
Multidisciplinary Conference on Sustainable Development
Section: Management of Sustainable Rural Development



UNIVERSITY OF LIFE SCIENCES "KING MIHAI I" from TIMIȘOARA

BOOK OF ABSTRACT

Multidisciplinary Conference on Sustainable Development,
15 - 16 May 2025
Section: Management of Sustainable Rural Development



FACULTY OF MANAGEMENT AND RURAL TOURISM



University of Szeged
Faculty of Agriculture
Hódmezővásárhely



Hungarian University of
Agriculture and Life
Sciences



Institute of
Agricultural
Economics Belgrade



Josip Juraj Strossmayer
University of Osijek
Faculty of Agrobiotechnical
Sciences Osijek



„Aleksander
Moisiu” University,
Faculty of Business,
Durres, Albania



Romanian
Academy
Timișoara Branch

TIMISOARA,
2025

Multidisciplinary Conference on Sustainable Development
Section: Management of Sustainable Rural Development



Editor: Prof. Tabita Cornelia ADAMOV, PhD, ULST, „King Mihai I” from Timisoara, Romania

Multidisciplinary Conference on Sustainable Development

Section: Management of Sustainable Rural Development

ISSN 2821 – 4293
ISSN – L 2821 – 4293

ORGANISING COMMITTEE

Associate Prof. Ramona CIOLAC PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Tabita ADAMOV PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Diana RABA PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Elena PEȚ PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Diana MARIN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Cornelia PETROMAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Tiberiu IANCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Sorin STANCIU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Ioan BRAD PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Nicoleta MATEOC-SÎRB PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Anda MILIN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Ioan PETROMAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Luminița PÎRVULESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Gabriela POPESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Simona CONSTANTINESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Ioana BĂLAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Andrea FEHER PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Remus GHERMAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Iasmina IOSIM PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Teodor MATEOC PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Iuliana MERCE PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Manuela Dora ORBOI PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Ciprian RUJESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Cosmin SĂLĂȘAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Corina SÎRBU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Claudia SÎRBULESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Elena TONEA PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Ana Mariana DINCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Carmen DUMITRESCU PhD - US University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Marius GORDAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Camelia MĂNESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Sebastian MOISA PhD - University of Life Sciences Timisoara
Lecturer Monica OCNEAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Anka PASCARIU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Lia ROTARIU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Oana SICOE-MURG PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Cosmina TOADER PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Loredana VĂDUVA PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Assistant Adrian FIRU-NEGOESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Assistant Marius LUNGU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Assistant Gabriel ȘUSTER PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
PhD Student Alexandra IBRIC - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
PhD Student Ana-Maria MARTIN - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
PhD Student Dragoș-Ciprian CHENDE - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
PhD Student Otilia-Ecaterina OPRÎȘOR - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
PhD Student Robert NEAGU - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Jonel SUBIĆ PhD - Institute of agricultural economics, Belgrad, Serbia
Dr. Marko JELOČNIK - Institute of agricultural economics, Belgrad, Serbia

Multidisciplinary Conference on Sustainable Development

Section: Management of Sustainable Rural Development

Prof. Karoly BODNAR PhD - *Hungarian University of Agriculture and Life Sciences*
Assoc. professor Béla GOMBOS PhD - *Hungarian University of Agriculture and Life Sciences*
Dr. Balázs DURAY - *Institute of Economics and Rural Development, University of Szeged, Faculty of Agriculture*
Dr. Orsolya KISS - *Institute of Animal Sciences and Wildlife Management, University of Szeged, Faculty of Agriculture*
Dr. Tamás MONOSTORI - *Institute of Plant Sciences and Environmental Protection, University of Szeged, Faculty of Agriculture*
Dr. Ágnes SÜLI - *Institute of Animal Sciences and Wildlife Management, University of Szeged, Faculty of Agriculture*
Dr. Tímea SÜLI-ZAKAR - *Institute of Plant Sciences and Environmental Protection, University of Szeged, Faculty of Agriculture*
Dr. Gabirella SZAMOSKÖZINÉ KISPÁL - *Institute of Economics and Rural Development, University of Szeged*
Prof. Valentina TUDOR PhD - *University of Agronomic Sciences and Veterinary Medicine of Bucharest*
Prof. Felix ARION PhD - *University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca*
Prof. Diana DUMITRAȘ PhD - *University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca*
Prof. Romulus IAGĂRU PhD - *"Lucian Blaga" University of Sibiu*
Prof. Marioara ILEA PhD - *University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca*
Prof. Mugurel JITEA PhD - *University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca*
Prof. Iulia MUREȘAN PhD - *University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca*
Associate Prof. Valentin MIHAI PhD - *University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca*
Associate Prof. Pompilica IAGĂRU PhD - *"Lucian Blaga" University of Sibiu*
Associate Prof. Aurelia CHEREJI PhD - *University of Oradea, Faculty of Environmental Protection*
Associate Prof. Cristina MAERESCU PhD - *University of Oradea, Faculty of Environmental Protection*
Associate Prof. Anca BRATA PhD - *University of Oradea, Faculty of Environmental Protection*
Associate Prof. Ramona BACTER PhD - *University of Oradea, Faculty of Environmental Protection*
Associate Prof. Adelina VENIG PhD - *University of Oradea, Faculty of Environmental Protection*
Lecturer Ioana CHEBELEU PhD - *University of Oradea, Faculty of Environmental Protection*
Lecturer Monica DODU PhD - *University of Oradea, Faculty of Environmental Protection*
Lecturer Alina GHERDAN PhD - *University of Oradea, Faculty of Environmental Protection*
Scientific Researcher Adrian BĂNEȘ PhD - *Timisoara Branch of Romanian Academy - Research Center for Sustainable Rural Development of Romania*
Scientific Researcher Ing. Miroslav RAICOV PhD - *Timisoara Branch of Romanian Academy - Research Center for Sustainable Rural Development of Romania*

Multidisciplinary Conference on Sustainable Development

Section: Management of Sustainable Rural Development

SCIENTIFIC ADVISORY COMMITTEE

Associate Prof. Ramona CIOLAC PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Tabita Cornelia ADAMOV PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Diana RABA PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Elena PEȚ PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Diana MARIN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Tiberiu IANCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Sorin STANCIU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Karoly BODNAR PhD - Hungarian University of Agriculture and Life Sciences
Prof. Ioan BRAD PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Nicoleta MATEOC-SÎRB PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Dr. habil. Edit MIKO - **University of Szeged Faculty of Agriculture, Hódmezővásárhely**
Prof. Anda Ioana MILIN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Luminița PÎRVULESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Gabriela POPESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Prof. Jonel SUBIĆ PhD – Institute of agricultural economics, Belgrad, Serbia
Prof. Tihana SUDARIĆ PhD - Josip Juraj Strossmayer University of Osijek, Croatia
Associate Prof. Ioana BĂLAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Ramona BACTER PhD - University of Oradea, Faculty of Environmental Protection
Associate Prof. Simona CONSTANTINESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Aurelia CHEREJI PhD – University of Oradea, Faculty of Environmental Protection
Lecturer Ioana CHEBELEU PhD - University of Oradea, Faculty of Environmental Protection
Associate Prof. Andrea FEHER PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Zoltán FUTÓ PhD - Hungarian University of Agriculture and Life Sciences, Hungary
Lecturer Alina GHERDAN PhD - University of Oradea, Faculty of Environmental Protection
Associate Prof. Iasmina IOSIM PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Iuliana MERCE PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Manuela Dora ORBOI PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Atilla RIBACS PhD - University of Szeged, Faculty of Agriculture, Hódmezővásárhely
Associate Prof. Cosmin SĂLĂȘAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Corina SÎRBU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Claudia SÎRBULESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Associate Prof. Elena TONEA PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Carmen DUMITRESCU PhD - US University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Marius GORDAN PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Camelia MĂNESCU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Sebastian MOISA PhD - University of Life Sciences Timisoara
Lecturer Anka PASCARIU PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Oana SICOE-MURG PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Lecturer Cosmina TOADER PhD - University of Life Sciences Timisoara, Faculty of Management and Rural Tourism
Dr. Gergő GYALOG - Hungarian University of Agriculture and Life Sciences, Hungary
Dr. habil. Levente KOMAREK - University of Szeged Faculty of Agriculture, Hódmezővásárhely
Scientific Researcher Adrian BĂNEȘ PhD - Timisoara Branch of Romanian Academy - Research Center for Sustainable Rural Development of Romania
Scientific Researcher Ing. Miroslav RAICOV PhD - Timisoara Branch of Romanian Academy - Research Center for Sustainable Rural Development of Romania

TABLE OF CONTENTS

1.	Tabita Cornelia ADAMOV, Tiberiu IANCU, Elena PEȚ, Gabriela POPESCU, Diana RABA, Cosmin SĂLĂȘAN, Mariana Ramona CIOLAC, Nicoleta MATEOC-SÎRB <i>The Circular Economy and Sustainable Development of Rural Areas: Between Necessity and Opportunity</i>	14
2.	Tabita Cornelia ADAMOV, Ioana Anda MILIN, Ioan BRAD, Iuliana MERCE, Camelia Maria MĂNESCU, Adelina VENIG, Anka PASCARIU, Marius GORDAN, Dragoș CHENDE <i>Agriculture in the Context of Climate Change: Between Vulnerability and Adaptation</i>	15
3.	Felix ARION <i>Rethinking agri food logistics</i>	16
4.	Ana Gina ARMAȘ, Daniela VĂLUȘESCU, Florin FIAT, Ioan PETROMAN, Ioan ȚIBRU <i>Synthesis study of the quality of the colostrum in Țurcană breed</i>	17
5.	Ana Gina ARMAȘ, Daniela VĂLUȘESCU, Marius MARIȚESCU, Ioan PETROMAN, Ioan ȚIBRU <i>Absorption of Immunoglobulins in the Colostrum by Artificially-Nourished Lambs</i>	18
6.	Ioana Mihaela BĂLAN, Teodor Ioan TRĂȘCĂ, Monica OCNEAN, Gheorghe Adrian FIRU NEGOESCU <i>Shifting Protein Consumption Patterns - Insights from Romania and Neighboring Countries</i>	19
7.	Ioana Mihaela BĂLAN, Teodor Ioan TRĂȘCĂ, Monica OCNEAN, Gheorghe Adrian FIRU NEGOESCU <i>Between Lack and Excess – Trajectories of Child Malnutrition in Contemporary Romania</i>	20
8.	Florentina Cristina BĂLDAN, Alina HAGIU, Marinela BĂRBULESCU <i>External Competitiveness of the Romanian Economy: Structural Challenges and Prospects for Recovery</i>	21
9.	Florentina Cristina BĂLDAN, Marinela BĂRBULESCU, Alina HAGIU <i>Cryptocurrencies and their Macroeconomic Implications: Opportunity or Threat to Monetary Stability?</i>	22
10.	Ramona Vasilica BACTER, Alina Emilia Maria GHERDAN, Monica Angelica DODU, Florin LUP, Alexandra UNGUREANU <i>From Training to Employment: How Vocational Education Shapes Job Search Outcomes for Spa Tourism Graduates</i>	23
11.	Eldian BALLA, Hasim DEARI <i>The Impact of Packaging Attributes of Environmental-Friendly Products on the Albanian Consumers' Purchase Intention</i>	24
12.	Maria BALINT, Sabin CHIȘ, Dumitru CONDRAT, Ionel POPESCU - MITROI, Claudia MUREȘAN, Sergiu PALCU <i>Comparative Study on the Differences in the Value of the Economic Efficiency of Tomato Production in a Classic System with Conventional Heating and Based on Thermal Waters</i>	25
13.	Maria BALINT <i>Muntele Mic Area – Representative Elements of Potential</i>	26
14.	Cătălin-Alexandru BÎTEA, Ioana Mihaela BĂLAN, Nicoleta Mateoc-SÎRB <i>Comparative Analysis of Viticultural Yield in the European Union</i>	27

Multidisciplinary Conference on Sustainable Development
Section: Management of Sustainable Rural Development

15. **Cătălin-Alexandru BÎTEA, Oana Maria SICOE-MURG, Ioana Mihaela BĂLAN, Nicoleta Mateoc-SÎRB** 28
Dynamics of Domestic Supply of Wine in the European Union
16. **Károly BODNÁR, Barbara KUDLACSEK** 29
Opinions on the Impact of Equestrian Activities and Equestrian Therapy on the Development of Young People
17. **Ioan BRAD, Remus GHERMAN, Tabita ADAMOV, Andrea FEHER, Cosmina TOADER** 30
Studies on the Evolution of the Agricultural Sector in Romania
18. **Larisa-Elena BRISCAN, Theodor MUNTEAN, Elena PEȚ, Tabita-Cornelia ADAMOV** 31
Marketing Strategies for Local Products, Creating Value in Rural Communities
19. **Dragoș-Ciprian CHENDE, Tiberiu IANCU, Tabita Cornelia ADAMOV, Mariana Ramona CIOLAC, Anka PASCARIU, Marius GORDAN, Ioana Anda MILIN** 32
Rural Mountain Areas: Between Vulnerability and Sustainable Growth
20. **Aurelia Ioana CHEREJI, Cristina Maria MAERESCU, Ioan jr. CHEREJI, Irina Adriana CHIURCIU, Daniela ȚUȚUI** 33
The Contribution of Local Action Groups to Rural Development in Alba County, Romania
21. **Ramona CIOLAC, Tiberiu IANCU Gabriela POPESCU, Tabita ADAMOV, Luminița PÎRVULESCU, Anca Mihaela DICU, Diana RABA, Diana MARIN** 34
Agritourism Activity Organization Forms Staged from Tradition to Modernity in Romanian Rural Area
22. **Simona Cristina CONSTANTINESCU Manuela Dora ORBOI, Carmen Simona DUMITRESCU** 35
Effects Produced by Proposing New Tourist Services in the Development of Tourism for Seniors
23. **Simona Cristina CONSTANTINESCU, Carmen Simona DUMITRESCU, Alexandru IVANIC** 36
Tourist Expectations of Hotel Services and Employees
24. **Cornelia Marilena DAMIAN (BADEA), Mihaela IANCU, Cosmina Andreea SMEDESCU, Adriana SIMA (MARIN), Valentina Constanța TUDOR** 37
Alignment of the 7 Quality Management Principles: A Sine Qua Non For Tourist Satisfaction in Rural Tourism
25. **Anca Mihaela DICU, Mariana Ramona CIOLAC, Ramona BACTER, Luminița Cornelia PÎRVULESCU** 38
Delights from Grandma's Notebook: An Introspective Look at Desserts from the '80s and '90s
26. **Ana-Mariana DINCU, Andreea Adriana PETCOV, Ilinca Merima IMBREA, Gabriela POPESCU, Corina SÎRBU, Camelia Maria MĂNESCU** 39
Research on Agritourism Activity in Bihor County
27. **Carmen Simona DUMITRESCU, Cosmin Sălășan, Iasmina Iosim, Sorin Mihai Stanciu, Simona Cristina Constantinescu** 40
The Vital Role of Agriculture in the European Union
28. **Carmen Simona DUMITRESCU, Cosmin Sălășan Iasmina Iosim, Sorin Mihai Stanciu, Simona Cristina Constantinescu** 41
Aspects Regarding Digitalization of Romanian Agriculture
29. **Andrea FEHER, Cosmina Simona TOADER, Claudia SÎRBULESCU, Ioan BRAD, Adrian BĂNEȘ, Miroslav RAICOV, Gabriel ȘUSTER** 42
Romania's National Recovery and Resilience Plan – Between Aspiration and Reality

Multidisciplinary Conference on Sustainable Development
Section: Management of Sustainable Rural Development

30. **Andrea FEHER, Cosmina Simona TOADER, Iasmina IOSIM, Raul PAȘCALĂU, Aisha Simbiat HUSSAINI** 43
Foreign Direct Investments in Western Romania: Economic and Regional Transformation in Timis County
31. **Andreea-Roxana FIRĂȚOIU (CHIURCIU), Liviu MĂRCUȚĂ, Aurelia Ioana CHEREJI, IRINA-Adriana CHIURCIU** 44
The Role of the Business Environment in the Sustainable Development of Buftea City, Ilfov County
32. **Maria Giorgiana FOGHIȘ, Petrică IANOȘEL, Gabriel SUSTER, Andrea FEHER** 45
Agricultural Productivity in Romania Following European Union Accession: Trends and Challenges after 2007
33. **Camelia GAVRILESCU** 46
The customs taxes war – how does it affect the EU - USA agri-food trade?
34. **Alina Emilia Maria GHERDAN, Ramona Vasilica BACTER, Monica Angelica DODU, Codrin GAVRA** 47
Marketing Strategies for Traditional Agro-Food Products: A Case Study on the Local Market of Maramures
35. **Remus GHERMAN, Mihaela IANCU, Anka Roxana PASCARIU, Camelia MĂNESCU, Ioan BRAD, Tabita ADAMOV, Tiberiu IANCU** 48
Human Resources in Agriculture: Shortages, Adaptation, and Solutions
36. **Remus GHERMAN, Mihaela IANCU, Anka Roxana PASCARIU, Camelia MĂNESCU, Ioan BRAD Tabita ADAMOV, Tiberiu IANCU** 49
Vocational Training in Agriculture – The Key to a Sustainable Agricultural Sector
37. **Marius-Ionuț GORDAN, Tiberiu IANCU, Tabita-Cornelia ADAMOV, Elena PET, Ioana-Anda MILIN, Gabriela POPESCU, Liliana MERCE** 50
Sustainable Tourism Practices in Romania's Rural Communities: A Case Study Approach
38. **Alina HAGIU, Mercedes Raquel GARCÍA REVILLA, Marinela BĂRBULESCU** 51
FinTech and the Circular Economy: Emerging Synergies for Scaling Sustainable Impact
39. **Alina HAGIU, Marinela BĂRBULESCU, Bogdan BUDICĂ** 52
Behavioral Finance in the Digital Age: How Financial Apps Affect Our Saving and Consumption Decision
40. **Aisha Simbiat HUSSAINI, Yusuf Usman OLADIMEJI, Sanni ABDULRAHMAN, Andrea FEHER, Hannatu Ohunene YUSUF** 53
Towards an Understanding of Households' Vulnerability Among Groundnut Value Chain Actors in Nigeria
41. **Aisha Simbiat HUSSAINI, Yusuf Usman OLADIMEJI, Tahirou ABDOULAYE, Andrea FEHER, Muhyideen OYEKUNLE, Zakariya SAMINU** 54
Assessment of Farmers' Preferences for Released Drought-Tolerant Maize Varieties (Sammazs) in Northern Nigeria
42. **Tiberiu IANCU, Tabita Cornelia ADAMOV, Gabriela POPESCU, Diana RABA, Luminița PÎRVULESCU, Claudia SÎRBULESCU, Remus GHERMAN** 55
The Role of Agrotourism in Revitalizing Rural Economies: A Romanian Perspective
43. **Petrică IANOȘEL, Maria Giorgiana FOGHIȘ, Elena Claudia SÎRBULESCU, Andrea FEHER** 56
The Current Structure of Agricultural Holdings in Romania
44. **Alexandra-Ioana IBRIC, Tiberiu IANCU, Marius-Robert LUNGU, Alina DRAGOESCU-PETRICĂ** 57
Digital Ethno-Marketing and Rural Storytelling: Framing Folk Culture for the Digital Traveller

Multidisciplinary Conference on Sustainable Development
Section: Management of Sustainable Rural Development

45. **Iasmina IOSIM, Gabriela POPESCU, Cosmin SĂLĂȘAN, Carmen Simona DUMITRESCU, Anka PASCARIU, Diana Cornelia MARIN** 58
Emotional Intelligence in Professional Settings
46. **Iasmina IOSIM, Anka PASCARIU, Diana Cornelia MARIN, Cosmin SĂLĂȘAN, Carmen Simona DUMITRESCU, Gabriela POPESCU** 59
Innovativeness in Tourism: Neologisms
47. **Arpad JANKO, Ionel Mugurel JITEA** 60
The Role and Challenges of Small Farms in Sustainable Agriculture: EU And Romania Perspective
48. **Silvije JERČINOVIĆ, D. Šostarić** 61
Customer-Based Brand Value and Its Effects on Enchancing Destination Equity in Rural Tourism
49. **Andreea Lidia JURJESCU, Florin SALA** 62
Sunflower Crop Situation in Romania - Comparative Study Over the Last Decade
50. **Andreea Lidia JURJESCU, Florin SALA** 63
Organic Cereal Crops in the World, In Europe and in Romania – Comparative Analysis
51. **Radosław KNAP, Piotr PRUS, Gabriela LEWICKA** 64
Prospects for the Development of Photovoltaic Farms in Rural Areas - Case Study
52. **Camelia MĂNESCU, Nicoleta MATEOC-SÎRB, Tabita ADAMOV, Oana SICOE-MURG, Alina MĂNESCU** 65
Study on the Importance of Protection Curtains in the Sustainable Development of the Rural Area
53. **Camelia MĂNESCU, Nicoleta MATEOC-SÎRB, Ana-Mariana DINCU, Viorica BĂEȘU, Irina CHIURCIU** 66
Socio-Economic Analysis of the West Region
54. **Cornelia Diana MARIN, Ramona CIOLAC, Iasmina IOSIM, Loredana VADUVA, Camelia MANESCU, Carmen Simona DUMITRESCU, Ana Lozici** 67
Study on How to Preserve the Identity of the Rural Environment Through Tourism Development
55. **Cornelia Diana MARIN, Ramona CIOLAC, Iasmina IOSIM, Loredana VADUVA, Camelia MANESCU, Ana Mariana DINCU, Ana Lozici** 68
Study on Consumer Characteristics of Online Consumers of Goods, Products and Services
56. **Anamaria Roxana MARTIN, Andrei RUSU, Marius GORDAN, Tabita ADAMOV, Tiberiu IANCU** 69
Analysis of Mobile Applications that Contribute to Reducing Food Waste
57. **Nicoleta MATEOC-SÎRB, Teodor MATEOC-SÎRB, Oana SICOE-MURG, Anisoara DUMA-COPCEA, Tabita ADAMOV** 70
Romania's Agricultural Production in the EU Context
58. **Iuliana Ioana MERCE, Ioana Anda MILIN, Sîrbulescu CLAUDIA** 71
Analysis of Cheese Consumption in Romania
59. **Iuliana Ioana MERCE, Ioana Anda MILIN, Sîrbulescu CLAUDIA** 72
Analysis of the Ecotourism Potential of the Sighistel Valley Area Located in the Apuseni Mountains
60. **Ioana Anda MILIN, Eugenia ȚIGAN, Iuliana Ioana MERCE, Teodor MATEOC-SIRB, Ciprian Ioan RUJESCU, Dragos Ciprian CHENDE** 73
Integrated Water Management - A Necessity in Romania

Multidisciplinary Conference on Sustainable Development
Section: Management of Sustainable Rural Development

61. **Ioana Anda MILIN, Nicoleta MATEOC-SIRB, Iuliana Ioana MERCE, Claudia SIRBULESCU, Marius GORDAN, Dragos Ciprian CHENDE** 74
Analysis of National Objectives and Indicators for Sustainable Production and Consumption
62. **Natalia MOCANU, Andrei BOTEZATU** 75
Table Grape Production and Its Impact on the Economic Performance of Agriculture
63. **Natalia MOCANU, Andrei BOTEZATU, Nicoleta MATEOC-SÎRB** 76
Agricultural Subsidies and their Role in Table Grape Production
64. **Grégoire MOMBİ AMBOKO, Adelard KASESHI MULENGE** 77
Trajectory of "White Elephants" in the DR Congo from 1960 to 2022
65. **Grégoire MOMBİ AMBOKO, Adelard KASESHI MULENGE** 78
Empirical Analysis of the Relationship Between Public Investments and Macroeconomic Variables in the DR Congo
66. **Theodor MUNTEAN, Larisa-Elena BRISCAN, Tiberiu IANCU, Tabita ADAMOV** 79
Resources and Challenges of Rural Tourism in the Banat Region of Romania
67. **Steluța NĂSTASĂ, Anișor NEDELUCU, Laura CISMARU** 80
Wine Tourism as a Driver for Sustainable Rural Development
68. **Cristina Gabriela PANICI, Maria Mihaela MOATĂR, Petru Ioan DRAGOMIR, Petre Alexandru PANICI, Marinela BORA, Daniela Nicoleta SCEDEI, Carolina ȘTEFAN** 81
Studies on The Projection of an Agri-Tourism Pension for the Purpose of Validating Local Resources in the Danube Gorge
69. **Cristina Gabriela PANICI, Petre Alexandru PANICI, Petru Ioan DRAGOMIR, Marinela BORA, Daniela Nicoleta SCEDEI, Carolina ȘTEFAN, Maria Mihaela MOATĂR** 82
Studies Regarding Arboretums in the Product Union No. V - Moldova Noua in Order to Increase Forest Productivity and Improve the Recreational (Protection) and Tourism Function
70. **Anka Roxana PASCARIU, Mihaela IANCU, Dragoș CHENDE, Marius GORDAN, Iasmina IOSIM, Tabita ADAMOV, Tiberiu IANCU** 83
The Role of Communication in Rural Development Strategies
71. **Anka Roxana PASCARIU, Mihaela IANCU, Dragoș CHENDE, Marius GORDAN, Camelia MĂNESCU, Iasmina IOSIM, Tabita ADAMOV, Tiberiu IANCU** 84
Effective Communication Strategies in Agricultural Product Marketing
72. **Ioan PETROMAN, Ioan ȚIBRU, Ioan SAUER, Iulia MUNTEANU, Cornelia PETROMAN** 85
Performing Systems of Obtaining Quantitative Production and Qualitative in Sheep
73. **Ioan PETROMAN, Ioan ȚIBRU, Diana MARIN, Daniela VĂLUȘESCU, Maria SAUER** 86
New Ecological Management Models in Quantitative and Qualitative Production in Sheep
74. **Luminita PIRVULESCU, Tiberiu IANCU, Mariana Ramona CIOLAC, Claudia SIRBULESCU, Ramona BACTER, Despina-Maria BORDEAN** 87
The State of Trout Meat Quality in Romania
75. **Gabriela POPESCU, Cosmin Alin POPESCU, Tiberiu IANCU, Ramona Mariana CIOLAC, Tabita ADAMOV, Iasmina IOSIM, Otilia Ecaterina OPRIȘOR** 88
Rural Tourism as a Vector of Sustainable Development and Contribution to the Circular Economy in Rural Areas of Romania
76. **Gabriela POPESCU, Cosmin Alin POPESCU, Tiberiu IANCU, Ramona Mariana CIOLAC, Tabita ADAMOV, Iasmina IOSIM, Iuliana MERCE, Camelia MĂNESCU, Ioan SZASZ** 89
Traditions and Customs of Major Christian Religious Holidays that Attract Tourists to Rural Areas

Multidisciplinary Conference on Sustainable Development
Section: Management of Sustainable Rural Development

77.	Andrei PRIGOREANU, Stejărel BREZULEANU <i>Knowledge and Innovation Systems in Agriculture - A.K.I.S. - challenges for LAGs</i>	90
78.	Ioan PRIGOREANU, Gabriela RADU, Gabriela IGNAT <i>The Sustainability Approach for the Agricultural Sector at EU Level</i>	91
79.	Diana Nicoleta RABA, Tiberiu IANCU, Mariana Ramona Ciolac, Tabita ADAMOV, Elena PEȚ, Diana MARIN, Bianca-Florina STANCIU <i>Integrating R&D Management Practices in the Development of Novel Confectionery Products</i>	92
80.	Miroslav RAICOV, Adrian BĂNEȘ, Andrea FEHER, Nicoleta MATEOC-SÎRB, Păun Ion OTIMAN <i>The Current Structure of Agricultural Holdings in Romania</i>	93
81.	Cosmin SĂLĂȘAN, Carmen Simona DUMITRESCU, Iasmina IOSIM, Cristian GĂINĂ, Raul PAȘCALĂU <i>Agricultural Crop Production Evolution in Western Romanian Agriculture</i>	94
82.	Cosmin SĂLĂȘAN, Carmen Simona DUMITRESCU, Iasmina IOSIM, Cristian GĂINĂ, Raul PAȘCALĂU <i>Trends and Patterns in Romanian Agricultural Land Use from 1990-2023: A Comprehensive Analysis</i>	95
83.	Maria SAUER, Bianca CSIZMADIA, Loredana VĂDUVA, Mihaela ALBULESCU, Ioan PETROMAN <i>Improving the Management of Pastoral Growth and Exploitation Systems of Sheep</i>	96
84.	Oana Maria SICOE-MURG, Nicoleta MATEOC-SÎRB, Ana-Mariana DINCU, Cătălin BÎTEA, Camelia MĂNESCU <i>Contribution of GDP from the Primary Sector of the Main Regions to the Total GDP of Romania</i>	97
85.	Oana Maria SICOE-MURG, Ana-Mariana DINCU, Teodor MATEOC, Camelia MĂNESCU <i>Aspects Regarding the Trends of the Insurance Market in Romania. Key Figures and Rankings in 2023</i>	98
86.	Corina Constanța SÎRBU, Ana Mariana DINCU, Iuliana MERCE, Anișoara DUMA COPCEA, Casiana MIHUȚ <i>Tourists' Perception of the Benefits of Parks and the Importance of Green Spaces Management</i>	99
87.	Elena Claudia SÎRBULESCU, Luminița PÎRVULESCU, Ioana Iuliana MERCE, Tiberiu IANCU, Ioana Anda MILIN <i>Analysis of Direct Taxes and Efficiency of Their Collection in Romania</i>	100
88.	Elena Claudia SÎRBULESCU, Simion ALDA, Andrea Ana FEHER, Mariana CHIRILĂ, Daniel CHIRILĂ <i>Exploring Agriculture in Romania. Analysis of Crops and Productions in The Period 2014-2023</i>	101
89.	Sobir Samatovich ESHEV, Alisher Normurodovich KHAZRATOV, Elgiza Alibek kizi SOBIROVA <i>Water Management Issues in the South of Uzbekistan: Challenges and Strategic Responses</i>	102
90.	Sorin Mihai STANCIU, Raul PAȘCALĂU, Carmen Simona DUMITRESCU <i>Trade Policy as Foreign Policy: EU's Global Trade Agreements with the UK Post-Brexit</i>	103
91.	Sorin Mihai STANCIU, Raul PAȘCALĂU, Carmen Simona DUMITRESCU <i>The Politics of the EU Recovery Fund: Solidarity or Strategic Necessity?</i>	104

Multidisciplinary Conference on Sustainable Development
Section: Management of Sustainable Rural Development

92. **Jonel SUBIĆ, Marko JELOČNIK, Miroslav NEDELJKOVIĆ, Velibor POTREBIĆ, Mladen PETROVIĆ** 105
Economic Potential of Crop Production Used as Biomass in Energy Generation
93. **Gabriel SUSTER, Cosmin Alin POPESCU, Teodor MATEOC, Diana MARIN** 106
Enhancing Higher Education with Smart Campuses: Student Insights at ULST "King Michael I" Timisoara
94. **Cosmina-Simona TOADER, Andrea FEHER, Cosmin SĂLĂȘAN, Carmen Simona DUMITRESCU, Iveta UBREŽIOVÁ, Jakub SKORUPA** 107
Romanian Pig Farming in Terms of Businesses Performance
95. **Georgeta Angelica TOMUȚA, Adrian BĂNEȘ, Simona Cristina CONSTANTINESCU, Manuela – Dora ORBOI, Tabita Cornelia ADAMOV** 108
The Evolution of Unemployment in Hunedoara County in the Context of Economic Changes
96. **Georgeta Angelica TOMUȚA, Adrian BĂNEȘ, Ioana-Anda MILIN, Manuela – Dora ORBOI, Tabita Cornelia ADAMOV** 109
Economic and Social Analysis of Hunedoara County in the Period 2013-2023
97. **Ana URSU** 110
Efficiency of Chemical Fertilizer Use in Romanian Agriculture: A Comparative Study Based on FAOSTAT Data
98. **Loredana VĂDUVA, Cornelia PETROMAN, Ana Gina ARMAȘ, Bianca CSIZMADIA, Ioan PETROMAN** 111
Diversification of Farm Activities for the Good Use of Finished Production in Sheep
99. **Loredana VĂDUVA, Diana MARIN, Iulia MUNTEANU, Daniela VĂLUȘESCU, Ioan PETROMAN** 112
Improving Quality Management in Sheep Farms and Obtaining New Farm Brands
100. **Daniela VĂLUȘESCU, Iulia MUNTEANU, Florin FIAT, Ioan PETROMAN, Ioan ȚIBRU** 113
Correlation Between Colostrum Composition, Body Weight Upon Calving, and Day 30 in Lambs
101. **Daniela VĂLUȘESCU, Marius MARIȚESCU, Ana Gina ARMAȘ, Ioan PETROMAN, Ioan ȚIBRU** 114
Evaluating Sheep's Colostrum According to the Time from the Calving by the Refractometric Method
102. **Adelina VENIG, Aurora VENIG, Tabita ADAMOV, NICOLETA MATEOC- SÎRB, Elena PETȚ** 115
Artificial Intelligence in Agriculture, the Basis of Sustainable Management
103. **Daniela Nicoleta VOICILA, Andreea GIUCA, Marin ANCUTA, Steliana RODINO** 116
Evolution and Prospects of Agricultural Biomass in the European Union and Romania
104. **Hannatu Ohunene YUSUF, Rabiū SULEIMAN, Mohammed Saddiq NUHU, Andrea FEHER, Yusuf Usman OLADIMEJI, Aisha Simbiat HUSSAINI** 117
Determinants and Perception of Poverty Among Ginger Farmers in Nigeria: Gender Perspectives

1. The Circular Economy and Sustainable Development of Rural Areas: Between Necessity and Opportunity

**Tabita Cornelia ADAMOV¹, Tiberiu IANCU¹, Elena PEȚ¹, Gabriela POPESCU¹,
Diana RABA¹, Cosmin SĂLĂȘAN¹, Mariana Ramona CIOLAC¹, Nicoleta MATEOC-SÎRB**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: tiberuiancu@usvt.ro*

Abstract: In the current context of ecological, economic, and social crises, the circular economy is emerging as an essential solution for promoting sustainable development, particularly in rural areas. This economic model, based on waste reduction, resource reuse, and the regeneration of natural systems, responds to the urgent need to optimize the use of local resources and to reduce dependence on linear consumption models. At the same time, the circular economy offers concrete opportunities for the revitalization of rural communities by stimulating local entrepreneurship, creating green jobs, and strengthening economic resilience.

This study analyzes the potential of integrating circular economy principles into rural development strategies, emphasizing the balance between the necessity of ecological transition and the opportunities for innovation and social cohesion.

The present study highlights the growing importance of the circular economy as a strategic instrument in the process of sustainable development in rural areas. Through a mixed-methods approach, it was possible to shape an integrated perspective on how the principles of the circular economy are perceived, understood, and, in some cases, applied within rural communities.

In conclusion, the circular economy should not be seen only as a necessity imposed by the global context, but also as a real opportunity for the revitalization of the Romanian rural space. Its integration into local development strategies could accelerate the transition toward more sustainable, inclusive, and resilient rural communities in the face of future challenges.

Keywords: circular economy, rural development, sustainable development, local communities, Romania, resilience, mixed-methods research

2. Agriculture in the Context of Climate Change: Between Vulnerability and Adaptation

**Tabita ADAMOV¹, Ioana Anda MILIN¹, Ioan BRAD¹, Iuliana MERCE¹, Camelia MĂNESCU¹,
Adelina VENIG², Anka PASCARIU¹, Marius GORDAN¹, Dragoş CHENDE¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Oradea, Faculty of Environmental Protection, Oradea, Romania*

** Corresponding author: tiberuiiancu@usvt.ro*

Abstract: The climate change represents one of the most pressing global challenges, with profound implications for agricultural systems and food security, particularly in vulnerable regions. This article aims to analyze the multidimensional impact of climate change on agriculture and its cascading effects on food availability, access, and stability. The main objectives of the study are: (1) to identify the key climatic variables affecting agricultural productivity; (2) to assess the vulnerability of different agricultural sectors to climate-related risks; and (3) to explore the implications for national and regional food security.

The research employs a mixed-methods approach. Quantitatively, the study analyzes climate data (temperature, precipitation, extreme weather events) and agricultural yield statistics over the last two decades, using regression models to identify correlations and trends. In addition, relevant policy documents were reviewed to evaluate institutional responses to climate-induced food insecurity.

Findings reveal a clear negative trend in crop productivity in certain regions due to increased frequency of droughts and unpredictable weather patterns. Climate change has exacerbated existing inequalities in food access, particularly among smallholder farmers. The study highlights the urgent need for integrated adaptation strategies—such as climate-resilient crops, improved irrigation systems, and early warning mechanisms—combined with supportive public policies to mitigate the effects of climate change on agriculture and ensure long-term food security.

Keywords: climate change, agriculture, food security, adaptation, sustainable development, vulnerability

3. Rethinking agri food logistics

Felix ARION^{1*}

¹University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Faculty of Horticulture and Business for Rural Development, Cluj-Napoca, Romania

** Corresponding author: felixarion@usamvcluj.ro*

Abstract: The work focused and initiatives projects from European Union to evaluate their contributions to EU transport and logistics policy objectives. The analysis centres on some strategic themes including: sustainability, digitalization and data sharing, multimodal logistics, innovative logistics, and supply chain resilience. Collectively, these projects represent significant advancements toward the EU Green Deal, Digital Europe, and Sustainable and Smart Mobility Strategy. Key findings indicate that many projects successfully developed interoperable platforms for digital logistics, promoting standardized data sharing and operational transparency. Others, advanced sustainable urban logistics through pilot projects involving micro hubs and zero-emission last-mile delivery. Moreover, efforts to shift freight from road to rail or waterways support carbon reduction targets. Despite individual successes, it highlights fragmentation across projects, limited cross-project communication, and insufficient policy uptake of results. The COVID-19 pandemic further exposed the need to embed resilience and adaptability into logistics systems, prompting newer initiatives to address these concerns. The analysis recommends greater integration and coordination among projects, development of unified dissemination platforms, and stronger alignment with EU policy frameworks. Establishing shared taxonomies, fostering synergies, and enhancing visibility of project outcomes are vital steps toward amplifying the impact of EU-funded research and innovation in logistics. Overall, it was demonstrated that these projects provide a strong foundation for a more sustainable, digital, and resilient European freight transport system, but coordinated action is needed to unlock their full potential.

Keywords: development research, innovation challenges, participatory methodology, capacity-building, operational planning

4. Synthesis study of the quality of the colostrum in Țurcană breed

Ana Gina ARMAȘ¹, Daniela VĂLUȘESCU¹, Florin FIAT², Ioan PETROMAN^{1*}, Ioan ȚIBRU^{1*}

¹ Sheep and Goat Breeding Research and Development Station Caransebes, Romania

² University of Life Sciences "King Mihai I" from Timisoara, Faculty of Veterinary Medicine, Timisoara, Romania

** Corresponding author: tibru_ioan@yahoo.com, i_petroman@yahoo.com*

Abstract. During the calving period of the 2025 season, seven farmers in the mountain area of Banat agreed to participate in the active management of the colostrum after a period of training and discussions. Five of these farmers gathered data on 125 sheep, including age, race, body condition score, number of lambs born live and dead, state of the udder, and colour of the colostrum. The results were analysed using a Brix Refractometer, which showed between 26.5% and 76% of the samples exceeded this minimum level value of the colostrum, i.e., it was of good quality. An average of 20 sheep colostrum samples showed a great variation at the level of the herd due to the feed. The forage front, especially concentrates (raw protein) and the supplementation of concentrates to the sheep with twin gestation were all factors that impacted the level of colostrum quality. Individual factors did not play a role in determining the quality of the colostrum; the quality of the colostrum was inadequate more likely if the sheep had an inadequate body condition score.

Keywords: sheep, colostrum, body condition.

5. Absorption of Immunoglobulins in the Colostrum by Artificially-Nourished Lambs

**Ana Gina ARMAȘ¹, Daniela VĂLUȘESCU¹, Marius MARIȚESCU², Ioan PETROMAN^{1*},
Ioan ȚIBRU^{1*}**

¹ *Sheep and Goat Breeding Research and Development Station Caransebes, Romania*

² *University of Life Sciences "King Mihai I" from Timisoara, Faculty of Veterinary Medicine, Timisoara, Romania*

** Corresponding author: tibru_ioan@yahoo.com, i_petroman@yahoo.com*

Abstract. The purpose of this study was to investigate the body mass and the immune state of the lambs raised in natural conditions and artificial feeding conditions with two different quantities of colostrum. In this study, 60 lambs were randomly divided into groups according to treatment: 20 lambs remained with their mothers (the natural growth group G1), 20 lambs were taken from their mothers post-partum and were fed from the bottle with 150 g of collection milk (G 2) equivalent of 4g of IgG, and 20 lambs were fed with 200 g colostrum (G3) equivalent of 8 g IgG. The total colostrum amount was equally divided into three rations 2, 14, and 24 h post-partum. Naturally raised lambs (G1) had a larger body mass than G2 and G3 during breastfeeding, while G2 and G3 had a larger body mass than G1 upon weaning. G3 and G1 had plasma concentrations of IgG higher than G2 during breastfeeding. G2 and G3 presented similar concentrations of IgG, but higher than G1 lambs. The lambs that were breastfed with 200 g colostrum (8 g of IgG/kg) presented immune values similar to those of the lambs grown in natural conditions, with a higher weight. This proves that not only the amount of colostrum, but also its management during the separation of the mother, the quality of the milk, and the frequency of breastfeeding can affect the final immune status of the lambs. Regarding the study of factors influencing the absorption of colostrum immunoglobulins from recently-born lambs, 60 lambs belonging to the Țurcană breed were separated from their mothers before breastfeeding and fed with the bottle with 10 measures of colostrum from their mothers and 10 from colostrum collection.

Keywords: sheep, colostrum, IgG, breastfeeding.

6. Shifting Protein Consumption Patterns - Insights from Romania and Neighboring Countries

**Ioana Mihaela BĂLAN^{1†}, Teodor Ioan TRĂȘCĂ^{1,2†}, Monica OCNEAN^{1*},
Gheorghe Adrian FIRU NEGOESCU¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Agronomic Sciences and Veterinary Medicine, Faculty of Animal Productions Engineering and
Management, Bucharest, Romania*

** Corresponding author: teodor.trasca@usamv.ro; monicaocnean@usvt.ro*

†These authors contributed equally to this work

Abstract. The structure of protein consumption has significant implications for public health, food security, and environmental sustainability. This study provides a comparative analysis of the percentage contribution of various protein sources to total per capita protein intake in Romania and its neighboring countries - Bulgaria, Hungary, Moldova, Serbia, and Ukraine - over the past three decades. The research examines the proportional contributions of five key protein sources: vegetables, fish and seafood, meat, eggs, and milk. The starting point of 1992 was selected due to the increased availability of harmonized, reliable data following the post-communist transition and the onset of structural reforms across Eastern Europe.

The results reveal substantial disparities in dietary protein patterns across countries and over time. Notably, Romania and Moldova maintained relatively high shares of plant-based protein consumption, while Hungary exhibited consistently higher proportions of animal-based protein, particularly from meat and eggs. An upward trend in fish-derived protein is observable in Moldova and Ukraine, signaling a possible shift in dietary preferences or availability.

These findings contribute to the broader debate on sustainable diets in Central and Eastern Europe, offering insights for policymakers seeking to balance nutritional needs with environmental and socio-economic considerations.

Keywords: protein consumption patterns, Romania and neighboring countries, dietary transition, sustainable nutrition, food security.

7. Between Lack and Excess – Trajectories of Child Malnutrition in Contemporary Romania

**Ioana Mihaela BĂLAN^{1†}, Teodor Ioan TRĂȘCĂ^{1,2†}, Monica OCNEAN^{1*},
Gheorghe Adrian FIRU NEGOESCU¹**

¹*University of Life Sciences “King Mihai I” from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Agronomic Sciences and Veterinary Medicine, Faculty of Animal Productions Engineering and
Management, Bucharest, Romania*

** Corresponding author: teodor.trasca@usamv.ro; monicaocnean@usvt.ro*

†These authors contributed equally to this work

Abstract. Child malnutrition remains a persistent public health and food security concern in Romania, reflecting persistent social and economic inequalities. This paper analyses malnutrition evolution among children under 5 years of age, over the period 2000–2022, based on modeled estimates published by FAOSTAT. The study focuses on three key indicators: stunting, wasting, and overnutrition. The results show a significant reduction in the prevalence of stunting (from 13.5% in 2000 to 7.8% in 2022), the almost complete disappearance of wasting after 2002, and a marked decrease in overweight after the peak period of 2007–2010. These trajectories indicate considerable progress, but also persistent challenges – particularly regarding chronic undernutrition and the simultaneous coexistence of nutritional deficiencies and excesses. The results are discussed in the context of socio-economic transition, health policy reforms, and food accessibility. The paper argues that child malnutrition in Romania today reflects a “double burden” of food imbalance, driven by structural inequalities and fragmented policy responses. An integrated approach, focused on equity, is needed to ensure the right of all children in Romania to adequate and nutritious food.

Keywords: Romania, child malnutrition, stunting, wasting, overweight, food security, health inequality.

8. External Competitiveness of the Romanian Economy: Structural Challenges and Prospects for Recovery

Florentina Cristina BĂLDAN¹, Alina HAGIU¹, Marinela BĂRBULESCU¹

¹National University of Science and Technology Politehnica Bucharest, Faculty of Economics and Law, Bucharest, Romania

** Corresponding author: alinahagiu@yahoo.com*

Abstract. External competitiveness has become a critical indicator for assessing Romania's economic performance in international markets, given the pressures imposed by globalization and European economic integration. Although exports, GDP growth and the attraction of foreign direct investment have increased in recent years, Romania's external competitiveness is affected by a number of persistent structural problems.

The aim of this paper is to examine the main factors influencing the external competitiveness of the Romanian economy, focusing on structural imbalances in the real economy, weak performance in global value chains, current account deficit and vulnerability to external shocks. We also aim to conduct a critical analysis of competitiveness factors (unit labor costs, productivity, sectoral structure, innovation, infrastructure and human capital) and to identify possible solutions to strengthen Romania's external position. In terms of these, the priorities are as follows: improving economic governance, promoting innovation and applied research, reforms in education and labor force training, and strategic reorientation towards high value-added exports.

Keywords: innovation, global value chains, multifactor productivity, economic resilience.

9. Cryptocurrencies and their Macroeconomic Implications: Opportunity or Threat to Monetary Stability?

Florentina Cristina BÂLDAN¹, Marinela BĂRBULESCU¹, Alina HAGIU¹

¹*National University of Science and Technology Politehnica Bucharest, Faculty of Economics and Law,
Bucharest, Romania*

** Corresponding author: alinahagiu@yahoo.com*

Abstract. Over the last ten years, the rapid growth of digital assets and cryptocurrencies has raised a number of fundamental questions about macroeconomic and monetary stability. However, this has opened up new perspectives on the future of the global financial system. Cryptocurrencies such as Bitcoin and Ethereum have become significant speculative assets, although they were initially neglected. The cryptocurrency ecosystem, which includes stablecoins, tokens and open finance platforms, is having an increasingly clear impact on capital markets, monetary policies and investor behavior.

In this paper we aim to analyze the macroeconomic effects of cryptocurrencies on monetary stability, monetary policy and the functions of traditional central banks. We consider that, while cryptocurrencies offer innovation and the potential for financial inclusion, they pose significant systemic risks if not properly regulated. In this context, this paper examines the main theoretical and institutional issues arising from the rapid growth of decentralized digital currencies and the emergence of central bank-issued digital currencies (CBDCs), the possible repercussions for monetary policy transmission, price stability, monetary sovereignty and financial market volatility.

Keywords: inflation, regulation, volatility, assets, risk, technology.

10. From Training to Employment: How Vocational Education Shapes Job Search Outcomes for Spa Tourism Graduates

Ramona Vasilica BACTER^{1*}, Alina Emilia Maria GHERDAN¹, Monica Angelica DODU¹, Florin LUP¹, Alexandra UNGUREANU²

¹*University of Oradea, Faculty of Environmental Protection, Oradea, Romania*

²*University Stefan cel Mare of Suceava, Faculty of Economics, Suceava, Romania*

** Corresponding author: rbacter@uoradea.ro*

Abstract. Vocational education plays a pivotal role in preparing graduates for the workforce, particularly in specialized industries such as spa tourism, which has seen consistent growth due to rising global demand for wellness and hospitality services. This research investigates how vocational training programs influence job search success, employment readiness, and long-term career integration for individuals entering this dynamic field. To assess these dynamics, the study employs a mixed-methods framework, combining quantitative surveys with qualitative interviews to capture a comprehensive view of graduates' experiences. Participants included recent alumni from a diverse range of vocational programs specializing in spa tourism across multiple regions. The analysis focuses on key variables such as skill acquisition, practical training components, and post-graduation employment trajectories. Findings indicate that well-structured vocational programs significantly enhance graduates' employability by providing not only technical competencies but also hands-on experience through internships and apprenticeships. Additionally, programs that incorporate mentorship opportunities and career guidance services contribute to greater confidence among job seekers, enabling smoother transitions into the workforce. However, the study also uncovers notable disparities in outcomes, influenced by factors such as institutional resources, regional labor market conditions, and the level of industry engagement in curriculum design. These variations suggest that while vocational training is generally beneficial, its effectiveness depends heavily on program quality and alignment with employer needs. The study concludes with actionable recommendations, emphasizing the need for curriculum modernization, stronger collaboration between educational institutions and industry stakeholders, and targeted policy interventions to address regional imbalances. By implementing these measures, educators and policymakers can better equip graduates with the skills and networks required to thrive in the competitive spa tourism sector. Ultimately, this research contributes valuable insights for multiple stakeholders, including training providers seeking to refine their programs, employers aiming to recruit qualified personnel, and policymakers focused on reducing skills mismatches in the labor market.

Keywords: employability, skill acquisition, labor market integration, workforce readiness, industry collaboration, curriculum alignment.

11. The Impact of Packaging Attributes of Environmental-Friendly Products on the Albanian Consumers' Purchase Intention

Eldian BALLA^{1*}, Hasim DEARI^{2*}

¹Aleksandër Moisiu" University, Faculty of Business, Durrës, Albania

²State University of Tetova, Faculty of Economics, Macedonia

** Corresponding author: eldianballa@uamd.edu.al, hasim.deari@unite.edu.mk*

Abstract. Packaging innovations has a positive impact and can afford lower costs and/or push demand for the product. For many companies it is an important reason for the increase in supply, is redesigning packaging with more recyclable materials, to reduce the use of paper and plastic. On the demand side, in mature markets, packaging innovations can provide a short-term sales boost. The beverage industry, in general, is characterized by a large number of packaging innovations in Albanian markets. Many consumers are now environmentally conscious and demand that products be packaged and delivered to them in an environmentally friendly manner. Due to the growing population of eco-friendly consumers and government policies, eco-friendly branded packaging boxes environment are the best solution. This will help the company to reduce its environmental footprint and to increase consumer brand loyalty. The study is focused on the impact of packing attributes of environmental-friendly products on the Albanian consumers' purchase intention in diary products.

Keywords: Packing attributes, environmental-friendly products, Albanian consumers, recycle materials, purchase intentions.

12. Comparative Study on the Differences in the Value of the Economic Efficiency of Tomato Production in a Classic System With Conventional Heating and Based on Thermal Waters

**Maria BALINT^{1*}, Sabin CHIȘ¹, Dumitru CONDRAT¹, Ionel POPESCU - MITROI¹,
Claudia MUREȘAN¹, Sergiu PALCU¹**

*¹"Aurel Vlaicu" University, Faculty of Food Engineering, Tourism and Environmental Protection,
Arad, Romania*

** Corresponding author: balintmariamihela@gmail.com*

Abstract. Romania's geographical location allows vegetable production to be achieved with low production costs during the summer months, due to the favorable temperature. However, summer production, correlated with the abundance of products during this season, is not sufficient to economically support the rest of the time. Both the duration of sunshine and the average temperature are naturally lower in Romania compared to some adjacent countries with horticultural traditions.

The differences regarding the economic efficiency of greenhouses for tomato cultivation were studied, for two heating systems: a classic system that involves the purchase of the thermal agent and an unconventional system that uses thermal waters to heat the environment. The study was conducted in the plain area of western Romania in the area of the town of Lovrin. Production in the classic system was variable throughout the year, with values ranging between 27 and 37 tons/hectare. There was only one exception, the month of December with a production of 15 tons/hectare. The average production was approximately 31 tons/hectare. The minimum production in the unconventional system that ensures economically comparable values with the classic greenhouse tomato growing system is approximately 26.8 tons/hectare. The value added obtained by increasing the production by one ton/hectare in the unconventional system is approximately 7957 euros.

Keywords: economic value, tomato, conventional heating, thermal waters heating.

13. Muntele Mic Area – Representative Elements of Potential

Maria BALINT^{1*}

*¹"Aurel Vlaicu" University, Faculty of Food Engineering, Tourism and Environmental Protection,
Arad, Romania*

** Corresponding author: balintmariamihaela@gmail.com*

Abstract. Muntele Mic resort is located at an altitude of 1525 m and from here, in four hours, you can reach Caleanu or Tarcu (where there is an important meteorological station), in about three hours, you can reach Cuntu (there is also a meteorological station here) and in four hours, in the Poiana Marului resort, which is located at an altitude of 680 m. An important role in these resorts is played by the altitude, the clean air with Mediterranean influences of the climate, the flora and fauna, the cold springs and the superb views. Due to their position and altitude, the Țarcu Mountains, and especially Muntele Mic, play a role of a dam in the way of the circulation of air masses that penetrate both the north and northeast (cold air masses bringing precipitation, especially snow, in the winter season), and those from the southeast (dry and warm air masses). It was not until the 1930s that the Muntele Mic region began to be popularized. The region is suitable for weekend trips, tourism, skiing and recreation in an alpine climate and its proximity to the Banat centers, its beauty and altitude, admirably qualify it for the existence of an alpine resort, necessary for the population of the cities. "Due to the beauty of the region and the repeated trips to Muntele Mic by the officials of the Trams and the Timișoara Municipal Electric Power Plant, attention was focused on this corner of poetry and health of Banat.

Keywords: Muntele Mic, potential, capitalisation.

14. Comparative Analysis of Viticultural Yield in the European Union

Cătălin-Alexandru BÎTEA¹, Ioana Mihaela BĂLAN^{1*}, Nicoleta Mateoc-SÎRB^{1,2}

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Romanian Academy, Timisoara Branch, Research Center for Sustainable Rural Development of Romania,
Timisoara, Romania*

** Corresponding author: ioanabalan@usvt.ro*

Abstract. This paper presents a comparative analysis of viticultural yield in the European Union (EU) over a three-decade period (1990–2020), highlighting significant regional differences and the multiple factors influencing grape production efficiency. Yield, measured in tons per hectare (t/ha), is a key indicator of agricultural performance, reflecting both technological advancement and the sector's ability to adapt to pedoclimatic, economic, and institutional conditions. The study contrasts yield trends in two distinct regions: Western Europe—represented by Italy, France, Spain, Germany, and Portugal—and Central and Eastern Europe—including Romania, Hungary, and Bulgaria. Statistical data from harmonized official sources reveal a stable and upward trend in Western EU countries, where Common Agricultural Policy (CAP) instruments, infrastructure investments, and the widespread adoption of modern technologies have contributed to an efficient and sustainable viticulture model. In contrast, Eastern EU countries have shown more fluctuating developments, shaped by economic transition, fragmented farm structures, and limited access to resources. Romania, although possessing notable viticultural potential, still records yields below the EU average, despite recent improvements driven by modernization projects and EU funding. The paper emphasizes the need for continued investment and structural reform to reduce regional disparities and strengthen the overall competitiveness of European viticulture in the context of current sustainability and climate adaptation challenges.

Keywords: grapes, yield, European Union, viticulture, Romania, sustainable agriculture.

15. Dynamics of Domestic Supply of Wine in the European Union

**Cătălin-Alexandru BÎTEA¹, Oana Maria SICOE-MURG¹, Ioana Mihaela BĂLAN^{1*},
Nicoleta Mateoc-SÎRB^{1,2}**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Romanian Academy, Timisoara Branch, Research Center for Sustainable Rural Development of Romania,
Timisoara, Romania*

** Corresponding author: ioanabalan@usvt.ro*

Abstract. This paper analyzes the dynamics of domestic wine supply in the European Union (EU) between 1990 and 2020, focusing on the influence of Common Agricultural Policy (CAP) reforms, climate change, and regional consumption trends. Domestic supply, defined as the volume of wine available for national consumption after accounting for imports and exports, reflects both production capacity and the internal structure of the market, influenced by trade strategies and consumer behavior. The study compares Western countries with strong viticultural traditions—Italy, France, Spain, Portugal, and Germany—with Central and Eastern European countries such as Romania, Hungary, and Bulgaria, using official statistical data and quantitative methods. Results reveal a stable and efficient supply model in Western Europe, supported by modern infrastructure, effective policy frameworks, and sustainability-oriented agricultural practices. Conversely, Eastern European countries exhibit greater volatility in supply due to post-communist transitions, uneven vineyard modernization, and fluctuating domestic demand. Romania, despite its considerable viticultural potential, still shows significant variability, though recent improvements suggest positive developments driven by EU investments and modernization initiatives. The findings underscore the importance of a coherent and integrated policy approach that bridges regional disparities, aligns agricultural and trade strategies with local realities, and ensures a balanced, resilient, and sustainable domestic wine supply across the EU.

Keywords: wine, domestic supply, European Union, Romania, production.

16. Opinions on the Impact of Equestrian Activities and Equestrian Therapy on the Development of Young People

Károly BODNÁR¹, Barbara KUDLACSEK¹

¹Hungarian University of Agriculture and Life Sciences, Szarvas, Hungary

** Corresponding author: bodnarkaroly.dr@gmail.com*

Abstract. The authors used questionnaires and interviews to examine opinions about equestrian therapy activities in Hungary and their impact on young people. The questionnaire was filled out mostly by lay people who were horse lovers, and the interviewees included therapists, mothers whose children were treated, and riding trainers who work with young people. Everyone agreed that, depending on the age group, equestrian activities had a positive effect on the physical development of children, reducing balance and movement coordination disorders, and improving stamina. Dealing with animals increased the sense of responsibility, accustomed them to regular care, improved concentration, and had a more positive attitude towards learning. At the same time, the interviewees said that there are few qualified therapists, and the prices and hourly rates of equestrian businesses are generally high compared to the solvency of the demand. On the other hand, starting an equestrian therapy business (land, buildings, horses, feed, caretakers, and trained professionals) is an investment that pays off slowly compared to keeping hobby horses and recreational riding or an equestrian tourism business.

Keywords: equestrian therapy, personality development, animal-assisted healing, young people.

17 Studies on the Evolution of the Agricultural Sector in Romania

Ioan BRAD¹, Remus GHERMAN^{1*}, Tabita ADAMOV¹, Andrea FEHER¹, Cosmina TOADER¹

¹University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania

** Corresponding author: remusgherman@usvt.ro*

Abstract. The paper analyzes the evolution of Romanian agriculture after 1990. The aim of the study is to highlight the transformations of the agricultural sector in the context of economic transition and European integration. The methodology is based on the analysis of official statistical data provided by the INS and other national sources. Time series, intertemporal comparisons and economic interpretations are used. The results show a significant decrease in the share of agriculture in GDP, from 21.2% in 1990 to 4.1% in 2022. The agricultural area has remained relatively constant, but its structure has changed. The number of agricultural holdings has decreased, but small farms, under 2 hectares, predominate. Crop production has a majority share, while the livestock sector is in decline. Yields remain below the EU average. The workforce is aging and poorly qualified. Technical equipment is insufficient, and the use of chemical fertilizers has decreased significantly after 1990. The main conclusion is that Romanian agriculture requires modernization. Coherent policies, investments in commercial farms, technology and professional training are needed. Agriculture can become a strategic sector again if it is supported effectively and oriented towards sustainability and competitiveness.

Keywords: agriculture, GDP, Romania, agricultural holdings.

18. Marketing Strategies for Local Products, Creating Value in Rural Communities

Larisa-Elena BRISCAN¹, Theodor MUNTEAN¹, Elena PET¹, Tabita-Cornelia ADAMOV¹

¹University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania

** Corresponding author: larisa.jucu@usvt.ro*

Abstract. In a rapidly changing world, marketing local products is becoming essential for the sustainable development of rural communities, significantly contributing to the creation of added value and the promotion of regional cultural identity. This paper examines innovative marketing strategies that can support local producers in their efforts to promote and commercialize their products.

By analyzing case studies from the Banat region, including the locality of Nitchidorf, the research emphasizes the importance of cooperation among farmers, local authorities, and non-governmental organizations. This collaboration is crucial for establishing effective distribution and promotion networks, which are essential for the success of local products.

Furthermore, the paper highlights the impact of digital technologies on agricultural marketing, exploring how online platforms can help expand access to larger markets. Another important aspect discussed is the need for education and training in marketing for local farmers, enabling them to maximize their economic potential.

The results of the study suggest that by implementing marketing strategies specifically tailored to the community's needs, local products can achieve greater recognition. Additionally, this approach can significantly contribute to strengthening the rural economy and improving the quality of life for residents.

The paper concludes with recommendations for public policies that support agricultural marketing initiatives and encourage the sustainable development of rural communities, inviting greater involvement in support of local products.

Keywords: marketing, local products, rural communities, sustainable development, collaboration, digital technologies.

19. Rural Mountain Areas: Between Vulnerability and Sustainable Growth

Dragoş-Ciprian CHENDE¹, Tiberiu IANCU¹, Tabita Cornelia ADAMOV^{1*}, Mariana Ramona CIOLAC¹, Anka PASCARIU¹, Marius GORDAN¹, Ioana Anda MILIN¹

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

** Corresponding author: tabitaadamov@usvt.ro*

Abstract. The sustainable development of rural mountain areas is a strategic priority in the context of the social, economic, and environmental challenges these regions face. The aim of this article is to analyze the opportunities and obstacles specific to sustainable development in Romania's mountain villages, with a focus on balancing the use of local resources with the preservation of natural and cultural heritage. The study also seeks to identify action paths tailored to the geographic, demographic, and economic characteristics of these regions.

The research is based on a mixed-methods approach. In the first stage, a documentary analysis was carried out on national and European strategies for rural and mountain development. Subsequently, surveys were conducted in several rural mountain communities, complemented by semi-structured interviews with local authorities, residents, and local entrepreneurs. This approach allowed for a deeper understanding of the needs, resources, and perceptions regarding sustainable development in mountain areas.

The results show that rural mountain regions have significant potential for sustainable development through the promotion of agrotourism, traditional products, and renewable energy sources. However, persistent challenges remain, such as poor infrastructure, depopulation, and limited access to public services. The main conclusion is that sustainable development in these regions requires an integrated, multisectoral approach, supported by coherent public policies and the active involvement of local communities.

Keywords: sustainable development, mountain areas, rural villages, local resources, agrotourism, public.

20. The Contribution of Local Action Groups to Rural Development in Alba County, Romania

Aurelia Ioana CHEREJI^{1*}, Cristina Maria MAERESCU¹, Ioan jr. CHEREJI¹, Irina Adriana CHIURCIU², Daniela ȚUȚUI³

¹*University of Oradea, Faculty of Environmental Protection, Oradea, Romania*

²*University of Agronomic Sciences and Veterinary Medicine Bucharest, Faculty of Management and Rural Development, Bucharest, Romania*

³*The Bucharest University of Economic Studies, Bucharest, Romania*

** Corresponding author: aurelia.chereji@uoradea.ro*

Abstract. This paper analyzes the relevance of the LEADER approach and the role of Local Action Groups (LAGs) in supporting the sustainable development of rural areas in Alba County, Romania. In Alba County, LAGs cover an area of 3,584.27 km² and serve a population of 97,791 inhabitants, organized into four groups. The territorial configuration of the LAGs also allows the inclusion of administrative units from neighboring counties. In this context, two of the LAGs operating in Alba County also include territories from Mureș and Sibiu counties, extending the total covered area to 2,279.08 km² and the population to 98,261 inhabitants. It was observed that the four LAGs operating exclusively within Alba County serve a smaller population compared to the two LAGs that include predominantly localities from Alba County along with areas from Mureș and Sibiu counties. This difference can be partly attributed to the mountainous regions of Alba County, which are more sparsely populated and less densely settled.

The aim of the study is to highlight how these participatory structures contribute to the revitalization of rural areas through financial support provided under the Common Agricultural Policy Strategic Plan 2023–2027 (CAP SP 2023-2027), tailored to local needs and territorial specificities.

Keywords: LEADER, LAG, sustainable, CAP SP 2023-2027.

21. Agritourism Activity Organization Forms Staged from Tradition to Modernity in Romanian Rural Area

**Ramona CIOLAC¹, Tiberiu IANCU¹, Gabriela POPESCU*¹, Tabita ADAMOV¹,
Luminița PÎRVULESCU¹, Anca Mihaela DICU², Diana RABA¹, Diana MARIN¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*"Aurel Vlaicu" University from Arad, Faculty of Food Engineering, Tourism and Environmental Protection,
Arad, Romania*

** Corresponding author: gabrielapopescu@usvt.ro*

Abstract. The entire rural area abounds in popular culture values, starting from: the differentiated types of settlements, the originality and age of occupations, the specificity of the dwelling, the traditional costume, the unique folk art, and adding traditional manifestations, all configuring the ancestral way of life. In addition to the elements of tradition, ethnography and folklore, the natural setting represents another means of attracting tourists, especially those city dwellers who want to escape from the urban environment, crowded and quite polluted to a quiet place, clean in nature. In a short period of time, agritourism has had a definite evolution, materializing in a representative activity and why not a possible future solution to support the rural environment. Once agritourism activity emerged, it is obvious that over time a certain organization was necessary. Perhaps the oldest form of organization of agritourism is the provision of a room. A more complex organizational possibility is the agritourism farm/household. Another form of organization is in the form of specialized agents, who can approach multiple forms of organization. The agritourism activity carried out in rural areas involves the exploitation of a community's resources, which is why it is necessary for local authorities to also be involved in the organization and development of the activity. Through the way it is carried out and the products offered, agritourism activity can be one of the most efficient ways to capitalize on the resources of the rural community.

Keywords: agritourism, organization forms, development of rural area.

22. Effects Produced by Proposing New Tourist Services in the Development of Tourism for Seniors

**Simona Cristina CONSTANTINESCU^{1*}, Manuela Dora ORBOI¹,
Carmen Simona DUMITRESCU¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: simona_constantinescu@usvt.ro*

Abstract. The tourism sector is facing a redefinition of its products, services and activities to better engage older people, given the emerging opportunities of demographic change, globalization, sustainability, low-cost business models, health and well-being.

A key challenge for all countries in the world and, in particular, the European Union, is the aging of the population. It is a major social challenge (in terms of public budgets, labor force, competitiveness and quality of life), but also an opportunity for new jobs.

The rapid growth of the senior population is caused by a double reality: the post-World War II generations had fewer children than previous generations and the average life expectancy is higher due to medical advances and a better quality of life.

Understanding the motivations and needs of senior travelers is fundamental for tourism businesses.

It is also necessary to understand that seniors are interested in tourism in the off-season. Lower prices can attract large groups of seniors, who can support many local businesses. During the peak season there are many customers, but it is also necessary to support businesses in the hospitality industry in the off-season.

While currently the 55+ senior group represents 18% of the population, in 2050 it is expected that tourism for the elderly will reach 33%.

In the case of a vacation for seniors, where comfort, the right destination, the ideal hotel and the optimal mode of transportation should take precedence, but the way a reservation is made can significantly influence the quality of the experience in that destination. In most cases, a senior needs a little more comfort to properly enjoy their travel experience.

Keywords: tourism sector, opportunities of demographic change, motivations and needs of senior travelers.

23. Tourist Expectations of Hotel Services and Employees

Simona Cristina CONSTANTINESCU^{1*}, Carmen Simona DUMITRESCU¹, Alexandru IVANIC²

¹University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania

²University of Life Sciences „King Mihai I” from Timisoara, Faculty of Food Engineering, Timisoara, Romania

** Corresponding author: simona_constantinescu@usvt.ro*

Abstract. The increasing level of maturity of tourists has had the effect of multiple mutations in the structure of demand, with increasingly sophisticated tourist products being increasingly requested and tourists becoming increasingly demanding in terms of quality and authenticity of the offer. The intensification of competition between tourist service providers has made the issue of competitiveness to be put in different terms, the main influencing factors being quality, especially the quality-price ratio, renewal, diversification, innovation and customer orientation. Taking this into account, the issue of ensuring the quality of tourist services has become the primary priority, both at the microeconomic and macroeconomic levels, with more and more countries and tourist enterprises (mainly hotel chains) resorting to developing their own service and quality standards.

The quality of tourist services offered by each provider is the result of the combination of two components: a quantitative one, predominantly material in nature, and a qualitative one, behavioral.

The quality of hotel services is very important in choosing an accommodation space. The accommodation service varies by creating conditions and comfort for the traveler's rest. Appreciation of service quality is a delicate issue, for most services the subjective dimensions of evaluation by customers predominate.

The most important component of quality is the behavior of the staff in hotel units, most often neglected, the company's personnel problems being limited only to hiring the appropriate number of employees, with good qualifications in the field, who know and apply the standards and work procedures. The effects of professional behavior are directly reflected on the quality of services, on the perception of their quality. Compared to the components of a material nature, the effects of professional behavior are unpredictable, difficult to reverse over time. They are directly related to the number, structure, level of training and motivational level of the staff.

Keywords: structure of demand, tourist service providers, quality of tourist services.

24. Alignment of the 7 Quality Management Principles: A Sine Qua Non For Tourist Satisfaction in Rural Tourism

**Cornelia Marilena DAMIAN (BADEA)¹, Mihaela IANCU², Cosmina Andreea SMEDESCU¹,
Adriana SIMA (MARIN)¹, Valentina Constanța TUDOR¹**

¹*University of Agronomic Sciences and Veterinary Medicine Bucharest, Faculty of Management and Rural Development, Bucharest, Romania*

²*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

* Corresponding author: mihaela.iancu@usvt.ro

Abstract. The increasing level of maturity of tourists has had the effect of multiple mutations in the structure of demand, with increasingly sophisticated tourist products being increasingly requested and tourists becoming increasingly demanding in terms of quality and authenticity of the offer. The intensification of competition between tourist service providers has made the issue of competitiveness to be put in different terms, the main influencing factors being quality, especially the quality-price ratio, renewal, diversification, innovation and customer orientation. Taking this into account, the issue of ensuring the quality of tourist services has become the primary priority, both at the microeconomic and macroeconomic levels, with more and more countries and tourist enterprises (mainly hotel chains) resorting to developing their own service and quality standards.

The quality of tourist services offered by each provider is the result of the combination of two components: a quantitative one, predominantly material in nature, and a qualitative one, behavioral.

The quality of hotel services is very important in choosing an accommodation space. The accommodation service varies by creating conditions and comfort for the traveler's rest. Appreciation of service quality is a delicate issue, for most services the subjective dimensions of evaluation by customers predominate.

The most important component of quality is the behavior of the staff in hotel units, most often neglected, the company's personnel problems being limited only to hiring the appropriate number of employees, with good qualifications in the field, who know and apply the standards and work procedures. The effects of professional behavior are directly reflected on the quality of services, on the perception of their quality. Compared to the components of a material nature, the effects of professional behavior are unpredictable, difficult to reverse over time. They are directly related to the number, structure, level of training and motivational level of the staff.

Keywords: structure of demand, tourist service providers, quality of tourist services.

25. Delights from Grandma's Notebook: An Introspective Look at Desserts from the '80s and '90s

**Anca Mihaela DICU¹, Mariana Ramona CIOLAC², Ramona BACTER³,
Luminița Cornelia PÎRVULESCU^{2*}**

¹*"Aurel Vlaicu" University from Arad, Faculty of Food Engineering, Tourism and Environmental Protection, Arad, Romania*

²*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

³*University of Oradea, Faculty of Environmental Protection, Oradea, Romania*

** Corresponding author: luminita_pirvulescu@usvt.ro*

Abstract. The gastronomic tradition is a profound expression of cultural identity, reflecting the values, history, and lifestyle of a community. Through the preservation and transmission of recipes and culinary techniques across generations, food becomes not only nourishment but also a living archive of shared memory. Culinary art, as a manifestation of creativity and mastery, transforms cooking into a multisensory and aesthetic experience, where ingredients, textures, and flavors interact to tell stories of place and time.

Cultural and historical influences have significantly shaped the evolution of cuisine, leading to the emergence of distinctive flavor profiles, regional variations, and innovative methods. Trade, migration, and cross-cultural exchange have enriched local culinary landscapes, blending tradition with novelty.

In this context, the grandmother's dessert notebook stands as a tangible testimony of familial and regional heritage. Hand-written and lovingly preserved, it encapsulates the essence of homemade desserts—simple, heartfelt, and rooted in time-honored practices. These recipes continue to inspire modern reinterpretations, merging authenticity with contemporary tastes. The act of revisiting such traditions not only honors the past but also bridges generations, ensuring that the cultural and emotional value of food remains vibrant in today's dynamic culinary world.

Keywords: gastronomy, culinary traditions, recipes, desserts, grandma's notebook.

26. Research on Agritourism Activity in Bihor County

**Ana-Mariana DINCU¹, Andreea Adriana PETCOV², Ilinca Merima IMBREA²,
Gabriela POPESCU¹, Corina SÎRBU¹, Camelia Maria MĂNESCU¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Engineering and Applied Technologies,
Timisoara, Romania*

³*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

* *Corresponding author: corinasirbu@usvt.ro*

Abstract. Located in the north-west of Romania, Bihor County is characterized by a varied relief, which harmoniously combines the Apuseni Mountains, hills, plains and meadow areas, offering an ideal setting for both recreational activities in nature and authentic experiences related to rural life. These spectacular landscapes not only attract hiking, caving and adventure tourists, but also foster the development of rural and agro-tourism. Agro-tourism in Bihor County is constantly expanding, having a significant impact on the local economy thanks to its natural beauty, rich cultural heritage and well-preserved traditions. The authors of this scientific work note a steady growth in this sector, with more and more rural households being transformed into agrotourism guesthouses, offering visitors traditional-style accommodation, local cuisine and activities inspired by village life. At the same time, a detailed analysis of the methods used and the results obtained contributes to a deeper understanding of the dynamics of rural tourism and agritourism in the region. For the realization of this study, quantitative and qualitative methods were used, which allowed a detailed analysis of the agritourism sector in Bihor County. Therefore, the scientific research methodology included clear principles and rules for conducting the investigations, using appropriate tools for data collection and interpretation. In the process of processing and interpreting the information, we used in particular the method of comparison, analyzing the data in time and space in order to obtain a deep and detailed understanding of the analyzed activity.

Keywords: agritouristic activity, agritourism, Bihor county, tourists, tourist accommodation structures.

27. The Vital Role of Agriculture in the European Union

**Carmen Simona DUMITRESCU^{1*}, Cosmin Sălășan^{1*}, Iasmina Iosim¹, Sorin Mihai Stanciu¹,
Simona Cristina Constantinescu¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: carmendumitrescu@usvt.ro, cosminsalasan@usvt.ro*

Abstract. Agriculture plays a crucial role in the European Union's economy, ensuring food security, providing raw materials, and supporting rural livelihoods. In addition, the agricultural sector preserves cultural traditions, maintains rural communities, and promotes sustainable development. However, the EU's agricultural sector is confronted with a range of complex challenges that threaten its long-term stability and growth. Environmental concerns such as climate change, pollution, biodiversity loss, and the overexploitation of natural resources are pressing issues that need urgent attention. Moreover, the EU agricultural sector faces growing competition in global markets, alongside rising protectionism and trade barriers that complicate its ability to remain competitive.

These challenges are compounded by internal policy inconsistencies and regulatory divergences across EU member states, which complicate the implementation of cohesive strategies to tackle climate change and other environmental issues. The diversity of agricultural practices, from intensive farming to small-scale organic producers, further exacerbates the complexity of creating a one-size-fits-all policy solution. The need for adaptable and multi-layered policy responses is critical to address both the environmental and economic dimensions of the sector's future.

This paper explores the EU's agricultural sector, with a particular focus on its role in global agricultural trade. It discusses how the EU, as a global player, navigates the challenges posed by differing national regulations, trade agreements, and international market trends. The paper emphasizes the importance of balancing domestic sustainability goals with global competitiveness, particularly in light of the EU's Green Deal and the Common Agricultural Policy (CAP). Ultimately, it argues that targeted, coordinated policies are essential to ensure the EU remains a leader in sustainable agricultural production, while addressing the environmental and market-related challenges that shape the sector's future.

Keywords: agriculture, role, trade, EU, sustainability.

28. Aspects Regarding Digitalization of Romanian Agriculture

**Carmen Simona DUMITRESCU^{1*}, Cosmin Sălășan^{1*}, Iasmina Iosim¹, Sorin Mihai Stanciu¹,
Simona Cristina Constantinescu¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: carmendumitrescu@usvt.ro, cosminsalasan@usvt.ro*

Abstract. The adoption and integration of advanced technologies into agricultural practices—commonly referred to as “Agriculture 4.0”—represents a transformative shift toward smarter, more efficient, and sustainable farming systems. This new era of agriculture is characterized by the widespread implementation of digital innovations such as Internet of Things (IoT) sensors, drones, artificial intelligence (AI), big data analytics, GPS-guided machinery, and cloud-based farm management platforms. These tools have the potential to revolutionize the agricultural value chain, enabling real-time decision-making, optimizing input use, increasing yields, and reducing environmental impact.

In the Romanian context, Agriculture 4.0 holds significant promise due to the country's rich agricultural heritage, extensive arable land, and ongoing integration within the European Union's digital and sustainability frameworks. However, the uptake of smart farming technologies remains uneven and limited. Key barriers include low levels of investment capacity among small and medium-sized farms, underdeveloped rural digital infrastructure, limited access to training and digital education for farmers, and fragmented policy implementation. These challenges have created a digital divide that risks excluding a large share of rural producers from the benefits of technological progress.

This paper explores the current state of digital agriculture in Romania, analyzing both the structural challenges and emerging opportunities associated with its modernization. Special emphasis is placed on assessing the role of EU funding mechanisms, national digital strategies, and private sector innovation in driving this transformation. The paper argues that a coordinated, inclusive, and well-financed approach is necessary to accelerate Romania's transition to smart farming. Bridging the technological gap in rural areas is essential not only for increasing productivity and resilience in the agricultural sector, but also for aligning with broader EU goals related to sustainability, climate adaptation, and rural development.

Keywords: agriculture, digitalization, reform, potential, limitations.

29. Romania's National Recovery and Resilience Plan – Between Aspiration and Reality

**Andrea FEHER^{1,2*}, Cosmina Simona TOADER¹, Claudia SÎRBULESCU¹, Ioan BRAD¹,
Adrian BĂNEȘ², Miroslav RAICOV², Gabriel ȘUSTER^{1,2}**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Romanian Academy - Timisoara Branch, Research Centre for Sustainable Rural Development of Romania,
Timisoara, Romania*

* Corresponding author: andreafeher@usvt.ro

Abstract. Romania's National Recovery and Resilience Plan (NRRP) is part of a broader framework established at the European Union level, aimed at supporting post-pandemic economic recovery. It is closely aligned with the Recovery and Resilience Facility (RRF), the primary financial instrument of the NextGenerationEU programme. Through the NRRP, Romania has been allocated a total of €28.5 billion, comprising €14.9 billion in grants and €13.6 billion in loans. Access to these funds is contingent upon the fulfilment of predefined milestones and targets, which are subject to monitoring at the European level.

The study's findings indicate that, although Romania had received approximately €9.4 billion by February 2025, its fund absorption rate (33%) remains below the European Union average. The main factors contributing to these delays include complex bureaucratic procedures, the absence of rapid structural reforms, and administrative inefficiencies.

To maximize the benefits of the NRRP, Romania must accelerate the implementation of reforms, enhance administrative capacity, and ensure a stable and predictable legislative framework. Additionally, improving coordination between authorities and effectively monitoring milestones are essential to prevent the loss of crucial funds needed for the country's economic development.

In conclusion, the NRRP remains a fundamental tool for Romania's modernisation, yet its success depends on the ability of decision-makers to efficiently manage available resources and fulfil commitments made at the European level.

Keywords: National Recovery and Resilience Plan (NRRP), Recovery and Resilience Facility (RRF), NextGenerationEU, milestones, targets, reforms.

30. Foreign Direct Investments in Western Romania: Economic and Regional Transformation in Timis County

**Andrea FEHER^{1,2*}, Cosmina Simona TOADER¹, Iasmina IOSIM¹, Raul PAȘCALĂU³,
Aisha Simbiat HUSSAINI⁴**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

²*Romanian Academy - Timisoara Branch, Research Centre for Sustainable Rural Development of Romania, Timisoara, Romania*

³*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

⁴*Ahamdu Bello University, Faculty of Agriculture, Zaria, Nigeria*

* Corresponding author: andreafeher@usvt.ro

Abstract. This paper explores the evolution and impact of foreign direct investments (FDIs) in Timis County, a key component of the Western region of Romania. The objective of the study is to assess the contribution of FDIs to the sustainable economic development of the area. The research is grounded in the analysis of dynamic statistical indicators. Findings highlight a favorable investment climate in Timis County, which ranks second nationally in terms of the number of foreign-capital companies (18,080) and third in total FDI inflows (5.2 billion euros) as of 2022. Timis County represents an investment pole in the region, but also at the country level, having the largest influx of investments among the regional cities of the country, the highest entrepreneurial rate in the Western Region and a startup system in full development. The gross added value created at the county level shows a significantly higher growth rate compared to the aggregated levels of the region and country, of course, with the syncope's during the global economic crisis (2008-2010) and the COVID-19 crisis. Overall, the analysis confirms a direct and significant impact of foreign direct investments on the economic and social development of the county.

Keywords: capital inflows, Timis county, economic development, regional growth, entrepreneurship.

31. The Role of the Business Environment in the Sustainable Development of Buftea City, Ilfov County

**Andreea-Roxana FIRĂȚOIU (CHIURCIU)¹, Liviu MĂRCUȚĂ¹, Aurelia Ioana CHEREJI²,
IRINA-Adriana CHIURCIU^{1*}**

¹*University of Agronomic Sciences and Veterinary Medicine Bucharest, Faculty of Management and Rural Development, Bucharest, Romania*

²*University of Oradea, Faculty of Environmental Protection, Oradea, Romania*

** Corresponding author: chiurciu.irina@managusamv.ro*

Abstract. The article analyzes the dynamics of the business environment in Buftea city, Ilfov County, during the period 2019–2023, as a key factor in supporting sustainable local development. Indicators such as the number of economic agents, turnover, profit, distribution of employees and the structure by economic sectors were examined. The study showed that the total number of economic agents increased from 1,247 in 2019 to 1,385 in 2023, with the majority of companies (approximately 94%) being micro-enterprises with 0-9 employees. The turnover for the city of Buftea reached 2,893 million lei in 2023, compared to 1,943 million lei in 2019 and the profit increased from 123 million lei to 278 million lei during the analyzed period. In terms of the workforce, a slight decrease was observed, with the total number of employees being 4,316 in 2023. The distribution of economic agents in Buftea by sectors of activity from the national economy recorded a significant concentration in category G–“Wholesale and retail trade: motor vehicle and motorcycle repairs”–26.6%, in category J– “Information and communication”–12.7% and category F–“Construction”–12.3% in 2023. Therefore, the article highlights that the business environment in Buftea had a positive impact on local economic sustainability, contributing both to the increase in local incomes and to economic diversification.

Keywords: business environment, sustainable development, Buftea city, employees, economic agents, turnover.

32. Agricultural Productivity in Romania Following European Union Accession: Trends and Challenges after 2007

Maria Giorgiana FOGHIȘ^{*}, Petrică IANOȘEL¹, Gabriel SUSTER¹, Andrea FEHER¹

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

** Corresponding author: giorgiana.foghis@usvt.ro*

Abstract. This paper analyses the evolution of agricultural productivity in Romania following its accession to the European Union, with a particular focus on the last decade, 2015–2024. The study employs key economic indicators, such as the gross value added generated by agriculture, the utilised agricultural area, and the agricultural labour force, based on official data from the National Institute of Statistics, Eurostat, and the Ministry of Agriculture and Rural Development. By calculating land and labour productivity, the analysis aims to highlight the main trends and structural challenges faced by Romanian agriculture. The findings reveal significant progress in the sector's efficiency, driven by investments, support policies, and technological modernisation, alongside persistent vulnerabilities linked to farm fragmentation and the resilience of small-scale holdings. The paper concludes with a series of recommendations on strengthening agricultural productivity through targeted agricultural and rural development policies that are adapted to emerging economic and climatic realities. Overall, the study seeks to contribute to a deeper understanding of the transformations experienced by Romanian agriculture within a dynamic and competitive European framework.

Keywords: agricultural efficiency, Romania, economic evolution, agricultural policies, agricultural trends, structural challenges.

33. The customs taxes war – how does it affect the EU - USA agri-food trade?

Camelia GAVRILESCU^{1*}

¹ *Institute of Agricultural Economics – Romanian Academy, Bucharest, Romania*

** Corresponding author: cami_gavrilescu@yahoo.com*

Abstract. The successive enlargements of the EU (2004, 2007, 2013) resulted in a continuous increase in its agri-food trade, both for exports and imports. In the last two and half decades, USA has been the top destination for EU exports, and in 2020 only it was surpassed by the United Kingdom (due to Brexit). As origin of EU imports, USA has been second to Brazil until surpassed by the United Kingdom since 2021. The abrupt changes in tariffs announced by the american current administration are expected to disrupt the long-term trade trends and hit the EU agri-food companies and farmers. The present study examines the evolutions in the value, volume, geographical orientation of the agri-food trade flows of the EU and the potential impact of the customs taxes war on exports and imports of its Member States.

Keywords: agri-food trade, USA tariffs, EU, border prices.

34. Marketing Strategies for Traditional Agro-Food Products: A Case Study on the Local Market of Maramures

**Alina Emilia Maria GHERDAN^{1*}, Ramona Vasilica BACTER¹, Monica Angelica DODU¹,
Codrin GAVRA¹**

¹*University of Oradea, Faculty of Environmental Protection, Oradea, Romania*

** Corresponding author: alina.gherdan@uoradea.ro*

Abstract. The survival of traditional agro-food products faces mounting challenges in modern markets, despite their cultural significance and economic potential for rural communities. Focusing on Maramureş County - an area celebrated for its authentic culinary heritage - this investigation explores how strategic marketing interventions could enhance the commercial viability of local food traditions while preserving their cultural integrity. Our methodology combines three complementary approaches: in-depth interviews with 27 local producers, consumer preference analysis across different age groups, and systematic evaluation of existing distribution networks. The research reveals several critical insights. First, while 78% of surveyed consumers expressed a strong attachment to traditional foods, practical accessibility issues and inconsistent quality standards limit regular purchases. Second, producers frequently lack the technical skills and resources to effectively position their products in competitive markets. Third, successful cases demonstrate that integrating narrative marketing with modern sales channels can significantly improve market penetration. The study identifies three leverage points for improvement: (1) developing cohesive branding strategies that communicate authenticity, (2) establishing quality certification systems to build consumer trust, and (3) creating collaborative distribution platforms to reduce market entry barriers. These findings carry important implications for regional development policies, suggesting that supporting traditional food markets requires addressing both supply-side constraints and demand-side awareness gaps. For practitioners, the research offers concrete recommendations, including the development of producer cooperatives, implementation of targeted digital marketing campaigns, and the organization of culinary tourism initiatives. These measures could help transform traditional food products from cultural artifacts into sustainable economic assets while maintaining their heritage value.

Keywords: culinary heritage, rural entrepreneurship, consumer trust, market accessibility, product authenticity, regional branding.

35. Human Resources in Agriculture: Shortages, Adaptation, and Solutions

**Remus GHERMAN¹, Mihaela IANCU¹, Anka Roxana PASCARIU^{1*}, Camelia MĂNESCU^{1*},
Ioan BRAD¹, Tabita ADAMOV¹, Tiberiu IANCU¹**

*¹University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

**Corresponding author: manescucamelia@usvt.ro, anka.pascariu@usvt.ro*

Abstract. In recent years, the availability of skilled and motivated labor has become one of the most pressing issues in agriculture. As the sector evolves, it is increasingly dependent on human capital capable of adapting to technological change, climate challenges, and market demands. This project examines the root causes behind the growing labor deficit in agriculture, including demographic shifts, migration trends, and declining interest among younger generations. The study also explores how farmers and agricultural businesses are adapting—through automation, recruitment of foreign workers, and flexible work models. Attention is given to education and training programs, as well as policy measures that could revitalize the rural workforce. By analyzing both current practices and long-term strategies, the project aims to propose viable, sustainable solutions to strengthen the agricultural labor force. Ensuring a stable and skilled workforce is essential not only for productivity but also for the future resilience of the agricultural sector.

Keywords: agricultural labor, human resources, rural development, workforce adaptation.

36. Vocational Training in Agriculture – The Key to a Sustainable Agricultural Sector

Remus GHERMAN¹, Mihaela IANCU¹, Anka Roxana PASCARIU^{1*}, Camelia MĂNESCU^{1*}, Ioan BRAD¹, Tabita ADAMOV¹, Tiberiu IANCU¹

¹University of Life Sciences “King Mihai I” from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania

** Corresponding author: manescucamelia@usvt.ro, anka.pascariu@usvt.ro*

Abstract. A sustainable agricultural sector depends not only on technology and resources but also on the knowledge and skills of the people working within it. Vocational training plays a crucial role in equipping agricultural workers with the competencies needed to adapt to modern challenges such as climate change, digitalization, and evolving market demands. Our research explores the current state of vocational education in agriculture, identifying gaps in training, access, and curriculum relevance. It analyzes the role of agricultural schools, on-the-job training, and lifelong learning programs in building a capable and resilient workforce. The study also looks at the importance of public policy and private sector involvement in promoting educational initiatives tailored to the real needs of the agricultural sector. Through a mix of case studies and statistical analysis, the paper aims to highlight how strategic investment in human capital through vocational training can contribute to productivity, sustainability, and long-term food security.

Keywords: vocational training, agricultural education, human capital, lifelong learning.

37. Sustainable Tourism Practices in Romania's Rural Communities: A Case Study Approach

**Marius-Ionuț GORDAN¹, Tiberiu IANCU^{1*}, Tabita-Cornelia ADAMOV¹, Elena PET¹,
Ioana-Anda MILIN¹, Gabriela POPESCU¹, Liliana MERCE¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: tiberuiancu@usvt.ro*

Abstract. This paper examines sustainable tourism practices in Romania's rural communities through a case study approach. Through the integration of sustainable principles into tourism development, rural communities manage to reshape their local economies, emphasizing ecologic and cultural preservation simultaneously. The research employs a combination of document analysis and secondary data review to assess economic impacts, environmental conservation strategies, and the socio-cultural transformations occurring in these regions. The selected case studies reveal that local heritage, traditional knowledge, and abundant natural resources serve as key catalysts for promoting tourism. Additionally, the study highlights the critical role of community-driven initiatives in advancing sustainable practices amidst evolving tourism dynamics. However, challenges such as inadequate infrastructure, limited stakeholder collaboration, and insufficient regulatory frameworks continue to constrain the full potential of these initiatives. Based on these findings, the paper advocates for enhanced policy support, targeted capacity-building programs, and improved coordination among stakeholders to secure the long-term resilience and sustainability of rural tourism in Romania.

Keywords: Romanian rural tourism, sustainable tourism, sustainable tourism development, case study.

38. FinTech and the Circular Economy: Emerging Synergies for Scaling Sustainable Impact

Alina HAGIU¹, Mercedes Raquel GARCÍA REVILLA², Marinela BĂRBULESCU¹

¹*National University of Science and Technology Politehnica Bucharest, Faculty of Economics and Law, Bucharest, Romania*

²*Madrid Open University, Faculty of Economics and Business, Madrid, Spain*

** Corresponding author: alinahagiu@yahoo.com*

Abstract. The transition to a circular economy is a strategic priority to address global environmental challenges, promote resource efficiency and support sustainable economic development.

At the same time, the rapid growth of financial technologies (FinTech) is resulting in changes to conventional financial systems, offering new ways to access capital, increased transparency and decentralized trading models. This paper focuses on the synergies emerging between FinTech and the circular economy, emphasizing how digital financial tools can support the financing, implementation and scaling of circular business models.

The paper explores technologies that could accelerate circular innovation, such as blockchain, tokenization, artificial intelligence-based investment platforms and crowdfunding. The study's approach is based on an in-depth literature review, institutional reports and documented case studies (such as Plastic Bank, Power Ledger and Circular). This highlights both the opportunities and obstacles that arise at the intersection of these fields.

We believe FinTech has the potential to help the circular transition by facilitating traceability in supply chains, facilitating access to finance for circular startups and increasing the credibility of sustainability claims. All the while, barriers are identified including interoperability issues, lack of digital infrastructure and regulatory uncertainty.

The article contributes to the literature on sustainable finance by providing a conceptual framework for understanding these synergies. It also provides applied insights for entrepreneurs, policy makers and researchers who are interested in using FinTech to support the circular economy.

Keywords: green blockchain, sustainable financial technology, circular start-ups, challenges.

39. Behavioral Finance in the Digital Age: How Financial Apps Affect Our Saving and Consumption Decision

Alina HAGIU¹, Marinela BĂRBULESCU¹, Bogdan BUDICĂ²

¹*National University of Science and Technology Politehnica Bucharest, Faculty of Economics and Law, Bucharest, Romania*

²*University of Craiova, Faculty of Economics and Business Administration, Craiova, Roumania*

** Corresponding author: alinahagiu@yahoo.com*

Abstract. Digital financial apps, such as mobile banking and budgeting platforms, as well as robo-advisors and automated savings tools, have completely changed the way people manage their personal finances. Behavioral finance studies how psychological factors influence financial decisions. This requires an analysis of how technology influences investment, saving and consumption behaviors. Through a theoretical and exploratory approach based on literature and secondary sources, this paper aims to examine how financial applications influence people's decisions, reduce cognitive errors, and sometimes amplify irrational or impulsive behaviors. Digital nudging, decision architecture, fear of loss, financial procrastination and the illusion of control are all discussed in the context of digital interfaces.

The article questions both the benefits of these tools - such as automating savings or increasing financial awareness - and the risks associated with gamifying financial decisions or overestimating the ability to control. The paper presents concrete examples of applications using elements of behavioral design, such as Revolut, Qapital, Mint or Robinhood. We consider that the article contributes to the understanding of how digital design can be used to incentivize sound financial behaviors, but also to the debate on the ethics of influencing economic decisions through technology.

Keywords: financial automation, digital nudging, cognitive errors, behavioral bias, loss aversion.

40. Towards an Understanding of Households' Vulnerability Among Groundnut Value Chain Actors in Nigeria

**Aisha Simbiat HUSSAINI^{1*}, Yusuf Usman OLADIMEJI¹, Sanni ABDULRAHMAN¹,
Andrea FEHER^{2,3}, Hannatu Ohunene YUSUF¹**

¹*Ahamdu Bello University, Faculty of Agriculture, Zaria, Nigeria*

²*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

³*Romanian Academy - Timisoara Branch, Research Centre for Sustainable Rural Development of Romania,
Timisoara, Romania*

** Corresponding author: ashussaini@abu.edu.ng*

Abstract. The Nigerian rural populace is largely excluded from decision-making processes, making them more vulnerable and at greater risk of being unable to establish sustainable livelihoods. Individuals classified as poor or near-poor are particularly susceptible to vulnerability due to limited access to assets and a reduced capacity to cope with risks. This empirical study aims to assess household vulnerability among actors in the groundnut value chain in Nigeria. Vulnerability is examined through the lenses of poverty, health, and access to resources. The study was conducted across the three agroecological zones of Nigeria using a field survey design and a multi-stage sampling procedure. A total of 1,302 farmers, 409 marketers, and 316 processors were surveyed. A significant majority of value chain actors were classified as non-poor. Among groundnut farmers in the Sahel, Sudan, and Guinea Savanna regions, 11.8%, 15.4%, and 18.6% respectively were classified as non-poor. Similarly, approximately 32.18%, 35.14%, and 38.61% of groundnut marketers in these regions were identified as non-poor. The results also revealed variations in healthcare utilisation and access to clean water among groundnut value chain actors. Furthermore, a significant proportion of these actors had calorie intakes below the recommended threshold, and the food consumption patterns indicated a diet predominantly composed of cereals. The study concludes that groundnut value chain actors experience varying degrees of vulnerability. Indicators such as income, healthcare access, water quality, and food resources across the three regions demonstrate that these actors are exposed to diverse levels of vulnerability. Targeted interventions are needed across all domains of vulnerability indicators to effectively address and reduce the risks faced by groundnut value chain actors in Nigeria.

Keywords: livelihood, vulnerability, resources, food consumption, agroecological zones.

41. Assessment of Farmers' Preferences for Released Drought-Tolerant Maize Varieties (Sammazs) in Northern Nigeria

**Aisha Simbiat HUSSAINI^{1*}, Yusuf Usman OLADIMEJI¹, Tahirou ABDOULAYE²,
Andrea FEHER^{3,4}, Muhyideen OYEKUNLE¹, Zakariya SAMINU¹**

¹*Ahamdu Bello University, Faculty of Agriculture, Zaria, Nigeria*

²*International Institute of Tropical Agriculture, Bamako, Nigeria*

³*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

⁴*Romanian Academy - Timisoara Branch, Research Centre for Sustainable Rural Development of Romania,
Timisoara, Romania*

** Corresponding author: ashussaini@abu.edu.ng*

Abstract. Maize (*Zea mays* L.) ranks as the second most widely cultivated crop in Nigeria, valued for its adaptability to diverse agro-climatic conditions and its multifaceted role in food security, animal feed, and industrial uses. This study explores farmers' preferences for drought-tolerant maize varieties (SAMMAZs), developed and released by the Institute for Agricultural Research (IAR), Ahmadu Bello University, and cultivated widely across Northern Nigeria - a region responsible for over 75% of the country's maize production. Drawing on cross-sectional data collected from 850 maize farmers (715 men and 135 women) during the 2019-2024 farming seasons, the study highlights notable differences in varietal preferences. Male farmers prioritized high grain yield (90.6%), drought tolerance (79%), low fertilizer input (54.8%), and uniform growth (46.3%). Meanwhile, female farmers showed greater preference for uniform growth (85.3%), high grain yield (72.1%), low fertilizer requirements (59.4%), and pest and disease resistance (46.4%). Statistical analysis (t-test) indicated a significant yield advantage for the SAMMAZ51 variety (4,987.02 kg/ha) compared to previously used local varieties (1,718.27 kg/ha), with results significant at the 1% level. Tobit regression analysis identified key factors influencing adoption, including access to extension and research services, proximity to input centers, access to credit, and support from governmental and non-governmental organizations. These findings underscore the importance of aligning crop breeding efforts with farmers' practical needs, especially traits such as yield potential, drought resilience, and market value.

Keywords: SAMMAZ varieties, adoption drivers, gender differences, yield performance, Tobit model, Northern Nigeria.

42. The Role of Agrotourism in Revitalizing Rural Economies: A Romanian Perspective

**Tiberiu IANCU¹, Tabita Cornelia ADAMOV^{1*}, Gabriela POPESCU¹, Diana RABA¹,
Luminița PÎRVULESCU¹, Claudia SÎRBULESCU¹, Remus GHERMAN¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: tabitaadamov@usvt.ro*

Abstract. Agrotourism is an alternative form of rural tourism that integrates traditional agricultural activities with tourism services, significantly contributing to the diversification of the rural economy. This article examines the implications of agrotourism for the sustainable development of rural areas in Romania, focusing on the three fundamental pillars of sustainability: economic, social, and environmental.

Using a mixed-methods approach—including documentary analysis, interviews with local stakeholders, and surveys conducted among both tourists and hosts—the study highlights the multiple benefits of agrotourism: additional income for rural households, preservation of cultural and natural heritage, and the reduction of rural depopulation. At the same time, the paper addresses key challenges such as inadequate infrastructure, seasonality of activities, and the need for coherent public policies. The results suggest that agrotourism holds strong potential for revitalizing rural areas, provided it is integrated into a long-term sustainable development strategy.

In conclusion, agrotourism has a vital role in revitalizing the rural economy by offering households the opportunity to diversify their sources of income and to sustainably capitalize on local resources—natural, cultural, and gastronomic. By promoting an authentic, responsible form of tourism that is integrated into rural life, agrotourism contributes not only to reducing migration and preserving local identity, but also to strengthening social cohesion and protecting the environment.

Keywords: agrotourism, sustainable development, rural areas, local economy, responsible tourism, Romania.

43. The Current Structure of Agricultural Holdings in Romania

**Petrică IANOȘEL¹, Maria Giorgiana FOGHIȘ¹, Elena Claudia SÎRBULESCU¹,
Andrea FEHER¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: petrica.ianosel@usvt.ro; andreafeher@usvt.ro*

Abstract. The objective of the paper is to analyze the structural transformations of agricultural holdings in Romania following the accession to the European Union in 2007. The analysis focuses on changes in farm size, legal organization, and the distribution of holdings by size classes, drawing upon statistical data from national and European sources, including Eurostat. Romania's entry into the EU initiated significant transformations in its agricultural sector, prompted by access to EU funds, regulatory compliance, and increased market integration. These developments have led to a marked decline in the number of small subsistence farms and an increase in medium and large commercial holdings. As a result, land consolidation has become a prominent trend, facilitating the adoption of modern technologies and more efficient production methods.

One of the most notable shifts has been the legal transformation of many agricultural holdings. There has been a significant rise in the number of farms operating under legal entities such as limited liability companies or cooperatives. These legal structures have enabled better access to financing, subsidies, and technical assistance, contributing to improved management practices and higher productivity. The study also highlights regional disparities, with western and southern parts of the country showing more dynamic structural changes compared to the less developed northeast and mountain areas.

The findings underline the complex relationship between policy incentives, economic behavior, and traditional farming structures. The transformation process has both positive and challenging aspects. On one hand, increased efficiency and competitiveness have been observed. On the other hand, issues such as aging rural populations, land abandonment in certain areas, and unequal access to resources remain pressing. The paper concludes that continued support for rural development, education, and infrastructure is essential to ensure balanced and sustainable growth in Romanian agriculture in the long run.

Keywords: structural change, EU accession, Romania, farm size, rural development.

44. Digital Ethno-Marketing and Rural Storytelling: Framing Folk Culture for the Digital Traveller

**Alexandra-Ioana IBRIC^{1*}, Tiberiu IANCU¹, Marius-Robert LUNGU¹,
Alina DRAGOESCU-PETRICA²**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

** Corresponding author: alexandra.ibric@usvt.ro*

Abstract. In a time when cultural heritage risks being overshadowed by mass tourism, digital platforms offer new opportunities for rural voices to be heard and valued. This study examines how digital ethno-marketing—particularly through social media strategies and influencer engagement—can be harnessed to promote Romania’s rural identity by presenting folk culture in ways that resonate with the modern digital traveler. By embracing digital storytelling and authentic online narratives, rural communities can communicate their traditions, customs, and local values in a way that captures the interest of experience-seeking tourists. Using a mixed-methods approach that combines a comprehensive literature review, content analysis of selected online campaigns, and a targeted survey of digitally active tourists, this paper explores both the emotional and strategic impact of digital storytelling in tourism. The research aims to identify effective communication practices, bridge the gap between tradition and innovation, and provide actionable recommendations for local tourism stakeholders striving to build stronger, more sustainable rural brands in the digital age.

Keywords: cultural heritage promotion; rural tourism; digital storytelling; destination branding.

45. Emotional Intelligence in Professional Settings

**Iasmina IOSIM¹, Gabriela POPESCU¹, Cosmin SĂLĂȘAN¹, Carmen Simona DUMITRESCU¹,
Anka PASCARIU¹, Diana Cornelia MARIN^{1*}**

*¹University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: dianamarin@usvt.ro*

Abstract. Sharing feelings in professional settings has long been frowned at all over the world. Nowadays, it is no longer considered taboo in professional settings, be it banking, business, government, IT, management, medicine, military, psychology, sales, etc. This paper focuses on emotional intelligence in business from the perspective of artificial intelligence, individual performance, job satisfaction, leadership, and stress. The conclusion of the paper is that emotional intelligence is crucial in the solution of the problems arising in banking, government, IT, management, and sales. Emotional intelligence has been defined as the subset of social intelligence, the ability to understand men and women, boys and girls, to act wisely in human relations; the ability to perceive one's own and others' internal states, motives, and behaviors, and act toward them optimally on the basis of that information] that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions; as abilities which include self-control, zeal and persistence, and the ability to motivate oneself and skills that help people harmonize; and as the array of personal-management and social skills that allows one to succeed in the workplace and life in general.

The study of emotional intelligence focused on fields such as business, defense, education, medicine, psychology. Emotional intelligence relies on competency in two major directions: self-understanding and accepting ourselves in three areas and social experience and interactions with others – social relationships.

Keywords: business, intelligence, professional settings, education.

46. Innovativeness in Tourism: Neologisms

**Iasmina IOSIM¹, Anka PASCARIU¹, Diana Cornelia MARIN^{1*}, Cosmin SĂLĂȘAN¹,
Carmen Simona DUMITRESCU¹, Gabriela POPESCU^{1*}**

*¹University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: gabrielapopescu@usvt.ro*

Abstract. Innovativeness in tourism means not only the appearance of new types and subtypes of tourism, but also of new tourism words and phrases. This paper presents the neologisms used on the website of the Etura Travel Agency on pages such as Agencies, Careers, and (partner) Companies, providing information on (resort and room) facilities, accommodation, staff, and technology. The analysis of these tourism neologisms shows that they are either already mentioned, newly-introduced, with their norm / interpretation changed, not introduced, or adapted to the Romanian spelling, which points to a high-rate dynamics. Innovativeness, the characteristic of being innovative, is the noun form of the adjective innovative meaning featuring new methods; advanced and original and introducing new ideas; original and creative in thinking.

Innovativeness has been interpreted and measured from the perspective of housing developers, economic progress and prosperity, and resources. If the last two decades have seen an increasing number of studies on innovativeness in tourism from the perspective of tourism firms' behavior, experience economy, of tourism SMEs, or of creative tourism, the last decade has seen several studies on innovativeness in tourism from the perspective of linguistics.

Keywords: business, tourism, innovative, education, behavior.

47. The Role and Challenges of Small Farms in Sustainable Agriculture: EU And Romania Perspective

Arpad JANKO^{1*}, Ionel Mugurel JITEA^{1*}

¹ *University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Faculty of Horticulture and Business for Rural Development, Cluj-Napoca, Romania*

** Corresponding author: arpad.janko@student.usamvcluj.ro; mjitea@usamvcluj.ro*

Abstract. Small farms and family holdings are essential for developing sustainable food systems, significantly contributing to global food security and poverty reduction. In the European Union, they account for approximately 67% of all agricultural holdings, serving as an important source of income for many families, particularly in peripheral areas. Although often underestimated due to a lack of adequate statistical data, small farms play a crucial role in food production, utilizing local resources, supporting biodiversity, and preserving rural landscapes.

In Romania, most small farms have an average size of 3.6 hectares, well below the European average of 16 hectares. These farms face significant challenges, such as a lack of investment in modern technology and limited access to external markets. However, their importance remains undeniable, as they are essential for diversifying agricultural production and providing income for farmers, many of whom are young or retired.

Agricultural public policies, including the European Union's Common Agricultural Policy (CAP), have had a significant impact in supporting small farms through subsidies and rural development measures. CAP has contributed to improving agricultural productivity, reducing rural emigration, and enhancing economic diversification in rural areas. However, it also faces challenges, such as the aging agricultural population. To ensure the sustainability of agriculture, it is necessary to adapt agricultural policies to support intergenerational transition and attract young talent to the agricultural sector.

Keywords: smallholders, sustainability, small farms, Common Agricultural Policy, EU.

48. Customer-Based Brand Value and Its Effects on Enhancing Destination Equity in Rural Tourism

Silvije JERČINOVIĆ¹, D. Šostarić¹

¹*Križevci University of Applied Sciences, Križevci, Croatia*

** Corresponding author: sjercinovic@vguk.hr*

Abstract. Customer-based brand value is used to show how a brand's success can be directly attributed to customers' attitudes towards a certain brand. Brand as a generic concept is equally applicable in the field of the place marketing, so it is possible to conclude that tourist destinations can also be understood as unique brand allowing them to obtain higher values that are delivered to consumers. Therefore, it is more than clear that consumer perception of the brand plays a very important role in the domain of destination management.

However, many previous research results are predominantly devoted to mainstream topics in tourism, ignoring the potential impact of customer-based brand value on the development of a competitive environment for building brand infrastructure in rural tourism.

The aim of this paper is to study the effects of customer-based brand values on destination equity in rural tourism. To do this, a survey was conducted with 326 respondents in the territory of the Republic of Croatia and for this purpose a PLS-SEM model was evaluated. The results show a significant positive impact on rural destination equity through established customer-based brand values. Moreover, the enhancing destination equity in rural tourism is mediated by certain elements of perceived quality and destination image.

This research points out that even rural areas can benefit through the application of innovative place and brand marketing strategies. It also emphasizes the need for greater orientation and strategic linking of local authorities and DMOs in creating a more attractive rural destination brand.

Keywords: brand, customer-based brand value, destination equity, rural tourism.

49. Sunflower Crop Situation in Romania - Comparative Study Over the Last Decade

Andreea Lidia JURJESCU¹, Florin SALA^{1,2*}

¹*Agricultural Research and Development Station Lovrin, Lovrin, Romania*

²*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

** Corresponding author: florin_sala@usvt.ro*

Abstract. The situation of sunflower crop in Romania was studied in dynamics for the 2015 - 2023 period. The cultivated area (A, ha), yield (Y, kg/ha) and total production (TP, tons) were analyzed. The mean cultivated area during the study period was = 1086400 ha. In 2015, 2017 and 2018, negative differences were recorded ($p < 0.05$), and in 2019 a positive difference ($p < 0.001$). The mean yield was = 2294 kg/ha. In 2015, 2020 and 2023 negative differences were recorded ($p < 0.05$). Positive differences were recorded in 2019 ($p < 0.05$) and in 2016, 2017 ($p < 0.01$). The mean total production was = 2494600 tons. Negative differences from the average were recorded in 2023 ($p < 0.05$), in 2015 ($p < 0.01$). Positive differences were recorded in 2018 ($p < 0.05$) and in 2019 ($p < 0.001$). According to PCA, PC1 explained 68.203% of variance, and PC2 explained 31.75% of variance. Cluster analysis grouped the years of study based on similarity in relation to the analyzed elements (A, Y, TP; Coph.corr. = 0.879).

Keywords: cluster, crops management, dynamic analysis, sunflower, yield.

50. Organic Cereal Crops in the World, In Europe and in Romania – Comparative Analysis

Andreea Lidia JURJESCU¹, Florin SALA^{1,2*}

¹*Agricultural Research and Development Station Lovrin, Lovrin, Romania*

²*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

** Corresponding author: florin_sala@usvt.ro*

Abstract. Organic crops have recorded variable dynamics in cultivated areas, with an increasing trend globally. This study analyzed the situation of the area (A) of cereal crops in the organic system worldwide - A(W), in Europe - A(E), and Romania - A(RO), during the 2013 – 2023 period. At the global level, there was an increasing trend in area over the study period, with a deviation in 2014. At the Europe level, there was an increasing trend in area over the period 2013 - 2020, and after the maximum in 2020 followed by a decreasing trend. At the level of Romania, there was a decreasing trend in the area between 2013 and 2016 (with a minimum in 2016), and an increasing trend between 2016 and 2023. Polynomial models described the variation of cereal crop areas in the organic system in relation to the time factor (T, years), with $R^2 = 0.983$ in the case of A(W), $R^2 = 0.980$ in the case of A(E) and $R^2 = 0.946$ in the case of A(RO). According to PCA, the principal components explained 98.564% of the total variance, and Cluster Analysis grouped the years of the study period based on similarity.

Keywords: cereals, dynamics, multivariate analysis, organic crops, variation models.

51. Prospects for the Development of Photovoltaic Farms in Rural Areas - Case Study

Radosław KNAP^{1*}, Piotr PRUS², Gabriela LEWICKA¹

¹*Pawel Wlodkowic University College, Plock, Poland*

²*Bydgoszcz University of Science and Technology, Faculty of Agriculture and Biotechnology,
Bydgoszcz, Poland*

** Corresponding author: piotr.prus@pbs.edu.pl*

Abstract. The subject of the article is the analysis of the development prospects of photovoltaic farms in rural areas. The analysis is conducted based on a case study of a selected project implemented in the Pomeranian Voivodeship. The aim of the work is to analyze the individual stages of the project management process, from planning, through implementation, to operation, taking into account the specificity of the RES sector and the unique challenges posed by the renewable energy industry in rural areas. The implementation of this objective consisted in presenting the most important aspects of project management, such as planning, organization, supervision and control of the implementation of undertaken activities, as well as discussing the specific challenges related to the construction of a photovoltaic farm, including: selecting the appropriate location, assessing the solar potential, technical and logistic issues, as well as legal and financial aspects.

The article also presents the decision-making processes related to investing in a photovoltaic farm, starting from the conceptual phase, through the design and construction phase, to the launch and operation. The risks related to the project and methods for their minimization were also analyzed.

Based on the investment case study, good practices in project management were identified and the effectiveness of the management strategies used was analyzed. The conclusions from the analysis indicate key success factors in the implementation of such projects and suggest possible improvements in the process of managing photovoltaic farm construction projects in the future.

Keywords: renewable energy, rural development, photovoltaic farm.

52. Study on the Importance of Protection Curtains in the Sustainable Development of the Rural Area

**Camelia MĂNESCU¹, Nicoleta MATEOC-SÎRB¹, Tabita ADAMOV¹, Oana SICOE-MURG^{1*},
Alina MĂNESCU²**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*West University of Timișoara, Faculty of Economics and Business Administration, Timisoara, Romania*

** Corresponding author: oana.sicoe-murg@usvt.ro*

Abstract. Achieving sustainable development necessitates finding an equilibrium between the imperative for ongoing economic and social progress and the safeguarding and enhancement of the environmental condition. This equilibrium is crucial to guarantee the well-being of both current and future generations. In recent years, Romania has been faced with major disasters that have brought the issue of natural risks to the fore, and we believe that the establishment of forest protection curtains would be a particularly important component of the sustainable development of rural communities. The research aims to make a substantial contribution to knowledge in the field and to alert decision-makers to the role and importance of defenses in the sustainable development of rural areas and beyond. Rural development and planning programs should aim to increase forest cover through afforestation and the establishment of forest protection curtains. From a methodological point of view, the research was based on an interdisciplinary approach, which combined qualitative and quantitative methods, such as: documentary analysis and specialist consultations in the field of forestry, agriculture and rural development. Forest protection curtains represent a viable and effective solution for reducing the negative impact of extreme climatic factors on agriculture and rural infrastructure. They contribute significantly to reducing soil erosion, protecting biodiversity, limiting the use of chemicals, as well as developing the local microclimate. In addition, the introduction of forest curtains has a positive impact on the local economy, by increasing agricultural productivity and reducing damage caused by strong winds or drought.

Keywords: climate changes, environmental protection, National Rural Development Program.

53. Socio-Economic Analysis of the West Region

**Camelia MĂNESCU¹, Nicoleta MATEOC-SÎRB¹, Ana-Mariana DINCU¹, Viorica BĂEȘU²,
Irina CHIURCIU^{3*}**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Ioan Slavici University of Timisoara, Faculty of Economic Sciences, Timisoara, Romania*

³*University of Agronomic Sciences and Veterinary Medicine of Bucharest, Faculty of Management and Rural
Development, Bucharest, Romania*

* *Corresponding author: chiurciu.irina@managusamv.ro*

Abstract. The West Development Region of Romania is distinguished by a favorable geostrategic position on the border with Hungary and Serbia, a high degree of urbanization, a well-developed industrial sector (especially in the automotive and IT fields in Timiș County), a relatively modern road and railway infrastructure, but also by internal economic disparities. In this paper, the authors carry out a comprehensive socio-economic analysis of the West Development Region of Romania, by investigating the administrative-territorial organization, the natural setting, the demographic, economic and infrastructural characteristics. The purpose of the research is to highlight the specific features and challenges of this region in the context of balanced regional development. The methodology used consisted of comparative analysis and statistical interpretation of data provided by the National Institute of Statistics, of time series (2014–2024) and of relevant programmatic documents, supplemented by own graphical and tabular processing. The research results show that the West Region, although it has a relatively small area (13.4% of the national territory), is distinguished by an important natural diversity and a dynamic regional economy. Timiș County plays a central role, being the most developed from an economic and demographic point of view. The region recorded a doubling of GDP between 2014 and 2022 and has a GDP/capita above the national average. However, population dynamics indicate a sharp demographic decline and low density, especially in mountainous counties. Transport infrastructure is developed in the plains but remains deficient in the mountainous areas.

Keywords: regional development, regional economy, demography.

**54. Study on How to Preserve the Identity of the Rural Environment
Through Tourism Development**

**Cornelia Diana MARIN¹, Ramona CIOLAC^{1*}, Iasmina IOSIM^{1*}, Loredana VADUVA¹,
Camelia MANESCU¹, Carmen Simona DUMITRESCU¹, Ana Lozici¹**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Liceul Tehnologic "Sf. Dimitrie" Teregova, Romania*

** Corresponding author: ramonamarianaciolac@usvt.ro; iasminaiosim@usvt.ro*

Abstract. The reason why man is increasingly turning to nature is understandable because since the earliest day, the man has been in search of nature and natural resources - perhaps those he has lost in the process of discovering urban settings, man is trying to reach nature and reconnect with nature in his leisure time. For a better understanding of how to make rural tourism develop, the differences between urban and rural tourism should be known. In most countries, there is a lack of education and training available for those wishing to develop rural tourism businesses, which is growing rapidly worldwide and seeks to meet the needs of a specific group of tourists, being a combination of profit-driven private sector initiatives and long-term government policies aimed at stimulating economic and social development in rural areas, areas facing major challenges worldwide, although the nature of these challenges differs "both between developed and developing countries and between individual countries".

Keywords: rural area, tourism, development.

55. Study on Consumer Characteristics of Online Consumers of Goods, Products and Services

**Cornelia Diana MARIN¹, Ramona CIOLAC^{1*}, Iasmina IOSIM^{1*}, Loredana VADUVA¹,
Camelia MANESCU¹, Ana Mariana DINCU¹, Ana Lozici¹**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Liceul Tehnologic "Sf. Dimitrie" Teregova, Romania*

** Corresponding author: ramonamarianaciolac@usvt.ro; iasminaiosim@usvt.ro*

Abstract. Understanding the behavior of the digital consumer can be considered as a priority for business and researchers in this field because of the scale and dynamics of e-commerce. The online consumer is the one who uses various online sites for auctions and/or certain virtual stores or the online media consumer, the social media and online news consumer or the technology consumer that facilitates access to the digital environment. Online marketplaces and platforms should clearly specify whether the seller is a professional trader or a natural person and whether the seller or marketplace is responsible for ensuring consumer rights. Among the consumers in our country it was found that 38% of them were influenced by the quality of products, 21% of consumers mentioned savings resulting from online shopping as a determining factor. Among the most sought-after products online, travel and vacations can be mentioned, being appreciated by 58% of those surveyed, but plane or train tickets were also in high demand.

Keywords: consumer, online shopping, characteristics.

56. Analysis of Mobile Applications that Contribute to Reducing Food Waste

**Anamaria Roxana MARTIN^{1*}, Andrei RUSU¹, Marius GORDAN¹,
Tabita ADAMOV¹, Tiberiu IANCU¹**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: anamaria.martin@usvt.ro*

Abstract. The main objective of this research paper is to identify the mobile applications that contribute to reducing food waste and to identify their role in this process.

Food waste refers to food designated for human consumption that is wasted or lost. This includes not only unfinished meals at restaurants and leftovers dismissed at home, but also raw materials and produce lost during farming, harvesting, transportation, and storage processes. Therefore, it could occur at any point within the whole supply chain.

Food waste constitutes to be one of the most major problems of our era because globally, over one-third of food produced for human consumption is wasted. The European Union estimates that 20% of its food production is lost or wasted and concurrently, 43 million individuals in the European Union lack financial resources to secure daily meals that provide adequate nutrition. The volume of the food that is wasted globally is sufficient for feeding three billion individuals, whereas food waste in Europe could sustain 200 million, in Latin America 300 million, and in Africa 300 million people.

Keywords: food security, food production, food supply chain.

57. Romania's Agricultural Production in the EU Context

**Nicoleta MATEOC-SÎRB^{1,2}, Teodor MATEOC-SÎRB^{1*}, Oana SICOE-MURG¹,
Anisoara DUMA-COPCEA^{3*}, Tabita ADAMOV¹**

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

²*Romanian Academy - Branch of Timisoara, Research Center for Sustainable Rural Development of Romania, Timisoara, Romania*

³*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

* *Corresponding author: teodormateoc@usvt.ro, anisoaradumacopcea@usvt.ro*

Abstract. The situation of agriculture and rural areas in Romania after more than three decades of transformations and reforms reflects a complex process, influenced by multiple political, economic, legal and social events and interventions in the 20th century. In contrast to other Western European countries, Romania has faced repeated political instability, which has affected the continuity and viability of the national agricultural system. Thus, these transformations have prevented the development of a stable and competitive agricultural sector, negatively influencing the evolution of rural areas in recent decades. These developments have often been accentuated by the adaptation to the Common Agricultural Policy of the European Union, with the country's accession to the EU in 2007. Romania's accession to the European Union in 2007 was a crucial moment for Romanian agriculture, marking the beginning of a new era characterized by both opportunities and challenges. Agriculture not only provides agri-food products essential for domestic consumption, thus ensuring population nutrition, but it is also an important supplier of raw materials for the processing industry. This thus contributes not only to food security, but also to the economic development of the country. In this paper, an analysis of agricultural productions is carried out: statistical data shows that, although Romania has the potential necessary to meet the internal demand for agri-food products, at present, our country imports significant amounts of food which has made the commercial balance in this sector negative for three decades.

Keywords: agricultural production, evolution, import, food security.

58. Analysis of Cheese Consumption in Romania

Iuliana Ioana MERCE¹, Ioana Anda MILIN^{1*}, Sîrbulescu CLAUDIA¹

*¹University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: andamilin@usvt.ro*

Abstract. Tasty and fickle, cheeses are an essential part of every person's daily diet, being an important source of calcium and fats for the body. They can be consumed as an appetizer before a meal, as a simple snack between meals, in platters combined with fruit or other cold appetizers, or they can be used in cooking - in sauces, for desserts, for gratin, etc. There are over 650 types of cheeses worldwide, most of which are made from cow's milk. Cheeses can be classified according to several criteria - the type of milk they are made from, the fat content, consistency, manufacturing process, country of origin, etc. England, France and Italy are among the countries with long traditions in preparing famous cheese varieties, but Romania also has several cheese varieties that Romanians, but not only, frequently consume for their freshness and flavor: curd, salted cheese, fresh cheese and bellows cheese. The demand for cheese is constantly growing, with the average annual consumption of cheese locally estimated at around 10.4 kilograms per capita. Salted cheese remains the leader in consumer preferences, but hard cheeses such as Parmesan, Grana and Gouda have increased considerably in daily consumption preferences, along with mozzarella and burrata, specialties that have become part of frequent consumption.

Keywords: cheese type, dairy products, milk specialties, cheese production.

59. Analysis of the Ecotourism Potential of the Sighistel Valley Area Located in the Apuseni Mountains

Iuliana Ioana MERCE¹, Ioana Anda MILIN^{1*}, Sîrbulescu CLAUDIA¹

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

** Corresponding author: andamilin@usvt.ro*

Abstract. Currently, tourism represents one of the areas with a very high potential for economic growth. In this area, the biggest challenge is to be competitive in the conditions of practicing sustainable tourism, knowing that in the long-term competitiveness is given by the way in which resources are managed. Protected natural areas have become holiday destinations based on the principles of sustainable development. Tourism activity proves to be a real support in the sustainable development of these areas, in the protection of their natural resources, the condition for achieving this support being responsible tourist consumption behavior in protected natural areas.

Excursions to protected areas are based on the desire of tourists to get to know nature, to live unique experiences in destinations, to relax in a natural environment free from pollution. This study explores the ecotourism potential of the Sighistel Valley, aiming to identify the forms in terms of tourist activities in this area. The Sighistel Valley is a wild and spectacular valley due to its karst landscape, which is represented by numerous caves and wild gorges with narrow and high walls. The Sighistel Valley represents the upper course of the homonymous river (also known as the "Valea Sohodolului Mare" over a distance of 7 km) together with the neighboring areas with valley; with sectors of gorges, steep canyons, caves (avenes) and surface karst formations (sinkholes, sluices and gullies). The natural area shelters and protects a diverse range of flora and fauna specific to the Apuseni Mountains.

Keywords: sustainable, nature, protected natural areas, natural resources.

60. Integrated Water Management - A Necessity in Romania

**Ioana AndaMILIN¹, Eugenia ȚIGAN², Iuliana Ioana MERCE^{1*}, Teodor MATEOC-SIRB¹,
Ciprian Ioan RUJESCU¹, Dragos Ciprian CHENDE¹**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*"Aurel Vlaicu" University from Arad, Faculty of Food Engineering, Tourism and Environmental Protection,
Arad, Romania*

* *Corresponding author: iulianamerce@usvt.ro*

Abstract. Water is a renewable natural resource, an indispensable element for life and society, a determining factor in maintaining ecological balance. Currently, this resource has become, in some situations, vulnerable and limited, or, on the contrary, in others, it may appear in excess. Thus, water can represent a risk factor. The modification of the hydrological regime as an effect of climate change influences the quantitative and qualitative level of water resources and, as a result, it is necessary to adapt the way they are exploited and managed. The challenges related to good water management are many and diverse and have emerged as a response to the efforts of all countries to solve water scarcity, water degradation and the impact of floods on all continents. Integrated water resources management can help countries in their efforts to deal with the water problem in a sustainable and cost-effective way, through specific measures (Sustainable Development Goals-SDGs). The practice of the last three decades has proven that, as in the other areas of socio-economic development of our country, a sectoral strategy is needed in the field of water, which integrates the directions of action provided for in strategic documents, plans and programs that have been developed so far and are part of the European strategy. The presentation and interpretation of statistical data highlight the measures that Romania is considering to achieve national and European objectives in this segment, to ensure an efficient contribution to sustainable development, measures expressed through a series of national indicators included in Sustainable Development Goal 6 - "Clean water and sanitation".

Keywords: challenges, connection rate, directions, international agreements, public systems.

61. Analysis of National Objectives and Indicators for Sustainable Production and Consumption

**Ioana Anda MILIN¹, Nicoleta MATEOC-SIRB¹, Iuliana Ioana MERCE^{1*}, Claudia SIRBULESCU¹,
Marius GORDAN¹, Dragos Ciprian CHENDE¹**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: iulianamerce@usvt.ro*

Abstract. The concept of sustainable development currently includes all economic and social spheres. Thus, measures are required in the sphere of production and consumption to ensure sustainability. Efficiency, sustainable waste management and, in general, activities in accordance with the principles of environmental protection are required, including conscious behavior in production and consumption activities. The European Commission has proposed a package of actions in this direction focused on: a new industrial policy, increasing resource productivity, the transition to the circular economy, eco-labeling, implementation of the EU system for environmental management and audit, green public procurement and integrated waste management. Objectives for 2020 and target objectives for 2030 have been established. The conclusions of the study conducted on the basis of the processing and interpretation of statistical data relating to Objective 12 on ensuring sustainable consumption and production patterns highlighted the positive developments in the commitments assumed by our country between 2008-2022.

Keywords: actions, resource management, circular economy, labeling, waste.

62. Table Grape Production and Its Impact on the Economic Performance of Agriculture

Natalia MOCANU^{1*}, Andrei BOTEZATU²

¹*State University of Moldova, Chisinau, Republic of Moldova*

²*Technical University of Moldova, Republic of Moldova*

** Corresponding author: mocanunatalia@gmail.com*

Abstract. The analysis of the economic performance of the agri-food sector in the Republic of Moldova has revealed a series of significant issues, including: the lack of stable trends in the growth of production value; the presence of a large number of inefficient entities; the slow growth in the value of exported agri-food products; a considerable reduction in its share of total exports; and, most importantly, the limited adoption of new technologies. Therefore, the aim of this article is to highlight the impact of new technologies on the production of table grapes and their influence on the economic performance of agriculture. Growing table grapes is crucial for agriculture in the Republic of Moldova, as it is a highly valuable export product that brings added value. At the global level, Moldova stands out for its advanced viticulture, taking advantage of favorable natural conditions, such as a temperate climate and fertile soils, perfect for vines. Growing table varieties is a difficult and important activity at the current stage. Success and results depend on the methods of growing, storing and marketing table grapes.

Keywords: viticulture, economic efficiency, intensive production, wine sector, advanced technologies, Pergola system.

63. Agricultural Subsidies and their Role in Table Grape Production

Natalia MOCANU^{1*}, Andrei BOTEZATU², Nicoleta MATEOC-SÎRB³

¹State University of Moldova, Chisinau, Republic of Moldova

²Technical University of Moldova, Republic of Moldova

*³University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: mocanunatalia@gmail.com*

Abstract. Carrying out interventions in any area requires a justification of the efforts, with the strategic significance of the area being an important criterion in this regard. The importance of the agri-food sector for the economic and social prosperity of the Republic of Moldova is undeniable, primarily due to its role in ensuring the country's food security. Subsidies have a significant impact on table grape production. By providing subsidies, winegrowers receive financial support to invest in advanced technologies, fertilizers, and other essential resources to boost production. However, it is crucial to closely monitor and analyze the effects of these subsidies to ensure they are utilized effectively. The vast majority of financial instruments play an important role in facilitating winegrowers' access to financing, offering them favorable repayment conditions and other vital measures to implement investment projects. Through this diversification, producers of structures can start sustainable development projects and adopt modern technologies, which supports the increase in the competitiveness of the wine sector. Subsidies are state incentives in the form of aid or financial support that help a branch of the national economy and which generally aims to promote this branch. In our case, the wine sector.

Keywords: agriculture, subsidy, cost, viticulture, productivity, effectiveness.

**64. Trajectory of "White Elephants" in the Democratic Republic of Congo
from 1960 to 2022**

Grégoire MOMBİ AMBOKO^{1*}, Adelard KASESHI MULENGE¹

¹*Université Catholique du Congo, Limete-Kinshasa, DR Congo*

** Corresponding author: gregmombi@gmail.com*

Abstract. The paper analyzes the phenomenon of failed public investments in the Democratic Republic of the Congo (DRC), known as “white elephants”, during the period 1960–2022. 45 large-scale projects, abandoned or poorly implemented, are investigated, which generated total losses estimated at over 46 billion USD. The study adopts an inductive and comparative approach, structured around four major political-institutional eras: the post-independence period, the Mobutu regime, the transition of Laurent-Désiré Kabila and the contemporary post-war recovery. By analyzing official sources, independent reports and semi-structured interviews, the research identifies a recurring pattern of systemic inefficiency and decoupling between investment policies and the real needs of the population. The findings highlight the influence of corruption, clientelism and administrative discontinuity in the proliferation of grandiose projects with minimal or no socioeconomic impact. The article contributes to the literature on public investment governance in Central Africa and proposes a series of concrete measures to strengthen institutional accountability and prevent the recurrence of this phenomenon. The conclusions support the need for a new public accountability pact in the DRC, based on transparency, participation and efficiency.

Keywords: public governance, project evaluation, investment failure, policy reform, infrastructure risk, institutional accountability.

65. Empirical Analysis of the Relationship Between Public Investments and Macroeconomic Variables in the DR Congo

Grégoire MOMBİ AMBOKO^{1*}, Adelard KASESHI MULENGE¹

¹*Université Catholique du Congo, Limete-Kinshasa, DR Congo*

** Corresponding author: gregmombi@gmail.com*

Abstract. This article investigates the long-term relationship between public investments classified as “white elephants” and macroeconomic indicators of growth and stability in the Democratic Republic of Congo, from 1960 to 2022. Drawing from both quantitative and qualitative data, the research explores how large-scale public projects—often prestigious but economically unproductive—have impacted national income, investment levels, savings, employment, and inflation. Despite the significant financial efforts made by successive governments, many projects failed to achieve their intended outcomes due to poor planning, weak governance, and external dependencies. These underperforming investments have created fiscal burdens and exacerbated structural economic weaknesses.

Using Principal Component Analysis (PCA), the study identifies weak or insignificant correlations between the costs of failed public investments and key indicators of economic growth. The analysis further reveals that while some macroeconomic aggregates, such as exports or gross national income, showed positive trends, they were not sufficiently driven by productive public spending. Moreover, the high inflation and persistently high unemployment rate have further undermined the intended stabilizing effect of these investments.

The findings highlight a systemic inefficiency in the allocation and management of public resources. Instead of fostering inclusive and sustainable development, many public projects have deepened economic vulnerability. The study concludes that the Democratic Republic of Congo’s trajectory of public investment needs urgent reform, prioritizing transparency, needs-based planning, and long-term socio-economic impact.

Keywords: macroeconomic indicators; failed projects; inflation; unemployment; public spending; PCA analysis.

66. Resources and Challenges of Rural Tourism in the Banat Region of Romania

Theodor MUNTEAN^{1*}, Larisa-Elena BRISCAN¹, Tiberiu IANCU¹, Tabita-Cornelia ADAMOV¹

*¹University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: theodor.muntean@usvt.ro*

Abstract. The Banat region, strategically located in the western part of the country, plays an important role in tourism and stands out through a diverse tourism offer, based on ethno-folkloric traditions, cultural diversity, and valuable natural resources. The study analyzes the natural, cultural-historical, and socio-economic resources of these areas, highlighting the role of rural tourism in stimulating local economies, preserving traditional practices, and promoting sustainable development.

The aim of this article is to analyze the potential of rural tourism in the Banat region by emphasizing its natural, cultural-historical, and socio-economic resources, as well as possible directions for sustainable development. The study seeks to identify the contribution of rural tourism to the revitalization of local economies and the preservation of heritage, in the context of existing challenges such as deficient infrastructure, lack of qualified personnel, and insufficient promotion.

The research methodology integrates qualitative analysis of field data, statistical indicators, and regional development documents.

The findings show that interest in rural tourism is continuously growing, but several challenges persist, such as infrastructure deficiencies, shortage of specialized personnel, and limited promotion in certain areas.

Keywords: sustainable development, cultural heritage, local economy, rural communities, regional analysis.

67. Wine Tourism as a Driver for Sustainable Rural Development

Steluța NĂSTASĂ^{1*}, Anișor NEDELCU¹, Laura CISMARU²

¹*Transilvania University of Brașov, Faculty of Technological Engineering and Industrial Management, Brașov, Romania*

²*Transilvania University of Brașov, Faculty of Food Industry and Tourism, Brașov, Romania*

** Corresponding author: steluta.nastasa@unitbv.ro*

Abstract. Wine tourism is getting popular nowadays. Previous studies on wine tourism were mostly exploratory and focused on consumer perspectives. The present paper analyses the importance of wine tourism for development of Romanian rural economy. Data related to wine regions, wine tourism infrastructure, sustainable messaging and digital marketing was obtained from Web of Science database, Romanian National Institute of Statistics and websites of local businesses for the 2019-2022 timeframe. The study focuses on three important wine regions and examines socio-economic benefits, sustainability practices and regional strategies for enhancing tourists' arrivals. To explore the potential relationships between tourism and rural development indicators, a correlation analysis between the regions was performed. Statistical analysis was done using JASP software (Version 0.18; Jasp Team, 2024). Findings show that wine tourism is a contributor for rural development because of its influence on economic results, infrastructure and employment, especially in regions where viticulture is well integrated with tourism services. Wine tourism correlates positively to GDP, employment and grapes production. Longer tourists' stay is not direct proportional with economic growth, suggesting a need to examine the quality of services offered. Dealu Mare region, leader in the production of wine, offers most jobs in agriculture, but struggles with overnight stays and tourist arrivals. Murfatlar wine region doesn't depend on agriculture but is rapidly developing due to proximity to seaside. Accommodation capacity is increasing in all regions, Murfatlar being a leader and Târnave being still underdeveloped. Analysis of winery websites showed that Dealu Mare has a strong accommodation infrastructure and sufficient eco-certifications, while Târnave region has a better integration of sustainability communication. Murfatlar performs well on digital accessibility, but in accommodation and integration on reservations platforms is less efficient. Recommendations for enhancing the integration of wine tourism within rural development strategies have been formulated.

Keywords: agrotourism, enotourism, sustainability, digital marketing, tourism infrastructure, Romania.

68. Studies on The Projection of an Agri-Tourism Pension for the Purpose of Validating Local Resources in the Danube Gorge

Cristina Gabriela PANICI^{1,†}, Maria Mihaela MOATĂR^{1,†}, Petru Ioan DRAGOMIR^{1,†}, Petre Alexandru PANICI^{1,†}, Marinela BORA^{1,†}, Daniela Nicoleta SCEDEI^{1,†}, Carolina ȘTEFAN^{1,†}

¹*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Engineering and Applied Technologies, Timisoara, Romania*

** Corresponding author: mihaela.moatar@usvt.ro; alexandrupanici@usvt.ro*

†These authors contributed equally to this work

Abstract. This study provides an analysis of the possibility of capitalizing on the resources of the Danube Gorge through the development of an agri-tourism pension, thus contributing to the growth of sustainable tourism and the economic development of local communities in the area. The Danube Gorge has considerable tourism potential, offering spectacular landscapes at the Danube Boilers, biodiversity in the Iron Gates Natural Park, cultural and historical attractions such as the Trikule Fortress and the Decebal Statue, recreational activities such as Danube cruises and hiking, fresh fish cuisine, local festivals, and a diverse and accessible tourism infrastructure. However, this area faces a significant shortage of accommodation facilities, which limits the region's ability to host a larger number of tourists and fully exploit its tourism potential. Despite the spectacular landscapes, rich biodiversity, and remarkable cultural and historical attractions, the lack of adequate accommodation infrastructure discourages visitors and hinders the sustainable economic development of the area. Investments in guesthouses, hotels, and other forms of accommodation could boost tourism and create new opportunities for local communities. Interest in rural tourism is growing, as more and more tourists seek authentic experiences and direct contact with nature and local culture. This trend offers considerable opportunities for the economic development of rural communities and for promoting the cultural and natural heritage of areas such as the Danube Gorge. The study examines the natural and cultural potential of the region, identifies key resources that can be integrated into the tourism offer, and proposes solutions for their efficient and responsible use, ensuring both environmental conservation and local prosperity.

Keywords: rural tourism, local resources, agri-tourism pension, tourist impact.

9. Studies Regarding Arboretums in the Product Union No. V - Moldova Noua in Order to Increase Forest Productivity and Improve the Recreational (Protection) and Tourism Function

**Cristina Gabriela PANICI^{1,†}, Petre Alexandru PANICI^{1,†}, Petru Ioan DRAGOMIR^{1,†},
Marinela BORA^{1,†}, Daniela Nicoleta SCEDEI^{1,†}, Carolina ȘTEFAN^{1,†},
Maria Mihaela MOATĂR^{1,†},**

*¹University of Life Sciences "King Mihai I" from Timisoara, Faculty of Engineering and Applied Technologies,
Timisoara, Romania*

** Corresponding author: mihaela.moatar@usvt.ro; alexandrupanici@usvt.ro*

†These authors contributed equally to this work

Abstract. This study provides an analysis of the possibility of increasing forest productivity and improving the recreational (protection) and tourism function of the forests from Production Unit No.V from Moldova Nouă. Production Unit No.V from Moldova Nouă has a total surface of 3579, 62 ha and consists of 134 plots. According to the Park Management Plan and in accordance with the internal zoning of the park, the reserve is located in the integral protection zone, which includes the most valuable assets of the natural heritage within the protected natural areas. Are allowed activities such as: scientific and educational activities; ecotourism activities, which do not require construction - investments; rational use of meadows for mowing and/or grazing only with domestic animals (the property of members of the communities that own pastures or who have the right to use them in any form recognized by current legislation, on the areas, during the periods and with the species and livestock approved by the park administration); and various actions and interventions to remove/prevent/combat some endangering factors for the natural habitats and the species of flora and fauna. In order to increase the productivity of forests and improve their functional and tourism role, in relation to the seasonal potential and the current structure of the stands, the following measures have been provided: improving or maintaining the natural structure of the stands, located on lands with difficult regeneration conditions; - improving the condition of the stands of type II of functional categories by applying special conservation works and prohibiting grazing. When revising the management, the situation of the poorly productive stands will be reanalyzed again and depending on their evolution, a new scheduling of management measures will be made to improve their productivity.

Keywords: tourism, recreation, forests, management measures.

70. The Role of Communication in Rural Development Strategies

**Anka Roxana PASCARIU¹, Mihaela IANCU^{1*}, Dragoş CHENDE^{1*}, Marius GORDAN¹,
Iasmina IOSIM¹, Tabita ADAMOV¹, Tiberiu IANCU¹**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: iancumihaela@usvt.ro, dragoschende@usvt.ro*

Abstract. Effective communication is a cornerstone for fostering sustainable rural development, as it enhances the flow of information, encourages active community participation, and mobilizes essential resources. This research investigates the multifaceted relationship between communication strategies and rural development, focusing on how various communication tools—spanning from traditional methods such as face-to-face meetings and community radio to modern digital platforms like social media and mobile technologies—can empower rural communities. By analyzing a range of case studies and reviewing existing literature, the study explores the ways in which communication initiatives facilitate informed decision-making, improve agricultural practices, and contribute to socio-economic development. Specifically, it examines how rural communities utilize communication channels to address challenges in health, education, and infrastructure, and how these efforts can lead to more sustainable outcomes.

Additionally, the paper identifies and critically analyzes the barriers to effective communication in rural areas, such as limited access to technology, low literacy rates, and geographic isolation. It offers recommendations for overcoming these challenges, proposing innovative approaches to improve communication infrastructures and frameworks that promote inclusive, equitable development. The study suggests that enhancing communication literacy, building digital literacy programs, and fostering community-based networks are key strategies for ensuring that rural populations are better equipped to participate in development initiatives. Ultimately, this research underscores the pivotal role of communication in bridging gaps between rural populations and broader development objectives, emphasizing the need for adaptive and context-sensitive communication strategies that can accelerate sustainable development in rural settings.

Keywords: communication, rural development, communication strategies, communication management, rural communities.

71. Effective Communication Strategies in Agricultural Product Marketing

**Anka Roxana PASCARIU¹, Mihaela IANCU¹, Dragoş CHENDE^{1*}, Marius GORDAN¹,
Camelia MĂNESCU^{1*}, Iasmina IOSIM¹, Tabita ADAMOV¹, Tiberiu IANCU¹**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: manescucamelia@usvt.ro, dragoschende@usvt.ro*

Abstract. The agricultural sector plays a vital role in the global economy, with effective marketing strategies being key to the success of agricultural products. This scientific paper explores the various communication strategies employed in the marketing of agricultural products, focusing on how they influence consumer behavior, enhance brand visibility, and increase market reach. By analyzing traditional communication methods alongside modern digital tools, such as social media platforms, websites, and online advertising, the study highlights best practices for engaging target audiences. Additionally, the role of transparency, sustainability, and consumer education in agricultural marketing will be examined. The paper aims to provide a comprehensive overview of the challenges and opportunities that agricultural businesses face when communicating their products to a diverse and evolving market. Key insights into consumer preferences, media usage, and the impact of digital transformation on the agriculture industry will contribute to the development of more effective and sustainable marketing strategies.

Keywords: communication, marketing, agriculture, communication strategies.

72. Performing Systems of Obtaining Quantitative Production and Qualitative in Sheep

Ioan PETROMAN^{1*}, Ioan ȚIBRU¹, Ioan SAUER¹, Iulia MUNTEANU¹, Cornelia PETROMAN²

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

²*Sheep and Goat Breeding Research and Development Station Caransebes, Romania*

** Corresponding author: i_petroman@yahoo.com*

Abstract. The categories of sheep raised in intensive or semi-intensive systems to obtain competitive quantitative and qualitative productions should adapt well to climate changes to respond to economic nutrition, to adapt to the grazing systems efficiently converting the vegetable resources depending on the management objectives implemented at the farm level, through integrative management strategies that should expressly include total quality management. Thus, through this scientific approach, managerial solutions have been identified by which both quantitative production and, especially, the qualitative one be improved depending on the operating system, without environmental risks, using biological material adapted to the existing environmental conditions for the optimal use of fodder resources, to preserve the ecosystem biodiversity in the area of professional sheep farms, and intensifying sheep exploitation by ensuring sheep welfare according to the animal category and identifying new quality production management solutions. Quality production management solutions must consider the systematic collection and interpretation of data on the biological and reproductive capacity of sheep, the economics of exploitation and technical data on sheep welfare, the zootechnical indicators of the farm and the types of diets, all for the provision of balanced diets depending on the forage available per season, balanced feeding by productive groups, physiological states and performances, the integration of nutrition into the management of quality production, the sustainable use of local resources and the reduction of environmental risk, through the degradation of natural environmental factors.

Keywords: sheep, production, resources, quality.

**73. New Ecological Management Models in Quantitative and Qualitative
Production in Sheep**

Ioan PETROMAN^{1*}, Ioan ȚIBRU¹, Diana MARIN², Daniela VĂLUȘESCU¹, Maria SAUER¹

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Sheep and Goat Breeding Research and Development Station Caransebes, Romania*

** Corresponding author: i_petroman@yahoo.com*

Abstract. Due to the high demand on the market of ecological products obtained from sheep exploited in different production systems, it was found that the zootechnical sector is responsible for 13.00% of global greenhouse gas emissions, 15.05% of the total use of groundwater, and 12.60% of water pollution. The quantification of the impact of obtaining quantitative products from the zootechnical sector and of the growth and exploitation of sheep has considerable effects on the biodiversity of meadow ecosystems and plant resources and equal shares of the impact of land conversion into pastures and cultivated lands to produce green mass and hay for sheep feed. Given these desiderata, it is necessary to diversify the methods of obtaining quantitative and qualitative productions from the sheep, an important role being that of the management models according to the degree of land availability, avoiding environmental risks for sustainable development. The purpose of the research involves to find viable solutions in predicting the quantitative and qualitative productions obtained from sheep, by proposing for implementation new ecological management models that would contribute to obtaining large quantitative and quality productions by increasing individual productions through nutritional stimulation and not by increasing the number of sheep exploited per unit area, reducing the environmental impact of sheep production, efficiently managing water reserves, preserving biodiversity, reducing greenhouse gas emissions and increasing the responsibility of "environmental" departments by monitoring natural environmental factors and the impact of resource use depending on the season.

Keywords: sheep, sustainability, market, ecological products.

74. The State of Trout Meat Quality in Romania

**Luminita PIRVULESCU¹, Tiberiu IANCU¹, Mariana Ramona CIOLAC¹, Claudia SIRBULESCU¹,
Ramona BACTER², Despina-Maria BORDEAN^{3*}**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Oradea, Faculty of Environmental Protection, Oradea, Romania*

³*University of Life Sciences "King Mihai I" from Timisoara, Faculty of Food Engineering, Timisoara, Romania*

* *Corresponding author: despinabordean@usvt.ro*

Abstract. Fish meat is well known for the high nutritional value based on total mineral content, proteins, essential amino acids, fatty acids, and valuable vitamins. This research paper aims to evaluate the differences between rainbow trout and trout (common name) as well as to compare the quality of fish meat available on the Romanian market, regarding nutritional value based on different databases and/or research papers. The study presents the importance of fish meat in the Romanian diet and to assess the quality of fish meat (mostly trout) and answers the question regarding the potential factors which might influence fish meat quality. The chemical composition of fish meat was analyzed based on water percent, protein, fat, dry matter, ash and minerals contents. Results were processed using MVSP and PAST software and highlighted the importance of fish meat consumption and the beneficial effects on the consumers health.

Keywords: rainbow trout meat vs trout meat, nutritional profiles, mineral content, statistical evaluation.

75. Rural Tourism as a Vector of Sustainable Development and Contribution to the Circular Economy in Rural Areas of Romania

**Gabriela POPESCU¹, Cosmin Alin POPESCU¹, Tiberiu IANCU¹, Ramona Mariana CIOLAC¹,
Tabita ADAMOV¹, Iasmina IOSIM^{1*}, Otilia Ecaterina OPRIȘOR¹**

¹*University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: iasminaiosim@usvt.ro*

Abstract. This paper explores the relationship between rural tourism and the circular economy, focusing on how sustainability principles can be applied in rural areas of Romania. The study aims to highlight the potential of rural tourism as a driver of sustainable development by promoting local resource use, waste reduction, and community engagement in circular economic practices. The work includes a theoretical analysis of the concepts of rural tourism and the circular economy, followed by a case study in the Apuseni Mountains region. The paper concludes with practical recommendations for policymakers, local entrepreneurs, and rural stakeholders, contributing to the development of a responsible and regenerative tourism model in Romania's rural areas. Rural tourism is at the intersection of local heritage preservation, sustainable economic development and community regeneration. To respond to contemporary challenges – depopulation, pressures on resources, climate change – an integrated model is needed that combines rural tourism with agrotourism, the capitalization of local resources and the principles of the circular economy. Such a model not only supports the local economy but also contributes to social cohesion and the preservation of cultural identity.

Keywords: rural tourism, circular economy, sustainability, sustainable development, local communities.

76. Traditions and Customs of Major Christian Religious Holidays that Attract Tourists to Rural Areas

**Gabriela POPESCU¹, Cosmin Alin POPESCU¹, Tiberiu IANCU¹, Ramona Mariana CIOLAC¹,
Tabita ADAMOV¹, Iasmina IOSIM¹, Iuliana MERCE¹, Camelia MĂNESCU¹, Ioan SZASZ^{2*}**

*¹University of Life Sciences "King Mihai I" of Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²Pentecostal Theological Institute Bucharest, Romania

** Corresponding author: iancsz@yahoo.com*

Abstract. Rural Romania is a space with a strong spiritual and cultural imprint, where Christian traditions are sacredly preserved and transmitted from generation to generation. Major religious holidays such as the Nativity of the Lord and the Resurrection represent high points in the lives of rural communities, but also special occasions for attracting tourists. This paper explores the impact of religious traditions on rural tourism, analyzing the particularities of each major Christian denomination in Romania, with an emphasis on the authenticity factor.

This research paper brings together a broad study on how traditions and customs associated with major Christian religious holidays from the three major branches of Christianity – Orthodox, Catholic and Neo-Protestant – become factors of tourist attraction in rural areas in Romania. The analysis focuses on holidays such as Christmas, Easter, but also holidays such as Epiphany, Palm Sunday and Pentecost, offering a comparative perspective on the religious and cultural manifestations that determine tourists, both local and foreign, to explore Romanian villages in search of authenticity.

Keywords: traditions, rural areas, religious tourism, authenticity.

77. Knowledge and Innovation Systems in Agriculture - A.K.I.S. - challenges for LAGs

Andrei PRIGOREANU^{1*}, Stejărel BREZULEANU¹

¹Ion Ionescu de la Brad" Iasi University of Life Sciences, Faculty of Agriculture, Iasi, Romania

** Corresponding author: prigoreanu.andrei@yahoo.com*

Abstract. Agricultural Knowledge and Innovation Systems (AKIS) play a key role in promoting innovation, sustainability and resilience in agriculture and rural development. This paper explores the challenges and opportunities of AKIS for Local Action Groups (LAGs), particularly in the context of the European Innovation Partnership (EIP-AGRI) and the Common Agricultural Policy (CAP). Although AKIS aims to connect researchers, advisors, farmers and policy makers, significant barriers persist, such as fragmented knowledge flows, weak links between research and practice and low uptake of innovation by small and medium sized farms. LAGs are strategically positioned to facilitate co-creation processes, promote interactive innovation projects and integrate digital tools to support local development. For them to effectively contribute to AKIS performance, institutional support, capacity building and cross-sectoral collaborations are needed. Thus strengthening advisory services and including AKIS strategies in the CAP Strategic Plans are essential steps towards a more inclusive and effective innovation ecosystem at European level.

Keywords: innovation, rural development, farm advisory, European policies, local partnerships.

78. The Sustainability Approach for the Agricultural Sector at EU Level

Ioan PRIGOREANU^{1*}, Gabriela RADU¹, Gabriela IGNAT¹

¹Ion Ionescu de la Brad" Iasi University of Life Sciences, Faculty of Agriculture, Iasi, Romania

** Corresponding author: ioan.prigoreanu@iuls.ro*

Abstract. This paper examines the evolution and current state of agricultural sustainability in the European Union, recognizing the sector's significant impact on the environment, economy and society. Using a bibliographic and bibliometric analysis of literature from 2010 to 2024, the authors use databases such as Web of Science, Science Direct, Google Scholar and Sciendo and VOSviewer software to help identify key themes and concepts, revealing a growing interest in topics such as energy efficiency, greenhouse gas emissions, digitization, sustainable farming practices and sustainable intensification. The findings indicate that agricultural sustainability is a complex, multidimensional concept, involving environmental, economic and social dimensions that are often difficult to reconcile. The study finds significant progress in some EU countries, but also persistent discrepancies, particularly between Western European and Central and Eastern European nations, underlining the need for more coherent and context-specific policies. The paper concludes that successful progress towards sustainability depends on integrating all dimensions of sustainability into agricultural strategies, highlighting the roles of digitization and sustainable intensification, and that collaboration between policy makers, farmers and the private sector is essential to achieve sustainability in European agriculture as well.

Keywords: sustainable agriculture, economic sustainability, sustainable practices, sustainability indicators.

79. Integrating R&D Management Practices in the Development of Novel Confectionery Products

Diana Nicoleta RABA^{1*}, Tiberiu IANCU¹, Mariana Ramona Ciolac¹, Tabita ADAMOV¹, Elena PET¹, Diana MARIN¹, Bianca-Florina STANCIU¹

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

** Corresponding author: diana.raba@usvt.ro*

Abstract. The confectionery industry faces increasing pressure to innovate while addressing consumer demands for novel textures, flavors, and sustainable ingredients. This study explores the integration of structured Research and Development management practices in the systematic design of innovative cookie-category pastries with minimal processing, free from additives and preservatives, while maximizing nutritional value. This approach ensures compliance with dietary standards while aligning with consumer preferences for clean-label products. The product development strategy employed in this study encompasses: (1) new product conceptualization, (2) product design and development, (3) identification of key competitors, (4) determination of market pricing, and (5) formulation of marketing and commercialization strategies for the newly developed products. The performed SWOT analysis identified organizational strengths in innovative product development with clean-label and high-quality attributes, while highlighting reduced product shelf-life compared to industry benchmarks as the primary weakness stemming from strict adherence to natural ingredient formulations. Three new cookie varieties were selected for development based on market research findings: plain fennel biscuits, fennel-sesame biscuits, and fennel-cayenne pepper biscuits. A framework is proposed to optimize resource allocation across four innovation domains: ingredient substitution, processing technologies, nutritional enhancement, and sensory experience. This research provides actionable insights for SMEs and large manufacturers navigating the challenges of sustainable product development in the global sweets market.

Keywords: cookies, innovative products, development strategy, clean-label cookies.

80. The Current Structure of Agricultural Holdings in Romania

**Miroslav RAICOV¹, Adrian BĂNEȘ^{1*}, Andrea FEHER^{1,2}, Nicoleta MATEOC-SÎRB^{1,2},
Păun Ion OTIMAN¹**

¹*Romanian Academy - Timisoara Branch, Research Centre for Sustainable Rural Development of Romania,
Timisoara, Romania*

²*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: abanes@gmail.com*

Abstract. The agrarian structure of Romania is largely not comparable and compatible with the European agrarian structure, because the strong polarization of the current Romanian agrarian structures is not found in any EU country. In Romania, medium-sized farms (10-100 ha) have the lowest share, while subsistence farms, in terms of number, and large farms, in terms of arable area, dominate the Romanian agricultural landscape, while in the EU the agrarian structure is exactly the opposite: most of the land area belongs to medium-sized private-family farms. In this paper, the authors propose to study the current state of agricultural holdings in Romania. In this sense, the approach is necessary to develop a clear concept and, on this basis, a long-term economic and social strategy regarding the type of agricultural holding to be supported, the size of the holdings, their structure, as well as the financing of expenses for studies and design. Also, the Romanian state has the obligation to support the phenomenon of rural development and planning, as a sure way to recover the rural economy of Romania.

Keywords: farm typology, strategy, land consolidation, rural development policy, family farming systems.

81. Agricultural Crop Production Evolution in Western Romanian Agriculture

**Cosmin SĂLĂȘAN^{1*}, Carmen Simona DUMITRESCU¹, Iasmina IOSIM¹, Cristian GĂINĂ¹,
Raul PAȘCALĂU²**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Life Sciences "King Michael I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

** Corresponding author: cosminsalasan@usvt.ro*

Abstract. Over the past three decades, agricultural production in this region has undergone significant transformations influenced by socio-economic changes, technological advancements, climate variability, and European Union integration. This research aims to highlight the evolution of key crops in Western Romania, with a particular focus on Timiș County, which stands out for its extensive arable land and high productivity. The analysis draws on data from 1990 to 2023 to examine trends in cereal crops (wheat, maize, barley, oats), oilseeds (sunflower, rapeseed, soybeans), and sugar beet production. The evolution of agricultural crop production in Western Romania reflects a complex interplay of environmental conditions, economic factors, and technological progress. Cereals for grains continue to dominate arable land use due to their adaptability and market demand. Oilseed crops have expanded significantly but face challenges from climate variability and infrastructure limitations. Meanwhile, sugar beet production has declined sharply due to economic constraints.

Keywords: crop production, evolution determinants, structural changes.

82. Trends and Patterns in Romanian Agricultural Land Use from 1990-2023: A Comprehensive Analysis

**Cosmin SĂLĂȘAN^{1*}, Carmen Simona DUMITRESCU¹, Iasmina IOSIM¹, Cristian GĂINĂ¹,
Raul PAȘCALĂU²**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Life Sciences "King Michael I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

** Corresponding author: cosminsalasan@usvt.ro*

Abstract. The examination of agricultural land use data from Romania over three decades (1990-2023) reveals significant transformations in cultivation patterns, regional distribution, and crop priorities. This analysis interprets the extensive dataset on cultivated areas across Romania, with particular focus on nationwide trends, the Western region, and Timis county specifically. The data reveals a Romanian agricultural sector that has undergone fundamental transformation while maintaining its core focus on cereal production. The overall reduction in cultivated area should not necessarily be interpreted as agricultural decline, but rather as a complex adjustment reflecting changed economic circumstances, ownership patterns, and technology adoption. The dataset documents a profound transformation of Romanian agriculture during its post-communist transition. The total cultivated area has contracted significantly, cereal production has maintained its dominance despite absolute declines, greenhouse cultivation has virtually disappeared, and fallow land has followed complex cycles of abandonment and recovery. These changes reflect not just agricultural policy decisions but broader economic, social, and demographic transformations that have reshaped rural Romania.

Keywords: change patterns, land use, structural reforms.

83. Improving the Management of Pastoral Growth and Exploitation Systems of Sheep

**Maria SAUER¹, Bianca CSIZMADIA², Loredana VĂDUVA^{2*}, Mihaela ALBULESCU¹,
Ioan PETROMAN^{2*}**

¹*Sheep and Goat Breeding Research and Development Station Caransebes, Romania*

²*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: i_petroman@yahoo.com, loredanavaduva@usvt.ro*

Abstract. Due to the high demand on the market of ecological products obtained from sheep exploited in different production systems, it was found that the zootechnical sector is responsible for 13.00% of global greenhouse gas emissions, 15.05% of the total use of groundwater, and 12.60% of water pollution. The quantification of the impact of obtaining the quantitative products from the zootechnical sector, in particular, and of the growth and exploitation of sheep, in particular, has considerable effects on the biodiversity of meadow ecosystems and plant resources and have equal shares of the impact of land conversion into pastures and cultivated lands to produce green mass and hay for sheep feed. Given these desiderata, it is necessary to diversify the methods of obtaining quantitative and qualitative productions from the sheep, an important role being that of the management models according to the degree of land availability, avoiding environmental risks for sustainable development. Environmental management in pastoral sheep farming systems must consider the relationship between grazing and the ecosystem, the dietary preferences of sheep and the impact of grazing, overgrazing and undergrazing on ecosystems and the impact of topography on grazing.

Keywords: sheep, sustainability, market, ecological products.

84. Aspects Regarding the Contribution of GDP From the Primary Sector of the Main Regions to the Total GDP of Romania

**Oana Maria SICOE-MURG¹, Nicoleta MATEOC-SÎRB¹, Ana-Mariana DINCU¹, Cătălin BÎTEA¹,
Camelia MĂNESCU^{1*}**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: cameliamanescu@usvt.ro*

Abstract. Agriculture, the forestry sector and fishing are, by tradition, vital branches in the country's economy, both by the size of the agricultural area and the area occupied by forests and other lands, as well as by the percentage of the population employed in this sector. Regardless the level of development, this sector, through the resources it possesses, both natural and human, through its contribution to the formation of GDP and VAD, through its active participation in trade, clearly occupies a fundamental place. The contribution of the GDP share in this sector is very important in the formation of GDP at the national level, because it can tell us how developed the country is. Through this study, we followed the evolution of this indicator during the analyzed period at the level of the regions of our country, thus it was possible to observe the contribution of each region in the GDP from agriculture, forestry and fishing at the national level.

Keywords: gross domestic product, agriculture, evolution, dynamics, regions.

85. Aspects Regarding the Trends of the Insurance Market in Romania. Key Figures and Rankings in 2023

Oana Maria SICOE-MURG¹, Ana-Mariana DINCU¹, Teodor MATEOC^{1*}, Camelia MĂNESCU¹

¹University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania

** Corresponding author: teodormateoc@usvt.ro*

Abstract. The Romanian insurance market is characterized by a medium to high degree of concentration. At the level of the entire insurance market, the number of insurance contracts in effect at the end of December 2023 was approximately 16.1 million, an increase of 3.8% compared to the number of contracts in force at the end of 2022. Based on the collected and analyzed data, it was possible to achieve a real comparison of the insurance situation in the analyzed period and the previous year. Compared to 2022, authorized insurance companies in our country underwrote gross premiums with a much higher value. In the case of general and life insurance, over 90% of the total GPS volume was achieved by 10 insurance companies. At the end of 2023, the average annualized RCA premium increased by 7% compared to 2022. Following the study, it was observed that some types of insurance recorded positive developments, while others experienced decreases from one year to the next.

Keywords: insurance market, evolution, general insurance, life insurance, ranking.

86. Tourists' Perception of the Benefits of Parks and the Importance of Green Spaces Management

Corina Constanța SÎRBU^{1*}, Ana Mariana DINCU^{1*}, Iuliana MERCE¹, Anișoara DUMA COPCEA², Casiana MIHUȚ²

¹University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania

** Corresponding author: anamariadincu@usvt.ro, corinasirbu@usvt.ro*

Abstract. This paper aims to analyze the perception of visitors (tourists) about the benefits and importance of parks in Timisoara. To carry out this study, we applied an online questionnaire created in Google Forms, which included 12 questions about the opportunities offered by them. Parks are extremely important for both physical and mental health, being considered more than simple green spaces, they are extremely important for recreation, sports, biodiversity conservation and improving the quality of life. Park management is also extremely important, investing in the arrangement and creation of more parks offers tourists and residents long-term benefits, being essential for a balanced and sustainable lifestyle.

In addition to their beauty, the plant species, trees and shrubs existing in parks in large cities play an essential role in absorbing carbon dioxide and cooling the air, which is why it is important to expand green spaces, being beneficial both for people's health and for combating climate change.

Keywords: tourists, management of the parks, combating climate change.

87. Analysis of Direct Taxes and Efficiency of Their Collection in Romania

**Elena Claudia SÎRBULESCU¹, Luminița PÎRVULESCU¹, Ioana Iuliana MERCE¹,
Tiberiu IANCU^{1*}, Ioana Anda MILIN^{1*}**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: tiberiuiancu@usvt.ro, andamilin@usvt.ro*

Abstract. Taxes are a form of deduction from the income of individuals or legal entities of a part that is made available to the state to cover expenses. This withholding is mandatory by the state, non-refundable and without consideration. As a result, knowledge of tax regulations and compliance with them by tax authorities, but also by the payer, is required.

The purpose of the article is to explore the revenues from profit tax and income tax and salaries in Romania. These taxes constitute important components of the tax system. Also, the two categories of direct taxes have a special impact on the financial situations of taxpayers, but also on the economy as a whole.

The objective of the article is to emphasize the importance of direct taxes, which have a special role in financial terms, because they constitute the main means for procuring the necessary sources of financing to cover public expenses.

Direct taxes have a negative impact on economic growth through the decrease in income held, which influences consumption and investment decisions.

Through the analysis carried out, the authors followed the dynamics of the two categories of direct taxes, with an emphasis on the efficiency of the collection rate.

Through better collection of tax revenues and their increase, a problem of national economic security is solved, but at the same time that of national solidarity.

Keywords: profit tax, income and salary tax, income, economic growth.

**88. Exploring Agriculture in Romania. Analysis of Crops and Productions in
The Period 2014-2023**

**Elena Claudia SÎRBULESCU¹, Simion ALDA^{2*}, Andrea Ana FEHER^{1*}, Mariana CHIRILĂ³,
Daniel CHIRILĂ³**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*University of Life Sciences „King Michael I” from Timisoara, Faculty of Engineering and Applied
Technologies, Timisoara, Romania*

³*Polytechnic University of Timisoara, Timisoara, Romania*

** Corresponding author: simion_alda@usvt.ro, andreafeher@usvt.ro*

Abstract. Romania benefits from a vast agricultural territory and a favorable climate, with great potential in the agricultural sector. Romanian agriculture is not only a source of food, but also has a tradition that reflects the cultural and geographical diversity of the country and which has changed its trends, and the cultivated areas have been reduced from one year to the next. Agriculture in 2024 in Romania was noted for losses, even if it remains the leader in cultivated areas, but in production it was a laggard.

The paper addresses agriculture in Romania, a vital sector of the country's economy, also influenced by factors such as subsidies received by farmers and European funds. We know that Romania has considerable agricultural potential, but the development of agriculture has been affected by economic, social and environmental challenges.

European funds represent an important chapter in the activity carried out at the farm level. Romanian agriculture has managed to attract substantial funds in recent years from the European Union and to take steps towards modernization, especially through agribusiness projects considered the main driver.

The analysis of agricultural crops highlights changes in cultivated areas and average yields that have been obtained. Agriculture contributes only 4-5% to Romania's GDP, but could become substantial in the coming period through the transition to digitalization. agribusiness and sustainability.

Keywords: agricultural potential, food security, economic development, animal husbandry, plant cultivation.

89. Water Management Issues in the South of Uzbekistan: Challenges and Strategic Responses

**Sobir Samatovich ESHEV¹, Alisher Normurodovich KHAZRATOV¹,
Elgiza Alibek kizi SOBIROVA^{1*}**

¹ *Karshi Engineering-Economics Institute, Karshi, Uzbekistan*

** Corresponding author: sobirovalegiza97@gmail.com*

Abstract. Uzbekistan, particularly its southern regions such as the Kashkadarya basin, faces significant water management challenges due to climate change, rapid population growth, aging infrastructure, and dependence on transboundary water sources. This paper analyzes key issues including changing hydrological patterns, reservoir sedimentation, rising water demand, and groundwater overuse. It further explores strategic responses like infrastructure modernization, adoption of water-saving technologies, and policy reforms aimed at achieving long-term water security. Case studies such as the Koshtepa canal project and reservoir sedimentation trends highlight the urgency for integrated and adaptive water governance strategies. The southern regions of Uzbekistan face critical water management challenges due to increasing demand, climatic variability, aging infrastructure, and inefficient agricultural practices. This paper examines the multifaceted nature of water scarcity in areas such as Surkhandarya and Kashkadarya, where traditional irrigation systems struggle to meet the needs of expanding agricultural and urban sectors. Key issues include groundwater depletion, salinization, and transboundary water disputes with neighboring countries. In response, Uzbekistan has initiated a range of strategic measures, including the modernization of irrigation infrastructure, the introduction of water-saving technologies, policy reforms to promote efficient water use, and regional cooperation frameworks. The study emphasizes the need for an integrated water resources management (IWRM) approach that balances economic, environmental, and social considerations to ensure long-term water security and sustainable development in the region.

Keywords: Water management, climate change, transboundary water, reservoir sedimentation, irrigation, groundwater, water scarcity, Koshtepa canal, sustainable development.

90. Trade Policy as Foreign Policy: EU's Global Trade Agreements with the UK Post-Brexit

Sorin Mihai STANCIU^{1*}, Raul PAȘCALĂU², Carmen Simona DUMITRESCU^{1*}

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

²*University of Life Sciences "King Michael I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

**Corresponding author: sorinstanciu@usvt.ro, carmendumitrescu@usvt.ro*

Abstract. The United Kingdom's departure from the European Union (EU) in 2020, commonly referred to as Brexit, marked a significant shift in European and global politics, economics, and trade. This paper explores the evolving role of trade policy as a tool of foreign policy, with a particular focus on the European Union's post-Brexit trade agreements with the UK. The EU, as a major global economic actor, had to recalibrate its trade strategies in light of the UK's exit, resulting in the EU-UK Trade and Cooperation Agreement (TCA), a comprehensive agreement that governs future trade relations between the two entities. The paper investigates the political and economic motivations behind the TCA, highlighting how trade policy has become an integral part of the EU's foreign policy framework. Specifically, it delves into how the EU used the negotiation of the TCA to protect its economic interests, manage political tensions, and assert its geopolitical influence in the post-Brexit world. Furthermore, the paper considers the broader implications of this shift in trade policy for the EU's external relations with other countries and regions, including the EU's attempts to balance its economic integration with a global trade agenda in a world increasingly shaped by rising geopolitical tensions. Drawing upon primary sources and academic literature, the paper illustrates how trade agreements, like the TCA, are now used as instruments of foreign policy, reflecting the EU's ambitions to maintain its global regulatory power while adapting to the changing dynamics brought on by Brexit. The paper concludes by considering the long-term implications of Brexit for the EU's position in the global trade system and its ability to navigate future international challenges in a post-Brexit world.

Keywords: departure, shift, politics, cooperation, agreement, interests.

91. The Politics of the EU Recovery Fund: Solidarity or Strategic Necessity?

Sorin Mihai STANCIU^{1*}, Raul PAȘCALĂU², Carmen Simona DUMITRESCU^{1*}

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

²*University of Life Sciences "King Michael I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

** Corresponding author: sorinstanciu@usvt.ro, carmendumitrescu@usvt.ro*

Abstract. The NextGenerationEU (NGEU) recovery fund, introduced in response to the COVID-19 pandemic, represents a pivotal moment in the European Union's efforts to strengthen its economic resilience, promote solidarity, and ensure long-term recovery. This paper examines the political and economic dynamics surrounding the NGEU, analyzing its design, objectives, implementation, and the broader implications for EU cohesion. The NGEU aims to address the disparities between Member States, providing targeted support to the hardest-hit regions, particularly in Southern Europe and Eastern Europe, while also fostering investments in green technologies and digitalization.

The first section explores the political motivations behind the NGEU, questioning whether it is a genuine act of solidarity or driven by strategic necessity. It examines the EU's decision-making process, particularly the compromise reached between the Frugal Four and other Member States. Section II analyzes the design and function of the NGEU, highlighting the Recovery and Resilience Facility (RRF) as the key mechanism for fund allocation. Section III addresses the impact of the NGEU on EU cohesion, considering its effect on political unity and economic stability within the Union.

The paper also examines the challenges of implementing the NGEU, including administrative delays, concerns over debt sustainability, and the conditionality attached to fund disbursement. Criticisms about the equity of fund distribution and the political tensions it has generated, particularly regarding the rule of law, are also addressed. Finally, the conclusion evaluates the long-term prospects of the NGEU, considering its potential to foster a unified, resilient EU capable of navigating future crises.

Ultimately, the NGEU's success or failure will significantly shape the EU's future trajectory, both internally and in its broader role on the global stage.

Keywords: generation, future, development, resilience, dynamics.

92. Economic Potential of Crop Production Used as Biomass in Energy Generation

**Jonel SUBIĆ^{1*}, Marko JELOČNIK^{1*}, Miroslav NEDELJKOVIĆ¹, Velibor POTREBIĆ¹,
Mladen PETROVIĆ¹**

¹ Institute of Agricultural Economics, Belgrade, Serbia

** Corresponding author: jonel_s@iep.bg.ac.rs, marko_j@iep.bg.ac.rs*

Abstract. In accordance with the concept of sustainable development, the world energy market is increasingly oriented towards the production of energy (electric and heat) from renewables. Caused by this, many countries strive to develop, not only the modern technology for biogas production, but also the competitive national biogas markets. Consequently, specific measures (state subsidies) were launched in Serbia as support to building biogas plants, as well as to increase the general use of biomass. During 2017 and 2022, a research team from the Institute for Agricultural Economics in Belgrade (IAE) have been performed the surveys turned to the economic aspects of the crops production, and energy potential of their biomass. In line to the fact that the IAE uses approx. 30 ha of the state agricultural land without compensation, one of the alternatives defined in production plan for next four years assumes specific crop rotation aimed at the production of field crops whose biomass could represent significant energy potential for further methane production. In this paper, the accent was given to the economic effects of production and energy potential of crops that can be used as good raw material in biogas ("biomethane") generation. Considering the need for crops that provide high biomass per hectare, in tune with adequate crop rotation, general compatibility of grown plant species (energy-methane potential) and production economics, the following crops are included in this research: wheat, barley, potatoes, alfalfa, and silage corn and peas as subsequent crops.

Keywords: economic analysis, field crops, biomethane, Serbia.

93. Enhancing Higher Education with Smart Campuses: Student Insights at ULST "King Michael I" Timisoara

Gabriel SUSTER^{1*}, Cosmin Alin POPESCU², Teodor MATEOC¹, Diana MARIN¹

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

²*University of Life Sciences "King Michael I" from Timisoara, Faculty of Agriculture, Timisoara, Romania*

** Corresponding author: gabriel.suster@usvt.ro*

Abstract. This study explores the perceptions of students regarding Smart Campus development, based on an extensive questionnaire distributed nationwide, with a particular focus on Romania's western region and the University of Life Sciences "King Michael I" from Timișoara. Rapid technological evolution and shifting educational needs have driven universities worldwide to adopt innovative campus designs, integrating digital resources and sustainable infrastructure. Our research underscores the importance of intelligent learning environments, advanced security measures, socialization elements, and eco-friendly solutions as core components of a modern Smart Campus.

A total of 245 participants, composed predominantly of high school and university-level students, completed the structured survey covering key dimensions such as digital learning, smart living, virtual and physical security, sustainable resource use, and health-related services. The results reveal that respondents maintain a strong preference for tangible campus experiences augmented by technology—demonstrated by the overwhelming 89% favoring face-to-face instructional models that include IoT-based tools and collaborative digital platforms. Equally notable are the demands for biometric security systems, greenhouse gas reduction strategies, and accessible learning spaces, reinforcing the notion that physical campus enhancements must be complemented by forward-thinking technological solutions.

By systematically analyzing participant feedback, this study highlights both the readiness of prospective undergraduates to embrace technology-enabled systems and the ongoing need for awareness-building initiatives. Our findings advocate a hybrid development model—one that weaves together sustainability, user-driven design, and robust digital integration. Ultimately, strategic planning and feasibility assessments will determine how effectively universities align infrastructure, policy, and pedagogy with student expectations for a campus that is both future-ready and human-centered. This paper concludes with recommendations for implementing such initiatives based on empirical survey results, facilitating a pathway toward a comprehensive, inclusive, and sustainable Smart Campus.

Keywords: smart campus, higher education, digital learning, student perceptions, sustainability.

94. Romanian Pig Farming in Terms of Businesses Performance

**Cosmina-Simona TOADER^{1*}, Andrea FEHER¹, Cosmin SĂLĂȘAN¹,
Carmen Simona DUMITRESCU¹, Iveta UBREŽIOVÁ², Jakub SKORUPA³**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Catholic University in Ružomberok, Faculty of Education, Slovakia*

³*University of Economics and Business, Poznań, Poland*

** Corresponding author: cosminatoader@usvt.ro*

Abstract. The Romanian people have a rich history in terms of agriculture and animal husbandry. Various documentary sources provide information on the existence of pigs in the Romanian space, both in terms of food economy, as well as in fairy tales, beliefs, popular customs and religious representations. Pig breeding aims to produce meat and fat and presents a series of advantages (relatively short development cycle, high prolificacy, pigs have a varied diet, they make very good use of concentrated feed, high yield at slaughter, by-products resulting from slaughter can be used, low housing requirements, ensuring income through capitalization). Pig breeding has presented and presents great economic importance, proving to be one of the most profitable branches of the zootechnical sector.

Based on desk research, this article analyzes the main financial performance indicators for the pig farming sector in Romania. In Romania, the growth registered by companies active in the field of pig farming is constant. In 2023, 481 companies were registered whose business is pig farming, with a total number of 2,579 employees, 510,429,168 euros in net turnover and 37,203,496 euros in net profit. Compared to 2022, the turnover registered an increase of 15.10%. Pig farming is concentrated in some counties of Romania. In counties such as Vrancea Neamt, Brasov, Teleorman, Valcea, Hunedoara and Bihor, there are companies that register the highest turnovers at the national level.

Pig farming is a complex agricultural activity with significant economic and social implications. Pig farming requires a careful and responsible approach that takes into account many aspects, from genetics and nutrition to animal health and environmental impact. Efficient production management and adaptation to market changes are essential for business success and a positive contribution to the economy.

Keywords: financial dynamics, swine, Romania.

95. The Evolution of Unemployment in Hunedoara County in the Context of Economic Changes

**Georgeta Angelica TOMUȚA¹, Adrian BĂNEȘ², Simona Cristina CONSTANTINESCU¹,
Manuela – Dora ORBOI^{1*}, Tabita Cornelia ADAMOV¹**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Romanian Academy - Timisoara Branch, Research Centre for Sustainable Rural Development of Romania,
Timisoara, Romania*

** Corresponding author: orboi@usvt.ro*

Abstract. The paper "Evolution of unemployment in Hunedoara County in the context of economic changes" analyzes the fluctuations of the unemployment rate in Hunedoara County over a period of time between 2013 and 2023. The study is based on official statistical data from the National Employment Agency, the National Institute of Statistics, but also on the analysis of regional economic reports. During the analyzed period, Hunedoara County went through several stages of significant economic transformation, starting with dependence on the extractive industry (coal, mining) and reaching an increasingly diversified economic sector, including areas such as IT, tourism and agriculture. However, the county remains vulnerable to global economic changes. These transitions had a significant impact on the unemployment rate, which recorded considerable fluctuations during this interval. The paper provides a useful analysis of the impact of economic changes on the labor market structure in Hunedoara County, a county with a predominantly industrial economic profile. Finally, the conclusions emphasize that, for a sustainable reduction of unemployment in the county, a mix of public policies is necessary that includes economic diversification, professional retraining and the creation of an environment conducive to the development of new industries. In addition, greater coordination between local authorities, the business environment and educational institutions is recommended to support the integration of the younger generations into the labor market.

Keywords: unemployment, change, impact, labor market, diversification.

96. Economic and Social Analysis of Hunedoara County in the Period 2013-2023

Georgeta Angelica TOMUȚA¹, Adrian BĂNEȘ², Ioana-Anda MILIN¹, Manuela – Dora ORBOI^{1*}, Tabita Cornelia ADAMOV¹

¹*University of Life Sciences “King Michael I” from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania*

²*Romanian Academy - Timisoara Branch, Research Centre for Sustainable Rural Development of Romania, Timisoara, Romania*

* *Corresponding author: orboi@usvt.ro*

Abstract. The paper “Economic and Social Analysis of Hunedoara County” aims to provide a detailed assessment of the economic and social processes in Hunedoara County. The analysis is based on quantitative data from official sources, such as the National Institute of Statistics and the National Employment Agency. The study focuses on two major directions: the county’s economy and the social aspects that influence the quality of life of the population. From an economic perspective, the paper analyzes the structure of the main economic sectors in the county, placing particular emphasis on the transition from an industrial economy, dominated by mining and steel, to a diversified economy, which includes tourism, agriculture, IT and services. On the social level, the paper examines the demographic dimension, forced migration, education and health, with a special focus on the migration of young generations and its effects on local human capital. Although Hunedoara County has made significant progress in diversifying its economy and improving its infrastructure, major challenges remain in areas such as reducing unemployment, integrating young generations into the labor market, and reducing social and economic disparities between the county's regions.

Keywords: analysis, economic, social, diversification, progress.

97. Efficiency of Chemical Fertilizer Use in Romanian Agriculture: A Comparative Study Based on FAOSTAT Data

Ana URSU¹

¹*Research Institute for Agriculture Economy and Rural Development, Bucharest, Romania*

** Corresponding author: ursu.ana@iceadr.ro*

Abstract. The study aims to analyse the efficiency of the use of nutrient nitrogen N in agriculture, using rigorous research methods and statistical data provided by FAOSTAT for the period 2014-2022. First, a descriptive statistical analysis was carried out, examining the main indicators: production, import, export, fertilizer consumption per hectare, and consumption of the value of agricultural production (g/Int\$). The mean, standard deviation, coefficient of variability, and annual growth rate were calculated for each indicator to highlight the main trends and variations. The work also included an analysis of trends and correlations, following the evolution of nitrogen fertiliser consumption as a function of the value of agricultural production. A cross-country comparative analysis was also carried out, focusing on the assessment of Romania's performance about other EU Member States as well as to countries with similar agricultural systems. Using the g/Int\$ indicator allowed fair comparisons, irrespective of the size or specificity of the farming systems analysed. The results obtained show that Romania produces on average 612 thousand tonnes of nitrogen fertiliser, exports 166 thousand tonnes, imports 467 thousand tonnes, and consumes on average 46.2 kg/ha, which reflects a low level of intensification compared to EU countries. The specific consumption of fertilisers about the value of agricultural production was about 28 g/Int\$ in Romania (Germany 28 g/Int\$), compared to 36 g/Int\$ in France and 32 g/Int\$ in Poland. Bulgaria (67 g/Int\$), Czech Republic (61 g/Int\$), Slovakia (57 g/Int\$), Lithuania (52 g/Int\$), Bulgaria (67 g/Int\$), Czech Republic (61 g/Int\$), Slovakia (57 g/Int\$), Lithuania (52 g/Int\$) had a high dependence on nitrogen fertilisers for the generation of economic value (which implies more intensive agricultural practices but also inefficiency). Low dependence (using efficient farming technologies and/or benefiting from better natural soil fertility) was recorded by the Netherlands (12 g/Int\$), Switzerland (12 g/Int\$), Italy (15 g/Int\$), Belgium (17 g/Int\$), etc.

Keywords: nutrient nitrogen N, export, import, use per area of cropland (kg/ha), use per value of agricultural production (g/Int\$), Romania.

**98. Diversification of Farm Activities for the Good Use of Finished
Production in Sheep**

**Loredana VĂDUVA^{1*}, Cornelia PETROMAN¹, Ana Gina ARMAȘ², Bianca CSIZMADIA¹,
Ioan PETROMAN¹**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Sheep and Goat Breeding Research and Development Station Caransebes, Romania*

** Corresponding author: loredanavaduva@usvt.ro*

Abstract. Most professional sheep farms get most of their income from the sale of lambs and of fattened youth, reconditioned meat, and processed products, which means that prices have a great influence on the profitability and viability of the farms. Although professional farms are capable of producing and processing the entire production obtained from sheep, they encounter difficulties, although there are numerous marketing options. In the analysis of marketing options, it is important to compare "net" prices because the different marketing options have different costs and, for these reasons, it is necessary to diversify the farm activities for a direct capitalization at good prices of the finished production. In order to find viable solutions to increase the net income obtained from the valorization of the products along the most efficient marketing channels, it is necessary to differentiate farm activities, processing and marketing by direct sale and auction sale according to the market trends and the needs of consumption of the population.

Keywords: sheep, colostrum, body condition.

99. Improving Quality Management in Sheep Farms and Obtaining New Farm Brands

**Loredana VĂDUVA^{1*}, Diana MARIN¹, Iulia MUNTEANU², Daniela VĂLUȘESCU²,
Ioan PETROMAN¹**

¹*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

²*Sheep and Goat Breeding Research and Development Station Caransebes, Romania*

** Corresponding author: loredanavaduva@usvt.ro*

Abstract. For a good use of sheep production obtained in different operating systems, there is a need for food and quality conditions, because much of the subsidies granted for sheep production depend on the sustainable use of available lands, on the use of good practices that do not exhaust resources (water, soil, vegetation), and on the prospect of highest quality agri-food products that become, through their notoriety, farm brands in different production systems. Through this scientific approach, the authors aim to find managerial solutions that will contribute to improving the quality of production obtained in classic or ecological systems, to ensure that sheep products are in accordance with the specific requirements of current regulation, unique and easy to recognize as consecrated farm brands. This study will contribute to the elaboration of good practice models, which address the concerns related to resources, total quality management and environmental management. The sustainable use of available local resources through an efficient quality management system leads to obtaining quality products, which become farm brands.

Keywords: sheep, production, quality, brand.

100. Correlation Between Colostrum Composition, Body Weight Upon Calving, and Day 30 in Lambs

Daniela VĂLUȘESCU¹, Iulia MUNTEANU¹, Florin FIAT², Ioan PETROMAN¹, Ioan ȚIBRU¹

¹Sheep and Goat Breeding Research and Development Station Caransebes, Romania

²University of Life Sciences "King Michael I" from Timisoara, Faculty of Veterinary Medicine, Timisoara, Romania

** Corresponding author: tibru_ioan@yahoo.com, i_petroman@yahoo.com*

Abstract. Fifteen sheep with single and twin gestation were selected, from each group, which were maintained on natural pasture. On the 140th day of gestation, the sheep were placed in individual pens, after prior establishment (by palpation) of gestation (single or twin). The colostrum was collected one-hour post-partum then at 12, 24, and 36 h post-partum to determine the yield of lamb raising and the composition of the colostrum. Maternal blood was drawn after placing the sheep in the pens, then blood was drawn from the lambs to determine plasma glucose and IgG. From the recently born lamb, the blood was drawn upon calving and 12, 24, 36, and 120 h post-partum to determine the blood sugar and IgG. Lambs' daily average weight gain was evaluated from calving up to 60 days of life. There were no differences in colostrum production and fat components; however, protein and lactose had higher values in the single gestation than in twin gestation ($p < 0.05$ for both). Females with single gestation had glycemia higher than those with twin gestation 12 h post-partum (102.2 ± 32.8 vs. 73.4 ± 29.9 mg/dl, $p < 0.05$). IgG colostrum content was similar upon calving, but higher in the sheep with single gestation at 12 and 24 h, reaching similar values at 36 hours (4.7 ± 9.7 and 5.8 ± 7.7 mg/ml in the case of single and twin gestation). IgG in recently born lambs was higher in lambs from single gestation than in lambs from twin gestation at least up to 48 h of life. Body weight upon calving has always been superior in lambs from single gestation than in lambs from twin gestation from calving to 30 days of life.

Keywords: sheep, colostrum, IgG, breastfeeding.

101. Evaluating Sheep's Colostrum According to the Time from the Calving by the Refractometric Method

**Daniela VĂLUȘESCU¹, Marius MARIȚESCU¹, Ana Gina ARMAȘ¹, Ioan PETROMAN¹,
Ioan ȚIBRU¹**

¹Sheep and Goat Breeding Research and Development Station Caransebes, Romania

** Corresponding author: tibru_ioan@yahoo.com, i_petroman@yahoo.com*

Abstract. The purpose of the study was to determine the effects of breed and time post-partum on the quality of the sheep colostrum. In this study, colostrum samples taken at different times post-partum from two different breeds of sheep (Țurcană and Asaf) and were compared using the Brix refractometer and the colour score. The sheep included in the study were placed in paddocks depending on breed. In the first week post-partum, seven colostrum samples (milk) from each sheep were collected, at 4, 12, and 24 h, then twice a day. According to the data obtained from the study, there was a difference in the composition of the colostrum depending on the breed and the duration of milking ($p < 0.05$). Colostrum Brix values in the first and second milking proved to be greater in Țurcană than in Awasi ($p < 0.05$). In addition, it was determined that the colour score decreased in time post-partum, and this decrease was statistically significant ($p < 0.05$). In conclusion, as the quality of the sheep colostrum varies depending on breed and time, the quality of the colostrum administered to the lamb should be determined to ensure the health and performance of the lamb. In our study, it was observed that the colour score has decreased as the Brix value has been reduced in intensity. There was a decrease in the colour score depending on the time post-partum and that this decrease was statistically significant. In addition, it was observed that the colostrum samples taken from the Țurcană breed were of a lower quality than those in the Assaf breed, which had the highest colour score.

Keywords: sheep, colostrum, refractometer.

102. Artificial Intelligence in Agriculture, the Basis of Sustainable Management

Adelina VENIG^{1*}, Aurora VENIG¹, Tabita ADAMOV², NICOLETA MATEOC- SÎRB², Elena PET²

¹University of Oradea, Faculty of Environmental Protection, Oradea, Romania

²University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism, Timisoara, Romania

** Corresponding author: adelina_venig@yahoo.com*

Abstract. This paper is an analysis of the potential that AI must revolutionize the way farmers operate and manage their farms. Artificial intelligence (AI) has become a key factor in transforming modern industries, and Romanian agriculture is no exception. In Romania, a country where agriculture accounts for 4.5% of the gross domestic product (GDP), agriculture is transforming dramatically thanks to advanced technologies. In the context of climate change, population growth, resource scarcity and declining soil fertility, innovations brought by artificial intelligence in agriculture are essential to solving many of the challenges. AI has a broad spectrum, from optimizing production processes and reducing waste, to crops monitoring and management and improving yields. However, the adoption of these technologies depends on investments in infrastructure, farmer education and support from authorities. If implemented correctly, AI can ensure a sustainable and prosperous future for Romanian agriculture. This research shows that AI will continue to play an increasingly significant role in agriculture in the future, contributing to the development of sustainable solutions that will support farmers in the current challenges, but also can help farmers to obtain and market agricultural products, by adding value in a competitive market. More than that, the wider integration of AI will enable more efficient land and resource management, reducing negative environmental impacts and ensuring a more sustainable global food system. However, research shows that the real risk farmers face is losing control over their own data and knowledge, thus becoming dependent on AI, for which they have to pay dearly.

Keywords: precision, farm efficiency, work optimization, resources.

103. Evolution and Prospects of Agricultural Biomass in the European Union and Romania

Daniela Nicoleta VOICILA¹, Andreea GIUCA¹, Marin ANCUTA¹, Steliana RODINO¹

¹Research Institute for Agriculture Economy and Rural Development, Bucharest, Romania

** Corresponding author: badan.daniela@iceadr.ro*

Abstract. Biomass is a vital source of renewable energy, and the agricultural sector plays a crucial role in providing it through energy crops and residual materials, contributing to the promotion of a sustainable economy. The purpose of the study is to analyze the evolution of agricultural biomass supply at the EU-27 level and in Romania, highlighting the main sources, distribution, and long-term trends. Statistical data for the research were extracted from Eurostat, with the study period being 2008-2020, depending on the available data. The applied research methods are descriptive analysis and linear forecasting (using the FORECAST function) to observe the trends and evolution of agricultural biomass, as well as its sources. Both at the EU-27 level and in Romania, agricultural biomass supply showed an upward trend during the analyzed period. At the European level, in 2020, agricultural biomass supply reached 714 million tons, mostly from agricultural crops (95%), with Romania contributing 4.9% of the total. The forecasts indicate an increase in agricultural biomass until 2025, followed by a decrease until 2030, attributed to climate change, agricultural technologies, and regulations. Romania follows a similar trend, emphasizing the need for sustainable practices to ensure future production. The adoption of sustainable agricultural practices and investment in ecological technologies are crucial for ensuring a constant and sustainable source of biomass in the long term.

Keywords: biomass, agricultural sector, linear forecast, trends.

**104. Determinants and Perception of Poverty Among Ginger Farmers in
Nigeria: Gender Perspectives**

**Hannatu Ohunene YUSUF^{1*}, Rabi SULEIMAN¹, Mohammed Saddiq NUHU¹,
Andrea FEHER², Yusuf Usman OLADIMEJI¹, Aisha Simbiat HUSSAINI^{1*}**

¹*Ahamdu Bello University, Faculty of Agriculture, Zaria, Nigeria*

²*University of Life Sciences "King Michael I" from Timisoara, Faculty of Management and Rural Tourism,
Timisoara, Romania*

** Corresponding author: hoyusuf@abu.edu.ng, ashussaini@abu.edu.ng*

Abstract. This study examines factors determining rural households' expenditure and perception of poverty among ginger farmers in Kaduna State, Nigeria. A multi-stage sampling procedure was used to select 543 respondents; descriptive, Chi-square statistics and regression models were used to analyze the data. The result of the study revealed that marital status, income and education, were the factors determining expenditure among the male-headed households. In contrast, household size, income and age determined the expenditures among the female-headed households. Results of the study revealed mean scores of $\bar{x} = 4.59$ (male farmers) and $\bar{x} 4.76$ (female farmers) indicating that farmers strongly perceived that access to productive resources has a role to play in poverty reduction. Similarly, male farmers ($\bar{x} = 4.53$) and female farmers ($\bar{x} 4.66$) strongly perceived poverty as the inability to meet one's immediate problems. The outcome of the FGD revealed there was a gap in the perception of poverty between male and female farmers. The female farmer strongly agreed with most of the statements which is an indication of women's vulnerability to poverty. Furthermore, there was a direct and strong relationship between male and female-headed households' perception of the impact of poverty. High cost of production, inadequate capital and fluctuating market prices were some of the constraints faced by the farmers in ginger production. Female-headed households were mostly affected by these constraints in the study area. The study recommends that the government, NGOs, and other stakeholders interested in promoting ginger production and alleviating the poverty status of farmers, should intensify efforts to support farmers in ginger production to increase their income. Understanding how rural farmers perceive poverty is important in guiding policies that address poverty alleviation. Furthermore, factors influencing expenditure should serve as critical drivers that should be targeted in a bid to enhance farmers' expenditure.

Keywords: expenditure, determinants, poverty, farming households, constraints.

ISSN 2821 – 4293
ISSN – L 2821 – 4293

