Slobodan Rakić
Petar Mitić

INTERNATIONAL FUNDING FOR SOIL REMEDIATION PROJECTS

Educons University, Sremska Kamenica, Serbia
rakic@educons.edu.rs

Soil remediation techniques, sources of funding and the amount of expenditure being used are significantly higher in numbers in developed countries than in developing countries. Specific examples are those in Eastern Europe where governments have to take appropriate steps in terms of funding because all of the companies were state owned and cleaning up of contaminated sites needed to be financed exclusively by government budget. Increasing problems with soil remediation costs in developing countries have made different governments, institutions and people to start forming international institutions which deal with remediation funding all over the word. The authors use research methods appropriate for social science which are represented in the paper through the analysis of official reports and documents, scientific and research papers and other sources of information relevant for the topic of the paper. The aim of the paper is to show the best examples of international funding systems for soil remediation that have already been implemented. Special emphasis will be put on types of institutions, instruments and methods that are being used in international funding for soil remediation.

Keywords: Funding, financing, institution, soil remediation

INTRODUCTION

Key participants in remediation projects are governments, different kinds of agencies, companies, non-governmental organizations which face a number of challenges in their efforts to increase the effectiveness of remediation projects, while decreasing the costs of cleaning-up sites and the time which is needed to do it. (Radović & Rakić, 2014) Financing remediation activities, in the light of constant decrease in funding, is becoming increasingly challenging. Countries need to address this issue with better care. European example shows that countries that joined EU in 2004 and 2007 had significant problems attracting cohesion and structural funds because of lack of preparation, application and implementation of projects. (Rakić & Radović, 2014) Annual national expenditures for the management of contaminated sites are on average about EUR 11 per capita, ranging from approximately EUR 2 in Serbia to more than EUR 30 in Estonia. This corresponds to an average of 0.04 % of national GDP. (EEA, 2014)

Constant decrease of funding and increasing concerns for environmental and remediation projects, has initiated formation of international financial institutions. Banks and other financial institutions could significantly contribute to the implementation of the principle of sustainable development if they implement components of sustainability in their decision making process. (Rakić, Mitić & Anđelić, 2014) Examples such as Global Environment Facility and Global Alliance on Health and Pollution can be used as future models for development of new international approach on remediation and environmental projects.

THE GLOBAL ENVIRONMENT FACILITY (GEF)

The Global Environment Facility (GEF) represents a multi-donor trust fund which was established in 1991 as a partnership between 183 countries, private sector, nongovernmental organization and other institutions in order to tackle environmental issues. At first GEF was a pilot program in the World Bank that was designed to help promotion of environmental sustainable development. In 1994, GEF became a separate institution and a financial mechanism for the UN Convention on Biological Diversity and the UN Framework Convention on Climate. By the 2013, GEF also served as a financial scheme for three more international conventions, The Stockholm Convention on Persistent Organic Pollutants, the United Nations Convention to Combat Desertification and the Minamata Convention on Mercury.

Since 1991, the GEF has provided USD 13.5 billion in grants and leveraged USD 65 billion in co-financing for 3,900 projects in more than 165 developing countries. For 23 years, developed and developing countries alike have provided these funds to support activities related to biodiversity, climate change, international waters, land degradation, and chemicals and waste in the context of development projects and programs. Through its Small Grants Programme (SGP) the GEF has made more than 20,000 grants to civil society and community based organizations for a total of $1 billion. (GEF, 2013)

Two main areas of work that GEF is involved are concerned with soil remediation and cleanup of contaminated sites. Those are “Chemicals and Waste” and “Land Degradation”.

It is evident that soil remediation initiative is not separately considered within GEF, but rather divided among those two areas of work. Increasing concern about the deleterious effects of contaminated soil on environmental and human health has led to actions aimed at controlling and regulating the emission of potential pollutants into the soil. Identification of sources of soil pollution, and quantifying the pollution effects start to be an important issue for international institutions, including GEF. In recent years environmental organizations worldwide have had to deal with the problem of contaminated or polluted soils and their remediation is partially developed.

When speaking about chemical and waste contamination, GEF has four drivers to tackle (GEF, 2013):

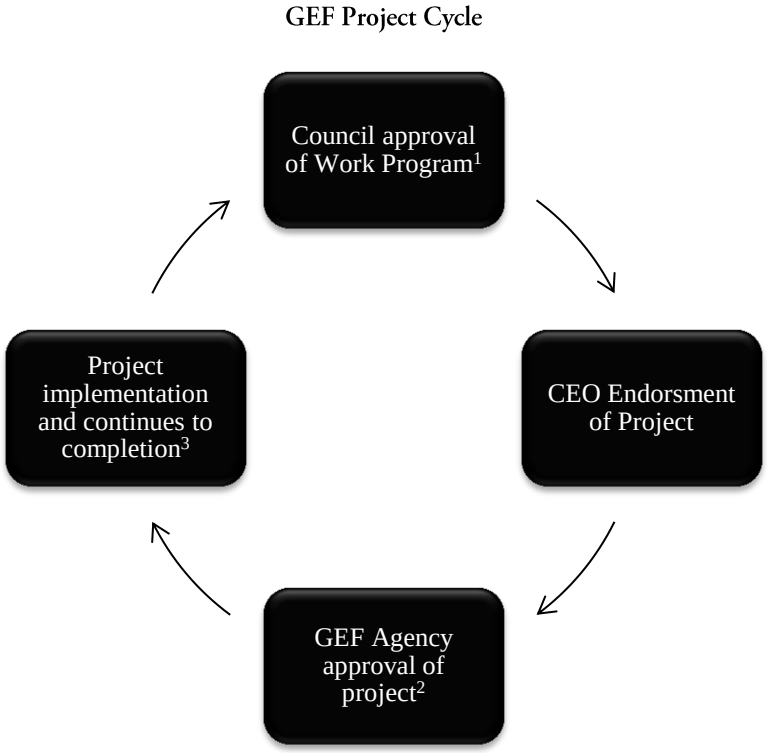
- Prevent the exposure of humans and the environment to harmful chemicals and waste of global importance.
- Combine environmentally safe technologies and systems with financial and organizational mechanisms, policies, and practices that help countries move towards innovative, rapid, transformational change.
- Develop the enabling conditions, tools and environment for the sound management of harmful chemicals and wastes.
- Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances.

Second area, Land Degradation is considered to be one of the major threats to biodiversity and ecosystem stability. The reason why land degradation is among major issues concerning GEF is that land degradation does not know local, regional or national boundaries and human made divisions. Loss of biomass through disappearance of vegetation and erosion of soil is producing greenhouse gases and is contributing to global warming. The GEF mandate to combat land degradation focuses on sustainable land management (SLM) as it relates primarily to desertification and deforestation. Desertification and deforestation are both caused, in part, by unsustainable agricultural practices, but their impacts also results in lower agricultural productivity. Putting into practice SLM principles is one of the few options for land users, especially smallholder farmers and pastoralists, who wish to maintain or increase productivity of agro-ecosystems without destroying land, causing soil erosion or undermining the ecosystem services.

The GEF project areas for financing include three major production practices: *Sustainable Agriculture* – GEF investments in sustainable agriculture are focused on maintaining or improving the productivity of both rainfed and irrigated systems. With the growing demand for food production, investing in the sustainability of existing production systems will contribute to the health of the ecosystem services that underpin productivity. *Pastoral systems and rangelands* - The GEF promotes sustainable management of rangelands through the strengthening of viable traditional systems and other measures that improve soil and water conservation. *Forest and Woodland Management Landscapes* - The GEF supports the introduction and strengthening of sustainable forest management schemes, including participatory decision making, tenure and use rights (especially by indigenous communities), sustainable market chains for forest products, development and implementation of forest management plans, and reforestation. (GEF, 2014) In order for

GEF to deliver its projects it is imperative to have a system which evaluates efficiency and effectiveness of the project cycles.

Figure 1



[1] Work Program consists of PIFs cleared by the CEO; [2] GEF Agency approval of project signifies start of project implementation; [3] Project completion follows terminal evaluation and financial closure; Source: GEF Secretariat, Sustainable Land Management Financing in the GEF, January 2015.

GEF project cycle (Figure 1.) represents a system where all interested stakeholders are able to monitor all steps of the GEF projects. Large numbers of different stakeholders are interested in high levels of transparency and possible corrections throughout project implementation. There are four specific steps that are mentioned in Figure 1. which explains the way of the GEF project cycle, but to understand those steps we should turn to Key Actors in Table 1. With their role and stage of involvement in the project cycle to fully understand the way that GEF is managing its projects.

Table 1

Key Actors in the GEF project cycle

Partner	Role	Stage of Involvment in Project Cycle
GEF Operational Focal Point	The principal contact point for all GEF activities in the country: facilitates country consultations and national portfolio formulation exercises (NPFEs); reviews and endorses project ideas and concepts; oversees the project implementation progress.	Mainly in Pre-PIF stage, but also continues throughout the project implementation phase
GEF Secretariat	Reviews funding requests (FSP, MSP, PPG, EA, PFD) for consistency with GEF policies, strategies, and review criteria; approve funding requests at appropriate stages (GEF CEO)	Throughout the project cycle
GEF Council	Approves projects (FSP, PFD) and provides policy guidance on projects at appropriate stages	Approves Work Programs
GEF Partner Agency (GEF Agencies + GEF Project Agencies)	Helps the national executing partner develop and submit project proposals/final documents for GEF funding; approves project internally; supervises project implementation; undertakes project monitoring, mid-term reviews and submits project completion reports	Throughout the project cycle
National Executing Partner	With the support of the GEF Agency prepares project concept (PIF); undertakes day-today operations of a project; responsible for the overall execution of the projects	Pre-PIF submission; throughout project implementation and completion
Trustee	Sets aside funds for projects; commits funds; disburses funds; undertakes financial closure of the project	Throughout the project cycle
STAP	Screens project proposal at an early stage to identify options to benefit from high-level scientific and technical advice in its further preparation	At PIF/PFD submission Post CEO PIF /PFD clearance
GEF Evaluation Office	Evaluates completed projects and selected themes; undertakes annual performance reviews	After project completion
UNCCD Secretariat	Provides comments on contents of projects or programs in accordance with decisions of the Conference of Parties to the Convention	Throughout the project cycle

Source: GEF Secretariat, *Sustainable Land Management Financing in the GEF*, January 2015.

GLOBAL ALLIANCE ON HEALTH AND POLLUTION - GAHP

GAHP is an International Organization which is founded with a goal to help developing countries to deal with toxic pollution. This is the first International Alliance which is tasked for responding to toxic pollution and health hazards on a world wide scale.

There are three governing bodies in GAHP: Executive Commettee, Secretariat and Technical Advisory Group. The Secretariat is implementing the activities of GAHP which is hosted by the Blacksmith Institute in New York City, a non profit organization founded in 1999 with similar goals of protecting the environment. In 2012 Blacksmith Institute

initialized formation of GAHP with the support of the World Bank, the Asian Development Bank, and United Nations Industrial Development Organization (UNIDO). Now, GAHP has more than 20 members where most of them are ministries of different countries which deal in environmental issues and respectable international organizations.

GAHP also serves as a new mechanism to transfer technology and financial resources from wealthy countries to developing economies (GAHP Report, 2014) and it has it has developed its own Model of Work (Figure 2).

Figure 2

Model of Work

Source: GAHP, *Strategies, Opportunities and Solutions,* European Commision, October 2013.

The Secretariat has been tasked with supporting countries to prepare and implement remediation programs and to act as a liaison and intermediary between countries and the relevant MDBs and donors. The GAHP Secretariat can also help GAHP country members to prepare applications for grants and contracts, and advise as to preparation of loan applications for remediation projects. (GAHP, 2014)

CONCLUSION

From a global perspective soil pollution and contamination has become an increasing problem. Countries that are especially hit with rising number of contaminated sites are mostly developing countries. International response to this issue has been mild at best, and international community has just recently started creating a response to tackle these rising problems. Multilateral Development Bank Funds, Multi Donor Trust Funds, are just some of the ways that the international community has started to deal with financial and funding needs for tackling environmental degradation. This paper presented GAHP and GEF as a possible foundation for future institutionalization of international approach for dealing with financial aspects of environmental and especially soil remediation issues.

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