across the country (Law on Water – art.135);Improved information exchange between stakeholders at all levels; Preparation of this study and plan is conforming to the existing international standards regarding ecosystem oriented watershed management;
02-08/2017	Macedonia	Forestry faculty – Skopje, FAO	GIS expert	TCP/RER/3502: "Technical assistance for using wood energy to improve sustainable economic rural development and meet the 2020 renewable energy targets for the Western Balkans" GIS modelling and Mapping of Wood Energy Supply and Demand in Macedonia

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04/2017- 10/2017	Macedonia	ELEM – AD HIDROKONSULT trendafilov_a@yahoo.com	GIS, Soil erosion mapping, bathymetry analysis	Study for determining the erosion potential and rate of filling up the reservoir Globocica with erosive sediment Creation of soil erosion potential map, modeling sediment production in the catchment and sediment transport in the reservoir, Bathymetry of the reservoir and analyzing the sediment distribution in the reservoir. Using Aerial images for mapping erosion risk areas sediment production and accumulation in the catchment.
04/2016 – 09/2017	Macedonia	Eptisa Southeast Europe d.o.o, Albert Dekker- Team leader, albert.dekker@arsvivax.com	GIS expert	EuropeAid/136505/IH/SER/MK Development of national water study The Project will develop investment programmes in order to achieve compliance with "the Directives": The Urban Waste Water Treatment Directive (91/271/EEC), The Drinking Water Directive (98/83/EC) in compliance with WFD. Using Satellite and Aerial images for extracting Sensitive areas, Agglomerations for waste water collection and treatment, Water supply areas and zones. The project foresees the implementation of a GIS based information system for all relevant data for: Sensitive areas, Agglomerations for waste water collection and treatment, Water supply areas and zones, Data will be managed in a GIS system (QGIS) connected with a spatial database (Postgresql/Postgis). This will allow: Data acquisition and management, Mapping, Reporting (based on EU-WISE), Data manipulation, Web based presentation (Geoserver or similar)
1-6 2017	Macedonia	GEING Krebs und Kiefer UNDP	GIS expert, torrent control and erosion mapping	Basic design for protection from erosion and torrent control along the regional roads in the municipality of Konce, Consultant and support of the responsible designer for the soil erosion and torrens control anti-erosion activities, works and measures and counter-regulation of three torrential watercourses in the area of the municipality of Konce.
4-10 2016	Macedonia	GEING Krebs und Kiefer UNDP	GIS expert, torrent control and erosion mapping	Preliminary design for protection from erosion and torrent control along the regional roads in the municipality of Konce (six torrents), Consultant and support of the responsible designer for the soil erosion and torrens control anti-erosion activities, works and measures and counter-regulation of three torrential watercourses in the area of the municipality of Konce.
07/2016 – 11/2016	Macedonia, Albania, Montenegro	GIZ project, GTI teocon@hotmail.com	GIS expert	Creating Shore-zone Functionality Index for Prespa, Ohrid and Skadar lake The aim of this study is creation of Shore-zone functionality index, which is also a requirement of the WFD. The work was consisted of: Using Satellite and Aerial images for extracting lake shore zone and performing change detection analyses of urbanization and agricultural use and change of lake water level.
10/2015 – 10/2016	Macedonia	UNDP-GEF project Geotechnical Engineering Dimitar Sekovski dimitar.sekovski@undp.org	GIS expert	<u>Prespa Lake Watershed Management Plan Update 2015.</u> This is the update of the existing WMP. The main goal of the project was the development of the Management plan for the Prespa Lake Watershed according to the WFD. This is the first plan in the Republic of Macedonia prepared according to the newest approach by WFD. Specific tasks: Collecting and analysing data from stakeholders.
2015- 07/2016	Macedonia	ELEM – AD GIM trendafilov_a@yahoo.com	GIS, Soil erosion mapping, bathymetry analysis	Study for determining the erosion potential and rate of filling up the reservoir "Spilje" – "Debar lake" with erosive sediment Creation of soil erosion potential map, modeling sediment production in the catchment and sediment transport in the reservoir, Bathymetry of the reservoir and analyzing the sediment distribution in the reservoir. Using Aerial images for mapping erosion risk areas sediment production and accumulation in the catchment.
08/2015- 12/2015	Macedonia	Ramboll Denmark A/S Julie Beaufils, Project Manager, jleb@ramboll.dk	Water Datasets & Processing of GIS Data Expert	EuropeAid/132108/D/SER/MK – Technical assistance for strengthening the institutional capacities for approximation and implementation of environmental legislation in the area of water management. Key tasks included: Continued preparation of GIS datasets for updating the Water Information System (WebGIS), including quality check of data Continued support to preparation of outputs (maps for monitoring program, maps for pressure and impact analysis, maps of protected areas)

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				 Finalize GIS files and maps for the River Basin Management planning and WIS training exercise for issuing permits for water use Finalize all datasets and related technical documentation as prepared and developed by the Project - ready for hand-over to the MoEPP as the key beneficiary and as input to the further Vardar River Basin Planning process.
10/2014- 05/2015	Macedonia	Ramboll Denmark A/S Julie Beaufils, Project Manager, jleb@ramboll.dk	Junior GIS Expert	EuropeAid/132108/D/SER/MK – Technical assistance for strengthening the institutional capacities for approximation and implementation of environmental legislation in the area of water management. Key tasks included: • Support to the development of a water information system (WIS) • Review of relevant maps and processed GIS data • Assessment of the state of knowledge and extent of utilization of GIS in management of water resources and development of river basin management plan for the VRB • Collection and quality check of GIS layers for River Basin Management planning, • Digitalisation of layers for the production of the water bodies and protected zones and other VRBMP maps using Aerial and Satellite imagery, • Production of Geodata using coordinates in documents or from field records, • Adding geodata to GIS layers and their tables of attribute for the assessment required for VRBMP draft,
2014	Macedonia	Ss. Cyril and Methodius University, Faculty of Forestry, Skopje Macedonia; ipapazova@sf.ukim.edu.mk	GIS expert	 Production of the maps required in the WFD and its Annexes, Use of geoinformatic techniques for development of data model for urban greenery with special accent to phytopatogens (Примена на геоинформатички техники за изработка на дата модел за урбано зеленило со посебен осврт на фитопатогените) scientific project Creation of GIS dendro-database of all the trees and bushes of the park of the Forestry faculty in Skopje. Creation of register of diseases on the measured trees.
09/2013 – 02/2014	Kosovo	European Union Office in Kosovo/ Euronet Consortium EEIG , ALAnet Global Consortium Project manager: Iuliia Kachaienko ik@alanetglobal.com	GIS, Remote sensing expert	Flood Risk Management for `Morava e Binces´. Specific objectives of the project: providing the recommendations and technical guidance for reduction in the level of flood risk to riparian lands and improved river basin management in the 'Morava e Binces'. Services provided: GIS support of the leading experts. Specific tasks: Collecting and analysing data from stakeholders. GIS/RS analyses: Terrain analyses, georefferencing topo maps, extracting data from aerial images, Land-cover analyses, modelling of natural processes, hydrology, and erosion. Main GIS tool ArcGIS.
04/2013- 05/2013	Macedonia	AD ELEM Dragan Ivanoski ivanoski@gf.ukim.edu.mk;	GIS expert Soil erosion mapping	Erosivity study of the catchment of the reservoir "Lukovo Pole" including proposed measures and works for erosive management. Development of Erosivity study of the catchment of the reservoir "Lukovo Pole" including proposed measures and works for erosive management. Specific tasks: Field erosion mapping GIS/RS analyses: Terrain analyses, georefferencing topo maps, extracting data from aerial images, Land-cover analyses, soil distribution mapping, climatic analyses, modelling of natural processes, hydrology, and erosion. Main GIS tool ArcGIS.
04. 2012 – 09/2014	Albania	CNVP – Macedonia and Albania, Financing party: World bank	GIS expert/modellin g natural processes	Project: Study and Analysis of Innovative Financing for Sustainable Forest Management in the Southwest Balkans - PROFOR Preparation of thematic maps for part of the catchment of the river Mat Bathimetric measurements of Ulza lake Lifespan analyses of Ulza lake Preparation of thematic maps for Forestry practices in the catchment of Ulza lake

Date	Location	Company & ref person	Position	Description
				Soil erosion mapping Mapping of the erosion potential of the catchment of Ulza lake
09/2012- 02/2013	Macedonia	EU (IPA cross-border program Macedonia-Greece) Vjekoslav Tanaskovic <vtanaskovic@zf.ukim.edu. mk="">;</vtanaskovic@zf.ukim.edu.>	GIS expert	RULAND "Interactive Farmers Support System for Efficient water use management". The main objective of the project was to develop a cross- border interactive farmers' support system to help farmers improve their water use efficiency, as well as their yields and economic benefits: 1. Data collection, data elaboration and development of common geo-data base for: land use, soils, climatic data and other parameters. 2. Development of weather/soil data acquisition system in real-time in order to assess evapotranspiration and crop water requirement. 3. Downscaling of regional data to the specific field and implementation of site-specific approach for irrigation management trough development of sensors/software that will measure required parameters (soil moisture, rainfalls amount, temperature etc. as well as crop data). 4. Implementation of a common set of system/software/sensors as a case study for both countries. Main GIS tool used: ArcGIS.
04/2011 – 08/2012	Macedonia	National Hydro- meteorological service of R. Macedonia Silvana Stevkova stevkova@yahoo.com	GIS expert	Centre for drought management in southeast Europe. The mission of DMCSEE was to coordinate and facilitate the development, assessment, and application of drought risk management tools and policies in South-Eastern Europe with the goal of improving drought preparedness and reducing drought impacts. Therefore DMCSEE focused its work on monitoring and assessing drought, risks and vulnerability connected to drought. Specific tasks included: • Preparation of basic GIS layers for drought monitoring • Creation of an integrated spatial database • Development of study for drought vulnerability of R. Macedonia Gathering climatic data. Creating GIS climatic database. Collecting other land data: Land cover, Irrigated areas. Creation of Drought vulnerability model. Main GIS tool ArcGIS.
10/2009 – 09/2011	Macedonia	UNDP-GEF project Geotechnical Engineering Dimitar Sekovski dimitar.sekovski@undp.org	GIS/Remote Sensing expert & modelling	Prespa Lake Watershed Management Plan. The main goal of the project was the development of the Management plan for the Prespa Lake Watershed according to the WFD. This is the first plan in the Republic of Macedonia prepared according to the newest approach by WFD. Specific tasks: Collecting and analysing data from stakeholders. GIS/RS analyses: Terrain analyses, georefferencing topo maps, extracting data from aerial images, Land-cover analyses, modelling of natural processes, hydrology, and erosion. Mapping point and non-point source pollution. Mapping ground water and modelling. Delineation of main water bodies. Main GIS tool ArcGIS.
03/2009 – 11/2011	Macedonia	NGO UCODEP (Unity for Cooperation and Development of Peoples) Daniele Pedretti dpedretti@gmail.com Financing Party: the Italian Ministry for Foreign Affairs	GIS/Remote Sensing expert	 Environment Protection, Economic Development and Promotion of Eco Tourism in the National Park Mavrovo. The main goal of the project is the development of the Management plan for the National Park Mavrovo and also several other plans will be developed according the needs for best-practice management and protection of the National park. Specific tasks included: Preparation of basic GIS layers for the National Park Mavrovo; Creation of an integrated spatial database; Close cooperation with the several experts of the project for development of several GIS layers; Conducting basic GIS training for the staff of the project.

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				Photointerpretation of topographic elements (road networks, rivers, settlements) from aerial images, <u>Creation of other maps with expert support:</u> Soil map (correction of current maps, scanning, scale 1:100.000), Geology map (correction of current maps, scanning, scale 1:100.000), Climate (temperature, precipitation), Erosion map (depending on the expert)Geomorphology and geodiversity Land cover, Phytocenological map (forest and grass/pastures ecosystems, non-wood forest products), Zoological map (depending on the expert), Landscape types, Socio economic maps, Zoning. Forest inventory was done with field collection of data and later interpolation of the data in order to create forest maps for the management plan of the national park.
05//2009-	Macedonia	Ss. Cyril and Methodius	Junior	Examination of the erosion as a relevant factor for desertification using the methods in Bulgaria and Macedonia
09//2011		University, Faculty of Forestry, Skopje Macedonia Blinkov Ivan blinkov@sf.ukim.edu.mk	researcher	 Field analyses, measurement and mapping Aerial and satellite photointerpretation Development of basic geo databases Manipulation, analyses and modelling of natural processes Financing party: Ministry of education and science
12/2008	Macedonia, Serbia, Albania, Croatia, Bosnia and Herzegovina	· · · · · · · · · · · · · · · · · · ·	Database, statistics analyst	Forest-Related Conflicts in South East European Region - Regional aspects and Case studies. The aim of the study was to identify the most pronounced forest related conflicts at the policy level in terms of types, conflicts attributes, actors and their attitudes, and to investigate more in depth nature of conflicts and way how they've been managed. Methodology for collecting data used in all countries was semi-structured questionnaire with multiple-choice, ranking and few open-ended questions on regional level and more qualitative questionnaire for face-to-face interviews on management level. Involved in the collection of the questionnaires to collect data from various stakeholders, preparation of the database and further statistical analyses on national and international level.
11/2007, 02/2008, 09/2008- 10/2008	Macedonia	TEC - Tokyo Engineering Consultants Nobuyuki Sato sato@ctii.co.jp Financing Party: JICA - Japan International Cooperation Agency	GIS specialist	Waste water management in Skopje. The objective of the study is to improve the water quality of the Vardar River through the following measures: (1) To develop a basic plan for wastewater management (2) To conduct an feasibility study for the sewerage facilities including a sewerage treatment plant (3) To develop action plans for institutional and financial system improvement (4) To develop action plans for industrial wastewater management and water quality monitoring of wastewater Involved in the preparation of GIS maps and conducting several GIS analyses for the preparation of the project. Specific tasks: GIS/RS analyses: Terrain analyses, georefferencing topo maps, extracting data from aerial images, Mapping urban areas. Main GIS tool ArcGIS.
08/2007- 08/2008	Macedonia	University, Faculty of Forestry, Skopje Macedonia;		Risk, Disaster-Management and prevention of natural hazards in Mountainous and/or forested regions, RIMADIMA. Development of Basic GIS layers, photointerpretation and semiautomatic classification of aerial and satellite imagery, Modelling of Natural processes, GPS surveying. Co-author of the following studies: Basic dataset about the working region and working areas, 2008, May. Classification and zoning of preservable areas within regions of similar characteristics based on IUCN Classification, 2008, June Concept for common data structure, 2008, March Transnational study on forest ecosystem violation risk probability/meteorological, 2008, May Development of GIS dataset (created over 100 GIS layers related to the project issues)

Date	Location	Company & ref person	Position	Description
				 Transnational methodology for development of risk maps (single and multi-hazard) using GIS technology, 2008, May National report related to the wp4 – Development of risk maps (developed 21 risk maps), 2008, May Establishment of laboratory for GIS Aided Modelling of natural hazards in mountainous/forested regions, 2008, June
10/2008	Macedonia	Ss. Cyril and Methodius University, Institute of Agriculture – Skopje Dusko Mukaetov d.mukaetov@t-home.mk Financing Party: Norwegian research council	GPS surveying, soil sampling	DRIMON - Interdisciplinary assessment of water resources management in two trans-boundary lakes in South Eastern Europe. The main objective of the DRIMON project was to contribute towards an increased knowledge base and dialogue between stakeholders for improved trans-boundary management of water resources in the Balkan area through the integration of natural, socio-economic and policy sciences. • Establish nutrient budgets for the lake basins of Prespa and Skadar and assess the trophic status of the lakes • Suggest environmental goals for lakes Prespa and Skadar in dialogue with stakeholders • Establish and strengthen networks nationally and across borders between scientists, water managers & end-users • Assess the current status of trans-boundary water management in the two lake basins and stakeholder responses to the achievement of the set environmental goals • Enhance the dialogue between decision-makers, end users and scientists for improved trans-boundary IWRM • Assist the transferability of case study results between stakeholders across borders • Disseminate data and information to stakeholders, especially, environmental authorities to promote participatory planning and decision-making. Specific tasks: GIS/RS analyses: Terrain analyses, georefferencing topo maps, extracting data from satellite images, Land-cover analyses, modelling of natural processes, erosion.
07/2008	Macedonia	Ss. Cyril and Methodius University, Faculty of Forestry, Skopje Macedonia Blinkov Ivan blinkov@sf.ukim.edu.mk	GPS, GIS specialist	Management plan for silviculture and protection of the forest "Jasen". Field GPS measurements, Development of thematic maps. Specific tasks: Collecting and analysing data from stakeholders. Scanning of paper maps and digitization, Georeferencing, Manual input of data from various non-digital databases, Assessment, correction and update of current databases, Input of GPS data, Categorizing the topographic elements and forming an attribute database, Photointerpretation of topographic elements (road networks, rivers, settlements) from aerial images, Creation of other maps with expert support: Soil map (correction of current maps, scanning, scale 1:100.000), Geology map (correction of current maps, scanning, scale 1:100.000), Climate (temperature, precipitation), Erosion map (depending on the expert) Geomorphology and geodiversity Land cover, Phytocenological map (forest and grass/pastures ecosystems, non-wood forest products), Zoological map (depending on the expert), Landscape types, Socio economic maps, Zoning.
06/2008	Macedonia	Ss. Cyril and Methodius University, Faculty of Forestry, Skopje Jane Acevski jacevski@sf.ukim.edu.mk	GIS specialist	Program for limitation and/or extermination of the Douglas Fir in the frames of the National park Pelister Development of thematic maps and modelling.
06/2006- 09/2006	Macedonia	UNDP/Ministry of Environment and physical	GIS analyses, Modelling of natural processes	Second National communication on climate change. Sector: Agriculture. The Second National communication on climate change was a report encompassing several sectors in which several analyses were done by various experts with different background. Involved in the sector Agriculture working with several experts from the field. Scope of work was to assist in the creation of climate change scenarios which will affect the agriculture sector with the GIS analysis of several climatic parameters. The output was more than 50 maps which were after analysed by the experts. Specific tasks: Modelling natural processes, Software used ArcGIS.

Date	Location	Company & ref person	Position	Description
	Macedonia	Ss. Cyril and Methodius University, Institute of Agriculture –Skopje Dusko Mukaetov d.mukaetov@t-home.mk Financing Party: Norwegian research council		Approaches to Quantification of Nutrient Pollution Load in the Drim/Drini river catchment (DRIMPOL). The DRIMPOL Project, a joint research project between Albania, Macedonia and Norway, aimed at estimating nutrient losses from different sources in the Drim/Drini River Basin. As the project evolved it was also faced with the challenges of bridging the data and information gap between the scientific community and the managers of this trans boundary river. The Drim/Drini is one of thirteen internationally shared catchments in the Balkan region, and is unique in that it, despite of its relatively small size of less than 20000 km, is monitored and managed by six institutions in four countries and one UN Protectorate (Albania, Macedonia, Serbia and Montenegro, Greece and Kosovo). The need for harmonised and transparent procedures for monitoring, data assessment and data flow, as well as for transboundary co-operation to achieve integrated management of this catchment, was eminent. Update of some parameters of the erosion map of Macedonia in GIS using ArcGIS.
06/2002- 02/2003	Macedonia	Ss. Cyril and Methodius University, Faculty of Forestry, Skopje Blinkov Ivan blinkov@sf.ukim.edu.mk	Junior researcher	The effect of anti-erosive measures on some torrents in RM. Field assistant, Analyses of spatial data, Development of thematic layers. Financing party: Ministry of education and science
06/2002- 02/2003	Macedonia	Ss. Cyril and Methodius University, Faculty of Forestry, Skopje Blinkov Ivan blinkov@sf.ukim.edu.mk	Junior researcher	The role of the forest in decreasing the water and sediment discharge. Field assistant, Analyses of spatial data, Development of thematic layers. Financing party: Ministry of education and science

15. Other relevant information (e.g., Publications):

Jagev V., Mincev I. Blinkov (2006) "USE OF GIS AND GPS FOR MAPPING AND ANALYSIS OF SOME HYDROLOGICAL FACTOR

BALWOIS conference (Project for Water Observation and Information System for Decision Support), Ohrid, R. Macedonia, 2006

Mukaetov D., Cukaliev O., Sekuloska, Mincev (2007): "GIS-AIDED AGRO-ECOLOGICAL ZONING OF FORMER YUGOSLAV REPUBLIC OF MACEDONIA"

Status and prospect of soil information in south eastern Europe: soil databases, projects and applications. Scientific and technical report, Institute of Environment and Sustainability, JRC, ISPRA, Italy.

Blinkov I., Trendafilov A., Mincev I., "LEGISLATION AND INSTITUTION RELATED TO EROSION AND TORRENT CONTROL IN THE REPUBLIC OF MACEDONIA"

International Conference «Erosion and torrent control as a factor in sustainable river basin management» 25-28 September 2007, Belgrade/Serbia

Mincev I., Blinkov I., (2007): GIS MODEL FOR ASSESSING WATER AND SEDIMENT DISCHARGE BASED ON THE METHODOLOGY OF GAVRILOVIC,

International conference: EROSION AND TORRENT CONTROL AS A FACTOR IN SUSTAINABLE RIVER BASIN MANAGEMENT, 25-28, September,

Belgrade, Serbia

Mincev I., Blinkov I., Trendafilov B. (2007) "GIS AIDED EROSION RISK ANALYSES ON VODNO MOUNTAIN",

III CONGRESS OF ECOLOGISTS OF THE REPUBLIC OF MACEDONIA WITH INTERNATIONAL PARTICIPATION, 6-9 October, Struga, R. Macedonia, KEY-

NOTE SPEAKER - division - LANDSCAPE ECOLOGY

Mincev, I. (2007):	"GIS AIDED MULTI OBJECTIVE ALLOCATION OF AREAS WITH INTENSIVE WOOD PRODUCTION AND MAINTAINING FAUNA BIODIVERSITY", INTERNATIONAL SYMPOSIUM, Sustainable Forestry - Problems and Challenges Perspectives and Challenges in wood technology, 24-26, October, 2007, Ohrid, R.Macedonia
Mincev, I. (2007):	"SUITABILITY FOR TREE SPECIES AFFORESTATION USING GIS AIDED LANDSCAPE MODEL", INTERNATIONAL SYMPOSIUM Sustainable Forestry - Problems and Challenges Perspectives and Challenges in wood technology 24-26, October, 2007, Ohrid, R.Macedonia
Blinkov I., Mincev I., Trendafilov B., (2008)	"EROSION RISK ANALYSES ON THE VODNO MOUNTAIN AND IMPACT TO THE SURROUNDING AREAS" BALWOIS 2008, international conference – Ohrid, Republic of Macedonia – 27- 31 May
Mincev I., (2009)	"LAND COVER MAPPING USING OBJECT BASED CLASSIFICATION OF MEDIUM-HIGH AND HIGH RESOLUTION IMAGERY" FIRST INTERNATIONAL CONFERENCE OF THE "WORLD SOIL EROSION AND CONSERVATION"- WOSEC 1 – GLOBAL CHANGE – CHALLENGES FOR SOIL MANAGEMENT, May 27-30, 2009 Tara Mountain/Serbia
Blinkov I., Mincev I., (2009)	"MULTI HAZARD MAPPING AS A TOOL FOR EFFECTIVE RISK MANAGEMENT" FIRST INTERNATIONAL CONFERENCE OF THE "WORLD SOIL EROSION AND CONSERVATION"- WOSEC 1 – GLOBAL CHANGE – CHALLENGES FOR SOIL MANAGEMENT, May 27-30, 2009 Tara Mountain/Serbia
Trendafilov B., Mincev I., (2009)	"MAPPING OF RECENTLY BURNT AREAS USING LANDSAT TM DATA; A CASE STUDY OF THE MEDITERRANEAN ISLAND OF THASOS" FIRST INTERNATIONAL CONFERENCE OF THE "WORLD SOIL EROSION AND CONSERVATION"- WOSEC 1 – GLOBAL CHANGE – CHALLENGES FOR SOIL MANAGEMENT, May 27-30, 2009 Tara Mountain/Serbia
Mincev I., Trendafilov B., (2010)	Effects of land cover change as erosion factor using Landsat imagery , BALWOIS conference , Ohrid 25-29.05.2010
Blinkov I., Bojcovski B., Trendafilov B.,, Trendafilov, A., Mincev I., (2010)	Effects of forest fires on erosion processes, First Serbian Forestry Congress (Future With Forests), 11-13 November, 2010., Belgrade, Serbia
Trendafilov B., Minčev I., Simovski B., Velkovski N. (2010)	SUITABILITY FOR TREE SPECIES AFFORESTATION USING GIS AIDED LANDSCAPE MODEL IN THE REPUBLIC OF MACEDONIA First Serbian Forestry Congres, Belgrade, 11-13 November 2010
Blinkov, I., Mincev, I. (2010)	"MULTI HAZARD MAPPING AS A TOOL FOR EFFECTIVE RISK MANAGEMENT", CATENA VERLAG, Miodrag Zlatić (Editor) Global Change – Challenges for Soil Management – Advances in GeoEcology 41, ISBN 978-3-923381-57-9
Blinkov, I., Mincev, I ., Trpenoska - Simonovik, L. (2011)	"AN APPROACH OF MULTI-HAZARD MAPPING OF WATER RELATED HAZARDS IN HILLY AND MOUNTAIN REGIONS APPLICABLE FOR SPATIAL PLANNING PROCESS CASE STUDY: SKOPJE REGION", 2nd Monitoring and analyses for disaster mitigation of landslides, debris flow and floods, 15-17 November, 2011, Rijeka, Croatia
Mincev, I. (2012)	"QUALITY ASSESSMENT OF SOME INPUT PARAMETERS USED FOR MODELING OF NATURAL PROCESSES", International conference on land conservation – LANDCON 1209, Sustainable management and climate changes, 17-21, September, 2012, Danube region, R. Serbia
Peshevski, I., Mincev, I . (2014)	"LANDSLIDE HAZARD FACTORS IN THE KOZUF METALLOGENIC DISTRICT", 2nd INTERNATIONAL WORKSHOP ON THE PROJECT: Environmental impact assessment of the Kozuf metallogenic district in southern Macedonia in relation to groundwater resources, surface waters, soils and socioeconomic consequences (ENIGMA)

Mincev, I. (2015)	"Measuring deposed sediment in small reservoirs, case study: "Gradče" reservoir", Agriculture & Forestry, Vol. 61, Issue 2: 215-223, 2015, Podgorica
Mincev, I. (2016)	"Measuring v.s modeling sediment, case study: Kalimanci reservoir", Third conference of World Association for Soil and Water Conservation "Sustainable management of soil and water resources-issues for natural disasters prevention" 22 nd – 26 th of August 2016, Belgrade, Serbia
Trendafilov A., Mincev I., (2016)	"Defining erosion potential in the catchment of the reservoir "Shpilje" in the function of sustainability of the hydro power plant", Third conference of World Association for Soil and Water Conservation "Sustainable management of soil and water resources-issues for natural disasters prevention" 22 nd – 26 th of August 2016, Belgrade, Serbia
Ivanoski D., Mincev I. , Jankulovski D., Koceva D. (2016)	"Hydrographic measurements in Shpilje reservoir", 11-th Counseling for Water economy and hydrotechnical engineering
Mincev I., Ivanoski D., Trendafilov A., Blinkov, I. (2016)	"Defining the erosion potential through methodologies based on analytical approach and measurements", 5-th Congress of ecologist of the Republic of Macedonia with international participation, 19-22 October, Ohrid, Macedonia
Trendafilov A., Mincev I., (2016)	"Erosion intensity as a consequence of the natural and anthropo-zoogenic factors, case study: catchment of the Spilje-Debar reservoir", 5-th Congress of ecologist of the Republic of Macedonia with international participation, 19-22 October, Ohrid, Macedonia
Mincev I., Trendafilov A., Blinkov, I., Ivanoski D., (2017)	"Soil erosion rates in two successive reservoir catchments: Spilje and Globocica reservoir", International scientific conference "Sustainable forestry – fact or fiction?", Ss. Cyril and Methodius University, Faculty of Forestry, Skopje, Macedonia 4-6 October 2017. Published in Forest review vol. 47 No. 2, ISSN 1857-9507
Trendafilov A., Mincev I., Ivanoski D., Blinkov, I., (2017)	"Rates of filling up water reservoirs with sediments and where the sediments are deposited", International scientific conference "Sustainable forestry – fact or fiction?", Ss. Cyril and Methodius University, Faculty of Forestry, Skopje, Macedonia 4-6 October 2017.
Mihajlovski, B., Minchev, I., Blinkov, I., Simovski, B. (2018)	"Use of modern geomatic techniques for creating and updating a green cadastre of urban trees and shrubs: a case study of Kumanovo city river bank", FOREST REVIEW, International scientific journal, Vol. 49, No. 1, Pag. 1-26, Ss. Cyril and Methodius University in Skopje, Faculty of Forestry in Skopje, 2018
Mincev, I. (2018)	"Measuring v.s modeling sediment, case study: Kalimanci reservoir", Soil and water resources protection in the changing environment, Ed.: Miodrag Zlatic; Stanimir Kostadinov; Schweizerbart and Borntraeger science publishers; Advances in Geoecology, Volume 45, ISBN 978-3-510-65418-5
Mincev I., Blinkov, I., Trendafilov A. (2019)	"Sedimentation rates and lifespan analyses in the "Kalimanci" reservoir", CONTRIBUTIONS, Section of Natural, Mathematical and Biotechnical Sciences, MASA, Vol. 40, No.2, pp. 181–189(2019), ISSN 1857–9027, DOI:10.20903/csnmbs.masa.2019.40.2.142
Blinkov I., Kostadinov S., Mincev I., Petrovic A., (2019)	"Soil Erosion and Torrent Control in Western Balkan Countries" ch.28 - pgs. 510-536, Title of the book: Degradation of Soil and Water Resources; Editors in Chief: Rui Li, Ted L. Napier, Samir El-Swaify, Mohamed Sabir, Eduardo Rienzi; Science Press, Beijing and Springer

Brochures - Books:

- 1. Blinkov I., (Mincev I., Trendafilov B., Simovski B.,) RimaDima project, Contemporary approach for risk/disaster management and prevention against natural hazards in mountainous/forested regions bilingual brochure, 50 pages, Ss. Cyril and Methodius University, Forestry faculty, Skopje 2008
- 2. Stojanovska M., Blinkov I., Miovska M., Mincev I., FOPER project, Regional research: "Conflicts between forestry and environmental sector in the Republic of Macedonia" brochure 20 pages, Ss. Cyril and Methodius University, Forestry faculty, Skopje 2009

- 3. Blinkov I., Mincev I., Trendafilov B., (2011): Use of contemporary geomantic techniques for modelling of erosion processes, 120 pages, Ss. Cyril and Methodius University, Forestry faculty, Skopje 2011.
- 4. Blinkov I., Zennaro B., Zaimi K., Krstic S., Kostadinovski M., **Mincev I.,** Kustereska R., Elbasani O., Peci D., Simixhiu V., (2017) **Shorezone functionality Ohrid lake**, Implementing the EU Water Framework Directive in South-Eastern Europe, Project: Conservation and Sustainable Use of Biodiversity at Lakes Prespa, Ohrid and Shkodra/Skadar (CSBL) Shorezone functionality, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
- 5. Blinkov I., Zennaro B., Zaimi K., Krstic S., Kostadinovski M., **Mincev I.,** Kustereska R., Elbasani O., Peci D., Simixhiu V., (2017) **Shorezone functionality Prespa lake**, Implementing the EU Water Framework Directive in South-Eastern Europe, Project: Conservation and Sustainable Use of Biodiversity at Lakes Prespa, Ohrid and Shkodra/Skadar (CSBL) Shorezone functionality, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
- 6. Aksov, E., Arsov, S., Mincey, I., Fang C. (2020) Agro-ecological atlas of the Republic of North Macedonia, Rome, FAO. ISBN 978-92-5-132122-5

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