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# ЕКОЛОГІЧНІ ПИТАННЯ В КОНТЕКСТІ ЄВРОІНТЕГРАЦІЇ УКРАЇНИ

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## ENVIRONMENTAL POLICIES OF THE EUROPEAN UNION AS A ROADMAP FOR MODERN UKRAINE

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Studying of the European Union policies and best practices in environmental protection is both significantly important and challenging for Ukrainian audience because environmental protection is a critical issue for modern Ukraine due to long-term destructive legacy of soviet/colonial period. Answering to this challenge, the Department of Environmental Science at the National University of Food Technologies introduced Jean Monnet Module on Environmental Protection in the EU under the grant support of European Union Erasmus+ Programme. The Jean Monnet Module addresses to better understanding of European policy and effective practices for environmental protection and sustainability. The Module comprises university teaching courses on European tools, policies and best practices in environmental protection for Master's students in Environmental Science, and in Food Technologies, and summer schools for policy-makers, representatives of NGOs, industry experts, and the public. *Key words:* Erasmus+, Jean Monnet Project, the European Union, environmental protection, environmental policies, university teaching course, summer school.

**Екологічна політика Європейського Союзу як дороговказ для сучасної України. Якименко І.Л., Салавор О.М., Шаповалов Є.Б.** Вивчення успішного досвіду Європейського Союзу у царині екологічної політики та кращих практик із захисту довкілля є надзвичайно важливим та водночас амбітним завданням для української аудиторії. Належний захист навколишнього середовища є критично важливим питанням для сучасної України з огляду на важкий спадок радянської колоніальної історії. У відповідь на ці виклики кафедра екології та збалансованого природокористування Національного університету харчових технологій запровадила проект Жан Моне Модуль із вивчення захисту навколишнього середовища в Європейському Союзі за грантової підтримки програми Європейського Союзу Еразмус+. Проект призначений покращити розуміння європейської політики і ефективних практик у галузі охорони навколишнього середовища та стійкого розвитку ЄС. Модуль включає в себе розроблення та викладання навчального курсу «Інструменти, політика та кращі практики щодо захисту довкілля у Європейському Союзі» для студентів-магістрів з екології, а також із харчових технологій та проведення літніх шкіл для політиків, експертів та громадськості. *Ключові слова:* Еразмус+, Проект Жан Моне, Європейський Союз, захист навколишнього середовища, екологічна політика, університетський курс, літня школа.

**Экологическая политика Европейского союза как дорожная карта для современной Украины. Якименко И.Л., Салавор О.М., Шаповалов Е.Б.** Изучение успешного опыта Европейского Союза в области политики и лучших практик защиты окружающей среды является очень важным и одновременно амбициозным заданием для украинской аудитории. Надлежащая защита окружающей среды является критически важным вопросом для современной Украины в силу тяжелого наследия советского колониального прошлого. В ответ на эти вызовы кафедра экологии и рационального природопользования Национального университета пищевых технологий внедрила проект Жан Моне Модуль по изучению защиты окружающей среды в Европейском Союзе при грантовой поддержке программы Европейского Союза Эразмус+. Жан Моне Модуль призван улучшить понимание европейской политики и лучших практик защиты окружающей среды и устойчивого развития Европейского Союза. Модуль включает разработку и внедрение учебного курса «Инструменты, политика и лучшие практики защиты окружающей среды в Европейском Союзе» для студентов-магистров по специальностям «экология» и «пищевые технологии», а также проведение летних школ для политиков, экспертов и общественности. *Ключевые слова:* Эразмус+, проект Жана Моне, Европейский Союз, защита окружающей среды, экологическая политика, университетский курс, летняя школа.

Progress of the European Union in sustainable development, including effective environmental protection is a great example to follow for modern Ukraine struggling with terrible environmental legacy of recent colonial history. This poses significant challenges for higher education and policy-makers' awareness in Ukraine. Being geographically part of Europe, Ukraine still has a hard burden of unsolved economic and environmental problems from the soviet times. And the challenge of the current moment is to change this situation radically.

It is important to note, that Ukraine plays an important role in ensuring environmental sustainability in Europe. The Chernobyl catastrophe with its long-term disturbing impacts on ecosystems and public health all over Europe is just one of the examples that environmental issues have no borders indeed [1].

According to Ukraine–European Union Association Agreement, Ukraine has to adopt 29 EU Directives and Regulations on environmental protection. This will bring Ukraine closer to the EU living standards and significantly

improve national environmental policy and practices, and will promote solving of long-term Ukrainian problems in environmental protection. The Jean Monnet Module at the Department of Environmental Science of the National University of Food Technologies addresses to better understanding of European policy and effective practices for environmental protection and sustainability. The Module comprises university teaching course on European tools, policies and best practices in environmental protection for Master's students in Environmental Science, and in Food Technologies, and summer school for policy-makers, representatives of NGOs, industry experts, and the public. Thus, the Module includes teaching course (40 hs for each academic group) and two summer schools 18 hs each, and will comprise 356 contact hours and cover about 420 students/learners during 3-year period.

The Module aims at highlighting positive examples of European environmental policies and practices for sustainable development from an interdisciplinary perspective. The main outputs of the Module are an increase of awareness of learners in key aspects of EU environmental policies effectiveness and challenges, and transformation of this knowledge into practical approaches for effective environmental protection in Ukraine.

This Jean Monnet Module is one of the very first European studies at the National University of Food Technologies, and will prepare future professionals in environmental protection and in food technologies to effective implementation of best European practices into transforming economy of Ukraine. Also, summer schools will promote the dissemination of knowledge on European policies and best practices into policy-maker bodies and NGOs in Ukraine. The public has an access to added value of the Module through the free online course and through the website of the project (<http://ecopro.nuft.edu.ua>).

One of the Module's added values is developing and modernizing the curricula on European studies through cooperation of researchers from Ukraine and the European Union and thus providing learners with relevant knowledge for effective transforming of national economy. Also, the Module has a specific focus on the EU governance in sustainable development which is particularly important for Ukrainian auditory.

The Module will improve the teaching contents of Master's program in Environmental Sciences and in Food Technologies at the National University of Food Technologies and seriously contribute to the extension of awareness on European environmental policies and best practices among teaching staff, young researchers, students, policy-makers, industry experts, and the public through the university courses, summer schools, and online presentation of the Module.

The activities will stimulate excellence in teaching and reflection in European integration on Environmental Studies as it will be accompanied with active debating activities which can improve dissemination of ideas and

new approaches. It can strengthen the regional role of National University of Food Technologies in initiating open debates on actual issues of European environmental policy for global sustainability and will give a chance to extend the scope of European integration studies within the university.

The Jean Monnet Module will stimulate both Ukrainian university teachers and students in studying and reflection of EU environmental policy and mechanisms of its effective implementation for providing sustainable development of the country. The activities of the Module equip students and young professionals with knowledge on European experience of preserving, protecting, and rehabilitating the quality of the environment, rationale utilization of national resources, and waste management. Thus, it is fostering the introduction of the European Union approaches into environmental policy and practices in Ukraine. The multidisciplinary character of the Module is promoting European research and teaching experience with regard to environmental policy instruments, eco-innovations, implementation of green recovery measures in the EU. Close collaboration of the Module team with European colleagues through mutual participation in research and teaching activities will promote transfer of first-hand experience and practical knowledge, and prepare local academics and young researchers for independent management of the future European studies.

The Module will have strong impact on Master's Students in Environmental Science and in Food Technology at the National University of Food Technologies as one of the target groups through their acquaintance with modern environmental policy and best practices of member states. The students can evaluate and compare supranational environmental strategies of the EU, experience of individual member states, including new ones, and environmental challenges for Ukraine. The realization of two university courses for Master's students in term of the project will promote future young professionals' understanding of the EU principles and practices of environmental protection, and foster them to conquer in transforming economy of Ukraine. Thus, the Module will contribute into prospects of effective transformation of Ukraine into modern European country.

Two summer schools on tools, policies and best practices for environmental protection in the EU in term of the Module address to reach the other important target group – policy-makers, industry experts, and representatives of non-government organizations. Participation of all members of the Module team, including experienced European expert, in these activities will promote effective dissemination of European approaches into real sectors of policy and economy of Ukraine. During the summer schools, it is planned to run round tables with participation of key policy-makers of environmental protection in Ukraine on different dimensions of European environmental policy and its challenges for Ukraine.

The Module involves young researchers into European studies. Particularly, we are carrying out research on comparison of environmental policies and effective approaches in environmental protection in member states and Ukraine. This will result in peer reviewed publications of Module team.

Further dissemination of the project outcomes among interested experts and the general public can be reached through the running of website of the Module and free online course (<http://ecopro.nuft.edu.ua>).

Teaching team of the Project includes four members with different but relevant backgrounds and experiences:

– Dr. Igor Yakymenko, Professor of Environmental Science at the Department of Environmental Science of the National University of Food Technologies (NUFT), Kyiv, Ukraine, PhD and DrSc in Biological Science. He has a long-term research and teaching experience in the assessment of environmental risks of anthropogenic activities, including environmental impacts of the Chernobyl catastrophe. During the last years, Prof. Yakymenko has been studying and teaching environmental aspects of sustainable development, national and European environmental policies [2–4]. As a Jean Monnet Module coordinator, Prof. Yakymenko coordinates a successful fulfillment of the project by all team members, takes part in elaboration, implementation and teaching of lecture courses and summer schools, participates in project website running and online course implementation. Prof. Yakymenko coordinates research activities in term of the project as well;

– Dr. Oksana Salavor, Associate Professor of Environmental Science at the Department of Environmental Science of NUFT, PhD in Technical Science. Her main expertise is environmental management and environmental control of food technologies' processes [5; 6]. As a Jean Monnet Module team member, Dr. Salavor is concentrated in research and teaching on the European Union policy and best practices on control of industrial pollution of the environment. She also contributes significantly in coordination of cooperation between Module team and non-academic parties, policy-makers, industry experts, the public during the project realization, particularly during the summer schools;

– Dr. Katerina Sebkova, Director of the National Centre of Toxic Compounds and of the Stockholm Convention Regional Centre for capacity building at the Research Centre for Toxic Compounds in the Environment (RECETOX), Masaryk University, Brno, Czech Republic, PhD in applied organic chemistry and PhD in organic catalysis. She is a high-level expert in research related to contamination of the environment; international cooperation within the European Union and Central and Eastern European countries [7, 8]. Dr. Sebkova is an active participant of international negotiations, cooperation, international projects, development aid, capacity building and training in environmental issues. As a Jean Monnet Module team member, Dr. Sebkova makes a significant contribution in

development of university courses and especially in successful realization of summer schools for Ukrainian policy-makers and industry experts due to her first-hand experience in international cooperation on environmental protection in the EU;

– Yevgeniy Shapovalov, PhD student in Biotechnology at the Department of Environmental Science of NUFT, MS in Environmental Science and MA in Enterprise Economy, a research associate at the Department of Creative Education of the National Centre Junior Academy of Sciences of Ukraine. One of his current research interests is modern digital / IT approaches in education processes optimization [10; 11]. Yevgeniy is an active participant of students' extracurricular research activity and is a leader of the environmental inter-university student community. As a Jean Monnet Module team member, Shapovalov is participating in elaboration and teaching of seminars on the best environmental practices in the EU, including digital analysis and IT monitoring of the environment. Also, Shapovalov is responsible for creating and moderation of website of the project, and will contribute into online course creating and running.

According to the timetable, the project started at September 2016. The autumn semester 2016 was devoted to elaboration of detailed syllabus of the university course and program of the summer school. The university course was started in spring semester 2017, the first summer schools had place in June 2017. (See materials of the teaching course and the summer school presentations on the project website <http://ecopro.nuft.edu.ua/teachingm.php>)

In the first academic year of the project (2016/17) we reached two academic groups of Master's students in Environmental Science in term of the Module course. During the next academic years we will teach at least four academic groups of Master's students. As the teaching course is an introductory into the environmental policy and practices of the EU, the same syllabus will be used for Environmental Science and Food Technologies.

The university teaching course addresses key elements of European environmental policy, including the EU's strategy for sustainable development [12]. The course covers air and water pollution control, waste management, resource efficiency, climate change, renewable energies in the EU, and integration of environmental protection into other policies [13-17]. The course also comprises the international dimension, with the role of the EU in international environmental negotiations and the impact of European policies on the other regions all over the world. The course is interdisciplinary, with a focus on integration of environmental policy requirements into other policy areas. The course is carried in 20 hours of lectures and 20 hours of seminars. The lectures are given to the students of particular faculty altogether (up to 120 students), the seminars are carried in each academic group separately (up to 30 students). Thus, the course covers 40 contact hours (20 hours of lectures + 20 hours of seminars).



For dissemination of the Module in non-academic environment, during the first and third years of the project, we plan to carry out summer schools for non-academic learners (law-makers, industry experts, and the public). The member team from the EU, Dr K. Sebkova will participate in both summer schools and will give open lectures for university students at the end of the courses, which will bring a lot to the value of the course due to her first-hand experience in European environmental protection.

The Summer School comprises 18 contact hours of study, combining different study formats: lectures, presentations, discussions and round tables.

The following issues are covered:

- modern principles and tools of the European environmental policy implementation;
- general and sectoral environmental legislation of the EU (air, water, waste management);
- wildlife and biodiversity protection programs of the EU;
- the best practices in environmental protection in the member states;

- principles of the EU environmental policy for sustainable development strategy;
- comparative analysis of the environmental legislation of the EU and Ukraine;
- approximation of Ukrainian environmental legislation to European standards.

The further dissemination of the Module is promoted through the website and online presentation of the project. Y. Shapovalov contributes his knowledge and skills in this part of the project. As well the research on comparison of the EU and Ukrainian environmental legislation and best practices will result in peer-reviewed publications on the issue.

Conclusions. We believe that effective implementation of the current Jean Monnet Module activities under the grant support of the European Union Erasmus+ programme will significantly contribute in awareness of Ukrainian students, academics, professionals, civil servants and the public in the European Union environmental policies and best practices and will promote better environmental management in Ukraine.

### References

1. Sidorik E, Yakymenko I. A Brief Review on Animal Research and Human Health Effects Following the Chornobyl Accident. *Radiation emergency medicine*. 2013. № 2. Pp. 5–13.
2. Yakymenko I. Sustainable development strategy: European dimension. Kyiv: NUFT, 2017. 79 p.
3. Yakymenko I, Baranovskiy M, Saluk A. Concept of sustainable development. Guidelines for Master's students in Environmental Science. Kyiv, NUFT. 2015. 16 p.
4. Chekhun, V., Yakymenko, I., Sidorik, E., Tsybulin, O. Current state of international and national public safety limits for radiofrequency radiation. *Scientific Journal of the Ministry of Health of Ukraine*. 2014. № 1. Pp. 40–46.
5. Salavor O, Nychyk O. Management of environmental activities. Kyiv: NUFT, 2012: 71 p.
6. Salavor O, Nychyk O, Togachinska O. Regulation of anthropogenic load on the natural environment. Kyiv: NUFT, 2015. 75 p.
7. Gregor J, Hůlek R, Jarkovský J, Borůvková J, Kalina J, Šebková K, Schwarz D, Klánová J, Dušek L. Tools for Collection, Analysis and Visualization of Data from the Stockholm Convention Global Monitoring Plan on Persistent Organic Pollutants. *Environmental Software Systems. Fostering Information Sharing*. V. 413 of the series IFIP Advances in Information and Communication Technology. 2013. Pp. 222–229.
8. Hůlek H, Jarkovský J, Kubásek M, Gregor J, Hřebíček J, Dušek L, Klánová J, Šebková K, Borůvková J, Holoubek I. GENASIS System Architecture on the Way from Environmental Data Repository towards a Research Infrastructure. *Environmental Software Systems. Fostering Information Sharing*. IFIP AICT V. 413. Heidelberg: Springer, 2013. Pp. 230–239.
9. Jarkovský J, Dušek L, Kubásek M, Hůlek R, Gregor J, Hřebíček J, Klánová J, Šebková K, Borůvková J. GENASIS: On-Line Data Browser for Environmental Monitoring and Associated Information Systems. *Environmental Software Systems. Fostering Information Sharing*. V. 413 of the series IFIP Advances in Information and Communication Technology. 2013. Pp. 253–261.
10. Chernetskyy I., Pashchenko Y., Atamas A., Shapovalov Y. Use of information instruments for structuring and visualization of scientific knowledge during the preliminary study. *Scientific Notes of Minor Academy of Sciences of Ukraine*. 2015. 7. Pp. 20–28.
11. Strizhak O., Chernetskyy I., Shapovalov Y., Shapovalov V. Potential use of ontologo-analytical graphs. *Scientific Notes of Minor Academy of Sciences of Ukraine*. 2015. 7. Pp. 13–20.
12. Yakymenko I., Salavor O., Shapovalov E. Environmental policies of the European Union: Guidelines for Master students in Environmental Science and in Environmental Protection Technologies. K.: NUFT, 2017. 23 p.
13. Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development. Brussels, 24.7.2009. COM (2009) 400 final.
14. Europe 2020. A strategy for smart, sustainable and inclusive growth. Brussels, 3.3.2010. COM (2010) 2020.
15. Roadmap to a Resource Efficient Europe. Brussels, 20.9.2011. COM (2011) 571 final.
16. On the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan. Brussels, 16.7.2008. COM (2008) 397 final.
17. Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 ‘Living well, within the limits of our planet’.