

Education for Sustainable Development in practice: Eco-Package program in Serbia and SEE region

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Abstract

This paper explores the current and future potential of education for sustainable development in the Republic of Serbia (and South East Europe region) drawing upon of practicing Eco-Package program in the schools at all level (from kindergarten to higher education), already included in international FEE Eco-Schools program. Having in mind that Education for Sustainable Development means including key sustainable development issues into teaching and learning, like packaging waste management and sustainable consumption, Tetra Pak Production, as the social and environmentally responsible company, with partners in SEE countries, step by step developed, scientifically based and by practical experience supported methodology for educating pupils and students (by tailored courses and actions) about rationality that used Tetra Pak carton is more product than the waste for final disposal. It also practicing participatory teaching and learning methods that motivate and empower learners, as well pupils/students and their families, to change their behavior and take action for sustainable consumption. Paper is structured as follows: parts at the beginning are assessing the current developments in theory and practice of education for sustainable development, framed by the document *Transforming our world: the 2030 Agenda for Sustainable Development*, and focused on SDGs, in particular Goal 4.3, 4.4 and 4.7. Following that, advantages and challenges of Tetra Pak Eco-Package program is presented, associated with examples and success cases, including the *Tetra Pak Art* examples. Conclusions and recommendations are drafted at the end of the paper.

Key words: Sustainable Development Goals, Education for Sustainable Development, Eco-package Tailored Courses, Eco-Schools, Tetra Pak, South Eastern European region, sustainable consumption, sustainable waste management, participatory teaching, experience sharing, 2030 Agenda for Sustainable Development

1. Introductory note: Sustainable Development Goals and education challenges

The (new) SDGs offer major improvements on the Millennium Development Goals, addressing some of the systemic barriers to sustainable development and offering better coverage of, and balance between, the three dimensions of sustainable development: social, economic and environmental, together with institutional/governance aspects. The SDGs have been adopted on September 25th, 2015 at the New York United Nations General Assembly by 193 Member States (Resolution 70/1).

Knowledge and skills enhancement programs are needed to prepare the new workforce for a green economy (UNEP, 2008; Europe 2020: green growth and jobs, 2010; *Transforming our world: the 2030 Agenda for Sustainable Development*, 2015) transition.

The adoption of the 17 SDGs and 169 Targets to a great extent establish the framework for sustainability efforts in years to come. Countries are expected to set their own goals, targets and priorities in the view of implementing the SDGs according to their domestic capabilities and condition.

The SDG's process is furthermore connected with the Global Action Programme (UNESCO, 2014), which is meant “**to generate and scale-up action in all levels and areas of education and learning** in order to accelerate progress towards sustainable development”, because education is a means to achieving a broad global development agenda. Addis Ababa Action Agenda (UN, 2015), outlined a roadmap for the implementation of the SDGs which moves towards development finance, **investing also in children as agents of future growth.**

Education in SDG:

Focus 1	Focus 2		Focus 3
<p>Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p>	<p>Goal 3. Ensure healthy lives and promote well-being for all at all ages</p>	<p>Goal 13. Take urgent action to combat climate change and its impacts</p>	<p>All other Goals</p>
<p>4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes</p> <p>4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education</p> <p>4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university</p> <p>4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship</p> <p>4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with</p>	<p>3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes</p>	<p>13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p>	

<p>disabilities, indigenous peoples and children in vulnerable situations</p> <p>4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy</p> <p>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</p>			
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2. ESD: Means of implementation

In the context of the future generation's imperative for the Education for Sustainable Development (Mihajlov A., 2006), i.e. the education about integral environmental protection and sustainable development, it is necessary to fully understand the set goals. Economists think that sustainable economy is sustainable development; environmentalists seem to think that environmental sustainability is sustainable development, while social scientists mostly link this to poverty, happiness and life patterns. The problem, however, is that there is **a lack of general awareness that not enough is actually being done to provide substantial education for sustainable development**. Inter-governmental organizations, international financial institutions, non-governmental organizations, the private sector and the international community, as a whole, can play a critical role in providing the technical and the financial assistance in the transitional countries, and **the necessary education about sustainable development, for the future**. In the spirit of SDG 4, it is important, among others, to substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries.

3. FEE Eco-Schools Program as the umbrella

The Foundation for Environmental Education (FEE), with its global network and through its mission of fostering awareness, knowledge, participation, commitment, skills, actions and creativity on the environment and on sustainable development, shares the core values behind the set of SDGs. Thus, FEE as an umbrella organization aims at reaching objectives as indicated in the SDGs (SDG 3, SDG 4, SDG 6, SDG 7, SDG 8, SDG 12, SDG 13, SDG 14, SDG 15, SDG 16 and SDG 17)

Under FEE umbrella ECO-SCHOOLS program is applying in a number of countries. This is a global student-led change process in Education for Sustainable Development which involves also teachers' training, integration in the school curriculum, environmental reviews, action plans, monitoring and evaluation, informing and involving the local community, setting an eco-code focusing on the various environmental themes (water, energy, waste, global citizenship). The program shows a strong link with the educational Goal (SDG 4) and the Goal on global partnership for sustainable development (SDG 17), as well as with other SDGs.

4. Lesson learned: Tetra Pak ECO-PACKAGE concept is good example for ESD

Green education and sustainable development training courses could act as the catalysts for “the turning of words into action”. Investing in the re-skilling of the workforce (new generation leaders) is viewed as a necessary step forward. Unfortunately, only a small number of scholars are actually willing to accept and face the challenges that come with the new areas of knowledge transfer (Gal Z. And P.Ptacek, 2011).

4.1. Small paragraph and big achievements

In the Tetra Pak Sustainability Report has a Chapter “Educating consumers” with paragraph:

“Eko paket – this initiative is bringing the recycling message to schools in Slovenia, Croatia, Serbia and Macedonia”

Tetra Pak, as a global company with many local operations is well placed to act as a catalyst in bringing together various stakeholders to drive projects and initiatives that make a positive difference (for example, in India, Tetra Pak partner with Coca-Cola to support expanding access to rural education. Our LEADearthSHIP initiative in Pune and Delhi is mentoring college students committed to sustainable development).

Behind this small chapter (above) are big achievements. The project was first set up in Slovenia 10 years ago. Since then 213 Slovenian schools have been involved, with the participation of 46550 pupils. In 2014 Macedonia became the latest country to join the programme.

In 2016, in Serbia 45 Eco-Schools and 23905 pupils/students were involved in the project.

4.2. *Environmental Ambassadors for Sustainable Development Mission*

Environmental Ambassadors for Sustainable Development (Environmental Ambassadors, EASD) is a non-for-profit professional association working the science and research, as well as in the areas of sustainable development, environment and **education**, through the consultancy, expertise, innovation, education, promotion of culture values and knowledge based advocacy, **open for partnerships**. Among the various initiatives on education for sustainable development (Mihajlov A., 2011; Mihajlov A., 2012), our (EASD) activity on *Collect, investigate and find solutions for waste management in schools* is presented by UNESCO as the good example.

4.3. Education Eco-Package Course and Initiative

Having in mind that Education for Sustainable Development means including key sustainable development issues into teaching and learning, like packaging waste management and sustainable consumption, Tetra Pak Production, as the social and environmentally responsible company, with partners in SEE countries, step by step developed, scientifically based and by practical experience supported methodology for educating pupils and students (by tailored courses and actions) about rationality that used Tetra Pak carton is more product than the waste for final disposal. It also practicing participatory teaching and learning methods that motivate and empower learners, as well pupils/students and their families, to change their behavior and take action for sustainable consumption.

By launching the Eco-Package Courses and Initiative, different goals could be achieved, like:

- creating new environmentally friendly lifestyles, and fostering the environmental ethical responsibility for the future;
- making target groups more sensitive to environmental issues;
- stressing the importance of incorporating the environmental sector in other sectors, in order to target sustainable development.

Eko Paket (Eco-Package) is part of the international Eco Schools Programme on environmental awareness that Tetra Pak currently runs in Slovenia, Croatia, Serbia and Macedonia. The aim is to bring recycling to schools in an enjoyable and creative way, so that pupils not only learn about the importance of protecting the environment by recycling used beverage cartons but also influence behaviour in their families.

In the frame of Eco-Schools program, in Serbia, Environmental Ambassadors for Sustainable Development **tailored Eco-Package course**, supported by Tetra Pak Production, which consists of three modules: creative competition, collection of used Tetra Pak carton and practical workshops for students regarding Tetra Pak recycling process. Eco-package course is developed for three categories: pre-school children, school children and students.

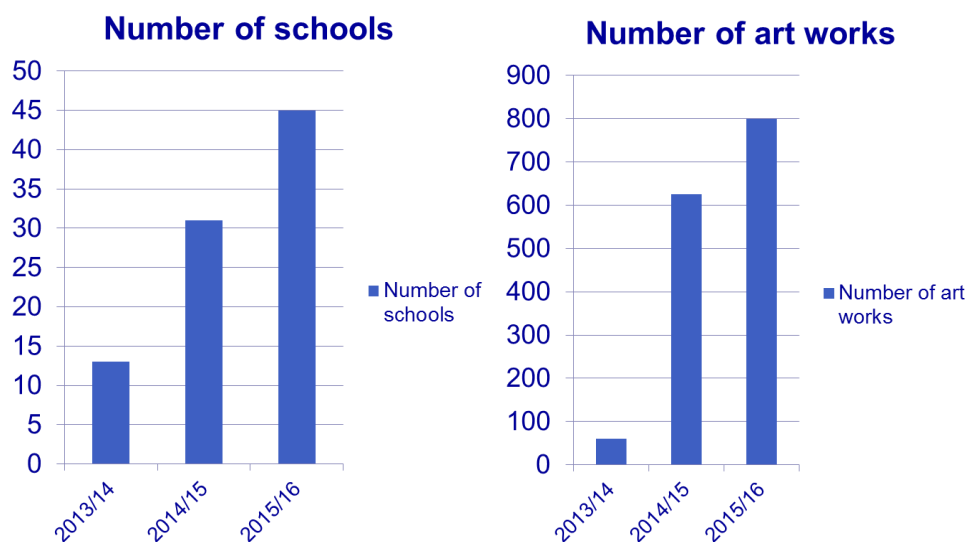


Figure 1 – Achieving results in Serbia

The first module “creative competition” is organized every year with a different theme, : influenced by actual events in worldwide society (e.g. in 2016 theme was “Olympic games and Rio”). During the period of three months, participants collect used Tetra Pak carton and create, in group or independently, art/sculptures which are evaluated at the end of the project. They can use other recyclable materials, but Tetra Pak carton should be prevalent. Participants take photos of final arts and send them to the Jury composed of EASD and Tetra Pak representatives, who evaluate the best art and award one in each category.

During the creative competition, **“collection of used Tetra Pak packages”** module is opened and participating Eco-schools with children, students, parents and community representatives collect used Tetra Pak cartons and store them in appropriate way in order to save space, in adequate plastic bags. Collected Tetra Pak packages are handed over to the public utilities which deal with recycling. Very important message of this module relates to the involvement of whole community, having impact in raising awareness of citizens on needs for recycling, environment protection and resources saving.

“Practical workshops for students regarding Tetra Pak recycling process” is module that helps participating Eco-schools, children, students and teacher/professors to learn more about the recycling process of used Tetra Pak cartons. Model of device for recycling is constructed by Tetra Pak Production, named “pulper”, for demonstrating the actual recycling process of Tetra Pak used cartons. This represents obvious form of teaching, that is very well accepted by participants. One Tetra Pak used carton, water and electricity are necessary for “Pulper” device to demonstrate how to separate Tetra Pak to main components (paper, plastic and aluminum), what final products are and how to get recycled paper from one carton. Parallel with demonstration how “Pulper” device is working, lectures are prepared and given to the participants, regarding recycling process and in accordance to age category.

All modules mentioned above under the Eco-Package Course are very well accepted both by teachers and pupils, and number of Eco-schools which participate in the course raise every year, as well as the number of received arts. Added value of this Course is that every year the amount of used Tetra Pak carton is bigger and bigger, app. more than 30% compared with previous year, which implies that awareness regarding recycling needs in the communities with Eco-schools raises faster than in other communities

5. Concluded remarks

This paper also wishes to point to the rather sad fact that, generally, science in the transition countries has a very limited access to the resources needed for its development and advancement. The *teaching circle* forms the basis of the methodology to be applied: needs assessment, courses/program design, courses/program delivery, and evaluation (and follow-up).

This paper explores the current and future potential of education for sustainable development in the Republic of Serbia (and South East Europe region) drawing upon of practicing Eco Package

program in the schools at all level (from kindergarten to higher education), already included in international FEE Eco-Schools program.

Schools, including Universities (and other registered educational institutions, including NGOs) need to develop the tailored knowledge and skill-based education for sustainable development (like the proposed Tetra Pak Eco-Package Course and Initiative).

References

Eko-Paket:<http://ambassadors-env.com/project/eko-paket/>;
<https://www.facebook.com/ekopaketsrbija/>; <http://feeserbia.com/programi/eko-paket/>;
<http://www.eko-paket.hr/> ; <http://eko-paket.mk/uploads/1227867757.pdf> ;
<http://www.ekosola.si/> ; <http://www.ekosola.si/novica/2418/eko-paket-2015-2016/>

Environmental Ambassadors for Sustainable Development (Environmental Ambassadors, EASD: <http://ambassadors-env.com/en/>; <http://ambassadors-env.com/en/2016/07/01/inwastegate/> ; <http://en.unesco.org/greencitizens/green-citizens>

Europe 2020: green growth and jobs (2010), <http://www.euractiv.com/en/priorities/europe-2020-greengrowth-and-jobs-links dossier-280116>

Gál, Z. & Ptáček, P. (2011). The role of mid-range universities in knowledge transfer: the case of non-metropolitan regions in Central Eastern Europe. In. *European Planning Studies*, Vol. 19. forthcoming

<http://www.tetrapak.com/rs/packaging>

Mihajlov A. (2011), Knowledge for Green Jobs and Green Economy – Analysis from the Perspective of Integral Environmental Protection, in “University and Sustainable Development” (Edited by V.Pavlovic), Faculty of Political Sciences University of Belgrade, in Serbian, Belgrade, pp.87-98

Mihajlov, A.(2006): Sustainable Development and Environment towards Europe in 95+ steps, Environmental Ambassadors and Serbian Chamber of Commerce, Beograd

Mihajlov, Andjelka (2012) Needs for Tailored Knowledge and Skill-Based Education for Sustainable Development: Balkan Environment Life Leadership Standards Courses. In Leal Filho, W. (Ed), *Sustainable Development at Universities: New Horizons*. Peter Lang Scientific Publishers, Frankfurt am Main, Berlin, Bern, Brussels, New York, Oxford, Vienna 994 pp, ISBN 978-3-631-62560-6

Synthesis Report: Skills for green jobs, European Synthesis Report. (2010), Publications Office of the European Union,

Tetra Pak Sustainability Report: <http://www.tetrapak.com/sustainability/recycling/increasing-awareness-of-recycling/raising-consumer-awareness-of-recycling>;
file:///C:/Users/user1/Downloads/sustainability-update-2015.pdf

Transforming our World: The 2030 Agenda for Sustainable Development - http://www.unfpa.org/sites/default/files/resource-pdf/Resolution_A_RES_70_1_EN.pdf , 2015

UN, 2015: http://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_Outcome.pdf

UNEP et al (2008). *Green jobs: towards decent work in a sustainable, low-carbon world*. Nairobi: UNEP.

UNESCO, 2014: <http://www.unesco.org/new/en/unesco-world-conference-on-esd-2014/esd-after-2014/global-action-programme/>
www.cedefop.europa.eu/download-manager.aspx?id=16440&lang=en&type=publication