### **SLOVAKIA**

### I.Priority action area (a)

Encouraging whole-institution approaches by establishing education for sustainable development school plans, or embedding education for sustainable development in existing school plans, for every school by 2019

# 1. Has the number of schools adopting a "whole-institution approach" to sustainable development or education for sustainable development (ESD) increased?

Yes No

- Yes, however since there is no measurement in place we can only assume so based on anecdotal evidence. We note a moderately increasing interest of schools in adopting approaches to ESD that go beyond the classroom, as well as a growing interest in the participation and organization of sustainability-related activities. The Ministry of Education, Science, Research and Sports of the Slovak Republic (hereinafter referred to as MŠVaVŠ SR) annually earmarks funds from its budget for schools to implement projects that promote environmental education through its ENVIROPROJEKT scheme. While the number of applicants is more or less constant (between 100-130/year), new schools that had not been funded in the previous edition are being awarded each year. 498 projects were implemented between 2004-2017.
- The number of schools participating in the Eco-school certification program, managed and administered by NGO Živica, is also increasing every year. Whereas last year there were 314 schools in the program, this year there are 321 schools in the program.
- Unfortunately, there are no known initiatives of universities that would follow a whole-institution approach.

# 2. Have any (additional) incentives and assistance measures (guidelines, award scheme, funding, training, technical support) been made available that support ESD school plans?

- The Slovak Ministry of Environment (hereinafter referred to as MŽP SR) has created its **Sectoral concept of Environmental Education, Training and Awareness raising 2025** which addresses the current needs and challenges in the area of environmental protection and care in Slovakia. Its main objective is to create a functioning integrated system of environmental education, training and awareness raising (hereinafter referred to as EVVO), focusing on key stakeholders, innovative tools and the principles of sustainable development. The Concept engages educators, officials, local authorities as well as NGOs, each goal follows a subset of targets which have a specific indicator. Furthermore, it is embedded in a time frame which identifies short-term, mid-term and long-term goals.
- MŽP SR launched an innovative funding mechanism, the Green Education Fund in the fall of 2017. The fund is the result of a multi-sectoral, participatory brainstorming process of private sector and civil society representatives and the ministry. It represents an innovative tool to support environmental education and awareness through projects designed by civil society. Applicants could submit project proposals that have either regional or national impact, eligible themes being low-carbon mobility, eco-innovations, green infrastructure and circular economy
- The MŠVaVŠ SR annually publishes its Pedagogical and Organizational Instructions (POI) for the school year, which include recommendations for schools to apply a global dimension in school programmes, develop the environmental education of pupils and participate in various national and international competitions, projects and programmes. Before being sent out, the instructions for each school year are being consulted by relevant stakeholders such as MŽP or relevant NGOs. However, there is no monitoring put in place that would monitor the effectivity of these recommendations. This year MŽP SR recommended to include an informal reporting process for schools in which they would track their progress in implementing the above mentioned instructions. Whether this recommendation

will be included in the final version of the POI and whether schools will implement is yet to be seen.

# 3. Are staff and students in schools with ESD plans more environmentally and ecologically aware than staff and students in schools without ESD plans.

Yes No

- We assume yes based on anecdotal evidence, but there is no measurement that would focus on this question.
- Community-based learning program Roots and Shoots is planning to implement a large-scale evidence-based impact assessment, focusing on *activating* competences of students that is the competences to actively engage with the problems of the environment and society. The research will include interviews with teachers and representatives of local authorities.

## 4. Are there any recently produced materials or resources that are accessible to a wider audience (e.g., online)?

- ŠPÚ (State pedagogical institute). 2018. <u>How to understand SDG 4</u> translated into Slovak from the French original Comprendre l'Objectif de développement durable 4 Education 2030 Guide, UNESCO 2016.
- Outcomes of the EU-funded project Education for sustainable development in the Danube region "eSchool4S" is the only material recently produced material focusing on ESD. Academia Istropolitana Nova, a Slovak civic organisation focusing on life-long learning, took part in an EU funded project "Education for sustainable development in the Danube region". The goal of the project was to raise teacher awareness on the topic of ESD and publish the study materials online in order to facilitate a smoother preparation of lesson plans. The materials cover the following topics: Danube the river that connects Europe, What is sustainable development?, Water, Climate change, Sustainable consumption, Social inclusion, For teachers. These topics are complimented by attractive exercises and assignment for high-school students. The project is the result of the collaboration of teachers from 10 countries of the Danube region and feedback from students.
- Outcomes of the EU-funded international project <u>SUSTAIN</u> (Supporting <u>Science Teaching Advancement Through Inquiry</u>) is a great example of ESD in Slovak conditions. SUSTAIN acted as a network of 11 CPD (Continuous professional development) providers in 10 EU countries, with extensive experience in IBSE Inquiry-based science education. It aimed at developing, through collaborative work, an innovative IBSE-based "toolbox" on Education for Sustainable Development (ESD) topics for teachers and teacher educators. The project explored three main topics: energy (renewable energy), food (honey, milk and dairy products, bread, fruit and vegetables) and everyday objects (glasses, sneakers). Project results are methodological materials for teachers (Fig. 5), which are freely available in Slovak and English at: <a href="http://ibse.truni.sk/publikacie-sustain">http://ibse.truni.sk/publikacie-sustain</a>.
- Outcomes of a ERASMUS PLUS project Education for the Sustainable Development of Rural Areas
  in Slovakia, Latvia, Germany, Sweden and Denmark. The aim of the project was to create learning
  materials that can help educate relevant adult target groups in rural areas on various sustainability
  issues, in order to increase the professional qualifications of adults for a better quality of life. Target
  groups include immigrants, elderly people living in sparsely populated areas and other groups
  struggling with unemployment
- Slovak representatives, coordinated by the National Institute of Lifelong Learning have taken part in
  an EU-funded project <u>Instruments for implementation of the Framework of Competences for
  Democratic Culture</u> (alongside Georgia, Andorra and Croatia). The overall objective of the project
  was to develop practical tools with the participation and involvement of students and teachers for the

implementation of the Reference Framework of Competences for Democratic Culture. It is unclear whether the project had been concluded or not.

- Ecological Footprint, Theoretical inspirations for teachers is a methodology to calculate the ecological footprint of the school. The publication was prepared in Slovak by Slovak Environment Agency in 2011.
- UNESCO. 2012. Open Access Education for Sustainable Development Sourcebook. http://unesdoc.unesco.org/images/0021/002163/216383e.pdf
- Van Poeck, K., Vandenabeele, J. and Hans Bruyninckx. 2009. Sustainable citizenship and education. Lifelong learning revisited: what next? Proceedings. <a href="https://biblio.ugent.be/publication/6851204">https://biblio.ugent.be/publication/6851204</a>

## 5. Have you implemented or are you planning to implement any assessments or evaluations that will measure the impact of the actions taken to date in this area?

Yes No

- There has been only a partial assessment of the State School Inspection. As ESD is not formally incorporated into the curricula, the inspection had conducted assessment of other cross-cutting themes which fall under the umbrella of ESD (e.g. environmental education, human rights education). The last time the state environmental of environmental education was measured was in 2012.
- Unfortunately, complex impact assessments are rather rare. One of the few (if not only) examples will be the forthcoming research of the community-based education programme Roots & Shoots Slovakia, managed by Green Foundation, is planning to conduct a large-scale impact assessment for the upcoming years 2019-2020 (as mentioned in question 3).

# 6. Additional comments on implementing the UNECE Strategy for ESD in your country (please specify, if any):

- Based on the agreement of the Slovak Minister of Education, Science, Research and Sport and the Minister of Environment, the Environmental Committee for Education was established in 2005 to carry out education tasks that would support sustainable development across Slovakia. In 2006, the Committee updated the Concept of Environmental Education pursuant to sustainable development principles and prepared the Action Plan for Education towards Sustainable Development in Slovakia (Resolution of the government of the Slovak Republic No. 574/July 13, 2005). Within this framework, the Slovak Republic committed to carry out the Strategy for ESD and determined new principles, objectives, conditions, methods and forms of school education. The action plan was reasonably ambitious and proved to be a major challenge for all schools, including universities. Universities, for example were envisioned to ensure the strategy through 5 main pillars: (a) supporting institutional capacities; b) integrating sustainable development issues into all study disciplines using innovative teaching methods); (c) strengthening mutual cooperation between universities and other higher education institutions with the institutes of the Slovak Academy of Sciences, research institutes within Slovakia and abroad; (d) strengthening partnership cooperation between all stakeholders and students at universities in order to improve their management and operation and to build "sustainable universities"; e) to strengthen the cooperation of universities with other institutions providing lifelong learning, local self-government and the local community (Ministry of Education, 2006). Unfortunately, the action plan was not fulfilled and its impact was not monitored either. In 2009, the last National ESD Conference was held, which approved complex proposals to apply ESD in schools of all levels and also in the context of lifelong learning. However, these conclusions have not been put in life either and since then, national conferences are devoted solely to the areas of environmental education.
- Civil society contestant affirm, that ESD is rather theoretical, than practical or transformational. Even though individual components of ESD are separately included in the state education programs, there is no unifying, coherent model that would guide its implementation.

• ESD brings up many questions. There is no nationwide consensus on the terminology and understanding of what ESD actually entails, therefore it is open to many (mis)interpretations. Are we talking about education **about** sustainable development, education **for** sustainable development, are we envisioning and activating **direct contributions to** sustainable development? Likewise, it remains unclear what the form and content of ESD at different levels of education should be. Where does it overlap with other forms of holistic education and theories? Where do the boundaries and practices of environmental, global and civic education overlap with ESD? With these questions in mind, it has been rather complicated to compile the answers for this questionnaire. Within the context of such a fragmented understanding and terminological (un)clarity there are no targeted and regular monitoring efforts on the matter, which makes it impossible to measure the progress in the implementation of the UNECE Strategy for ESD.

### II.Priority action area (b)

Promoting the extension of education for sustainable development in teacher education and in the training of all educators

1. Has there been any significant advancement made with regard introducing or extending ESD as a part of educators' initial training?

Yes No

- ESD as part of educators training is conducted for a narrow set of teachers, who are taking part in a specific combination of courses e.g. Ecology and environmentalism (UKF Nitra).
- Since January 2016, the State Educational Institute has been organising a training for Slovak in service and future teachers at the United Nations Information Center in Vienna.
- 2. Have there been any significant advances made with regard to introducing or extending ESD as a part of educators' in-service training?

Yes No

In 2017, the following teacher training activities had been organized:

- Environment an accredited program of the Slovak Environment Agency aimed at both students of pedagogy and kindergarten teachers
- The Slovak Museum of Natural Protection and Speleology facilitates an accredited program of continuous education titled: environmental protection in the teaching of natural sciences in elementary and high schools
- The methodological-pedagogical centre MŠVaV SR offers two accredited programs: Opportunities for
  the development of environmental literay of primary and secondary school children (Možnosti rozvoja
  environmentálnej gramotnosti žiakov v základných a stredných školách) and Environmental education
  as a cross-cutting theme in pre-primary education (Environmentálna výchova ako prierezová téma v
  MŠ).
- Centre of environmental activities Trenčín + Trenčín municipal region are preparing a new accredited education for teacher coordinators of environmental education
- NGO SOSNA + Centre for environmental activities Trenčín + Slovak Centre for Communication and development organized a set of 13 seminars for teachers on the topics of Climate justice, Climate change and Environmental migration
- 2. Are beginning teachers who have been in teacher education that has introduced ESD more likely to teach from a sustainability perspective?

Yes No

- Yes, it is assumed so. But there is no study/ survey confirming this.
- 3. Are there any recently produced materials or resources that are accessible to a wider audience (e.g., online)?

Apart from the materials mentioned in part I, here are some partially related materials:

- Jančovič, J. & Penfold, Suzanne. 2017. "Global education in the university preparation of future teachers". People in Peril Slovakia - in Slovak: The authors studied to what extent are aspects of global education incorporated into the study programmes of pedagogical fields in Slovak universities and exploring spaces for improvement.
- Collective of authors. 2017. Global education and youth work. People in Peril Slovakia. (Slovak and English): This is a methodological guide taking into account issues like food, migration and media and a selection of 8 activities that have been translated into the Slovak language from the original, which consists of up to 21 activities. The handbook was created in the framework of an international project

in which four organizations from Italy, Austria, Estonia and Slovakia were represented. In their creation, the authors responded to the needs of youth organizations, which were

- Zajac, L. 2016. "What you really consume". People in Peril Slovakia in Slovak: This 32-sided coloured handbook serves as a complementary educational material for school teachers as well as for non-formal education. The introductory part approaches the phenomenon of responsible consumption. In the next part, the authors focus on items of daily consumption plastics, paper, electronics and textiles, these are supplemented by activities that can be used during class or through informal education. They are designed through the Evocation-Awareness-Reflection methodology.
- 5. Have you implemented or are you planning to implement any assessments or evaluations that will measure the impact of the actions taken to date in this area?

- 6. Additional comments on implementing UNECE Strategy for ESD in your country (please specify, if any):
  - ESD themes can be found within the school education program as part of the subject ethics. MŠVaVŠ
    SR points out, that the percentage of ESD topics mentioned in the school education program does not
    provide an objective picture of the development of student competences to ESD in the Slovak
    education system.

### III.Priority action area (c)

Strengthening technical and vocational education and training in support of sustainable development and the transition to a green economy

# 1. Has there been advancement towards a structural reorientation of technical and vocational education and training (TVET) towards ESD?

Yes No

ESD is incorporated into the state education programs technical and vocational education and training partially within:

- Education and training objectives as the goal "to learn and regulate student behavior, to protect the environment and to respect all human and ethical values"
- Key competencies as the goal "to create a personal identity in relation to the living conditions, occupation and the environment"
- Educational standards for TVET ESD are embedded to varying degrees, depending on the individual specificities of each individual department.
- Technically focused education programs as a cross-theme of the creation and protection of the environment and waste management
- Vocational training as part of specific training content designed by individual education departments, for example:
  - Students specializing in the technology of energetically efficient buildings have a module on renewable energy sources
  - O Students specializing in Bioenergetics have a module on green and renewable energy sources
  - The impact of electricity production on the environment is module taught to students specializing in electrical engineering or electromechanical power engineering
  - O Students specializing in technical and applied chemistry learn about modern practices and methods of environmental development and of the ways of assessing the environmental impact of technology on the environment
- Pedagogical departments as the requirement to focus on methodologies of the development of an environmental consciousness in Children
- ESD elements are most substantially incorporated in the TVET of students in environmental fields (students can choose between a vocational training in environment; biotechnologies and pharmacology; technology of environmental protection and development; technologies of cosmetics and chemical medicines; control and analysis methods; chemistry and the environment; technology of energetically efficient buildings; bioenergetics; agribusiness with various foci)

Within the two-tier model of TVET, ESD topics are incorporated within the curriculum into individual vocational subjects as defined by individual schools, through cross-cutting themes. More information on practical information and content can be seen in the textbooks approved by the MŠVaVS SR:

- Waste management for secondary vocational school (Odpadové hospodárstvo pre SOŠ Chmielewská, Kuruc, 2010.
- Environmental Technology 1st, 2nd, 3rd. part (Technológia životného prostredia)- Ďuricová, Hroncová et al., 2010
- Biology Health Care (Biológia starostlivosť o zdravie) Uherek, 2010
- Alternative agriculture (Alternatívne poľhospodárstvo) Bogová, 2013
- Health studies (Zdravoveda) Jarošová, 2008-2013
- Biotechnology (Biotechnológia) Loffayová, 2015
- Food and Nutrition (Potraviny a výživa) Jurgová, 2012
- A healthy way of life, 7 modules (Zdravý spôsob života, 7 modulov) Jakubová et al.
- Rationalization of electricity consumption (Racionalizácia spotreby elektrickej energie) Gonda, Wittlinger, 2004
- Rural tourism (Turistika na vidieku) Babinský M., Babinský J., (2004-2012)
- Enterprise and Services for Agro-industry (Podnikanie a služby pre ŠO agropodnikanie) Babinský M.,
   Babinský J.
- Economic geography (Hospodárska geografia) Baková et al., 2015

2. Have any incentives and assistance measures been made available that support the reorientation of TVET towards sustainable development?

Yes No

- The State Institute for Vocational Training cooperates on an international project on green vehicles, namely the servicing and maintenance of hybrid cars and electric cars. The project is designed for pupils of learning and study branches of secondary technical schools in the automotive industry. The project started in January this year and will run until the end of October 2019. More information is available at www.gwproject.eu
- 3. Are students who have been in TVET oriented to sustainable development finding jobs related to sustainable development?

Yes No

- Hard to tell as there is no explicit ESD TVET program focusing on sustainable development and thus
  it is not reflected in the statistics of alumni unemployment ratio.
- 4. Are there any recently produced materials or resources that are accessible to a wider audience (e.g., online)?

Yes No

- MŠVaVŠ SR suggests the <u>methodical manuals</u> for the subjects of biology, technology, physics and chemistry.
- 5. Have you implemented or are you planning to implement any assessments or evaluations that will measure the impact of the actions taken to date in this area?

Yes No

• The assessment of the level of knowledge, competencies and attitudes skills and value orientation of students, which are in line with the principles of education for TUR, is part of the activity of the Slovak State School Inspectorate, however, as articulated in answers above, there is no explicit ESD monitoring activity, only evaluations on certain subtopics of ESD.

### IV. Monitoring SDG 4 (Targets 4.7 and 4.a)

SDG 4: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"

**Target 4.7:** "By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development."

**Target 4.a**: "Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all"

(Note: According the UNESCO methodology (see report "Historical efforts to implement the UNESCO 1974 Recommendation on Education in light of 3 SDGs Targets,

http://unesdoc.unesco.org/images/0024/002472/247275E.pdf), the agreed global indicator measures the extent to which (i) global citizenship and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment.)

1. Does your country have a stand-alone "sustainable development", "global understanding", "international understanding" policy/plan/law in place, all of them using "sustainable development" language?

Yes No

- Sustainable development in the Slovak Republic is legally defined by § 6 of Act no. 17/1992 Coll. on the environment as "development that preserves the present and future generations of the opportunity to satisfy their basic living needs while not reducing the diversity of nature and preserving the natural functions of ecosystems."
- Strategy, Principles and Priorities of State Environmental Policy approved by Government Resolution n. 619/1993 and National Council Resolution n. 339/1993
- National Strategy for Sustainable Development approved by Government Resolution n. 978/2001 and the National Council Resolution n. 1989/2002
- The Slovak Republic has entered into the implementation of the Agenda 2030 in the document "Starting points for the implementation of the Agenda 2030 for Sustainable Development", approved by Government Resolution no. 95/2016
- Inherent within the current Environmental strategy 2030, which should be ratified by the Slovak government in the first half of 2018
- 2. Is ESD reflected in your country's current education policy/ies and frameworks?

Yes No

- The language of sustainable development is being used throughout the Sectoral concept of environmental education, training and awareness raising 2025
- MŠVaVŠ SR is in the process of preparing/updating its education strategy, its content is not yet available.

### 3. Is ESD reflected in your country's current school curricula?

Yes No

But explicitly, ESD relies on the synergy of several subjects: civic education, ethics, history, biology, ecology, economics etc. They should theoretically incorporate current issues, environmental and global education - however the extent to which this is being done depends on the willingness and enthusiasm of each individual school.

### 4. Is ESD reflected in the curriculum of pre-service and/or in-service teacher training?

Yes No

 Only partially, dependent on the individual university. Students of pedagogy touch upon environmental education briefly.

## 5. Which of the following dimensions of learning is your country planning to reinforce in student assessment/examinations in the next five years, in relation to ESD? (please tick all that apply)

Yes for the following:

- a) Knowledge through ESD in the topics highlighted in question 6.
- Skilss and competences in the above mentioned topics through appropriate pedagogical/didactical methods
- c) Values and attitudes Through the implementation of the model of value-based education in the subject of ETHICS based on the model developed by R. R. Olivar

### 6. Are the other core elements of the Target 4.7 part of education in your country?

Yes, the following:

- Sustainable lifestyles
- Human rights
- Gender equality
- Promotion of a culture of peace and non-violence
- Global citizenship
- Appreciation of cultural diversity and of culture's contribution to sustainable

### 7. Additional comments on implementing SDG Goal 4.7 in your country (please specify, if any):

- Republic are divided between the Deputy Prime Minister's Office for Investments and Informatization of the Slovak Republic, responsible for the national implementation and the Ministry of Foreign amd European Affairs of the Slovak Republic, responsible for the implementation of the Agenda in an international environment.
- The Deputy Prime Minister's Office for Investments and Informatization of the Slovak Republic created the Government Council (hereinafter Council) for Agenda 2030, which should ensure that sustainable development becomes an integral part of all public policies defining the long-term priorities of the Slovak Republic that would reflect the sustainable development goals of the Agenda 2030. As part of these efforts, the Council approved a material prepared by the Slovak Academy of Sciences, identifying the 5 key themes for the development of the Slovak republic till 2030. While this document doesn't aim to predict and/or determine the country's long-term priorities, it serves as a sound expert input to broaden discussion on the national priorities of the 2030 Agenda implementation. SDG 4 was identified as one of the key themes, even though ESD in this sense is being understood as merely a tool to sustain the labour market and avoid the brain drain of Slovak talents to abroad.
- Indicator 4.7.1. Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment is a Tier III indicator, there is no methodology for data collection, neither are there any data available. OECD is using a supplementary indicator: "Share of students above basic proficiency (level C) in the environmental science performance index in OECD's PISA study."
- 4.a.1 will be measured as the proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions).

### 8. Is Target 4.a (see above) part of education policy in your country?

Yes No

 MŠVaVŠ SR is in the process of preparing/updating its education strategy, its content is not yet available.

# 9. Is climate change education/environmental awareness mandatory at any level of education in your country?

- Yes, within the State Education Program, mostly within the content and performance standards of Biology. Students are expected to understand the causes and effects of ozone depletion, smog creation, greenhouse effects and acid rains. Within the module the environment of organisms and humans they are expected to understand which are the components of the environment, the relations between them and their significance. They are supposed to understand which factors are affecting the environment and living conditions and health of organisms and humans. Last but not least they are expected to understand the principles of environmental protection, plant and animal protection, protected areas and their significance (Inovovaný štátny vzdelávací program pre 2. Stupeň ZŠ/ pre gymnáziá s osemročným vzdelávacím programom, Človek a príroda Biológia). However the extent to which these topics are integrated and their facilitation is dependent on the individual schools.
- The Slovak Environment Agency regularly organizes activities focusing on environmental pollution and publishes articles in the sectoral newspaper Enviromagazin on the topic. National ZOO Bojnice also conducts awareness raising campaigns about the different kinds of atmospheric pollution and its impact on the environment.