

## THE ASSESSMENT AND USE OF INTEGRATED PRODUCT POLICY IN POLAND

*Anna ANDRYKIEWICZ, Arkadiusz SETERNUS, Justyna SŁONIMIEC, Arkadiusz TRZEŚNIEWSKI  
University of Zielona Góra*

### **Abstract:**

The paper presents the implementation of Integrated Product Policy in Poland in the light of the European activities. It analyses the EU laws within this scope. It assesses the progress of LCA implementation, ecolabelling, ecotaxes, EMAS and green public procurement in Poland. It explains the reasons of slow IPP implementation in Polish organisations. It mainly refers to the distribution and promotion of ecolabelling, based on empirical research in Germany and Poland.

*Key words: Integrated Product Policy, IPP, LCA, ecolabelling, ecotaxes, EMAS, green public procurement*

### **INTEGRATED PRODUCT POLICY**

Dynamic economic development and good economic results must be currently synchronised with rational exploitation of natural resources as well as control of their consequences in the context of sustainable development. Therefore the EU Commission and EU membership countries initiated the development of Integrated Product Policy which is the element of implementation of the strategy of building the most dynamic and competitive knowledge based economy [18].

The purpose of the work is the analysis of the current status of Integrated Product Policy implementation in Poland following the example of LCA, EMAS application, ecolabelling including the role of ecotaxes and green public procurements. After the accession to the EU on 1 May 2004 Poland started to joined the process of implementation of the EU environment policy. This process is dynamic however it faces many obstacles.

Integrated Product Policy performs tasks applying the most appropriate political tools to develop the most ecological products. The main goal is to diminish the negative influence on environment and more comprehensive satisfaction of the consumer's needs. IPP improves produced and designed products and promotes them among consumers [16].

On 18 June 2003 the Commission adopted its Communication: "Integrated Product Policy – building on environmental Life-Cycle Thinking" [15] in 2009 "Report from the Commission to The Council, the European Parliament, the European Economic and Social Committee and the Committee of The Regions on the State of Implementation of Integrated Product Policy" was developed which summarised the state of implementation of this policy.

In Poland the Integrated Product Policy was established by the Minister of Environment in February 2005. It designs instruments suggested by the EU Commission to create new product policy [5]. Its tools encompass among others:

- ecotaxes e.g. from petrol and diesel,

- distribution and promotion of ecolabelling [1],
- accounting which includes production costs also in terms of LCA (life cycle assessment),
- implementation and application of EMAS (Eco-management and Audit Scheme), agreement between authorities and companies,
- providing access to environmental information related to the product to consumers,
- distribution of environmental declarations for products
- applying green criteria for tenders financed from public resources.

Especially important for IPP are environmental management standards in a company ISO 14000, the goal of these standards was identification of the basic requirements referring to the environment management system. The norms are instruments supporting conscious ecological impact of the company beneficial for the environment. ISO 14000 is the only standard which provides the ground to issue the certificate of conformity of these norms of environment management. The basic requirements in this standard refer to such issues as: development of environmental policy, identification of environmental aspects and assessment of accompanying effect on the environment, monitoring and measurement of operation activities, internal environmental audit, development and maintenance of environmental tasks, identification and respecting relevant legal requirements.

According to the EU Commission assessment those instruments make more greener products and services [18].

### **INSTRUMENTS OF INTEGRATED PRODUCT POLICY**

#### *Dissemination and promotion of ecolabelling*

The tool characteristic for Integrated Product Policy is providing specialist labelling on products packaging. This is called ecomarking or ecolabelling.

In green products the products the quantity of raw material was significantly limited and moreover the raw mate-

rials applied are less harmful for the environment. Additionally the energy used in individual stages of the product was also minimised. Green product packaging is also limited to the necessary minimum (the packaging can be used again), or it is not used at all. Equally crucial for green products is also the fact of no tests conducted on animals [4].

According to A. Benaciak and W.Gaczek ecolabelling performs many functions [3]:

- *informative* – specifying characteristic features of the product which make it different from the other market offer;
- *marketing* – confirming the product offer for consumers waiting for them the least negatively influencing the environment;
- *educative* – providing alternative possibilities of handling with the product within all stages of its life cycle;
- *stimulation* – increased companies interest in ecology supporting activities.

The Ecolabelling system was first introduced in Scandinavian countries. Since 1989 the Scandinavian countries have the common label "Nordic Swan" which covers a group of 40 products. The products marked with this label have much less negative impact on the people and environment. The first ecolabel was introduced on the market in 1978 a German ecolabel "Blue Angel" which informed about saving raw materials, In 1989 the Polish Center for Research and Certification introduced the first Polish official ecolabel EKO-ZNAK. Nowadays PCBiC grants 17 different ecolabels, based on the certification of management systems and products certification, among others: Ecolabel, known as Ecolabel Flower granted to ecological products in all EU countries [22]. It is possible to distinguish 20 most important ecolabels granted to the European products, among others: Blue Angel, Krav, Svanen, European Certificate.

Evaluating the ecolabelling as instrument it is possible to state that it was well implemented into the IPP strategy. However it is necessary focus attention to the problem of ecolabels awareness among customers.

Based on the research conducted in 2011 by students of Scientific Circle of Eco-Management of the University of Zielona Góra it is likely to declare that both Polish and German students have problems with recognising the ecolabels. The questionnaires were distributed among the group of 200 students of the University of Zielona Góra and Christian Albrecht University in Kiel. The most well known was the recycling mark. It was recognised by 92% of Polish and 94% of German students. However the students have problems with Ecolabels (16.5% of correct answers were provided by the students of the University of Zielona Góra and 22% of correct answers by university students in Kiel) or EMAS system mark (respectively 18% and 25%). The average number of total correct answers was 42% for Polish students and 49% for the German students [11].

#### *Implementation and application of EMAS program*

A very important instrument implemented by IPP is Eco Management and Audit Scheme which plays a special role in improving environmental efficiency in many organisations intended for broadly understood environment protection.

In 2002 the EU Commission initiated the pilotage stage of EMAS. The first stage of the project provides the imple-

mentation of EMAS system in five units of the EU Commission in Brussels:

- Secretariat General,
- Directorate General for the Environment,
- Directorate General for Administration,
- Directorate General for Informatics,
- Office for Infrastructure and Logistics.

In 2005 the program was implemented by the European Environment Agency and in 2009 the European Parliament in Strasbourg

The main goal of EMAS is to develop ecological management system in a company based on regular improvements in terms of production processes as well as management techniques. The goal can be achieved by preparing and implementing environmental policies and programs, consistent, material and regular assessment of the company operation [15].

Developing and implementation of the system of ecomanagement and EMAS audit in companies or institutions brings many profits among others [19]:

- economic benefits – related to rationalisation of raw materials consumptions; water and energy; could be also applied to recycling and contributes to costs reduction and possibilities to seek new savings areas,
- improvement of relations with local authorities – contributes to obtain,
- public subsidies and decrease of administrative burdens,
- image of a supplier caring of natural environment – in the future more and more public institutions would require from the suppliers the guarantee of the so called ecologically friendly products,
- market shares increase, winning new markets – customers more often,
- look for ecologically friendly goods and services,
- improvement of the market value of the organisation – implementing EMAS facilitates growth of the market value of the organisation in case of merger, taking over or sales,
- modern management – EMAS system is currently the most modern system of managing the environment protection issues.

Participation in EMAS system is totally voluntarily. By joining the system the entity is obliged to implement and maintain the environment management system, conducting regular audits and publishing information in environmental declaration. After verification and approval of declaration by independent, authorised environmental auditor the company applies for registration to competent authority i.e. the Ministry of Environment in Poland with two governors. The District Office verifies the completeness and reliability of delivered documents and enters them to the district register. Then the information is submitted to the Minister of Environment to enter it to the central register for further transfer to the EU register EMAS kept by the EU Commission [20].

The legal background for EMAS in Poland is regulation no. 1221/2009 of 25 November 2009 on voluntary participation of the organisation in the Eco-management and Audit Scheme

In 2006-2009 the number of organisations applying EMAS extended 4330. The leading country in terms of implementation is Germany with 1417 organisations in the system i.e. 1/3 of all registered organisations. Spain has 1603 organisations, Italy 978, Austria 257. By 2009 Lithua-

nia and Bulgaria had not entered the system and Romania registered only one organisation. In 2009 Poland registered 16 organisations and 20 in 2010.

According to the research conducted by the association Klub Polskie Forum ISO 14000 the main obstacle in making decision about the system implementation is insufficient knowledge about EMAS (this answer was marked by every fifth respondent) and high costs of implementation and maintaining the system in the company (19% of respondents). Companies also admit that the problem is lack of encouragement and support by the state for the organisation registered in EMAS and long and difficult registration procedure. Almost half of the respondents believe that decreased charge for economic use of the environment would make the system implementation more attractive [8].

#### *Ecotaxes*

The next tool of Integrated Product Policy are ecotaxes also known as product charge.

According to the Organisation for Economic Co-Operation and Development) ecotax is a non-returnable charge for the state imposed on the subject of taxation [21]. It is one of the instruments of economic environment protection. It defines and controls products charges which on different stages of the product life cycle are risky for the natural environment [7]. Ecotaxes are mainly imposed on the finished products although in some countries this tax is imposed on raw materials for production.

The difference between taxes and charges is based on the fact that the first supply the budget whereas the charges-ecological assets intended for environment protection.

Ecotaxes and charges could be:

- emission charges – payment for every pollution unit in the environment. The charges depend on the quality or quantity of emission contaminated substances [9];
- product charges-imposed on products hazardous for the environment in the production, consumption or postproduction and post-consumption storing stage. The charges apply to products used or consumed on a massive scale [10];
- user charges – encompass costs of collective disposal of pollution or water supply. Charges are paid for environment protection services or natural resources consumption;
- administrative charges for official services such as: attestation, issuing permits or licences or searching ecological information by the administrative body. The charges usually cover the costs related to the operation of environment protection institutions [2].

Detailed product charges are determined by the Regulation of the Minister of Environment based on the Act of entrepreneurs obligations regarding management of some waste and product charge. For example for 1 kilogram of plastic packaging the entrepreneurs have to pay PLN 2.73 but for 1 kilogram of wood packaging PLN 0.33. The charge for lubricating oil is PLN 2.07. The highest product charge is paid for used rubber tires i.e. PLN 4.08 [14].

Eco-charges supply the National Fund of Environment Protection and Water Management. According to the 2010 report real revenue amounted to PLN 2 328 664 000 K. The incomes for the use of environment and fines for exceeding acceptable limit of environment pollution amounted to 391 648 000. The budget of National Fund of Environment Protection and Water Management was supplied with PLN 223 703 000 for exploitation and licences. Additionally the

budget earned PLN 346 803 000 from recycling of ELVs. The National Fund earned PLN 739 784 000 of income from charges and fines spent on supporting renewable sources of energy.

The revenue generated by product charges in the period of some waste management and charge reached PLN 3 718 000. The revenue from charges for granting licence for green gases and other substances emission and entry to the National Court Register amounted to PLN 134 000. In 2010 PLN 198 000 was obtained from fines for not respecting regulations on bio-components and bio-fuel turnover [17].

The EU Commission encourages implementing local and community fiscal measures. However its legislation does not forces to specific ecotaxes solutions.

In Europe the highest taxes are imposed on well-developed countries, mainly in Scandinavia. Denmark has ecotax the so called pipeline tax and its unusual character depends on the water consumed by households. Norway introduced coal and sulphur tax which occurs when coal or sulphur is used. Germany has also well developed ecotaxes and it imposed taxes on combusted fuel and consumed electrical energy.

#### *Green public procurements*

Green public procurement refers to the policy in which public entities include eco requirements to the procurement process (granting public procurement) and seek for solutions minimising negative impact of products and services on the environment and the entire product life-cycle and facilitate the development and dissemination of environmental technologies. This definition covers situations when the ordering party adds one or more environmental factors on such stages on the tender procedure as: specifying need, defining the order subject, preparing technical specifications, selecting the order criteria or form of order execution. The goal of green public procurements is to respect in the broadest possible scope the environmental issues in the tender procedures [12].

In 2006 the Public Procurement Office analysed 400 public procurement offers and only 16 of them included ecological aspects. The procurements referred to cars, water consumption and technologies applied to construct sewage treatment plant. In 2009 out of 600 of analysed procurements 60 were green. [13]. The number of green public procurements increases but comparing to the other EU countries it is still much lower.

The tender policy in line with the sustainable development rules significantly affect the number of green procurements.

#### *Life – cycle assessment*

LCA is a technique to assess environmental impact associated with all the stages a product's life. The EU Parliament and Council issued a decision no. 1600/2002/EC of 22.07.2002 which established the sixth community environmental program. It is directed to key tasks and priorities of environment protection based on the assessment of natural environment and tendencies including urgent issues which require the Community management. The program should support adding the environment protection problems to all EU Community policies and facilitate the achievement of sustainable development on current total EU territory and in the future its increase area [6].

The work in IPP instruments in the EU membership countries are voluntary and at the research stage. Their goal is to define products which will have impact on the

environment from the point of view of their life-cycle perspective. They were initiated by: Leiden University, TNO from Netherlands, Danish Technical University, Flemish Institute for Technological Research (VITO).

The research conducted at such universities based on the American input-output model enabled to develop the total life-cycle assessment for over 500 products [16]. LCA problems are also analysed by Polish scientists. The research is used by the Ministry of Environment Protection and eco organisations.

#### SUMMARY

Since the last decade Poland has implemented IPP rules determined by the EU institutions. The Ministry of Environment Protection established regulations which enable organisations and entrepreneurs to use LCA, ecolabelling EMAS system and green public procurements.

Ecolabelling is well known and applied, confirmed by scientific research. Evaluating the ecolabelling as instrument it is possible to state that it was well implemented into the IPP strategy. Small number of EMAS implementation (20 organisations in 2010) is the result of lack of encouragement and support by the state as well as high cost of implementation and difficult registration procedure. Organisations and companies believe that EMAS would be more attractive if charges and taxes for economic use of the environment would be lower for those who implemented the system. The small number of green tenders results from lack of legislation which would oblige to formulate green procurements. Similarly to Poland as well as the Netherlands, Denmark and Belgium it is required to nominate a leading university to provide full LCA analysis for many products.

Further IPP research is necessary. It will be useful to increase the involvement of Polish organisations in companies in the excutions of EU actions.

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Anna Andrykiewicz  
Arkadiusz Seternus  
Justyna Słonimiec  
Arkadiusz Trześniewski  
University of Zielona Góra  
Scientific Group of Eco-Management  
ul. Podgórna 50, 65-246 Zielona Góra, POLAND  
e-mail: [biuro@e-system24.pl](mailto:biuro@e-system24.pl)