Abstract:
Environmental protection fund has been constituted and has been operating for gathering financial means for investing in preservation and protection of the environment in Serbia in the past seven years. The idea of creating a special fund was based on definition of particular sources of gathering funds and their dedicated investment in preservation and protection of natural goods, values and capitals.

Until its recent termination in the end of 2012, the Environmental protection fund of the Republic of Serbia presented unique, specialised national financial institution through which the funds were provided for financing ecology projects. The fund was formed on the initiatives that were started during the 1990’s by United Nations with a goal of supporting environmental protection investment programs. Unfortunately, the fund in Serbia had a short life so there was no creation of assumptions for the long-term empiric research of its potential role. The doubts that within the fund there were speculative financial transactions lead to political decision to terminate the fund. Later institutional solutions, however, show that the main cause of the fund termination is in conducting centralisation of gathering financial compensations for using natural values, and at the same time to lose the trail of dedicated investment of funds in environmental protection from the total amount of the budget. The Environmental protection fund was planned as non-profitable institution unlike regular investment funds. This paper first presents a short overview of ways of functioning of regular investment funds. Regardless of the fundamental differences in goals it was possible to use some of the experience in the work of the Environmental protection fund. The paper gives comprehensive presentation of the aspects of organization, business, creation of incomes as well as the fields of using the Fund’s resources.

Key words: fund, investment, environment, functions, protection, projects, funding.

INTRODUCTION

The concept of constitution of Environmental protection funds starts from the key assumption that they are dedicated specialised non-profitable funds that have a goal
to provide collection of funds for financing ecology projects as well as different activities in the field of improving the environment. The Ecology funds are non-profitable organizations that have functions to provide wider social benefit instead of profit. So, their efficiency is measured through their sustainability and reaching appropriate social efficiency where there is no intention for achieving private interests that are characteristic for regular investment funds.

The key problem that appears relating to creation of the Ecology funds is an issue of gathering basic investment capital and its long-term sources. This issue is especially relevant considering that the fund is non-profitable institution, that partially funds the projects that satisfy social benefits and in certain aspects it doesn’t provide complete recovery of invested funds. In this way, the Fund is characterized as one-way flow which gathers the means and uses them without any significant recovery of investments in financial potential of the fund. In this paper there is an attempt to analyse a possibility to transform a model of ecology fund in an investment organization, in an Ecology investment fund. On the other hand, it should be checked if there is a possibility and if there is, what the ways are for funds to be independently financed from the source that originates in using natural goods, i.e. renewable and non-renewable resources.

Some of the assumptions that should be carefully considered are the possibilities to base the functioning of funds on certain elements of efficient ecological national policies, and primarily: conducting the “user pays” and “polluter pays” principles, definition of methodology for determination of policies on taxes and fees, as well as establishing efficient system of charging ecology taxes and fees.

In the Republic of Serbia, there are several national funds. Environmental protection fund is one of the funds whose founder is the state. Besides this fund, the Republic of Serbia is also a founder of the Development fund that deals with loans under affordable conditions for small and medium enterprises, entrepreneurs, and certain bigger projects as well. Similar to the Environmental protection fund, the National fund for water is created in 2010, and it is specialised fund for gathering funds based on irrigation and drainage and investments in water protection and protection from water. Besides the National fund for environmental protection, on a level of certain number of municipalities and cities in the Republic of Serbia there is municipal, i.e. city funds for environmental protection.

Very briefly, the paper considers some of the aspects of functioning of regular investment funds, their organization, division, functioning, to analyze the differences and changes that are necessary for transformation of the Environmental protection fund into eco-investment fund.
The main point of this paper is focused on the development and functioning of the Environmental protection fund of the Republic of Serbia. There is a presentation of the analysis of its organization structure, functioning as well as financing sources of the Fund. Also, the other comprehensive part of the paper deals with overview and analysis of project financing by the Environmental protection fund of the Republic of Serbia itself.

This paper presents the key international initiatives that have influenced the creation of this type of funds, and they are European initiative, Petrograd manual and Sofia initiative for environmental protection.

The paper briefly analyzes similar organization in the area of our country like: Environmental protection fund of the Obrenovac municipality, Provincial secretariat for environmental protection and sustainable development of AP Vojvodina and the Budget fund for water of the Republic of Serbia.

1. INVESTMENT FUNDS

1.1. Creation history

The first predecessors of modern investment funds were created in 19th century like investment companies. These were mostly formed as funds with closed structure. The first of the kind was the fund created in 1822 by the Dutch king William I. Basic thought behind creation of this fund were small investments in foreign national loans. This form of investing spread through other parts of Europe, primarily England and Scotland. Scottish were especially fast in adopting this idea due to their economical and modest characteristics and not taking risks of fast and ill-considered purchases. They possessed a certain amount of money in savings that they put in newly founded funds. In time, the funds crossed the Atlantic Ocean and started to expand on the USA area. The first investment fund created in Anglo-Saxon states was Foreign and Colonial Government Trust in 1868.\(^1\) In the USA, they were developing in a form of action trusts. Later, they were converted to investment societies. Development reached its peak in 1920’s. That’s when a large number of closed funds was created that was burdened by debt and preferential shares, and with a goal to satisfy speculative interests. However, in the certain point this big and fast development based on speculations had to have a crash, which happened in the period of economic crisis 1929-1933. In those years there was a market crash and many of those funds disappeared.

\(^1\) Dr Bošković, J. (2006), „Investicioni fondovi“. The state and perspective of economy of Serbia, Belgarade: Belgrade banking academy – the Faculty of banking, insurance and finance and the Institute of economic sciences
In the 20th century there was the creation of investment funds of open type. The first of the kind was created in 1924 called Massachusetts Investors Trust. As the name suggests it was created as a trust. In the beginning, its portfolio was consisted of 45 shares and assets in value of $50 000. One of the main characteristics of these funds was continuous selling of new shares and buying off shares that could always be sold in the current value of the fund. Even though the big economic crisis slowed the development of this sort of funds too, it’s interesting that Massachusetts Investors Trust still do business under the name State Street Research. Nowadays, it is consisted of seven funds and all investors can freely buy shares in these funds. As mentioned, the big economic crisis in 1929 stopped the expansion of opened funds. Until 1936, a half of investment funds were terminated. Investors then realised that when the value of shares continuously decreases the investment funds also suffer.

In institutional terms, it is possible that the year 1940 is a key year for development of investment funds. That year, US Congress adopted the most important law for investment funds: The Law on investment societies. This law brought order in this field. Every fund had to be comprehensively described, beginning with the profit that could be expected by investors depending on their investment. At the time, in the USA there were less than 80 investment funds that possessed assets worth 500 million dollars. Only 20 years later, in 1960, in the USA there was 160 investment funds that possessed assets worth 17 billion dollars. In those years, investment funds shares were literally sold door-to-door. But this type of selling also didn’t any significant results, despite expectations of investors certain aspects of crisis from 1929 slowly started to repeat, primarily due to bad state on the market for securities. In this period the value of fund shares and the value of funds themselves decreased three-quarter. As a consequence, investment funds lost trust and mass selling of shares even for prices lower than the purchase prices. That’s when the societies that had money could buy quality shares for lower prices, but considering there was no investors there was no money for investments. Negative market trends lead to a period of stagnation in the investment funds development.

In 1980’s and 1990’s there was a boom of investment funds. It is simultaneous with reawakening of the market for securities. It is assessed that in the USA in 1980’ only 5.7 % of households owned shares in investment funds. In the late 1990’s, the assets of investment funds increased almost 12 times compared to 1980. The number of funds had in that period risen to 5.655. In this period, investment funds didn’t any longer rest on shares, but also on other financial

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Instruments. These are some of the important factors that had crucial influence on sudden growth and boom of investment funds:

- **Deregulation** – there was a termination of legal barriers which lead to free flow of capital and product exchange. As a consequence there was changes in the and structure of the market;

- **Increase of public debt** – states were forced to release national bonds that had small risk rate and big incomes. This had the most influence on the development of financial market for trading with debt securities;

- **Privatization**;

- **The increase in insecurity** considering future results and social benefits, primarily in pension financing;

Open investment funds prevail nowadays. Important characteristic of investment funds is large public participation in their ownership. This characteristic can be an indicator for two things: first, that today investing at a first glance seems more secure, with more prosperous possibilities for achieving financial gain than in the earlier years and that because of that population chooses this kind of investments, and the other is that they are largely spread. For example, in 2007 in USA there was more that 80 million citizens that were investing, i.e. every second household with the total value of 6.000 billion dollars. The scale of this amount is shown in the fact that this amount of investments presents 93% of all investments in investment funds on US market. The income, as a deciding factor for encouraging the investments was from 8 – 15%.

In Serbia, development of investment fund started in 2006, with adoption of law that created institutional conditions for creation of investment funds. Particularly interesting fact is that Serbia had constituted Belgrade market, but there weren’t law regulations that would regulate creation and business conducting of investment funds. In Serbia, it is very important to make the difference between investment funds and investment companies. Investment companies are defined as Societies for investment funds management. The main difference is in the management function.

### 2. SPECIALISED FUNDS FOR ENVIRONMENTAL PROTECTION

In United Nations in 1990, the first environmental protection fund named Global Environment Facility (GEF) was founded. The fund is managed together by the UN Environmental Programme (UNEP), UN Development Programme (UNDP) and the World Bank. Unlike the World Bank and MMF, The Global Ecology Fund doesn’t approve loans, but it approves donations and financial benefits. The Global Ecology Fund supports projects that are directed to biodiversity conservation, ocean ecosystem protection and reduction in gas emission that creates greenhouse
effect. Based on UN initiative, in the following decades, some countries or groups of countries developed regional and national environmental protection funds.

By its main goal, environmental protection is one of the national sector policies, because investing in environmental protection is mostly financed on a social level. Due to this it receives a status of general social interest like healthcare and education. Environmental protection policy isn’t always among priorities of undeveloped countries, especially if we talk about the countries in transition like Serbia. That was the reason of scarce support for creation of environment fund, and in 2012 the Fund was terminated by the decision of national institutions. As an example of existence justification of the Ecology funds we can consider funds in Czech Republic and Poland, which had incomes of a 100 million US$ in the beginning of 1990’s. This fact shows that those are respectable institutions. Unlike them, the Serbian Fund had an income of 11 million Euros in 2007.

The environmental protection funds are institutions that provide monetary fund for financing Ecology projects in wider range. In the countries where there is no developed market, these institutions present significant model of environment projects financing. In the period of transition there is a large number of development issues for society as well as development of environmental politics. Some of the issues are: inefficient application of environmental protection, serious financial limitation, unstable fiscal system, poorly developed banking sector and capital market etc. Eco-funds present one of the means to concur the issues of environmental protection. Besides collecting means from fees for use of natural values and resources, funds can attract means from other sources and in that way contribute to improvement of environmental usage and protection. The capacities for project application and the implementation of ecology policies are increased through these funds. Eco-funds should function on a basis of two key elements of eco-policies:

1. Eco-fund should include application of a coherent ecology policy – effectiveness of the fund is limited if there is no clear sector framework and capacity to conduct adopted policy. Also, other instruments of eco-policies can be conducted through funds: revision of ecology programmes, voluntary agreement, integration of environmental policies in other sector policies etc;

2. Eco-fund should be an instrument for conducting means gathering that are gained from the principles “user pays” and “polluter pays”;

Eco-fund must have priorities in terms of financing, but also precise instructions for resources management. They have to be based on the goals of environment policies. Concerning countries in transition including Serbia, the Environment Action Programme gives recommendations on issues of environment policies
reform like: improving ecologic information systems, investments in economy, improvement of environmental services. In terms of investing, the fund primarily has to have a well designed programme to rationally and efficiently use resources. Some of the ways of financing used by eco-funds are grants, loans, warranties. Which way of financing would be chosen depends on macroeconomic conditions, transition progress, administrative capacities and expertise in the fund, but also co-financing arrangements with commercial banks. In the choosing of financing models, attention should be paid to provide subventions through the fund for investments that lead to improvement of the environment. For undisturbed functioning of the fund it is very important to create in a right way a system of revenue generation, but also to provide stable base for income generation especially from fees. Besides fees, the fund can be financed through special arrangements like grants for technical support for example in terms of budget financing. Usually this form of fund financing is characteristic for economies in transition. System of revenue generation of the fund has to be simple, easy for control and application. Funds in countries in transition should have simple administrative structure and to have as more as possible external expertise and other institutions. Also, monitoring system should be effective so, from time to time, checkups could be done on evaluation procedures for financed projects, but the role of the fund itself in the process of transition.

2.1. Initiatives for guiding means for environmental protection through funds

2.1.1. European initiative

In Lucerne, in 1993, a conference was held named “Environment for Europe” at which the Environmental Action Programme for Central and East Europe (EAP) was adopted by European ministers. European countries in transition and especially countries of East Europe had a number of difficulties and deficiencies in financing expensive ecologic projects. These deficiencies were also visible in processes of restructuring and strengthening of institutions for environmental protection.

Basic principle of the environmental protection programme adopted in Lucerne is to include the issues from this field into the processes of transition and overall reform of society. EAP brings the framework for determining priorities and how to choose the most efficient and economically most cost-effective solution. The key goal of the EAP is improving the systems for environment planning and management on local level. Under the influence of the EAP, most of the countries of Central and East Europe started developing so called National Ecology Action Plans (NEAP). This process was made difficult primarily because the piled up issues from the past as well as social-economic state of those countries which
directly affect enforcement of ecology plans into actions. As a consequence of all abovementioned, an initiative of local communities was born to make their own plans for environment protection and improvement. Those plans would be based on local priorities and would follow the methodology of LEAP (Local Environmental Action Program). The main reason for this initiative is the possibility to, on a local level, easier identify issues of environmental protection and at the same time apply recommendations and methodology for developing plans and programs of ecologic actions. LEAP occurs as a product of specialised gathering that includes: representative of all bigger institutions in the community, among which are business sector, non-governmental organisations, local government authorities and representatives of the local community.

The key goals of LEAP are³
- Promotion of public awareness and responsibility for environmental issues as well as raising the level of public participation is solving the issues,
- Improving understanding of ecological issues on local level,
- Evaluation of the effects of issues on human health, ecosystems and life quality,
- Most efficient and effective guiding of funds to priority issues
- Generating unity in terms of ecological problems,
- LEAP creation that includes all necessary technical, political and management solutions for appropriate issue,
- Fulfilling national demands for action plan creation.

There are many reasons why it is necessary to conduct LEAP. In here we only state some of them: increase in the level of information on ecological issues, improving cooperation and creation of partnerships on local level, a possibility of population involvement in decision making, economically more rational decision making, etc.

According to the previous experiences, a minimal time period for creation of a quality LEAP is between 1.5 and 2 years. LEAP systematise information on state of environment and in that way comes to priority determination for solving the most important ecological issues. This is a new, higher quality approach to the environment and its further development. Major characteristic of the LEAP is involvement of population in decision making process concerning the environment on a local level, because those decisions are the most important for them

³ www.zrenjanin.rs/userfiles/file/LEAPZrenjan.pdf
2.1.2. Petrograd manual

The Conference in Petrograd held in October 1994 organised by the Russian Ministry of Environment and Natural Resources, the Federal ecology Fund and the Institute for natural resources management in cooperation with the Institute for International Cooperation from the Harvard University, helped to create instructions for identification of criteria that funds need to fulfil in order to be ecologically effective and financially efficient. This manual was named “Petrograd” and it recommends the application of international standards for creation of environmental funds, management method and achieving efficiency. At this conference, deliberation took place on three main aspects for funds:

1. Funds as means for implementation of national/regional environmental policies
2. Funds as public institutions
3. Funds as financial instruments

Petrograd manual was adopted by the Environmental Action Programme for Central and East Europe Implementation Group. Manual was officially presented at the third conference “Environment for Europe” held in Sofia in 1995.

2.1.3 Sofia initiative on economic instruments

European Ministerial conference held in Sofia in 1995 adopted the initiative named “Sofia Initiative on Economic Instruments” (SIEI). Economic instruments present the main connecting factor for decision making in the economy and the environment. They can contribute to achieving different economic benefits:

- Polluters have a possibility to choose the most cost-effective and ecologically most effective measures, with cost reduction
- Price change for ecologically sensitive products
- Creation of initiative for ecologic investments that simultaneously make profit and ecological benefits
- Ecological innovation promotion
- Increasing government incomes, that will be directed towards increasing eco-investments

The countries of Southeast Europe are facing with numerous challenges in the environment field like: industrial pollution, pollution from big and inefficient thermal power plants, pollution from land transport, poor quality of water and inefficient use of natural resources. Achieving certain ecological demands and standards which achievement is necessary in the process of joining the EU demands large costs for implementation of European directives. Environment policies measures applied in the countries of West Europe proved efficient and they
are now becoming the priority for application in the countries of Southeast Europe. Some of those measures that lead to pollution reduction are the higher level of investments, development and introduction of modern technologies and increased efficiency of industrial processes.

Successful ecology policies are leaning towards recognising the market needs, internalisation of social costs for pollution and using resources, a step towards complete market prices of municipal services (water supply, waste water treatment, waste management, energy supply, etc.) and introduction of efficient and flexible instruments that simultaneously support economic development. Economic instruments (EI) proved as a good mean for achieving those goals. In the countries of SE Europe in the process of joining the EU, funds had a special role in financing necessary improvement in environmental sector.

Benefits from introduction of ecological instruments (EI) are:
- the key of sustainable development in the environment
- helping to internalise ecological costs
- usually more efficient than traditional policy instruments
- supportive of the “polluter and user pays” principles
- compatible with current priorities and trends (cost decreasing, technological innovation promotion, private investment improving)
- having positive effects on innovation and competition

Economic instruments should include environmental policies goals, because economic instruments are the means for achieving required goals. Legal acts provide the method for introducing an economic instrument. It is also important that all stakeholders are involved in creation phases and implementation of economic instruments. This leads to more efficiently created and applied economic instruments. Economic instruments that are currently in use should evolve in accordance with the criteria suggested by OECD. Those are: ecological efficiency and effectiveness, administration costs, innovations, raising awareness, etc. The application of ecological instruments has to be continually revised. These revisions are useful as a measure for modification and adjustment of instruments to variable context as well as decreasing obstacles for introducing new instruments.

**2.2. Basic functions of Environmental protection funds**

Environmental protection fund was an institution founded with a purpose to, in the best and the most efficient way, direct resources intended for environmental protection. Considering this, the basic activities that the fund should deal with are:
- Gathering fees for using common goods and resources
- Income management
- Preparation of the annual work program
- Preparation of qualification criteria for projects
- Identification of potential projects
- Project application evaluation
- Final assessment and financial means distribution
- Monitoring and evaluation of projects and program

Most of fund activities are directed towards project cycles (preparation of qualification criteria, identification of potential projects, evaluation, final assessment, financial means distribution, monitoring and evaluation).

The Government and the Assembly are responsible for work, functioning and decision making of the Fund.

The Fund is indirectly controlled by the board of directors that is usually chaired by the minister for environmental protection. The board role was to have an insight in fund functioning, approving budget, and also had to secure that the fund follows the environmental protection policies implementation. Considering the fund structure, it should also include advisory board, independent experts, and it is recommended to form advisory forum which will be consisted of the representatives of different spheres, among others: Industry, ecologic organisations as well as local authorities.

In term of fund goals, they could be grouped in one set of goals that are established by legal acts. Those are the following goal:
- Promotional activities and investments for protection and improving the air and water quality
- Minimisation of waste generation and land protection
- Development of economic structures that are less harmful for environment
- Protection of natural values and habitats
- Education
- Monitoring improvement
- Environmental protection projects encouragement

In terms of defined goals we can look at the funds of certain countries and show how much resources is invested in environmental protection, as well as resource purpose. The following table presents the data from funds of: Bulgaria, Czech Republic, Hungary, Poland and Slovakia.
Table 2. The amount of resources for environmental protection and their purpose.

<table>
<thead>
<tr>
<th>Country</th>
<th>Invested funds in $ millions</th>
<th>Main fields of investment (in percentage)</th>
<th>Main income sources (in percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>2.3</td>
<td>Monitoring (40%) Enterprises (32%)</td>
<td>Pollution fees (58%); Tax on vehicle import (33%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Municipalities (19%)</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>107.0</td>
<td>Water pollution (58%) Air pollution (33%)</td>
<td>Fees for water pollution (41%) Fees for air pollution (30%) Solid waste fees (13%) Land fees (12%)</td>
</tr>
<tr>
<td>Hungary</td>
<td>27.7</td>
<td>Air pollution (70%) Waste management (15%) Water pollution (11%)</td>
<td>Tax on fuel (44%) Transit traffic tax (20%) PHARE fund (19%) Pollution fees (17%)</td>
</tr>
<tr>
<td>Poland</td>
<td>198.5</td>
<td>Air pollution (47%) Water pollution (35%) Other (18%)</td>
<td>Fees for pollution of air, water, water consumption and solid waste</td>
</tr>
<tr>
<td>Slovakia</td>
<td>35.0</td>
<td>Water pollution (36%) Air pollution (54%) Waste management (7%)</td>
<td>Budget (37%) Water fees (33%) Air fees (25%)</td>
</tr>
</tbody>
</table>


One of the major roles of the fund is support in development and application of the principles of the National Environmental Action Plan (NEAP). NEAP includes governments in solving urgent issues and problems concerning environmental protection within 3-5 years. A part of NEAP should be recommendations of the Environmental Protection Action Programme for Europe, applied and adopted to national context. The fund should provide support for implementation of NEAP. The most important fields that can be supported through the fund and still remain in the within the NEAP are:

- Improvement of environmental policies – first of all support should be provided for conduction laws. In the long-term, ecological projects should be financed mostly through private sources in accordance with taxes, fees, regulation and implementation of that regulation. It is the most important to develop professional and primarily independent inspectional service. The funds should be the first to help this process. Because existence of this service guarantees that the law will be thoroughly implemented and which will cause the improvements of environmental policies to happen.

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4 www.ekoplan.gov.rs
- Acceleration of ecologic improvements in enterprises – first thing that should be done for this issue is co-financing of ecological control. Only promotion of ecological control could accelerate the process of production cycle modification. This activity could contribute more to a greater reduction of pollution than investments in pollution control. One more important aspect is the support of priority investments in industrial sector. It primarily refers to: reduction in emission of dust material from metal industry, reduction of toxic air pollution and pre-treatment of wastewaters in industrial facilities.

- Financing priority ecologic programs – and special attention is given to conservation of natural resources and biodiversity. Namely, financing protection prevents potential harmful effects and by that a high recovery of it. Next, we should emphasize the priority investment ecological programme like ground water protection from dispersed pollution sources. Last point would be financing of ecological infrastructure. This includes focusing on the projects where it is possible to conduct cost recovery without any compensation or financing from other sources.

One of the most important functions of the Environmental protection funds is to secure means and using means for financing different projects in the field of environmental protection and improvement. Considering this, one of the most significant financing sources is the “polluter pays” principle (PPP).

Polluter pays principle is accepted by OECD 1972 and 1974. It determines that the polluter is required to bear the costs of pollution prevention and control. Polluters are required to be coordinated with the demands of environmental protection set by the relevant institutions. Usually, financial means for these investments are derived from the polluters’ resources. The application of PPP has improved development of mechanisms that cover the costs for environmental services. In 1974 there was a revision by OECD. This revision determines exceptions for giving subventions to polluters. Three conditions that have to be fulfilled for getting subventions are:

- Subvention must not cause harmful effect on international trading
- If there is no subvention, effected industries would have big difficulties
- Subvention has to have limited to well defined transition period

This principle has to be extended to the “resource charging principle”. The principle defined in this way would mean that every resource should be evaluated and that the social cost of its use would be reflected. If we had completely implemented PPP, that would mean that polluters are paying full price of their activities as public activities that are conducted with a goal of environmental pollution reduction. On the other hand, the role of government would be to limit its
costs on common goods like protection of natural resources and biodiversity, monitoring, research and as one of the major items, education.

However, PPP cannot be completely implemented in the countries in transition, including Serbia, primarily because general problems that a society like this is facing in the transition process. Implementation of PPP is impossible because:
- Weak framework of environmental policies, especially implementation of environmental protection requirements
- Serious financial limitations in the industry which has a consequence of using outdated technology causing more pollution
- The change of financial system
- Slow and economically unsuccessful privatisation
- Banking system defects, which cause shortage of credits and savings
- Undeveloped capital market
- Environmental issue negligence in the process of political decision making
- Unreliable data on the level of damage as well as insufficient knowledge on potential solutions
- Poor non-governmental sector that cannot influence decision making process

Environmental protection funds are one of the solutions in the process of transition for overcoming institutional and market defects. They reduce financial burden of eco-investments for enterprises and households by financing projects from the environmental protection. Through funds, we can support institutional strengthening by developing expertise for effective application, evaluation and financing within the fund.

2.3. Fund financing sources

Sources of income for fund financing are mostly taxes and fees. Besides that, they can also use specialised arrangements through which a fund acquires its incomes from foreign investments like grants for technical support. Because the most attention in this paper is given to the developing countries such as Serbia, we should mention that financing from the budget is rarely achieved. There are also fines that could be treated as a fund’s income but because of their nature they cannot be treated as a main source of income.

As we already mentioned, the best source of incomes for environmental protection funds in the transition countries are taxes and fees. Taxes are defined as public income that the state and their authorities receive for services of those authorities and institutions. They go into the budget as government income. On the other hand, fees are charges for using and exploitation of natural goods, values and services
and they went to non-budget fund until 2012. These methods of charging have two main goals: either to preventively influence polluters, i.e. to reduce the pollution level, or to increase the income. Existence of ecological taxes and fees is especially important for increasing incomes because they are too low to preventively affect polluters to reduce their pollution. Regardless the aforesaid, the tax and fees existence itself sends a message to polluters that if they increase pollution emissions, taxes will also increase. This is one method of prevention.

It is possible to distinguish three basic functions of the taxes, i.e. fees⁵:
1. Covering costs for environmental services;
2. Generating income by concentrating financial resources for investing in environment;
3. Ecological taxes can influence as encouragement measures or incentives and in that way they can support behaviour considered appropriate from environmental stance.

These three functions can mutually coexist. In practice, tendency is towards integrating more functions in one instrument, as in ecological taxes reform. For this example we can take “double dividend”. It is introduced in some EU member countries and it provides support measures for behaviour change of producers and consumers by taxing certain activity or product, and on the other hand generates enough financial resources for investing in environment. This solution proved to be efficient because this sort of tax solves environmental issues without introducing new costs for polluters.

System of fees and taxes is a good source of fund financing if it is efficient and if it functions. Systems of fees and taxes from the countries of East Europe have a number of flaws and issues that appear in their functioning. One of them is administrative effectiveness or ineffectiveness. It is a consequence of systems that are too complex and don’t take into consideration the response of charging different target groups as well as administrative capacities necessary for gathering incomes.

For systems of fees and taxes the biggest challenge is charging control and implementation. Fees for emissions are determined for many enterprises, but only few can be monitored. There are also discretionary conditions that lead to exemption from paying fees for some enterprises. Enterprises that present target

groups are aware of capacities that the institution for regulation implementation has so based on that they choose to pay fee or not after considering possible fine.

The most suitable fees for eco-fund are:
- Fees for emission in air, water and soil
- Fees for using – mostly used for public services incomes. Usually, their amount is determined by in accordance with the level of released pollution.
- Fees for feedstock – those are fees for products and materials used as feedstock for the process that creates pollution
- Fees for product using – they are applied on final products that cause environmental pollution when consumed or disposed after consumption.

OECD manual from 1991 suggests certain elements should be included in the system of fee charging:
- Clear framework and goals
- Clearly defined field of acting
- Simple application
- Integration in sector policies
- Low costs of implementation
- Assessment of ecological consequences

Of all fees, the most efficient are the fees for emission because of the possibilities of adequate monitoring. They are usually determined for several major pollutants and on a limited number of polluters. One more mitigating circumstance of this type of fee is that in the case of monitoring not being available there are other methods of determining fee, which is to calculate the amount of pollution based on technology processes of an enterprise and pollution level.

It is important to provide safe source of income for the fund. Primarily, income should be protected from inflation in accordance with inflation index, and at the same time secure periodical changes in the amount of fee. It is necessary to provide incomes from different fees. It is possible to combine fees for emission and product consumption. Also, it would be good to make prediction of possible changes in pollution level in certain time period, as well as changes in consumption models, so we can see the influence on the income. First of all is to make the fee system acceptable for target groups that should pay those fees and taxes, but also to protect the fee system from potential abuse. This is mentioned because there are situations in which the ones paying fees later use the fund resources for implementation of project for pollution reduction. This could be stimulating for enterprises that accept measures of policies. It is very important to not allow decrease of fees based on investments in pollution reduction so to not decrease effectiveness of the fund that guide the resources to national priority environmental programs. On the other hand,
if we have a situation where the fund doesn’t perform its role prescribed by law and other acts, we should consider its replacement with some other instruments such as: specific funds, direct regulation, special taxes for emissions or voluntary agreements with polluters.

The main use of establishing the System of fees and taxes is seen in modifying behaviour of polluters and consumers. This method of taxing is one of the strongest encouraging means. The results directly depend on efficiency of taxpayer. Concerning the countries in transition, this is one of the main methods for promotion of market approach and efficient use of natural resources. When we say that this kind of taxing is encouraging, as a confirmation of that, we have examples from the EU countries. In certain countries of EU we have a situation that different tax rates are applied on different types of waste that are different by their type of disposal. Recycling is also stimulated by various tax exemptions.

Of course, this system is not ideal too. Considering that the taxes, in our case fees and taxes usually represent an income for national budget, there is no guarantee that there is a direct connection between environmental protection and income distribution, which is particularly visible in the countries in transition in Central and East Europe. This is why the countries from Central and East Europe prefer fees specially marked for environmental purposes. Taxes and fees are dependant on tax rates. In the rates are too low, then they will not have encouraging role, and if they are too high then taxes and fees can be an obstacle for private development. If we could succeed in finding optimal level of tax rates then we would motivate polluters to introduce temporary measures and to solve problem on the spot.

Besides the system of fees and taxes as the main source of income, i.e. financing eco-funds, we should mention other methods and forms for gathering financial means. They are:

- Refinancing deposit system –this system promotes paying additional deposit in procurement of certain products that is refunded when the packaging that held the product is returned to the store or special collecting centre. The indicator of ecological efficiency is achieved returning rate. This is traditionally applied on glass bottles with the returning rate close to 100%. The main use of this system is the possibility of reuse of material and goods on relatively economically efficient way. On the other hand, the problem is the necessity of introducing complex management system and investing in public informing.

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- **Permit that could be bought and sold on the market** – according to this concept, authorities in charge of environmental protection issue a permit for pollution release and those permits are then put on the market to be trade with. If this system starts functioning the polluters that have low costs for pollution disposal chose techniques of pollution disposal, and polluters that have high costs of pollution disposal would use permits. The main advantage is a reduction in total costs of pollution disposal. This system also has a positive influence on environment quality. Namely, authorities set the number of permits. If there is any new layer on the market they have two options: either to buy a permit or to invest in technology and pollution reduction. This automatically serves as an encouragement for changing technology and pollution prevention. On the other hand there are two problems. First, insecure trading or too high administrative demands lead to trading level decrease. The second, market concentration could be a problem if there is not enough competition.

- **Financial stimulations** – the main function of stimulations is support of regulation from the environmental field. They include the following measures: fines for non-compliance, guarantees for carrying out obligation and compensations for responsibility. Fines for non-compliance are direct charges imposed to polluters that don’t do the obligations from regulations. They represent a direct income. Their level should be high enough to prevent creation or to reduce pollution. For their conducting it is necessary there is a good monitoring and inspection. The guarantee for carrying out obligations is paid by the polluter to guarantee compliance with regulations. The amount is refunded when the compliance with regulations level is reached. The system for responsibility ensures payment of fees for damage caused by an activity that pollutes the environment. They can be paid to victims of those activities, government or special funds such as the fund for environmental protection.

- **Subventions** – are different forms of financial help for polluters or users of natural resources. They can be: direct payment (grants), credits for paying tax, tax exemptions, deferment of payment, soft loans, debt cancellation etc. Characteristics of subventions are: they are justified if they lead to more efficient market performance, they should be directed to consumers, they should be cheap method of achieving goals, they are justified if they secure improvement of social values, while evaluating subventions one should take into consideration costs and environmental degradation. The main goal of subventions was: help for the poor, domestic supply protection, securing employment, but also environmental protection. However, large number of subventions leads to negative consequences for environment and affected creation of ecologically unsustainable
economies. To cancel or to do a reform of subventions is practically impossible, because of interests of individuals or choosing importance of direct consumers.

Considering foreign investments, they usually can be channelled through funds like grants, soft credits or credits of international financial institutions or commercial banks. Funds are used as an intermediate for financing ecological projects for several reasons:

- Funds have professional staff that can identify good ecologic projects in a best way
- The fund can have a role of local partner in co-financing projects
- The fund has possibilities to accept innovative financial arrangements easier
- Resources can be channelled through funds towards small projects

Besides advantages, there are also certain limitations concerning using funds in these purposes:

- The fund can have inadequate procedures for fund management, but also for financial analysis
- There could be problems concerning securing state guarantees
- There could be differences in priorities and procedures of the fund and foreign investors, which can lead to an absence of financing

For the fund itself, these types of financing by international financial institutions provide additional income, acquiring new knowledge and experiences on economic and ecologic assessment of projects as well as acquiring knowledge concerning project supervision but also financial management.

Support provided by international structures, beside financial, can also be technical, informational, advisory and for building capacities. Each of the mentioned types of help is welcome for the environmental protection funds, especially in the counties in development and transition so they can adopt functioning system from the countries of EU in the easiest way. Institutions that provide support are different by their status, mission, field of activity, etc.

One type of those institutions is intergovernmental organisation (IGO). These organisations deal with: management of international ecological funds and grant programs, providing technical support, resource networking, etc. Intergovernmental organisations mostly appear in the countries in which they are active in terms of branches or offices.

International financial institutions (IFI) should also be mentioned. They are important source of financial support. The source of their support is in financing
through loans, co-financing, micro-credits, partnerships and technical support. They are particularly important for changes in ecological infrastructures, system reforms and ecologically sustainable economic development.

International financial institutions have two main negative characteristics. First, they rarely approve grants. Second, goals considering environmental protection are not always included in their programs. Besides this, they are very important institutions for development of funds for environmental protection because they provide a good source of financial support.

An important place of gathering international support for environmental initiatives includes partnerships from the authorities of foreign governments. Usually, those are bilateral agencies or support programs. They provide grants, which is most important for environmental protection. They also provide technical support, resources for networking as well as instruments for infrastructure development.

We shouldn’t forget non-governmental organisations (NGO). They conduct their activities independently from governments, but there are situations when governments are their founders. Support that they provide is various: in form of grants, co-financing, technical support to partnership depending on mission and program. They usually support other NGO’s, but eco-funds can also expect significant support depending on programme and mission of certain NGO.

*Table 3. Overview of the sources of international help*

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<th>Institution</th>
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Independently created on the data base gathered from the Environment Governance Sourcebook, Regional office for Europe and UNDP Community of independent states.

In the rest of the paper we analyse some of the abovementioned institutions of international sources of help for environmental protection.

*United Nations development programme (UNDP)* – the basic goal of this programme is to provide support for the countries in development and transition with building their national capacities for achieving sustainable development and knowledge and experience transfer. The head office is in New York. Considering environmental protection and activities related to that field, UNDP conducts its activities through the Group for ecologically sustainable development, sub-regional
centres throughout the world and officials for environment in the countries that realise programs. UNDP organised its activities so they are coordinated with the fields that the International community had identified as priorities: water, energy, land and biodiversity.

United Nations environment programme (UNEP) – deals with the environmental issues. Official mission of this programme is to be the leader and to support partnerships in taking care for the environment through inspiring, informing and training states and people to improve life quality and at the same time to not endanger the environment. The head office is in Nairobi, Kenya. In Europe there is regional office in Geneva. Activities of UNEP are divided into six thematic areas:
1. Ecologic informing, assessment and early warning;
2. Development of environmental policies and legislations;
3. Environmental policies realisation;
4. Technology, industry and economy;
5. Regional cooperation;

UNEP does environmental and biodiversity monitoring and assessments, maintains informative networks and organises conferences, etc.

European investment fund (EIF) – is a financial institution founded for providing support for founding, development and growth of small and medium enterprises. This fund tries to coordinate benefits and effects of its investments in accordance with EU goals and to spread the best market practice. Concerning environment and environment investments, EIF fund is focused on promoting ecologically reasonable investments in the sector of small and medium enterprises. There are four basic goals within this investment field:
1. Achieve better approach to financing debts of small enterprises;
2. Contribute to awareness development in small and medium enterprises on ecological issues in terms of investment decisions;
3. Connect ecologically oriented banking institutions into a network;
4. Increase the level of awareness and information.

EIF directs most of the activities towards: agricultural businesses, biotechnology, education, energetic issues, forestry issues, geologic resources exploitation, renewable energy sources, recycling, disposing and treatment of wastewaters, waste issues, etc. EIF supports through guarantee instruments (e.g. credits) and in form of investment capital (investment credit).

European Union (EU) – the EU policies for environment have four main goals: maintaining and improvement of life quality, human health protection, reasonable
use of natural resources, and promotion of measures for solving regional and global ecologic problems. The main goal is achieving high level of environmental protection. Bodies that are involved in realisation of environmental protection policies are:

- Environmental council;
- General directorate;
- Environmental protection and consumer protection board.

From the funds from EU that support environmental protection we should mentioned:

1. **Financial Instrument for Environment** (LIFE) – finances three thematic elements: nature, environment and third countries. LIFE–nature provides support in conducting directives on birds and habitats. LIFE–environment supports development of innovative and integrated techniques and methods in the environmental protection field. LIFE-third countries supports building of capacities and administrative structures in environment sector in the countries that are not EU members and are located along the Mediterranean and Baltic Sea. This fund’s support can be given to all individuals and legal entities in the countries that have the application right.

2. **Cohesion fund** – finances big projects in the environment and traffic fields in the member countries that have GDP less than 90% of EU average. The Fund finances projects with the participation of 85% of qualification costs.

3. **Structural funds** – support less developed regions and regions with structural problems. Activities of this fund are organised in three main goals:
   - promotion of development and structural adjustment of the underdeveloped regions;
   - support for economic and social changes in the areas with structural issues;
   - support for adopting and modernization of policies and systems of education, training and development.

**Global Ecological Fund (GEF)** – is international trust fund. It is founded in 1990 as a pilot programme with the goal of supporting environmental protection on the world level and in promotion of ecologically justified and sustainable economic development. This fund is designed as a source of co-financing through grants and concessions. In this way the Fund can combine its own resources with resources from governments, banks, non-governmental organisations etc. for solving global

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ecologic priorities on national level. The Fund is involved in financing projects as support of activities that give globally positive effects on environment. In its structure there are 168 countries represented in the Fund Assembly. Financial means from GEF are available for governments, research institutions, non-governmental organisations, regional development banks, etc. Programme activities of GEF are directed to following areas: biodiversity, climate changes, international waters and ozone layer protection. GEF currently serves as financial mechanism of Framework convention of United Nations on climate changes and Convention on biological diversity. The Fund supports by financing necessary activities, especially activities related to mentioned conventions, preparation of projects and their realisation. Two existing grants in the Project Development Fund (PDF) support research and preparation. On the base of a PDF A scheme grants are approved in the amount up to 25 000 US dollars and it usually leads to medium size projects (projects with the value up to 1 million US dollars). On the other hand, there is a PDF B scheme. It supports with up to 350 000 US dollars and leads to so called big projects (projects with the value of above 1 million US dollars). In certain countries there are Small Grants programmes. They finance projects with the value up to 50 000 US dollars. These projects are usually conducted with non-governmental organisations.

**World Wildlife Fund (WWF)** – this is independent foundation for nature preservation in the world. This fund is founded in 1961. Its main goal is to stop degradation of nature and to build the future in which people will life with nature. The measures that WWF uses in conducting activities are: preservation of world’s biodiversity, using renewable natural resources and promotion of reduction of pollution and wasteful consumption. The Fund has 4.7 followers. The office for European policies is located in Brussels. Its task is coordinating activities in Europe. The main campaign that WWF conducts is called Living Planet Campaign. Its focus is: preservation of representative values of nature, saving endangered species, changing resource consumption patterns and ways that we exploit those sources.

**Regional Ecology Centre for Central and East Europe (REC)** – this is non-political, non-profitable organisation with a goal to provide support in solving environmental issues in the region of Central and East Europe. REC activities in the environmental field are based on promotion of solutions for a number of challenges of ecological and sustainable development. REC is directed to the following fields: sustainable development, integration processes in EU in the environment field, environmental policies and improving public participation. They usually cooperate with local, national and multi-national organisations and bodies. Environmental protection fund could be one of their partners. REC’s resources are available for multilateral partners, government authorities (e.g. the Environmental
Environmental protection funds are organised as non-profitable funds. They gather means for investments in achieving social benefits. That is the key difference between ecological funds and regular investment funds. Ecological funds invest in projects whose primer effect is social efficiency and achieving social benefit in terms of achieving better life conditions, biodiversity preservation, natural resources preservation in protected areas, removing the negative external effects of caused by economic activities and environmental pollution, illegal dumps removal etc. On the other hand regular investment funds invest means of their voters only for acquiring profit for capital owners, i.e. investors.

A big disadvantage of ecological funds is in not having monitoring or developed mechanisms, based on which the value of social benefit as an effect of realised investments could be shown. While for regular funds, the only measure is achieved profit for capital owners, for ecological funds it is social benefit, i.e. social efficiency in environmental protection. Concerning social efficiency, it is hard to measure it indirectly because for measuring social efficiency and usefulness there are no special mechanisms that would more precisely show social benefits through economic value.
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