



# USAID

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## **Plastic Recycling Project**

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Grant number: 165-G-00-05-00102-00  
Grantee name: *MDC-TI.NET*.  
Start date: 01.08.2005  
Completion date: 31.03.2010  
Grant amount: 1.298 700 USD

Financial breakdown  
Total Projected budget from all sources 1.298700 USD  
Total USAID funds budgeted: 598 700 USD  
Total GDA funds budgeted: 700 000 USD  
Expanded USAID funds: 598 700 USD  
Expanded GDA funds: 700 000 USD

This report summarizes the activities performed by MDC-TI.Net team during the period August 1, 2005 - March 31, 2010. The content is broken down into the following sections:

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## **I. Executive summary**

In August 2005, under contract # 165-G-00-05-00102-00, MDC-TI.Net was awarded a grant for the realization of the Plastic Recycling Project "Make Macedonia Clean". This was the first phase of the project or the pilot phase.

The pilot phase of the project was conducted in the period September 1<sup>st</sup>, 2005 through August 30<sup>th</sup>, 2006. The total grant amount for this phase of the project was \$ 98,700.

The objectives of the pilot phase were defined as follows:

- Testing the purchase of PET bottles from individual collectors;
  - Testing the collection of PET bottles from the households;
  - Testing the collection of PET bottles from hotels, restaurants, bars and other;
- Locate PET recycling firm(s), help them initiate recycling operation and export shredded PET

The objectives were realized through the following steps:

1. Competitively based sub-grant program was conducted for equipment and working capital for several entities that undertook the organization of the waste PET collection and processing;
2. Capacity building of the selected companies and organizations to promote and organize PET collection, processing and selling PET waste was conducted.

In September of 2006, following the successful implementation of the pilot phase, the project was extended for additional two years with the objective to further expand the collection and recycling activities, increase the number of involved stakeholders, promote public-private partnerships and create opportunities for new employment and income for the people in Macedonia, and especially for the vulnerable and economically threatened social groups (mostly Roma).

The second phase of the project was conducted in the period September 1, 2006 through March 31, 2010. The total grant amount for this phase of the project was \$ 1,200,000.

The main goal of the second phase of the Plastic Recycling Project was to further create interest in collection and recycling of plastic bottles, identify business leaders eager to undertake the recycling process and provide technical assistance and financial support to build the capacity of those leaders.

The second phase of the project through its activities created new developments in the recycling industry in Macedonia, contributed toward creating value-added exports, attracted FDI, developed innovation in new product development and improved industry competitiveness through vertical integration.

The activities during the second phase of the project had significant impact on making Macedonia compliant with EU environmental requirements. The second phase of the project generated economic opportunities for the most disadvantaged groups (mostly Roma) by engaging them in the supply chain.

In support of the decentralization effort, Municipal Pet collection program built municipal capacity to implement one of their core competencies – waste management, giving them an opportunity to generate additional income from sold plastic bottles as well as establish public private partnership in dealing with waste management and recycling.

The second phase of the project closely cooperated with green school project to jointly raise the public awareness for recycling through established recycling clubs and collection campaigns in schools and their respective communities and neighborhoods.

General project highlights:

- Advanced public awareness in environmental protection: Introduced educative curricula on plastic recycling in primary schools and intensive media outreach; Annual Earth Day festivals.
- Assisted the entry of three foreign and two domestic investors in the Plastic Recycling Industry in the amount of approximately 5 Million USD.
- Assisted in drafting and adopting the Law on Packaging and Packaging Waste that under “producers’ responsibility” principle to organize the collection and recycling of PET beyond USAID support.
- Developed a business model and job creation for recycling industry: Increased collection of PET waste from 350 tons in 2005 to 6,000 tons in 2008 and 2009; generated earnings for 3,000 to 5,000 people in the industry for the most vulnerable group of people (mostly Roma).
- Established Plastic Recycling Association PETRA
- Introduced international experience in Municipal plastic waste strategies;
- Initiated and made compliance with national environmental legislative for 10 companies.
- Sustainable programs for Municipal Plastic waste collection and recycling schemes implemented in 24 municipalities, model available to be replicated by other municipalities.
- Introduced opportunities for EU funding in the waste sector
- Established dialog between the business community and the national and local authorities
- Municipalities that introduced the PET Collection Program recognize its benefits. Several Municipalities led by city of Skopje made budget revisions to purchase additional 500 PET collection containers
- The total local contribution for the realization of the project exceeded the predicted figures in the project work plan and the same has reached the figure of approximately 6 million USD.

## I. Project activities by phases

### A. Plastic Recycling Project (Phase one)-Pilot Phase

The goal of the first phase of the Plastic Recycling project was to locate implementing companies, build their capacity and test scenarios for the collection of used PET, recycling of PET bottles and sale of the shredded material.

The objectives of the pilot phase were defined as follows:

- Testing the purchase of PET bottles from individual collectors;
  - Testing the collection of PET bottles from the households;
  - Testing the collection of PET bottles from hotels, restaurants, bars and other;
- Locate PET recycling firm(s), help them initiate recycling operation and export shredded PET

The objectives were realized through the following steps:

1. Competitively based sub-grant program was conducted for equipment and working capital for several entities that undertook the organization of the waste PET collection and processing;
2. Capacity building of the selected companies and organizations to promote and organize PET collection, processing and selling PET waste was conducted.

Total of eight organizations have been selected and provided technical and financial support. These organizations are:

#	Company	City	Total Grant	Working Capital
			Equipment	
1	AGROPAL	Tetovo	\$19.822	0
2	EKO ERAS	Veles	0	\$8.920
3	AGROSTANDARD	Skopje	\$11.893	\$1.982
4	EUROTRADE	Skopje	\$7.929	0
5	TONI-DEJ	Kumanovo	\$6.938	0
6	ECO PET	Kumanovo	\$7.929	\$991
7	SONCEV RID	Kratovo	\$4.955	\$1.982
8	RIA	Skopje	\$2.973	\$1.982
			\$62.438	\$15.857

### The results of the pilot phase of the project

The final outcomes from the project implementation can be summarized as follows:

- Identified 8 potential leaders in the PET waste collection and recycling;
- Implemented a sub-grant program for equipment and working capital;
- Created direct employment for at least 12 people;
- Indirect involvement of individual collectors estimated at 200 people;

- Collected and "recycled" close to 1000 tons of PET waste:
  - EKO-ERAS, Veles - 400 tons
  - EKOPET, Skopje - 250 tons
  - Agropal, Tetovo - 100 tons
  - RIA, Skopje - 80 tons
  - Agrostandard, Skopje - 60 tons
  - Soncev Rid, Kratovo - 50 tons
  - Toni Dej, Kumanovo - 30 tons
  - Eurotrade, Skopje - 20 tons

## **B. Plastic recycling Project Phase Two**

### **I. Background of the project**

#### **Overall objective and specific result for plastic recycling (Project document)**

The second phase of the Plastic Recycling Project started in September of 2006 with a budget of 1.2 Million US dollars. The main goal was to create economically viable Plastic recycling Industry in Macedonia.

The project activities contributed to the collection of close to 15 000 tons of PET waste in the past three years as of 2006 till end of March 2010, which is approximately 30% of the total PET waste generated in the past three and a half years in the country.

The second phase of the Plastic Recycling Project has been implemented within two broad parts. The first part of the project focused on setting the foundation of the Plastic recycling industry, and on scoping the requirements for sufficient collection that would meet the needs of the created industry. In the second part of the project (No cost project extension) work focused on creating legal background to sustain the Plastic recycling industry beyond USAID support.

#### **1. Achievement of the objectives in the second phase of the project- first part**

The main objective of the second phase of the project was to further expand the collection and recycling activities, increase the number of involved stakeholders, promote public-private partnerships and create opportunities for new employment and income for the people in Macedonia, and especially for the vulnerable and economically threatened social groups.

The goals of the second phase of the project were- first part:

1. Strengthen the current PET collection activities and expand the activities throughout Macedonia;
2. Learning and training, Implementation of Municipal PET collection under IPA funding(building municipal capacities in plastic waste management)
3. Increase public awareness;

4. Plastic Business Incubator;
5. Provide grounds for sustainability of the (PET) recycling;
6. Strengthen the capacity of MDC-TI.NET;

**Goal 1: Strengthening the current PET collection activities and expand the activities throughout Macedonia;**

Objective 1.1: Identify potential network of collectors and small scale recyclers

By the middle of 2006, there were no processing plants producing clean PET flake from post consumer bottles in Macedonia. By the end of 2007, there was only one plant operating with a total capacity of 1200 tonnes. By the end of 2008 there were five processing plants producing clean PET flake from post consumer bottles in Macedonia, with a total capacity over 10000 tonnes gross weight to be recycled. The first PET bottle recycling process was established by EKO ERAS at the end of 2005. However, a major push in the development of the demand and the capacity for post consumer PET recycling occurred when a major Turkish plastic manufacturer, ERH Plastic, established its PET recycling plant in 2007 in Skopje. Today the two PET recycling plants have been joined by: Greentech, Taiwanese PET recycling company that began operations October, 2007; Turkish processing plant- established initially in the Municipality of Gostivar, and than moved to Skopje under new label SIMSEK YUN SANAYI and one domestic company EkoPET that started with processing of PET waste in PET flake. In 2010 only two processing plants remain active, Eko Eras from Veles and Green tech as a leader in the industry. SIMSEK YUN SANAYI and Eko Pet could not survive the financial and economic crises and the downturn in the recycling industry world wide. ERH Plastic continuous with its processing activities limited only to processing of HDPE and LDPE plastic waste. EKO ERAS nowadays is operating under the name of Pavor, since it changed ownership. The project team actively cooperated with additional 25 companies. Within Business development program support was provided through grants and development EIA studies or through the Municipal PET collection program in establishing PPP in execution of the collection schemes.

Contributions by private entities

	<b>Company Investment in the plastic Recycling Industry</b>	<b>Type of equipment</b>	<b>Investment made by companies to meet the Environmental standards</b>
1	Eko eras/Pavor	Complete PET Recycling Plant	1,000,000 USD
2.	ERH Plastic	Complete PET Recycling Plant	800,000 USD
3	Muhamed AG	Shredding machine	3000 USD
4	Eko Flor	Collection equipment, transport and manual	150,000 USD

		separation equipment	
5	Planetum	Completed	50,000 USD
6	Greentech	Complete plastic Recycling Line	1,800,000 USD
7	Simsek sanayi Yun	Complete PET recycling line	400,000 USD
8	Opet	Presses	30,000 USD
9	Soncev Rajkovic Rid	Transportation equipment and collection containers	20,000 USD
10	EKO Pet	Complete Plastic recycling line and presses	600,000 USD
<b>Total Investment by companies</b>			<b>4,853,000 USD</b>

Indicator:

- Establish communication and cooperation with at least five new companies.

Objective 1.2: Implement Business Development Program (Permitting and regulatory issues at PET plastics Collection and Recycling facilities)

In August 2007 USAID Plastic Recycling project awarded grants to 8 companies (more than half of them receiving a grant for the first time) totaling \$25,000. Funds were mostly used for purchasing new equipment (presses), containers or working materials. For selecting grantees basic eligibility criteria were established. However the criteria included as well: collected quantity of PET waste, new investments planned, and the total contribution amount. The contribution of grantees reached the 1 to 3 ratio, for each dollar provided by the USAID the grantees obtained additional 3 dollars, increasing the whole program funds to **\$100 000 USD**.

a. Purchase of processing equipment

Company	Equipment	Company contribution	Amount provided by USAID
Provavil	Horizontal press machine	\$8000	\$3,700
Eko Eras	PET waste washing line	\$10000	\$5,000
Soncev Rid	two vertical press machines	\$7000	\$2,050
Muhamed AG	PET press machine and shredding	\$7000	\$3,300
ERH Plastic	Vertical press machine	\$7000	\$4,400
JKP Proleter	Plastic collection containers	\$7000	\$1,800
Eko Flor	Plastic collectors containers	\$12000	\$2,650

BASKOM	New line for separation of plastic waste	\$7000	\$2,650
<b>Total Amount</b>		<b>\$70,000</b>	<b>\$35,550</b>

Pre grant visits to all the projects were conducted. The selection committee was composed of representatives from the Ministry of Environment and Physical Affairs, Soros Foundation, UNDP, Public Utility Company Komunalna Higiena and SIDA (Swedish International Development Agency).

Operations at PET plastics recycling facilities were subject to a wide range of codes and regulations at state and local level. The results of the assessment have shown that none of the companies comply with newly introduced obligatory environmental rules and regulations. Failure to comply with regulations contributed towards negative effects on leaving environment and could be a subject for criminal penalties, in certain instances.

b. Grants for EIA Studies and Purchase of workers protection equipment

<b>Company</b>	<b>Environmental Impact Assessment Studies</b>	<b>Protection equipment</b>
Eko eras	\$390	\$1000
Baskom	\$390	
Muhamed AG	\$390	\$1000
Eko Flor	\$390	\$1000
Planetum	\$390	\$1000
Greentech	\$390	\$1000
Opet	\$390	\$1000
Tea Andrea	\$390	\$1000
Soncev Rid	\$390	\$1000

**Partnership with the Ministry of Environment and Physical Planning in development of the Business Development Pogram**

Since the beginning of the project, the partnership with the Ministry of Environment and Physical Planning was continuous and focused in two areas: implementation of the Municipal PET Collection Program and trainings provided for recycling companies, through Project's Business Development Program.

The Ministry of Environment, through its representatives, took active role in selection of the Municipalities included in the Project.

The joined activities continued through joint organization of events within public awareness component of the project. USAID Plastic Recycling Project and the Ministry partnered in organizing public awareness campaigns on national coverage: International Earth Day and ten day long campaign in Ohrid, titled "Days of recycling". Both events were held in 2008. It should be emphasized that this component was embraced by the Ministry and they remained committed to it during Project life.

Through the Business Development program, the Project and professionals from the Ministry delivered training for newly established recycling companies on process of licensing. As a result of this activities and continues support provided by the Project, 11 companies, made an effort to reach high standards and received approval from the Ministry to engage in recycling business.

Eleven companies went through necessary training in fulfilling all legal requirements; further to the training, the project, under a cost share principle with PET recycling entities funded the development of Environmental Impact Assessment Studies as a precondition for obtaining the licenses. Nine out of 11 companies were licensed with national environmental rules and regulations. The USAID funded the purchase of safety clothing for all employees of the companies included in the environmental compliance program. One of the companies, Greentech Macedonia, through USAID grant in 2008, conducted Environmental Impact Assessment (EIA) study and purchased sophisticated waste water treatment plant. Under cost share principle, the grantee funded 90% of the equipment from its own resources while the remaining portion of 10% was USAID match. By gaining its license by the Ministry of Environment and Physical Planning in 2009, Greentech became the first recycling company that operates in accordance with EU environmental standards in Macedonia. Green Tech is the only company that possesses sophisticated waste water treatment plant- this way the water used for washing the PET is continuously reused as well.

	<b>Companies</b>	<b>EIA Studies</b>	<b>Investment made by companies to meet the Environmental standards</b>	<b>License Status</b>
1	Eko eras	Completed	20000 USD	License granted
2	Baskom	Completed	None	Company is closed
3	Muhamed AG	Completed	3000 USD	License granted
4	Eko Flor	Completed	10000 USD	License granted
5	Planetum	Completed	5000 USD	License granted
6	Geentech	Completed	120 000 USD	License granted
7	Tea Andrea	Completed	2000 USD	License granted
8	Opet	Completed	2000 USD	License granted
9	Soncev Rid Rajkovac	completed	1000 USD	License granted
10	ERH Plastic	Completed	5000 USD	License granted
11	Grenntree	completed	None	Company closed

Indicators:

- At least 10 companies participate in the training workshops
- Three to five companies fully certified with national rules and regulations

Objective 1.3: Initiate municipalities' PET (Plastic) collection and recycling program in Municipalities (Separation and collection of Plastic waste at source)

In the first quarter of 2007, the major project focus was on the preparation of necessary documents, guides and presentations.

During the first quarter of 2007, Municipal PET Collection and Recycling Guide have been completed. The main objective of this guide was to help the municipalities in organizing local PET collection and recycling activity. The Municipal PET Collection Program is one of the components of the USAID Plastic Recycling Project. Its goal is to provide an efficient and economically sustainable system for collecting and recycling plastic waste by establishing public-private partnerships.

The Municipal PET Collection Program was initially implemented in four pilot municipalities: Gostivar, Karpos, Strumica and Kocani. These municipalities were identified and selected as pilot municipalities by an evaluation team composed of Project representatives and a consultant that was hired to help in the initial phase. It took significant effort to develop a workable concept for implementation of the Municipal PET Collection Program. In accordance with the specific conditions and capacities in the four pilot municipalities, each municipality had a unique concept for its implementation of the Municipal PET Collection Program. Following the successful implementation of the Municipal PET collection Programs in the four pilot Municipalities, the program was extended in additional 22 Municipalities.

The USAID Plastic Recycling Project stimulated establishment of public-private partnerships. The commitment of the municipalities to the Project was validated by their in-cash and in-kind contributions. The Project provided up to \$30,000 and the municipalities were obliged to contribute at least 50% of that amount. Memorandums of Understanding were signed with all 26 municipalities

The USAID Plastic Recycling Project provided tools and resources for communities wanting to increase PET collection. The support included:

- Public awareness programs for the 26 municipalities to establish efficient recycling programs and to help communities design and implement cost effective programs.
- Providing infrastructure (containers at drop-off sites) for primary separation of PET plastic in areas with dense populations.
- Distribution of plastic bags to individual households for curb-side collection.
- Development and distribution of the Plastic Recycling Guide to the media, public utility companies, plastic collectors and recycling companies.
- Distribution of PET collection cardboard boxes to schools.
- Distribution of posters, booklets and other educational materials to support primary schools' public awareness campaigns and community education.
- Continuous partnering with community organizations to deliver and implement plastic waste reduction and reuse in the four pilot municipalities.
- Provision of small grants to primary schools for establishing Recycling Clubs to promote recycling in their communities.
- Placement of recycling bins in schools with revenue generated from the sale of the bottles to be used by Recycling Clubs for the benefit of the school.

### **Selection of the Municipalities within the Municipal PET collection Program**

On April 29, 2008 technical committee composed of three members of the Project team was formed to undertake a technical evaluation of the applications. The technical committee made a detailed review of every application to confirm that the applications were completed according to the instructions found on the Project website. The technical committee prepared a detailed report that was sent to the members of the evaluation committee.

On May 7, 2008 an evaluation committee (composed of 5 members, one each from ZELS, the Office for International Trade and Cooperation of the Italian Embassy, the Ministry of Environment and Physical Planning, the Global Environment Facility - SGP, and the USAID Plastic Recycling Project) reviewed the applications based on previously defined criteria.

The objective to initiate and establish Municipal PET collection has been fully achieved through successful implementation of the Municipal PET Collection Program in twenty six municipalities. This pertains to 17 municipalities and the City of Skopje (including 9 municipalities in the City of Skopje). The Municipal PET collection program reached over two thirds of the total population of the R. of Macedonia.

Table1.Total investment in the Municipal Pet collection program

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	394000 USD	Collection infrastructure, bailing machines, public awareness
Municipalities, public utility companies, private partners	985000 USD	Recycling yard, labor, transportation equipment, collection equipment
Total investment	1279000 USD	

### **Municipalities evaluated against indicators**

#### *1. Municipality of Strumica*

##### *Indicators:*

1. At least 25% of Quantity of PET waste collected and recycled;

30 Containers for collection PET have been purchased through Plastic Recycling Project; Additional 30 containers have been purchased and installed by local resources.

Total quantity of PET collected (through formal and informal collection) is 15 tones, 3 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality;

The program succeeded to create opportunities for 5 new employments in the formal recycling scheme, 3 persons employed with private partner “Eko Service Planetum” and two additional employments are registered with the public entity.

In the informal sector the number of persons engaged in collection of scrap material varies from 10 to 20 depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

Three schools included in the public awareness campaign. Approximately one thousand students were affected and directly involved in public awareness activities in plastic recycling

4. Total investment in PET collection in the Municipality of Strumica

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	30000 USD	Collection infrastructure,
Municipality of Strumica	30000 USD	Warehouse, Additional
Eko service	20000 USD	Truck, forklift, employees
Total investment	80000 USD	

## 2 .Municipality of Prilep

### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

30 Containers for PET collection were purchased through USAID Plastic Recycling Project; Additional 80 containers have been purchased and installed by local resources. The PET collection rate is over 50%.

Total quantity of PET collected (formal and informal collection) is 19 tones, 6 tones of PET waste was collected through formal collection while the rest of the quantities are collected by informal sector

2. At least 10 new employments generated per municipality;

The program succeeded to create opportunities for 7 new employments in the formal recycling sector and four additional employments are registered with the public entity.

In the informal sector the number of persons engaged in collection of scrap material varies from 20 to 30 depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

According to the survey and the data from the Public Utility Company, almost 95% of population is aware of the project activities and all schools were engaged in selection of waste

4. Total investment in PET collection in the Municipality of Prilep

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	20000 USD	Collection infrastructure, public awareness activities
Municipality of Prilep	200000 USD	Collection Infrastructure, plastic bags, press, processing plants, public

		awareness activities
Total investment	220000 USD	

The next step of the Municipality and the Public Utility Company was to invest in equipment for fully recycling process of the collected plastic.

### 3. Municipality of Brvenica and Tearce

#### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

30 Containers for collection PET were purchased through USAID Plastic Recycling Project; Additional 150 containers have been purchased and installed by local resources. The PET collection rate is over 50%.

Total quantity of collected PET, including formal and informal collection, is 30 tones on monthly basis. The vast majority of PET collected is obtained through the formal infrastructure and the sorting facility of Eko flor.

2. At least 10 new employments generated per municipality;

The program succeeded to create opportunities for 2 new employments in the formal recycling, 16 persons employed with private partner “Eko Flor “

3. At least 50% of the households aware of the Plastic (PET) waste collection scheme implemented in their respective municipalities)

The schools and the local nongovernmental organizations in the municipalities are included in the public awareness campaign; survey data show increase of awareness of the population about project activities to 65%

4. Total investment in PET collection in the Municipality of Tearce and Brvenica

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	20000 USD	Collection infrastructure, public awareness
Municipality of Tearce and Brvenica	10000 USD	Public awareness, employees
Eko Flor	100 000 USD	Collection infrastructure, truck, processing area and sorting facilities, employees
Total investment	130000 USD	

### 4. City of Skopje (Including nine municipalities)

#### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

117 Containers for collection PET have been financed Plastic Recycling Project; Additional 150 containers have been purchased and installed by local resources.

Total quantity of PET collected including formal and informal collection is around 150 tones monthly, 7 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting. The collection rate exceeds 40% of the total generated PET in Skopje Municipality.

1. At least 10 new employments generated per municipality;

The program managed to create opportunities for 7 new employments in the formal recycling sector. Four additional employments were registered with the public entity.

In the informal sector the number of persons engaged in collection of scrap material depending on the market price of PET varies between 1500 and 2500.

2. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

Almost 95% of all population is aware of the project activities, all schools are engaged in selection of waste

3. Total investment in PET collection in the Municipality of Skopje

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	90000 USD	Collection infrastructure, public awareness activities
Public communal company "Komunalna Higiena"	200000 USD	Recycling yard
Government of Macedonia	200000 USD	Collection containers
Total investment	460000 USD	

##### 5. Municipality of Bitola

###### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

32 Containers for PET collection have been purchased through Plastic Recycling Project funding; Additional 50 containers have been purchased and installed by local resources.

Total quantity of PET collected, including formal and informal collection, is 10 tones monthly; 4 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality;

The program succeeded to create opportunities for 8 new employments in the formal recycling sector and four additional employments are registered with the public entity.

In the informal sector the number of person engaged in collection of scrap material varies from 30 to 50 depending on the buying price of PET waste.

- At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

According to the survey and the data from the Public Utility Company, almost 95% of all population is aware of the project activities, all schools are engaged in selection of waste

- Total investment in PET collection in the Municipality of Bitola

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	30000 USD	Collection infrastructure, public awareness activities
Municipality of Bitola	40000 USD	Collection Infrastructure, plastic bags, public awareness activities, employees
Total investment	60000 USD	

## 6. Municipality of Kumanovo

### Indicators:

- At least 25% of Quantity of PET waste collected and recycled;

30 Containers for collection PET have been purchased through USAID Plastic Recycling Project.

Total quantity of PET collected (formal and informal collection) is 10 tones monthly, 3 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

- At least 10 new employments generated per municipality

The program directly has succeeded to create opportunities for 6 new employments in the formal recycling sector

In the informal sector the number of person engaged in collection of scrap material varies, and sometimes is above 100 person involved in collection of scrap materials, collecting mostly PET waste

- At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

According to the survey conducted on awareness 70% of the households are aware of the project activities and waste collection schemes

- Total investment in PET collection in the Municipality of Kumanovo

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	20000 USD	Collection infrastructure, public awareness campaign
Municipality of Kumanovo	15000 USD	Collection infrastructure,

		public awareness campaign
Total investment	35000 USD	

### 7. Municipality of Saraj

#### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled

32 Containers for collection PET were purchased through Plastic Recycling Project

Total quantity of PET collected (formal and informal collection) is 7 tones, 3 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality;

The program succeeded to create opportunities for 3 new employments in the formal recycling,

In the informal sector the number of person engaged in collection of scrap material varies from 5-10 to depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

Three schools were included in the public awareness campaign. More than one thousand students were directly involved in public awareness on plastic recycling

4. Total investment in PET collection in the Municipality of Saraj

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	20000 USD	Collection infrastructure, public awareness
Municipality of Saraj	10000 USD	
Total investment	30000 USD	

### 8. Municipality of Tetovo

#### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

31 Containers for collection PET were purchased through Plastic Recycling Project

Total quantity of PET collected per month, including formal and informal collection is 20 tones, 6 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality;

The program directly succeeded to create opportunities for 5 new employments in the public utility company.

In the informal sector the number of persons engaged in collection of scrap material varies from 30 to 90 depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

The results from the survey shown that 80 % of the population is aware of the project activities

4. Total investment in PET collection in the Municipality of Tetovo

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	20000 USD	Collection infrastructure, public awareness campaign
Municipality of Tetovo	10000 USD	Collection infrastructure, public awareness campaign and sorting activities
Total investment	30000 USD	

#### 9. Municipality of Ohrid

##### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled

32 Containers for collection PET were purchased through USAID Plastic Recycling Project; Additional 50 containers have been purchased and installed by local resources.

Total quantity of PET collected (formal and informal collection) is 19 tones, 6 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality

The program succeeded to create opportunities for 10 new employments in the formal recycling

In the informal sector the number of persons engaged in collection of scrap material varies from 10 to 15 depending on the buying price of PET waste

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

According to the survey, 95% of the population is aware of the project activities and waste collection schemes in their municipality

4. Total investment in PET collection in the Municipality of Ohrid

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	25000 USD	Collection infrastructure, public awareness campaign
Municipality of Ohrid	30000 USD	Collection infrastructure,

		public awareness campaign
Total investment	55000 USD	

### 10. Municipality of Negotino

#### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

25 Containers for collection PET were purchased through USAID Plastic Recycling Project

Total quantity of PET collected (formal and informal collection) is 10 tones, 3 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality

The program succeeded to create opportunities for 5 new employments in the formal recycling

In the informal sector the number of persons engaged in collection of scrap material varies from 10 to 15 depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

Three schools were included in the public awareness campaign. More than one thousand students involved in public awareness activities of the plastic recycling project

4. Total investment in PET collection in the Municipality of Strumica

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	20000 USD	Collection infrastructure, public awareness campaign
Municipality of Negotino	15000 USD	Collection infrastructure, public awareness campaign
Total investment	35000 USD	

### 11. Municipality of Struga

#### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

7 Containers for collection PET were purchased through Plastic Recycling Project

Total quantity of PET collected (formal and informal collection) is 10 tones, 4 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality

The program succeeded to create opportunities for 4 new employments in the formal recycling sector

In the informal sector the number of persons engaged in collection of scrap material varies from 10 to 15 depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

Three schools included in the public awareness campaign. More than one thousand students involved public awareness activities on plastic recycling

4. Total investment in PET collection in the Municipality of Struga

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	5000 USD	Collection infrastructure, public awareness
Municipality of Struga	5000 USD	Public awareness activities
Total investment	10000 USD	

## 12. Municipality of Vasilevo, Novo Selo and Bosilovo

### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

49 Containers for collection PET were purchased through Plastic Recycling Project; Additional 30 containers have been purchased and installed by local resources.

Total quantity of PET collected including formal and informal collection is 15 tones, 5 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality;

The program succeeded to create opportunities for 5 new employments in the formal recycling, 3 persons employed with private partner "Eko Service Planetum" and two additional employments are registered with the public entity.

In the informal sector the number of persons engaged in collection of scrap material varies from 10 to 20 depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

Three schools included in the public awareness campaign. More than one thousand students involved in public awareness activities on plastic recycling

4. Total investment in PET collection in the Municipalities of Vasilevo, Novo Selo, Bosilovo

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	30000 USD	Collection infrastructure, public awareness
Municipality of Vasilevo, Novo Selo, Bosilovo	30000 USD	Collection infrastructure
Eko service	20000 USD	Truck, forklift, employees

Total investment	80000 USD	
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### 13. Municipality of Kocani

#### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

23 Containers for collection PET were purchased through Plastic Recycling Project

Total quantity of PET collected including formal and informal collection is 10 tones, 3 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality

The program succeeded to create opportunities for 5 new employments in the formal recycling

In the informal sector the number of persons engaged in collection of scrap material varies from 10 to 15 depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

The results from the survey has shown that 90% of the population is aware of the project activities

4. Total investment in PET collection in the Municipality of Kocani

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	30000 USD	Collection infrastructure, hydraulic press for balling, public awareness campaign
Municipality of Kocani	15000 USD	Collection infrastructure, public awareness campaign
Total investment	45000 USD	

### 14. Municipality of Gostivar

#### Indicators:

1. At least 25% of Quantity of PET waste collected and recycled;

24 Containers for collection PET were purchased through Plastic Recycling Project

Total quantity of PET collected including formal and informal collection is 15 tones, 3 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

2. At least 10 new employments generated per municipality;

The program succeeded to create opportunities for 5 new employments in the formal recycling, 3 persons employed with private partner "Muhamed AG" and two additional employments are registered with the public entity.

In the informal sector the number of persons engaged in collection of scrap material varies from 15 to 30 depending on the buying price of PET waste.

3. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

Three schools included in the public awareness campaign. More than one thousand students involved in public awareness activities on plastic recycling

4. Total investment in PET collection in the Municipality of Gostivar

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	30000 USD	Collection infrastructure, hydraulic press for balling, public awareness campaign
Municipality of Gostivar	15000 USD	Collection infrastructure
Muhamed AG	15000 USD	Employees
Total investment	60000 USD	

#### 15. Municipality of Resen

##### Indicators:

5. At least 25% of Quantity of PET waste collected and recycled;

10 Containers for collection PET were purchased through USAID Plastic Recycling Project

Total quantity of PET collected including formal and informal collection is 15 tones, 3 tones of PET waste is collected through formal collection while the rest of the quantities are collected through informal collecting

6. At least 10 new employments generated per municipality

The program directly has succeeded to create opportunities for 5 new employments in the formal recycling, 3 persons employed with private partner "Muhamed AG" and two additional employments are registered with the public entity.

In the informal sector the number of persons engaged in collection of scrap material varies from 15 to 30 depending on the buying price of PET waste.

7. At least 50% of the households aware of the Plastic(PET) waste collection scheme implemented in their respective municipalities)

Three schools included in the public awareness campaign. More than one thousand students were involved in public awareness activities on plastic recycling

8. Total investment in PET collection in the Municipality of Gostivar

Entity	Amount	Description of the investment
USAID Plastic Recycling Project	4000 USD	Collection infrastructure, hydraulic press for balling, public awareness campaign
Municipality of Resen	5000 USD	Space and construction

Public Utility company	15000 USD	Bailing machine and Employees
Total investment	19000 USD	

## **Goal 2. Capacity Building. Implementation of Municipal PET collection under IPA funding (building municipal capacities in plastic waste management)**

### Objective 2.1 Slovakian Plastic Recycling Learning and training Study Tour

On April 21, 2008 a group of Macedonian representatives visited Slovakia for ten days for a study tour called "Plastic Recycling Experiences in Slovakia." Both the USAID Human and Institutional Development Project and the Plastic Recycling Project supported the tour. The tour was organized by the "Euro plus." consulting and management company based in Slovakia.

The Macedonian representatives were highly focused and each member met his/ her counterpart in Slovakia. The interactions between the individuals and the group proved to fulfill the requirements of the Macedonian representatives. The Macedonian group learned that Slovakian state institutions, in coordination and collaboration with the business sector and its associations, were able to create a recycling industry where 90 million euros were invested and 1,000 new jobs created.

The group consisted of representatives from: local self-government and their municipalities involved in the implementation of the Municipal Plastic Collection Program, public communal enterprises that established and service the system for the primary collection of plastic waste, private firms involved in plastic collection and recycling, primary schools, NGOs engaged in fostering plastic collection schemes. Moreover, the group was diverse relative to ethnicity, gender and geographic location.

The following representatives participated in the study tour:

1. Aleksandar Lazarov, " Planetum Plus, Strumica – Director
2. Igor Hristov, NGO Ednakvi za site, Kocani – General Secretary
3. Goce Serafimov, Municipality of Kocani – Environment assistant
4. Hasip Jusufi, PCE Komunalec, Gostivar – General Manager
5. Arben Fejzulaj, PCE Komunalec, Gostivar – PET Program Coordinator
6. Blagica Blazevska, Municipality of Karpos, Skopje – Environment inspector
7. Jugoslava Polenak, PCE Komunalna Higijena, Skopje - Coordinator
8. Dejan Antic, USAID PRP staff
9. Haki Iljazi, PCE Tetovo, Tetovo - Director
10. Vlado Angelov, Primary School "Nikola Karev" Kocani - Director

### ***Study Tour Outcomes***

Some members of the group have initiated the process of establishing a Macedonian Association for the Recycling of Plastic Waste.

The study tour participants asked for assistance from the USAID Plastic Recycling Project to support the first preparatory meeting of the initiating Board that took place in the hotel Bistra-Mavrovo May 15-16, 2008.

Indicators:

- Increased capacity of participating municipalities with regard to Plastic(PET) waste management, and how to implement small-scale activities with potential for expanded replication within their municipality
- System for Co-operation between the Municipal Administrations and legislative authorities and NGOs in elaboration and promotion of environmental projects

2.2. Develop Municipal PET collection Program in two municipalities under IPA guidance

With regards to the implementation of the Municipal PET collection under IPA, training was undertaken to achieve the objective of building municipal capacities in waste management under the new EU financing instrument. All 26 Municipalities accompanied by representatives of the Public Utility companies received three day training. The main objective of the training was to develop municipal capacity to support municipal PET plastic collection schemes through access to IPA funds for municipal waste collection schemes. As well as build the capacities of municipal administration nation wide in facilitating and coordinating the preparation of PET waste collection projects under IPA funding. The first part of the trainings and workshops were executed by an experienced team of experts from the NGO MCET(Macedonian Center for European Training).

**Participants:**

- Representatives from Local Governments and Public Utility Companies included in the Municipal PET collection Program;
- Representatives from Ministry of Environment and Psychical Planning;
- Representatives from Association for Recycling PETRA;
- Representatives from USAID Plastic Recycling Project.

**Total Number of Participants: 50**

**Training Topics delivered:**

- Know the EU Institutions
- EU Enlargement Policy
- New Lisbon Agenda
- IPA Component 2
- IPA Component 3
- Functioning of European Institutions
- Community Programs
- Competitiveness and Innovation Program (CIP)
- Europe for Citizens
- Framework Program 7
- LIFE +

The training gave an overview of the European Union values, institutions, polices and integration processes. It also provided in-depth information on all community programs relevant for the environment as well as for Macedonia. Examples of successful project were discussed as well as new project ideas. The participants were active in asking

questions, discussing and learning about relevant community programs. The training materials distributed to the participants represent a guide for composing community programs. They can be used for defining project proposals under different programs or program components.

### **Goal 3: Raising Public Awareness**

Realizing that public awareness is essential for the success of the Project, the USAID Plastic Recycling Project has emphasized organizing public awareness events and promoting Project activities. The USAID Plastic Recycling Project organized several promotional campaigns and participated in various events – the high point being the organization of the Earth Day in Skopje on April 20, 2008. The effects from the Public Awareness campaign were soon visible – the population is informed about Project activities and is aware of the benefit to their community from the PET Collection system that is being established.

One of the primary goals of the Plastic Recycling Project is raising public awareness among the local population. This includes informing the public about the primary separation of plastic waste and the importance of recycling. Particular emphasis in the Project implementation was put on the successful conduct of a public awareness campaign and clearly sending messages to the citizens. Funding of approximately \$2000 to \$4000 per Municipality was earmarked for supporting activities to inform citizens about the need for and importance of recycling PET packing.

Examples of public awareness activities undertaken in the Municipalities include:

- All partners in the Municipalities contributed to raising public awareness about the Project. Citizens were informed about the signing of the Memorandum of Understanding and the opening of the first eco-island. Both events were public and were covered by local and national media
- A survey was undertaken to determine the familiarity level of the population with the Project. Almost 90% of those surveyed were familiar with the Project activities
- Recycling Club members were continually involved in raising public awareness.
- The local media continually and thoroughly informed the public about current and future activities, implemented by the Project partnership in the Municipalities
- Recycling Club members presented an outstanding masque for the Strumica Carnival held on March 11, 2008. 30 students from three primary schools made an extraordinary impression and won 2<sup>nd</sup> prize in their category. By promoting the masque and its uniqueness at the Carnival, the message about the significance of recycling was successfully conveyed at both the local and national levels
- Recycling Club members and employees from the Public Utility Enterprise organized several activities to provide plastic bags to local households for separation of plastic waste. They also distributed leaflets to the citizens explaining the need for recycling and providing guidelines regarding how to recycle. Those activities were implemented in the section of the Municipality where containers for plastic waste separation had already been placed and where citizens already separate waste in their homes. Providing bags to households eases and further stimulates the population to properly manage waste created in their homes

#### ***Earth Day Event***

The International Earth Day was celebrated April 20, 2008 in the City Square in Skopje. The Plastic Recycling Project, with the support of the City of Skopje and the Ministry of Environment, organized an event that lasted from 11 a.m. to 3 p.m. The event was organized to emphasize the need for recycling all over the world. The entire team of the Plastic Recycling Project was actively involved in the event preparation and overall organization. The event was perceived as being highly professional and left a positive impression on all who attended.

In the "Recycling Village" visitors of all ages could enjoy numerous activities. The primary focus was on children and the Recycling Clubs from all four pilot municipalities had booths and offered entertainment for the crowd. Students from the primary schools also participated in a poster contest to illustrate the Project slogan – "Sobiraj PET za podobar Svet" (i.e., Collect PET for a Better World).

Students from the Strumica Recycling Clubs presented three theater performances in addition to the masque from the Strumica Carnival.

#### Indicators:

- At least 50% of the households in the municipality reached with the campaign

#### **Green Schools**

Education activities in four of the partner municipalities included the development of the "Green School" concept implemented by the USAID Plastic Recycling Project in cooperation with the Primary Education Project.

The activities undertaken include the following:

- Internet research on similar concepts, projects, programs and educational materials implemented by schools or NGOs worldwide
- Communications and meetings with experts in ISO 14000 regarding environmental management and its possible application in schools
- Research on existing projects, programs and educational materials for environmental education in Macedonia
- Visiting four primary schools in Skopje to assess their interest in being involved in an environmental education initiative
- Meeting with team members of the USAID Plastic Recycling Project, as well as representatives of the USAID Primary Education Project (PEP), to outline how cooperation can proceed between the two Projects to implement a green school pilot

After undertaking the above-mentioned activities, a concept paper was developed outlining how to implement a pilot project to coach schools to become Green Schools. The pilot was implemented June 1, 2008 – July 31, 2009, in five schools in Macedonia, in partnership with the PEP project.

According to the concept paper, the Green Schools aimed to a) promote environmental-friendly behaviors and lifestyles among the students, the school staff and the wider community; b) actively seek ways to reduce a school's negative impact on the environment; and c) initiate environmental actions in the school and in the communities.

The Project presented a Green School Framework and strived to develop a Green School methodology for further replication through the pilot phase, together with the

participating schools, in order to ensure local ownership and to meet the local school's needs. Pilot activities included:

- Development and application of a Green School Curricula in the schools
- Support to schools in planning and implementing environmental actions in the schools and/or community
- Establishment and facilitation of a teachers forum
- Establishment and facilitation of a schools' competition event
- Establishment and facilitation of Green School Award

The Pilot Project has been successfully conducted living space for additional schools to be included in the next phase.

#### **Goal 4: Provide grounds for sustainability of PET recycling**

As for the final objective of the Project, which is providing grounds for sustainability of the PET recycling in Macedonia; on May 16, 2008 the PET Recycling Association of Macedonia (PETRA) was formed with the support from USAID Plastic Recycling Project. PETRA is an organization consisted of different entities that are directly involved in the process of PET collection and recycling.

On their return from Slovakia, study tour participants, agreed to create an association of recyclers and collectors and decided to name this association "PETRA Recycling Association," the charter was approved and a concept paper for PETRA was adopted by the members of the Board.

The Plastic Recycling Association (PETRA - working name) was officially established on July 30, 2008. In July 2008, PETRA elected a steering committee whose members adopted the strategy document and the concept for organizational development. The Leadership Council consists of seven members coming from municipalities, public utility companies, recycling companies landfill companies and PET equipment and two Ex-officio members coming from ZELS and Ministry of Environment and Physical Planning. Mr. Alexandar Lazarov was the first elected president of Petra.

**The goal of the Association is promoting and lobbying for the adoption and implementation of the law on packaging and packaging waste.** It is consisted of business leaders of the sub industry, NGO sector and representatives from educational institutions. PETRA will welcome members from other sectors of the Plastic industry, resin producers/traders, containers manufacturers and bottle end-users. It assists local authorities in establishing effective municipal Plastic collection and recycling programmes and will maintain close relationships with European national associations dedicated to the recovery and recycling of Plastic/ PET waste.

**The Vision of PETRA is to become nationally accredited organization that acts as main advisor of the recovery of PET/plastic packaging waste in Macedonia.**

**Mission tasks of PETRA include following topics: Lobby for creation for the adoption of the law on packaging and packaging waste; Development of recycled end products**

In order to respond appropriately to it's mission tasks, PETRA created task forces on following topics: Lobbying and advocacy; Marketing and Promotion; RPET product

development; International Relations; Municipal PET collection program and New Technologies and Procurement

In addition, the following elements of PETRA's strategy for sustainable development were determined:

Vision: Become a nationally accredited organization that coordinates the Recovery of PET packaging waste.

Mission:

1. To lobby for establishing of the legal background for plastic recycling.
2. To promote waste collection and waste recycling.
3. To develop recycled end products.

Areas of Focus:

PET-related Legislative and Regulation Reform

- Adoption of legal acts that will introduce PET recovery and recycling
- Institutional framework for PET Recovery/Recycling
- Licenses and Permits for its members

Municipal PET Collection Program

- Public-private partnership
- Expand the network for PET collection in all municipalities in Macedonia

Marketing and Promotion

- Creation of integrated public awareness campaign for PET recycling
- Annual events planning (Earth Day, Carnival, Sport, Concerts)

RPET Product Development

- Creation of baseline study for PET generation
- Collect world experiences for various RPET products
- Explore the possibilities for RPET product development in MKD

International Relations

- Regional networking
- Integration with EU PET CORE Association

The first indicator was fully met as Petra was successfully established while the second indicator needed more time for Petra to absorb the vast amount of activities undertaken by the plastic Recycling Project.

Indicators:

- PETRA established
- Transfer of project activities successfully undertaken to PETRA

### **1. Achievement of the objectives in the second phase of the project- second part 01.03.2009-31.03.2010**

The second phase-second part (No cost extension) of the project began with preparatory activities to assist the Ministry of Environment and physical planning in drafting and adopting the law on packaging and packaging waste. Thus the activities were directed toward enabling inclusive transparent consultative process in drafting the law. At the

very beginning stakeholders involved concluded that the draft Law, being in its early phase, lacks clear explanation of the principle and definition of the mechanisms for achieving compliance with the EU directives on Packaging and packaging waste. In November 2008 the Ministry of Environment and Physical Planning (MOEPP) has approached USAID Plastic Recycling Project asking for technical and legal assistance in incorporating the projects expertise in this field as well as transfer of know how on the proposed draft Law on packaging and packaging waste based on lessons learned from Bulgarian and Slovakian experiences.

The Goals, objectives and activities to be achieved during this phase were:

**Goal I: Introduction of the law on Packaging and packaging waste (Technical Assistance to the Ministry of Environment and Physical Planning)**

During the preparatory period based on the signed MOU, the Ministry of Environment and Physical planning appointed Mrs. Lence Kurcieva-Assistant Manager of the Department for European Union affairs and Ms. Besare Osmani as focal points, in implementing the activities concerning this objective.

Several meetings were held including USAID representatives, Tanja Markovska, USAID CTO, Arijan Toska and Dejan Antic from PRP and Samir Latif from BEA and Ministry staff, Lence Kurcieva and Jadranka Ivanova, for defining the role and the extent of the technical assistance to be provided by USAID Plastic Recycling Project. Through these consultative meetings the Plastic Recycling Project defined the content of the support concerning the organization and number of workshops and public debates to be supported as well as defined concrete implementation timeframe to be followed regarding the law on Packaging and Packaging waste.

The Plastic Recycling Project through this activity provided logistical and technical support in organizing four separate workshops or public debates throughout Macedonia, in order to provide technical and professional assistance and feedback from the concerned stakeholders to the development of the Macedonian Law on Packaging and Packaging Waste management. More over, it will bring foreign expertise from neighboring EU countries (Bulgaria) to present different and compatible models of management systems for packaging and packaging waste.

This assistance enabled Ministry staff to incorporate in the draft law the comments and feedback from stakeholders.

**Activity 1: Workshop (public debates) scenario for the technical assistance to the MOEPP in drafting the law on packaging waste**

The first introductory workshop (public debate) concerning the draft law on packaging and packaging waste was held on 18th of March 2009, the public debate attracted wide interest among stakeholders, more than 80 participants including all relevant sectors (Association of Municipalities, Association of public utility companies, Association of packaging industry, Association of recycling industry, association of water bottling) attended the public Debate.

Key speakers at the event were; Minister Nexhati Jakupi, her Excellency, the Dutch Ambassador Ms. Simone Filipini, The USAID Mission Director Mr. Michael Fritz, and Ms.Lence Kurcieva, Deputy Head of Department on EU affairs. Mrs.Kurcieva delivered a detailed presentation on the draft law on packaging and packaging waste, including

EU directives, explained the need for such a law and shared progress in process of drafting the law. She also informed participants for the time frame for adoption of the law; parties involved in designing the law; roles of each party and expected contribution to the process by the major stakeholders; procedures to be followed when adopting this law.

The participants had an opportunity to get acquainted with the achievements of the USAID Plastic Recycling Project: the Draft Law on Packaging and Packaging Waste and time line of activities related to the finalization of legislation; the strategy of Association of Recyclers PETRA; sustainability of waste management; new investments of the PC "Komunalna Higiena", among other issues.

During the official opening of the debate, participants were greeted by the Minister of Environment and Physical Planning, Dr. Nexati Jakupi; Director of USAID/ Macedonia, Michael Fritz, and H.E. Ambassador of the Kingdom of the Netherlands, Simone Filippini.

Minister Jakupi confirmed once more the preparedness of the Ministry of Environment for opening the process to the public and making improvements to the existing draft that will encompass roles and responsibilities of all involved in the recycling of plastic waste. "I hope that through our joint activities and public debates as this one, you will be empowered to actively contribute to developing a clear, comprehensive and EU-aligned law on packaging waste. Your commitment to this process is critical as is the Government's support to laying a strong foundation for environmental conservation and protecting Macedonia's natural beauty ", said Michel Fritz, Director of USAID/Macedonia. H.E. Ambassador of the Kingdom of the Netherlands, Simone Filippini reconfirmed support to the process and highlighted that immediate action needs to be taken in order to protect the environment in order for these goals to be achieved.

Most of the participants raised their concern about the current status of recycling with regard to ongoing world recession and its negative effects on this industry. It was stressed that the industry is striving to survive in the absence of legal framework, therefore most of the stakeholders urged the ministry for swift response concerning current crises and requested that the collected eco tax is reallocated to recovery and recycling organizations thus addressing its objective of collection.

At the end of the public debate it was concluded that the stakeholders need to be further informed about the law on packaging and packaging waste thus it was decided that regular update and intensified communication with stakeholders would benefit the process of drafting the law.



Concerning the expected update of the draft law on packaging and packaging waste during the month of May, the PRP in cooperation with Association of water bottling industry will organize a second workshop(public debate) aiming to further inform the stakeholders on draft law and its recent update as well as obtain feedback from them.

The first workshop has produced expected outcome when assessed against Indicators set in the work plan. The large number of participants has revealed the importance of the law whereas the public debate has identified the role of each stakeholder as well as produced critical understanding about the benefits of the law among most stakeholders, consequently it has created enabling environment for building a wide coalition.

## **Second Public debate on Draft Law on packaging and waste packaging - Ohrid June 27, 2009**

Prior to delivery of the remarks and proposals from the stakeholders divided in three groups, the stakeholders were greeted by **Mr. Nexhati Jakupi, the Minister of Environment and Physical Planning**, in his speech he stressed the importance of transparency and respecting the inclusion of all involved in the drafting process. Thus once again he stressed that the MOEPP is open to discuss and welcomes all proposals, comments and remarks that will improve the draft text of the Law, and are in line with an effective option to meet the interest of all subjects, but also takes care about environmental protection.

**Following the speech of the Minister H.E.Mr. Erwan Fouere, the head of the EU mission in Skopje** reconfirmed the importance of integrated waste management, not only as high priority of the EU integration process, but also as an issue addressing directly the country image and health, economic prosperity and future generation heritage. He stated very clearly EU commitment to assist the process of waste treatment and waste management in Macedonia.

**Mr. Tim Hammann**, The head of the economic development in the USAID mission in Skopje expressed his satisfaction and USAID participation in such an important issue. USAID Plastic Recycling Project was the first step towards addressing plastic waste management issue since 4 years already, and is now also an important factor in finalizing the Law by giving technical support and assistance to the MOEPP. USAID have worked hard in increasing public awareness too, contributing to the education of children and students throughout the country.

On June 27, 2009 USAID Plastic Recycling Project organized a one day debate in Ohrid, where all involved subjects were presented with the newest draft on Law on Packaging and Waste Management. Experiences from Bulgaria were also presented by the most significant operators in Bulgarian packaging waste management system, and Bulgarian Ministry of Environment and Waters.

In addition to the presentations, all participants contributed to the debate with their remarks and proposals, given to MOEPP and presented in front of relevant stakeholders and active subjects.

At the end, Mrs. Ivanova from MOEPP expressed her gratitude to all participants, and clearly stated willingness to listen to the positive remarks, and implement all suggestions which can improve the quality of the Law.

After the presentations, four work groups were organized:

- Group of collectors and recyclers – PETRA members and other
- Group of producers, traders and other packaging waste producers – MAPEK members and other
- Group of NGO's that are fully active in the waste management activities
- Group of municipality representatives and Public Utility companies representatives

The work of the work groups were supported / facilitated by representatives of the Ministry and guest from Bulgaria.

## 1. Final Remarks and Conclusions

The goal of the work groups was to brainstorm and discuss the draft of the Law, and come up at the end with remarks and proposals that were presented to the Ministry in front of important stakeholders including:

- Mr. Nexhati Jakupi, minister of MOEPP
- H.E.Mr. Erwan Fouere, head of EU Mission in Macedonia
- Mr. Tim Hammann, head of USAID Economic growth office, and
- Mr. Petreski Aleksandar, City of Ohrid Mayor.



We strongly believe that this will contribute in creating final draft which will be most effective and influenced by all participants of the process.

## 2. Remarks and Proposals from various stakeholders

- Group of producers, traders and other packaging waste producers – MAPEK members and other.
  - Article 38 – additional expenditures for the industry in time of world recession will be reflected upon end consumers.
  - Twice payment:
  - Economic measure towards government
  - Financing of a legal person responsible for packaging waste management.
  - National yearly targets
  - Deadline should be year 2020 (according to EU experience, 10 years of implementation are needed)

- Given date for submitting the Law to Government 31/08/2009 – too short deadline for further comments and proposals, because of peak holiday season.
- Different prices (contributions) for PET and other plastics.
- Review of taxes / contributions:
  - Until year 2007 – from 2,5 to 4 MKD/1000 bottles
  - Since March 2007 – 800 MKD/ton
  - 2009 Draft Law – 3.500 MKD/ton of PET, 6.200 MKD/ton the rest of plastics
  - Detailed specification regarding long live packaging
- Group of NGO's that are fully active in the waste management activities.
  - Public awareness increase, in order to improve public behavior.
  - Activities:
    - Public campaigns
    - Public debates
    - Research (Interview)
    - Analysis (conclusions and recommendations)
    - Further education in public educational institutions.
  - Take advantage of the existing knowledge and experience of NGO activities in collection and recycling of PET, and advantage of existing infrastructure, like:
    - Eco islands
    - Informal collectors
    - NGO's existing PET facilities
  - Participation within process of preparation and creation of yearly plan for packaging waste management:
    - Strategic planning
    - Implementation of tools and methods
    - Take advantage of experienced and educated NGO's staff
    - Follow-up and evaluation of realization of packaging waste management.
- Group of municipality representatives and Public Utility companies representatives.
  - What are the competences and benefits of Municipalities and Public Utility Companies?
    - How the contribution will be distributed?
    - Competences of City of Skopje Municipality towards other Municipalities within Skopje?
  - In case of failure (to collect targets), who will bear responsibilities?
- Group of collectors and recyclers – PETRA members and other.
  - Article 4 – Definitions: waste collectors and recyclers are not mentioned at all. Bearing in mind that collectors and recyclers are the final step in the waste management chain, it would be necessary to define them, too.
    - Article 20 – This article states that a legal person, operator of waste management system, can only be organized by producers, packers and traders. During presentation of Mr. Milen Dimitrov from EKOBULPACK, we understood that Bulgarian system allows collectors and recyclers to be able to participate as owners (founders) of legal person – operators of waste management system. We do believe that our Law should also give the possibility to collectors and recyclers to participate as shareholders (founders) of waste management operators, which can comply with regulations.
    - Article 22 – Informal collectors are mentioned in this article, as participants in collection centers and buy-out centers. It would be advisable that Law incorporates the

informal groups (mainly Roma population) and give them priority employment in collecting, sorting and recycling centers to be organized.

- Article 33 – Collection and recycling (National targets). This article is defining the targets our country has to fulfill until year 2018, defined by EU regulative. This is a period of 9 years after law introduction. We should take in consideration that EU already works to set higher targets than these, and we expect to see much higher minimal targets. Don't forget that during previous debate about Law draft, (March 2009) MOEPP has presented year 2016 as a deadline. Now we have an extension of 2-3 years, fact that we consider not good. We would suggest 5-6 years period, bearing in mind EU increase. An argument toward this is our experience in collecting PET: even now, when market prices are much lower, the collected percentage is 25-30% from all PET packaging distributed. For other types of plastic, percentages are lower, but an average of 22,5% of all plastics waste can be obtained in much shorter period. It would be helpful to set yearly targets (separate for each year). This will enable us to evaluate results of collected waste each year, not to wait for the final year target. We will give an example for plastic: (Increase of cca 20% per annum)

- Year 2011 – 10%
- Year 2012 – 12%
- Year 2013 – 15%
- Year 2014 – 18%
- Year 2015 – 22,5%

- This article is also defining the exported quantities of packaging waste as achieved targets, if they are properly treated according Law. Our remark towards this article is to define more precisely that packaging waste should not be exported if there is such a recycling capacity within the country. Of course, Law should take care of market prices, thus eliminating monopolistic position of certain companies. There are 5 companies in Macedonia, dealing only with PET bottle recycling. We will give the example from Hungary and Romania, where exported quantities of packaging waste (not recycled) is not taken in consideration towards achieved targets, and accordingly fees paid are not refunded to operator. Important note is that packaging waste presents an asset of each country, which should be used in the economic development. Bulgarian guests presented a fact: waste recycling industry became second biggest industry (after tourism sector only) in GDP creation in Bulgaria. This is an argument plus and should be used by government to promote efficient way of usage of waste in economic growth promotion. Beside, this is according Article 2 from the Law, sustainable development principle. It is common practice, throughout the world, each country to promote internal recycling and recovery industry, contributing to new job creation, payment of taxes and contributions, and GDP growth

- Article 36 – Packaging Waste management committee. Representatives from collectors and recyclers are not mentioned at all. In order to cover all system segments, we do believe that representatives from collectors and recyclers are needed within other committee members

- Article 38 – Economic instruments (contributions to be paid). This article defines different amount of contribution to be paid for:

- PET – 3.500 MKD/ton,
- Other plastic polymers – 6.200 MKD/ton

- This is not the case within EU. Bulgarian experience tells there is only one amount of contribution for each plastic type waste: 125 EUR/ton. Explanation was given that PET waste is a large amount, and dealing with it gives a lot of trouble to operators, therefore contribution should not be lower than for other types of plastic waste. We also noticed that contribution towards paper and cardboard is very similar to PET waste:

3.200 MKD/ton against 3.500 MKD/ton. This is out of logic, having in mind that paper and cardboards participate in much higher amount in packaging materials, and their collection and recycling is far less demanding and cheaper than plastic. Nevertheless, article 33 from the Law anyhow is giving one single national target (22,5%) of all types of plastic (PET is not separated from other types of plastic). We would like to stress the increased usage of PET, not only in food industry, but also in detergents, softeners, liquid soaps, small devices like mobile phones, fans, toys etc. On the other hand, other types of plastic (polyethylene, polypropylene) are used more in the food industry. Therefore, we should not make difference between these most frequently used types of plastic, and our recommendation is to use one single contribution of MKD 6.200 / ton.

- Article 43 and 44 – Penalties. Amount of penalties should be high enough to prevent frauds, and giving possibility to operators to pay the penalty instead of fulfillment of obligations (targets). This is particularly valid for the big operators. We can give the example from Croatia, where lowest penalty to be paid is EUR 50.000.

- Article 48 – Having in mind the start date of Law pointed on 01/01/2010, it seems that deadlines defined in article 48 are outdated. If Law implementation starts on 01/01/2010, the first reports from producers, packers and traders should be available by March 31-st, 2010, not by March 31-st, 2011. This is extremely important; in order to have accurate information about generated packaging waste. The importance of database creation ASAP is also needed by Ministry, for purposes of drafting annual Program. At the same time, article defines that contribution payment should start on January 1, 2011. Logically, there should already be a report before payments are effected.

Formation of Committee should be latest by December 31, 2010, not by December 31, 2011

First report latest by December 31, 2010, not by December 31, 2011

Identification and marking requirements should start from January 1, 2011, not by January 1, 2012.

Note - Information given by representatives from Ministry:

All these, and other remarks, can be placed and reviewed on the following web site:

[www.ener.gov.mk](http://www.ener.gov.mk)

**Final Draft on Law on packaging and waste packaging  
July 23, 2009**

MOEPP has shared the last (final) version of the Law with the Project. This last draft was shared with all involved parties (especially PETRA members) as well. We discovered that some of the proposals, comments and remarks were implemented in this version, like:

- Law allows collectors and recyclers to be able to participate as owners (founders) of legal person – operators of waste management system.
- Inclusion of one member from the collectors and recyclers in the Executive Committee for allocation of sources.
- Collectors will be entitled with stimulation (subventions) from Government during periods of low economic interest for plastic waste purchase – bearing in mind the importance of continuation of their work.

On the other hand, many of the remarks were not included in the latest draft, mainly addressing issues like:

- Inclusion of one member from the collectors and recyclers in the Executive Committee for the Annual Program for Waste Management

- Contribution payment amount for plastic and PET remained low (3500 MKD)
- National Targets of collected waste are given only for year 2018 (not year by year)
- First Reporting period and Contribution Payment starts only from 01.01.2012. It seems that first benefit from Law adoption (implementation) will only be visible after three years.

Plastic Recycling Project intended to continue providing technical assistance to MOEPP, especially in process of drafting of bylaws and implementation.

### **Approval of the law on packaging and packaging waste by the GoM**

On October 10, 2009, the Law Proposal on Packaging and waste packing was approved by the government. In the upcoming period the document should be discussed at the meeting at the Committee for transport, communication and ecology. When this process is finalized the Law Proposal will be submitted to the Assembly for adoption.

The Project and its stakeholders took this last opportunity to lobby for inclusion of remaining suggestions for increasing national targets (Article 35), shortening the period for implementation of the law (article 63) and inclusion of informal collectors of plastic PET waste. For this purpose the Project team was in continuous communication with the members of the Committee for transport, communications and ecology. Arijan Toska, USAID PRP Chief of Party, held meetings with representatives of the Parliament: Tito Petkovski, Andrej Petrov and Sulejman Rushiti for elaborating suggestions and requirements voiced by the recycling industry and other project stakeholders.

In order to learn more of the process and opportunities for organizing meeting between Committee and projects stakeholders prior the Law proposal is submitted to the assembly, the meeting was held with USAID BEA Project representative, Samir Ljatif. One of his recommendations was that all concerned by the Law to be invited to participate and give their opinion for the last version. The list of participants included as well representatives of MAPAK, bottling industry and others who were part of the group that worked on composing the Law.

The Project continued with it's daily communication with the Ministry of Environment and Physical Planning following progress of the situation related to Law on packaging and waste packing.

**On 29 December 2009**, at the Assembly of Republic of Macedonia the Law on Packaging and Packaging Waste was adopted by the Parliament.

Final information regarding adoption of Law on Packaging and Packaging Waste was published, both in Official Gazette and on Macedonian Parliament's web site. The amendment from Mr. Tome Cingoski (Amendment nr. 07-4730/3), related to article 35 was adopted with a revised text. Ministry Officials explained that National targets will be monitored and revised on yearly basis, through Managing Committee.

All present members (60) of the 87-th Parliament Session voted "pro" for the Law and the amendment.

The detailed information can be found in links indicated below::

1. Final information and confirmation regarding adoption of Law on Packaging and Packaging Waste (Official Gazette from December 30, 2009) The information can be obtained from Parliament's web site: <http://www.sobranie.mk/ext/materialdetails.aspx?Id=65ec8c75-a043-4a4a-b344-5b4d89b31b3d>.
2. You can also find the LAW published in **Official Gazette nr.161** from Dec. 30,2009. See link: <http://www.slvesnik.com.mk/default.asp?section=hronoloski>.
3. Further you can find the steno from the 87-th Parliament Session held on Dec. 29, 2009 (please review pages 29-33 related to Law on Packaging and Packaging Waste adoption and voting) Link: <http://www.sobranie.mk/?ItemID=EAF903A73064DA02F2ED57C5BE408> "

Since 2008, USAID Plastic Recycling Project provided technical support to the Ministry of Environment and Physical Planning in defining the Law and making it applicable to the situation on the field. The need for engaging in this activity emerged as the process of creating the Law already begun without participation of concerned entities. In the initial phase it mainly responded to the interest of the bottling industry.

By engaging actively it's project partners: municipalities, public utility companies, plastic recycling industry and NGO's, USAID Plastic Recycling Project managed to create participatory and transparent process for defining the law in accordance with realities on the field. All concerned had an opportunity to provide their input and discuss with the representatives of the Ministry for the adjustments and updates that have to be made in order Law to be applicable.

The USAID Plastic Recycling Project and the president of PETRA created opportunities for lobbying to the decision makers. As well meetings were held with the parliament representatives, mayors and the Minister of Environment and Physical Planning. Prior the first reading meetings were held with the President of the Committee for transport, communication and ecology, Mr. Tito Petkovski, the Vice president of Social Democratic Alliance, Andrej Petrov, parliamentary representative from VMRO DPMNE Kosana Nikolic Mazneva etc. These meetings were held in order members of the Committee to get acquainted with suggestions proposed by PETRA and the importance for their acceptance.

In the write up posted at the Assembly web site, Committee publicly praises USAID contribution and PETRA members active participation in the process of drafting the Law on Packaging and Packaging Waste. Especially they refer to the information obtained from PETRA that contributed towards adopting the Law to the real needs from the field.

Before adoption of the Law two reading sessions were held.

**On November 24, 2009** the Parliamentary Committee on transport, communication and ecology held the session on Law proposal on Packaging and Packaging Waste. The session was led by the Chairman of the Committee, Titio Petkovski in presence of members of the committee: Jovan Lazarov, Kosana Nikolic Mazneva, Katerina Dimeska, Tahir Hani, Hisen Dzemaili and Tome Cingoski.

Representatives of the recycling industry, municipalities and NGO's were present at the first reading as well, having this way an opportunity to elaborate their comments in front of the parliamentarians.

<b>List of present Invitees</b>	<b>Institution</b>
Zoran Zaev, Mayor	Municipality of Strumica
Enver Pajaziti, Mayor	Municipality of Brvenica
Slavko Ruzinovski, Deputy Director	PUC Skopje
Aleksandar Lazarov, President	PETRA
Orce Pavlov, Owner	Eko Eras
Mihail Mateski, Owner	Grintech, Recycling Company
Zaklina Angelkovic- Paunovska, Project manager	NGO, Ednakvi za site, Kocani
Arben Fejzulai, Owner	Muhamed AG
Tanja Markovska, CTO	USAID
Arijan Toska, Chief of Party	USAID Plastic Recycling Project
Aleksandar Tikvesanski, Business Development	USAID Plastic Recycling Project
Zoran Dimov, Owner/representative of informal collectors	Provavil
Haki Ilijazi, Owner	Eko Flor

**The President of the Committee for transport, communications and ecology, Mr. Tito Petkovski** opened the session. He emphasized that this, first reading, is educational for all members of the Committee. As well, participation of the representatives of PETRA was highly appreciated and welcomed. In several occasions, during the meeting, Mr. Petkovski, highlighted that this model of public debate is unique and very helpful for educating the parliamentary group.

The Law Proposal was presented by the **Minister of Environment and Physical Planning, Nexati Jakupi**. In his address to the participants, the Minister emphasized that the Law on Packaging and Packaging Waste is highly important in the process of alignment of the legislations with the EU policies. This is the last, of nine laws that the Ministry was obliged to adopt in order to respond to the EU requirements.

At this session, municipalities, NGO's, public utility companies, representative of informal waste collectors, plastic recycling entities and president of PETRA had an opportunity to elaborate their proposed suggestions for incorporating current trends and future predictions towards recycling. Below is summary of statements made by participants at this gathering.

**Mr. Aleksandar Lazarov, PETRA president**

Mr. Lazarov explained the requirements submitted to the committee, based upon member's suggestions and recommendations.

According to the request for increase of national targets (art.35) Mr. Lazarov mentioned that already now the percentage of PET collection is around 45%.

The inclusion of informal sector representative into the Waste Management Committee is also one of the prerogatives for successful implementation of the Law. He also expressed gratitude to USAID Plastic Recycling Project for their cooperation and full support to the industry.

Upon address of the president of PETRA, **Mr. Petkovski** made a remark that this is the first reading of the proposed Law and wide participation of all concerned will contribute towards greater knowledge of the members of the Committee.

**Mr. Zoran Dimov, PROVAVIL manager**

According to his information, almost 70% of the Roma population makes their living from waste collection. This remarkable effort benefits to waste collection from yards, parks, streets etc. and contributes to cleaner environment, less waste dumped into official dumpsites, and work that support some 12-13000 people.

He asked for inclusion of representative of the Roma population into the Waste Management Committee, and financial support from the government directly to Roma collectors.

**Mr. Zoran Zaev, City of Strumica Mayor**

Mr. Zaev expressed in advance support to the Law. He is aware that thanks to USAID Plastic Recycling Project, the system for separate waste collection exists already in many municipalities and gives excellent results, improves cooperation from various subjects. He is also aware that some of the targets are already met, and his opinion is that increase of national targets and shortening of deadlines could only stimulate further development of waste management system, and will develop sense of responsibility of the population. He stated his readiness to submit necessary amendments to the law, inline with PETRA requirements.

**Mr. Mihail Mateski, GRINTEH Manager**

Mr. Mateski shared the experience he gained through his company, which operates in the region: Serbia, Romania. According to the existing data, they do recycle around 50% of the PET bottles waste, which is about 6000 t/year. In his opinion, the timeframe for achieving national targets, year 2020, is too distant. Packaging waste is an asset. It should be used ASAP. Bulgarian experience, showing that waste management industry is the second big and very propulsive industry, creating new added value and employing lot of people, should be a strong argument in giving priority to this industry by government officials and other involved stakeholders. Market price determines now the waste collection and recycling. There should be state subsidy in case those parameters are unfavorable, in order to keep the business going on and keeping the environment clean.

He recommended that companies should give first data about quantities of released packaging, as soon as the law is adopted (by 30/03/2010). This will enable early creation of database and better management of the national waste strategy.

**Mr. Slavko Ruzinovski, PUK Skopje Deputy Director**

According to their experience, successful law implementation will depend upon state stimulation: he explained the pilot project they are running in certain Skopje municipalities, where they distribute waste containers and bags, which was accepted very well by citizens. They have also distributed a network of PET waste containers, with the support of USAID PRP. He mentioned that while market price of PET was low, they could hardly manage to empty the containers, because of no interest from individual collectors. Therefore, his opinion is that waste collection should not be strictly connected with market price of recyclables, because of its heavy fluctuation.

**Mr. Arben Fejzulai, Muhamed AG Manager**

Polluters (waste generators) should pay to collectors. Money should be transferred to the first one who will take care of packaging waste: he mentioned Coca Cola Company's example, and experience from the Slovak Republic.

**Mrs. Kosana Nikolic, Member of Parliament Committee**

She expressed her full support to the Law, which will affect significant number of stakeholders, and contribute to national waste management strategy. She also mentioned USAID PRP role in public awareness increase and contribution to Law drafting process through organization of Public debates: Skopje, March 18 and Ohrid, June 27. Remark was given to the Ministry for not having invited members of the Parliament (Committee) to those debates.

**Mrs. Katerina Dimeska, Member of Parliament Committee**

She shares positive attitude and support to the law. She is glad that so many stakeholders are invited to the parliament first reading session, to share their experience and contribute to the law. City of Prilep municipality, expressed gratitude to USAID PRP for supporting the plastic recycling activities in the municipality and have reported on positive effects of the project. The public awareness activities contributed for increased behavior change of the population. These kind of laws are not politically inspired, they are important for the common benefit.

**Mr. Jovan Lazarov, Member of Parliament Committee**

This discussion, as rarely seen in this Parliament, is free of politics, based on expert opinion and contributes. I understood that certain taxes will be implemented, and I wanted to criticize them. Now, I'm aware that taxes will contribute towards environment protection and business development. It is important that financial resources are distributed wisely.

**Mr. Tome Cingoski, Member of Parliament Committee**

SDSM will support this law, with the remarks and improvements given, maybe not 45% of targets, but 30% or 35%. PETRA's presence gives impression that only plastic is recycled. What about current disaster in waste dumping, in Tetovo and Gostivar region ?? Recycling centers should stimulate people to pre-select waste, and avoid dumping of useful waste.

**Mr. Nexhati Jakupi, Minister of Environment and Psychological Planning**

I'm honored from the discussion I heard, part of it is already implemented in the law. Next step will be the adoption of bylaws. We need political consensus in law implementation.

**Mr. Hali Ilijazi, Eko Flor Manager**

The law is essential in reducing waste and increasing dumpsite life. He gave an example from Croatia, where communal waste taxes are paid based upon generated waste from each household: the more you generate, the more you pay. This stimulates households to pre-select waste before dumping it.

**Mrs. Katerina Dimeska, Member of Parliament Committee**

Mrs. Dimeska requested remarks and proposals for strengthening the Law to be sent in written to all Committee members (in electronic form).

**Mrs. Zaklina Angelkovic - Paunovska, Program Manager, NGO “Ednakvi za site”, Kocani**

Thanks to USAID PRP, non government sector was included in law drafting and contributed toward it. Article 38 has include NGO sector representative (this is **not** the informal sector we are here talking about).

**Conclusion of the first reading:** The president of the Committee for transport, communication and ecology, Mr. Tito Petkovski and all members of the Committee concluded that this Law is relevant and should be further taken into consideration. USAID efforts were recognized for both supporting the process and providing excellent educative guidance. Finally, Mr. Tito Petkovski announced that Committee’s conclusion is that **Law on Packaging and Packaging Waste** has passed first reading successfully.

On this issue the PRP communicated Mrs. Lence Kurcieva, Deputy Head of Department for EU at the MOEPP. She explained that absence of legal entity that would represent informal collectors does not allow steps forward to be made. However, this theme will be further discussed and developed.

**It should be emphasized that parliamentarians highlighted the process of defining of the Law on Packaging and Packaging Waste as unique example of political unity and preparedness for consensus. The comments and lobbying efforts of PETRA were as well priced as extremely helpful as they contributed towards strengthening of the Law that initially represented only interests of the bottling industry.**

**Activity 2: Transfer of know how and regional experiences (Bulgarian Study tour)**

Objectives of the visit

The draft version of the Law on Packaging and Waste Packaging built upon the National Waste Management Strategy and plan. It makes an effort to define all the participants in the package waste management in Macedonia, as well as their roles and responsibilities in package waste recycling. It envisions establishment of a system for waste packaging collection, processing and recycling. The draft Law proposed mandatory management of waste packaging for all packaging waste producers however lacked national collection and recycling targets.

MOEPP approached USAID Plastic Recycling Project asking for technical assistance in incorporating the projects expertise on this field as well as transfer of know how on the proposed draft Law on packaging and waste packaging based on lessons learned, and experience gained from Bulgarian neighbors.

On May 25, 2009 a group from Macedonia traveled to Bulgaria for attending three days study titled “Technical Assistance to MOEPP - Waste Management experiences in Bulgaria”. USAID Plastic Recycling Project provided funding for the visit. It was well organized also thanks to the support and engagement of PETRA’s president, Mr. Aleksandar Lazarov.

The list of participants at the study tour included:

1. Aleksandar Lazarov, President of PETRA Association
2. Lence Kurcieva, MOEPP – Deputy Head of EU Department
3. Vlado Karovski , MOEPP – Technical Assistant
4. Mite Nachev, MOEPP – Environment inspector
5. Gjoko Filipceski, Ohrid Public Utility Company
6. Hrisanti Angelovska, MAPEK President
7. Boban Bojkovski, Kumanovo Minicipality – Environment Inspector
8. Aleksandar Tikvesanski, USAID PRP staff

Lessons learned

- The Macedonian group learned that Bulgarian state institutions in coordination and collaboration with the business sector and its associations were able to create a Waste Recycling System that is able to meet the EU requirements and fulfill annual waste recycling projections. Talking point: how the system started being implemented, bearing in mind the starting point (old existing system)? Did they get used of existing infrastructure?
- The group also learned that the system was created step by step, in a short time-frame, and is subject of permanent criticism and changes. It is not 100% ideal and effective, and may not generate same effects if implemented in our country. Talking point: what are the main failures, what are possible solutions? How good is synergy with municipalities, and public utility companies?
- Preparation work of Ministry, creation of accurate company database, thorough analyses of all relevant cost is essential in determining the right value for taxes implemented. Talking point: how to obtain all a.m. data efficiently? How accurate the determined fee will be in order to enable efficient system operation? What in case sources are not enough, companies are not paying, etc?
- The Macedonian group will report and inform all involved parties about Bulgarian benefits gained through the functioning of their system within five years timeframe, and also show the main obstacles and problems they are facing.
- We also became aware of the great importance of public awareness about separate collection of waste. This is, in our eyes, the key factor for implementation of a successful waste collection system. This should start ASAP.

By paying visit to the two most important and biggest compliance schemes for waste management, we understood Bulgarian system, which is based on three main prerogatives:

Producers' responsibility: They are responsible to take care of the waste material they distribute, import, or handle. They can either:

- Organize themselves within one of the six (seven, starting from May 28, 2009) existing compliance schemes specialized in waste management, and pay significantly lower fee than requested from Government,
- Organize by themselves the waste management of their own waste, and prove to the Government that they have fulfilled the tasks, or
- Pay the full contribution to the Government.

Below are the highlights from this visit:

There is a system, managed by EKOPACK, which is based mainly on contracting various service organization regarding collection, transport, sorting and recycling of waste. In order to be efficient, this (rather small) organization of 25 employees has to be very organized, energetic, and most of all keep good communication with municipalities and government bodies.

EKOPACK BULGARIA does not have as shareholders waste collection and recycling companies. This company does not use the services of and does not make payments to its shareholders.



EKOPACK is doing well, first of all, because almost 90% of the waste they treat is generated by only 100 clients (out of 1350 they are handling).

The other system, managed by EKOBULPACK, which is based on investing/building their own sorting facilities believes they are on the right path to solve waste management on the long run, creating added value, opening new working places, and complying with strict regulations and tasks.

In order to be efficient, this (rather big) organization of 350 employees, has to be well organized, energetic, and most of all, they have to permanently invest in expanding their

facilities and covering more area and population. Public awareness is on top place of their priority list.



The goal of the study visit was for the group to get acquainted with the experiences from Bulgaria on the process of drafting and implementation of the Law on Packaging and Packaging waste.

Plastic Recycling Project summarized comments from the Bulgarian experience. All attendees concluded that there are some practices that could be implemented in Macedonian Law.

Below are recommendations provided to the Ministry of Environment and Physical Planning:

- Reliable data to be collected and assessment to be conducted for defining quantities before starting implementation of the Law
- Create list of companies with packaging above 10 tons annually with the actual packaging amounts released on the market in the previous year
- Time horizon for implementation (transitional periods)
- Shorten the forecasted deadlines. Implementation is a living process, which can change significantly within the first 2-3 years of introduction.
- Clear and effective legal requirements for the subjects regarding:
  - Responsibilities
  - Reporting
  - Enforcement (measures against free riders)
  - Action on time is always important

- Bulgarian Packaging and Environment Association never started pilot projects. They recommended us to do so.
- Individual collectors can support the achievement of targets. Pay attention to them.
- Above 60% of plastics collected in Bulgaria come from informal groups.
- In our case the contribution of informal groups of collectors are even more important.
- Work with kids and public awareness.
- Inform the public on the benefits and positive effects of recovery and recycling of packaging waste.

## **Goal II: Public Awareness**

During the reporting period activities were focused on Public awareness activities on national level and Municipal level as well as on several components of the project:

### **Activity 1: Public awareness activities on Municipal level:**

#### **Municipal PET Collection Program- Public Awareness Events**

Support to the project partners in defining the scope of upcoming Public Awareness events in the scope of the Municipal PET Collection Program

Activity 1.: Public awareness on local level

In accordance with the proposed Work Plan, the Project coordinated the awareness activities in 4 municipalities.

During the winter period the project decided to postpone provisioned activities due to hostile weather conditions. Taking into consideration that events involve primary school students, the events are scheduled for May; June; September; October 2009.

Project partners were communicated and were given directions how to proceed with the upcoming activities. Event ideas were shared with the project and comments in terms of reviewing and strengthening proposed scenarios and delivering the appropriate message.

The election period as well had an effect on postponing some activities.

Nonetheless in order to maximize the impact of USAID investment in environmental programs, the USAID Plastic Recycling project has coordinated with PEP Project and support the “Green Schools” program in organizing events that promote both recycling and energy efficiency. This project is implemented in partnership between two USAID projects.

First joint activity was organized in Municipality of Strumica on May 23rd, the “Green schools” Project organized the event titled “Day of green schools” while the PRP through the implemented Municipal PET collection program in Strumica region addressed recovery and recycling topics.

Supplementary public awareness activity undertaken mutually with the youth center were organized in Skopje in the city square on the 15th of May 2009. The PRP in partnership with schools and public utility company Komunalna Higijena will show the process of recovery and recycling of plastic.

## **Activity 2: Public awareness activities on National Level:**

### II. Preparations for the “International Earth Day Activities”, April 22nd, 2009

Preparations for this high level event began in December 2008. The activities were focused on creating scenario of the event, design and compile promotion material, coordinating wide network of project partners: City of Skopje, Ministry of Environment and Physical Planning, representatives of partner municipalities, project’s NGO network, recyclers; EVN- Macedonia and primary schools; USAID Ag-Biz Project, communication with corporate sponsors etc. Preparation activities included design of Scope of Work as well coordinating activities of the Event management company “Feedback”.

Later in the process, wide media outreach campaign was organized in coordination with the USAID Media Outreach Office, and by the Project as well.

The 2009 event was held under the motto “Green Macedonia- Recycle for O waste”. The event gathered leadership, donors community, municipalities, NGO’s, companies that promote healthy/ organic food, recyclers and primary school students.

The new Mayor of Skopje, Koce Trajanovski, Minister of Environment and Physical Planning, Nexati Jakupi and the Minister of Economy, Fatmir Besimi with their presence demonstrated strong support for the Project activities and the new legal framework that is in the process of finalization.

Donors community was represented by H.E. Ambassador of U.S., Philip T. Reeker, USAID/ Macedonia Mission Director, Michael Fritz. The Ambassador of Kingdom of Netherlands although confirmed her presence for April 22, due to already scheduled NATO meeting on April 23, did not show up.

The EVN- Macedonia, General Director, Mr. Georg Waldner joined the VIP’s, confirming once more the companies commitment towards investing in environmental awareness in Macedonia.

Once more PRP provided wide palette of both educational and entertainment activities, primarily designed for primary school children. However we made sure that the event will convey the message to diverse age groups.

The event involved 700 primary education students organized by the PRP, “Green School” Project and EVN-Macedonia. EVN-Macedonia invited more than 350 primary school students enrolled in their Energy Efficiency Project.

Lesson learned from the past campaigns was that cleaning action should be organized prior the official beginning of the event.

All students were engaged in the cleaning action that took place at the main streets of the City center- Macedonia street; Trade Center, “13 November”. At the same time, students distributed flyers containing environmental messages and information on the

event activities. Collected plastic bottles were stored in the huge been placed in the center of the “Recycling Village”.

In order to promote recycling and voice the needs of the collectors of PET waste, the Project organized simulation of selection of plastic waste and it's path to the recycling companies. The final message conveyed by the students after the simulation was: BRING THE LAW.

Sport games organized in cooperation with the Fun Football Project and Quiz organized by the Green Schools Project Coordinator involved additional 350 students.

The participants in the Quiz had to answer correctly questions like: What is waste? Is waste recyclable? What for we use the energy? Which type of transport is hurtful for the environment? Etc.

Three schools, enrolled in the “Green Schools” Project were awarded with Certificates of appreciation, by the Ambassador Reeker, for contribution in protection of environment in the school yards and their community as well.

This year the list of corporate sponsors included: EVN- Macedonia, T-Mobile and Gorska. Antenna 5 Radio accepted to be “International Earth Day Event”, Media sponsors.

#### MEDIA OUTREACH

In order to achieve maximum impact and promote both USAID investment through PRP and the event, the Project communicated all print and electronic media.

Two media appearances were facilitated trough USAID office- morning programs at the National MTV and A1-TV and the rest were coordinated trough the project.

Below are dates of all media appearances:

MTV- Zvon  
MTV- morning program  
SITEL- Morning Program  
ALFA TV  
Macedonian radio- morning program (direct link)  
A1 – TV

Attached to this report are as well electronic versions of the information from both print and electronic media.

MTV, the program “Here- in our surrounding” created 30 minute long documentary incorporating both project achievements, activities with students and statements of the Ambassador Reeker, Minister Jakupi, Mayor Trajanovski and USAID.

SITEL-TV made 15 min. feature on project achievements and Earth Day event.

In order to achieve visibility of the activities implemented in cooperation with the Ministry of Environment and Physical Affairs, the Communication and Media plan was be designed and implemented.

### **Other activities implemented:**

Regular update of the USAID plastic Recycling Project web-site  
Created project documents to be used in communication with partners; corporate sponsors;  
Organized regular briefing with the media (especially on Law on packaging)  
Continuous communication with media on project achievements

### **Public awareness activities on Municipal level:**

During the reporting period following activities were implemented:

1. Celebrating environmental activities in Strumica
2. PRESS- Promotion- Conference "Draft Law on Packaging and Waste Packing"
3. Finalization of the PRP- video

**On May 23, 2009** USAID Plastic Recycling project and PEP/AED, organized **joint event** at the "Goce Delcev" Square in **Strumica**. The goal of the event was promoting the values of environmental- friendly behavior through awareness rising on recycling, energy efficiency etc. Project participants of both projects participated actively in the program that had both education and entertainment component. Project partners- municipalities, schools and NGO's were provided with booths for presenting their activities.

Prior the official beginning of the event, UAID Mission representatives and Mayors of Strumica, Vasilevo, Bosilovo and Novo Selo held a short meeting. Cooperation with USAID and positive experiences in implementation of the USAID PRP were focus of the meeting.

In the city center, students from all three primary schools in Strumica, enrolled in both projects, organized huge cleaning action. Equipped with bags for plastic selection, protection gloves and yellow/ green t-shirts they demonstrated to their neighbors how the waste should be treated.

At the same day the USAID PRP/ PEP "Green School" Project marked finalization of its pilot phase. Project participants from five elementary schools presented publicly the portfolios and responded to questions posed by citizens. The portfolios consisted information on situation in the schools before the project started; students activities for detecting the main challenges in creating environmentally- friendly schools and project ideas for improvement of the actual situation. Each of the schools was awarded with certificates of appreciation.



Denis Dimovski, performer of the PRP Anthem and kids from the primary schools entertained citizens who gathered at the square.

The Municipality of Strumica was represented by the Mayor Zoran Zaev, who held the opening speech. Mayors of Municipalities Vasilevo, Bosilovo and Novo Selo- partners of the Plastic Recycling Project were present at the event as well. The USAID Mission was represented by Timothy Donnay and Culen Hugez. PEP/ Chief of Party, Keith Prenton welcomed the participants as well.

After the event all VIP's gave statements for the local media.

**On 27 June, 2009** the second Conference on Draft Law on packaging and Waste Packing was held in Ohrid. This event was held in presence of the PRP project partners representing municipalities, recycling industry and NGO's. The draft law was presented by Mrs. Jadranka Ivanova, Head of the EU Sector, by the Ministry of Environment and Physical Planning. The Project invited Mrs. Marija Ninova, representative of the Ministry of Environment and Waters from Bulgaria and two representatives of the recycling industry to share their experience in creating the law, its implementation and how it affects various stakeholders.

The list of VIPs present at the event included: H.E. Erwan Fouere, Special Representative of the Delegation of the EU and Head EU Commission; Nexati Jakupi, Minister of Environment and Physical Planning and USAID Director of the Economic Growth Office, Timothy Hammann.

The media arrangements were made in order to promote the USAID support to the process of finalization of the Draft Law, and to show the strong support demonstrated by all VIPs at the event.

In this occasion the Project arranged media appearance. All VIP's, including the Mayor of Ohrid, Aleksandar Petreski gave short statement emphasizing their support to the process and importance of implementation of environmental laws.

According to the PRESS monitoring, Macedonian Information Agency (MIA) and Daily "Utrinski Vesnik" reported on the event, including all local and national televisions.

**The PRP video is on the air.** The PRP, USAID and US Embassy team joined efforts in creating the video on achievements of the Plastic Recycling project in Macedonia. The video is available at the US Embassy web site and the USAID PRP as well.

### **Media appearances:**

- 23/ 07/ 09 Morning program- MTV; Project achievements presented by the Business Development Officer, Aleksandar Tikveshanski
- May, 2009 Interview for the Nova Makedonija; Arijan Toska, PRP Chief of Party, Aleksandar Lazarov, President of PETRA, Merita Kuli, PR, Communication and Media Specialist participated at the interview

### **Goal III: Provide grounds for sustainability of the PET recycling**

#### **Capacity building for PETRA in order to cope with the demands of the law on packaging waste**

Activity 1: Preparation of 2009 Annual Work Plan for PETRA.

Preparation of work plan for PETRA was completed and formalized by mid May on the second workshop conducted in mid May 2009.

Activity 2: First workshop – overview of the strategic objectives,

The first workshop held on 28<sup>th</sup> of March 2009, concerning the strategic objectives of the association has revealed the concern of PETRA about the negative effects on the industry from the ongoing world recession. As a result all members were focused in finding immediate action to ease the negative effect on the industry, thus the overview of the strategic objectives and work plan were updated but not finalized and the same was discussed and finalized on the next workshop in May.

PETRA continued to be proactive in lobbying for the changes in the Law Proposal on Packaging and Packaging Waste. As well during the reporting period meetings were held with parliament representatives in order to make them acquainted with changes that should be made in order Law to be applicable for all concerned. As during its lobbying efforts, PETRA held meetings at ZELS asking the mayors for support.

All PETRA members were invited to create unified statement especially in regards to modifications to articles 35, 63 and 38 in the Law Proposal. For this purpose, on November 12, 2009- PETRA sent a letter to USAID MD/ Michael Fritz and the President of the Assembly Committee for transport, communication and ecology.

As a result of well established communication with the Committee and professional attitude in the process of finalizing the Law proposal on Packaging and Packaging Waste, MDC-Ti. Net/ USAID Plastic Recycling Project/ PETRA was invited to organize the meeting in the Municipality Ohrid and Tetovo.

**On December 9, 2009**, PETRA memberships were invited to organize and participate at the conference organized by the Committee for transport, communication and ecology in Ohrid, focused on Ohrid Lake.

**On December 11, 2009**, PETRA representatives took active participation at the meeting held in the Municipality of Tetovo, organized by the Assembly Committee on transport, communications and ecology. The theme of session was the regional land field Rusino.

The President of PETRA, Aleksandar Lazarov , traveled to United States from January 9 – 29, 2010 as a beneficiary of the US Government sponsored International Visitor Program. The program goal was:

- To introduce participants to innovative management strategies for non-governmental organization (NGOs), particularly organizations in the U.S. that champion social or political issues
- To explore the diversity of the independent sector in the U.S. and the dynamic relationships between business, government and non-governmental organizations
- To examine methodologies used by NGOs for strengthening leadership, developing volunteerism, fundraising and advancing missions

Lazarov had an opportunity to visit various institutions based in Washington D.C.; Portland, Oregon; Austin, Texas; Salt Lake City, Utah and Miami, Florida. This was an excellent opportunity and success for PETRA, as this study visit was considered as both capacity building effort and an excellent networking opportunity.

The Association developed several project proposal and same were submitted to GEF and one proposal has been submitted to the Ministry of Environment and Physical Planning. The Association during February 2010 held its second meeting of the assembly and reelected Mr. Aleksandar Lazarov for president of the association with acclamation, all 18 members present at the assembly meeting voted for Mr. Lazarov.

#### **Goal IV: Business Development Program**

##### **Activity 1: Follow up with the grant program implemented in 2008 on environmental licensing of the business entities**

The PRP has updated the status of the companies regarding environmental licensing within the grant program implemented in 2008. The status of the companies is as follows:

Grintech – the procedure is in process  
Eko Servis Planetum – the procedure is still in process  
Green Tree – no feedback from the ministry at all  
Tea Andrea – no feedback from the ministry

Eko Eras – have been informed that the license has been granted  
Bascom- the company is not working due to the market situation

On the meeting with the Minister of Environment and Physical Planning, Mr. Nexati Jakupi, held on 18 of June with Mr. Timothy Hammann and Ms. Tanja Markovska, the question of the licensing process was mentioned. The Minister explained that they are now focused on issuing licenses to large industry (OKTA, USIJE, etc.) and will do the rest soon after that.

### **Immediate assistance to the industry in crises**

Concerning the negative effects on the recycling industry from the world economic crises, the PRP immediately responded by informing the wider public about current critical conditions in the industry. The PRP jointly with PETRA requested from the Government of Macedonia to secure a financial support for subsidizing the industry during the crises period until its recovery.

### **Other activities:**

On May 26<sup>th</sup>, PRP, by recommendation of USAID provided the company “Provavil” with a grant of \$500 of working capital to ensure continuation of recycling activities that were terminated due to the break-in and destruction of the vital property. The funds were used for interim compensation of the employees of “Provavil”, to bridge the gap while the company began to generate revenues again

### **Industry Assessment at the beginning of the world economic crises**

The PRP has assessed the industry against indicators such as Quantity, value, price and export markets. Negative trends have been observed in the first quarter; export has declined for approximately 30% in the first quarter of 2009, compared to last quarter of 2008; prices have been halved, export markets reduced to only few countries still buying, collection has been reduced respectively to the export numbers.

Two recycling companies have halted their production while another two have reduced their processing capacity to minimum levels. One collection company has bankrupted and another two have totally stopped their activities awaiting industry recovery and better prices for the scrap material. Most of the companies monitored in the first three months of 2009 have been collecting scrap plastic bottles and same has been warehousing .

### **Industry update during the world economic crises**

At the end of 2009, USAID PRP assessed the industry against indicators such as quantity, value, price and export markets. Prices as of 22.07.2008: 13,5 den/kg for transparent( bailed and transport cost included up to the recycling plant), which makes up 70% of the quantity of the total plastic and 6.5 den/kg for colored PET which makes up 30% of the total quantity. Compared to the beginning of 2009 the prices have gone up for 1.5 up to 2 denars per Kilogram but even more important is that at the beginning of the year only Greentech continued with recycling. Today, from five recycling entities two (Greentech and Eko Eras) are fully processing and one is active on partial basis (ERH plastic). Concerning processing of quantities, for the past three months Greentech has had an upward trend of processing with last month reaching 200 Tones PET(PET with Macedonian origin). Eko Eras has been activated three months ago and today they

reported that they have exceeded 150 tones processed PET. ERH Plastic is still going through a volatile period and make an effort to stabilize financially to up to 100 tones of processed PET.

EKO- PET has completely terminated with processing while the third Turkish investment announced the beginning of processing for the month of July; PRP has not assessed this company yet.

### **Industry Assessment (Industry Recovery period)**

**Eco- Eras, Veles-** the company operates in three shifts since August 2009. Currently they collect and recycle from 220- 240 t on a monthly basis. All quantities are provided by local collectors. Their goal is to extend cooperation with Turkish partner. As well they plan to establish a line for recycling of textile waste.

**Greentech, Skopje-** on a monthly basis the company is recycling 320- 350 t of plastic waste. Greentech began to recycle imported PET waste from Kosovo, Albania and Bulgaria. They expect quantities of recycled waste to increase in the upcoming period due to holiday season and increased consumption of all kinds of drinks.

Prices in the period October- December 2009 are obtained from two active recycling companies: Greentech and Eco- Eras.

In Greentech the price of transparent plastic reached 17 den/ kilo while the colored one ranges between 8, 5- 12,5 den/ kilo.

- New developments in year 2009 in the recycling industry:

Turbulences and financial crisis at the beginning of the year caused shutdown and termination of operation of several companies involved in PET collection and recycling.

On the other side, those who remained active, strengthened their position, and consolidated their operation from lessons learned from crisis (decline of prices). Some of them have already established partnership with foreign entities (GREENTECH, PLANETUM, and EKO-FLOR) thus ensuring (securing) more stable operation. Even more, further investments were made, in order to, either extend capacity (GREENTECH, EKO-FLOR), or extend product range (GREENTECH, ECO-ERAS) or both. Future perspective of the industry is encouraging, having in mind PET price stabilization worldwide and, on the other hand, very soon and introduction of Law on packaging and packaging waste.

### **Activity 2: Explore the possibility to establish partnerships and institutional linkages, participation and organizations of business events**

The PRP engaged an expert on business development to address the needs of the industry in finding new markets, explore opportunities for foreign investors as well as establish partnerships with relevant institutions to address the needs of the industry.

During the first quarter of 2009 the PRP in cooperation with ICHE (Italian National institute for foreign trade) has organized a visit to the International exhibition for recycled

plastics products, machinery and trade in Italy. The exhibition Plast in Milan is an international trade exhibition for the recycled plastics industry, where interested visitors can get a complete overview of the latest developments in the industry from raw materials to finished products, from machinery to services. Plast will coincide with the exhibitions Ipack-Ima, Grafitalia and Converflex that are dedicated to packaging, graphics and converting. The exhibition was attended by two entities from Macedonia, Greentech and OPET, all entrance fees participation on different technical-scientific panels, lodging and meals were covered by ICHE.

The participants have gained extensive knowledge on current and future trends on the recycling industry as well as established contact with potential buyers and investors.

### **Goal V: Implementation of the Municipal PET collection under IPA funding**

#### **Activity: Deliver advanced training to municipal officials in how to develop project proposals under IPA funding.**

The second IPA training, for project partners took place in Mavrovo, from 7- 9 July, 2009. The event was organized by the PRP and delivered by the Regional Enterprise Support Center- Skopje.

The list of participants included representatives from the municipalities of Bitola, Novo Selo, Vasilevo, Bosilovo, Strumica, Tetovo, Negotino, Gostivar, Brvenica, Tearce, Kocani, Ohrid, Struga, Prilep, Kumanovo, Saraj and City of Skopje.

The three day program included following topics:

- Introduction to EU institutions and funds
- EU policies- general overview and focus on Waste Management
- EU funding available for Local Government Units
- Introduction to IPA components
- Creating matrix to be used for best project idea selection
- Project cycle management
- Introduction to a concepts for creating project proposals (problem three, objective three, Stakeholders matrix, Log- frame matrix
- Type of tenders/ Calls for Grant Proposals
- Concept Note development; Budget Matrix etc

The workshop was implemented in interactive manner giving the chance to all participants to vote on the best 3 project ideas; to exercise team building skills by working on common project ideas.

The evaluation sheets have shown high score 4.75- the scores were ranging from 1 to 5

#### **Outcome of the IPA training**

After the training, participants were divided in three working groups, and they were asked to develop three project ideas into Problem Tree, Logical Matrix, and developed three Concept Notes. Trainers will monitor closely their work, and coach the group in

order the three identified projects get developed until the above mentioned stage. It is expected within a month after the training took place, trainers extract from the groups the best they have done, do the necessary improvements to their job, and deliver the three projects (with Log Frame, Concept Note, Problem Tree) to the project and training's participants

#### **IV. Conclusions and Recommendations**

This Best Practices of the Plastic Recycling Project demonstrates a program for recycling plastic that can be applied on other packaging waste. The lessons learned during the implementation of this project indicate very important environmental and economic benefit.

Recycling represents one of those unique opportunities in which both public and private investment can cooperatively promote robust and sustainable economic activity while concurrently supporting environmental protection.

The assessments conducted in 20 recycling companies and collected data on the total number of people engaged in the recycling value chain. The chain is composed of collectors and workers engaged in plastic processing. For all recycling companies, collection involves the greatest number of employees. Processing is the next largest employer in the industry. The data from this study, compared to assumptions from 2006, indicates that recycling employment has increased sixty percent from 2006 to 2007. In 2009 and 2010 approximately 5000 people are earning a living from the plastic recycling industry, most of them involved in collection and processing.

Legislation is another incentive for increased investments in waste management and recycling. Driving forces within the waste and recycling sector is the new legislation on packaging and packaging waste which defines what packaging is and include recycling goals for different type of materials. The new waste legislation marks the end of an era when waste management was, in effect, waste disposal.

One consequence of the new waste legislation will be to divert a substantial amount of recyclable material away from landfills and onto local recycling Industry.

We can conclude that there is no problem with the actual collecting and processing of the PET waste. The industry has already designed and shaped its collection and processing capacity (machines and equipment) that could recycle the PET waste and find its prolonged use. The problem remains in the inclusion of the Informal Roma collectors in the formal waste management scheme with focus on recycling as they prove to be the most efficient means of collection of PET bottles. Plastic recycling needs further assistance especially in the field of inclusion of Roma informal collectors which requires continuous involvement of all enthusiastic stakeholders with inclusive approach.

#### **IV. Final Budget and Expenditures, cost share contributions**

##### **1. Final budget and expenditures second phase**

BUDGET DESCRIPTION	Final Budget	Final	
		expenditures	BALANCE
			20.04.2010
1. Grant Program (Plant, Equipment & Working Capital)	422.161,00	421.725,97	435,03
2. Public Education and Promotion	126.424,00	141.005,97	-14.581,20
3. Project Management	651.415,00	657.813,24	-6.398,24
4. Feasibility Study	0	0	0
5. Cost Share Amount	0	0	0
6. Plant, Equipment & Working Capital	0	0	0
7. Bank Charges	0	-2.345	-2.345
8. Incomes-Bank interest etc.	0	1.668	1.668
<b>TOTAL</b>	<b>1.200.000</b>	<b>1,219 867,73</b>	<b>-19.867,73</b>
<b>VAT Return</b>			<b>19.867,73</b>
<b>BALANCE</b>			<b>0,00</b>

### 1. Budget line: Grant Program and Plant, Equipment & Working Capital

Majority of GDA fund were used to develop and implement the collection and sorting network throughout Macedonia. The program consisted of two components, Business development program and Municipal collection program.

Through this activity the project has provided the necessary support to the Plastic Recycling industry in obtaining necessary permits as well as fulfilling obligatory domestic environmental rules and regulations.

Through this budget line item the project supported 26 municipalities in establishing municipal PET collection schemes and more than 10 companies in upgrading their processing and organizational capacities. Supported 20 NGO's in developing and implementing public awareness campaigns in 26 municipalities.

### 2. Budget line: Public education and promotion

This budget line has provided funds for National level campaigns for raising awareness on recycling, including Earth day celebration 2008 and 2009, Days of Recycling in Ohrid 2008, preparing and printing promotional and educational materials, full logistic support for organizing the event.

### 3. Budget line: Project Management

This budget line included the costs of MDC-TI.Net and FOSIM administrative support according to the mutual agreement for cooperation in the implementation of the Plastic Recycling Project.

MDC-TI.Net has covered the costs for office lease, office materials, utilities, phones/internet, travel costs, newspapers advertisements, office equipment and furniture and the following staff positions:

Chief of Party/ Project Manager  
 Senior Advisor/Project Manager Assistant  
 Project Assistant  
 Environmental Expert  
 Business Development Expert  
 Monitoring Officer  
 Public Education Officer  
 4 Regional Representatives

Under budget line 3 Study trip to Slovakia for a group of 12 representatives of municipalities and public utility companies was financed for a period of ten days. All travel, accommodation costs, per-diems for participants and costs of the consulting company "Euro plus" were covered within this budget line.

Within budget line 3 external consulting services were covered the costs for engagement of Public Private Partnerships Experts for needs assessment of the municipalities and development of municipal pet collection concept papers.

Within budget line IPA Funding Training cost was covered, the funds allocated for this purpose included development and organization of two step trainings for 52 representatives of 26 municipalities. Covering transport, accommodation, meals, and fee for the trainers.

Under budget line 3 Technical assistance to the MOEPP was provided in Drafting and implementing the Law on Packaging and packaging waste. Majority of the funds were used to assist the MOEPP to review, adopt and implement the law on packaging and packaging waste, that is organizing public debates and study tour to Bulgaria

## 2. Requested and received VAT

<b>Date of VAT reimbursement received</b>	<b>Requested VAT reimbursement</b>	<b>MKD</b>	<b>USD</b>
25.01.2008	21-341/1	27.509,00	670,95
21.10.2008	21-18192/1	134.301,00	2.962,18
27.03.2009	21-8307/1	255.958,00	5.129,00
24.06.2009	21-13763/1	56.141,00	1.305,60
29.07.2009	21-16119/1	212.282,00	4.936,79
22.02.2010	22-2672/2	213.981,00	4.863,20
			<b>19.867,73</b>

### 3. Cost share contributions

The MDC TI Net. under this contract agreement was obligated to contribute the amount of \$18,020 to the Plastic Recycling Project. The organization contributed the amount of \$ 22,607. The break down of the contribution is shown in the table below:

#### IN KIND

Grant Program	6.930,00
Project	
Management	12.222,00
Total	19.152,00

#### CASH

Grant Program	630,00
Project	
Management	2.825,00
Total	3.455,00

#### TOTAL COST

<b>SHARE</b>	<b>22.607,00</b>
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During the project execution in the past three years, the project succeeded to raise additional fund in the amount of **5,865,000 USD** as shown in the table beneath.

	Total contribution by entities in the plastic recycling Industry	Type of equipment	Investment made by companies to meet the Environmental standards
1	Eko eras/Pavor	Complete PET Recycling Plant	1,000,000 USD
2.	ERH Plastic	Complete PET Recycling Plant	800,000 USD
3	Muhamed AG	Shredding machine	3000 USD
4	Eko Flor	Collection equipment, transport and manual	150,000 USD

		separation equipment	
5	Planetum	Completed	50,000 USD
6	Greentech	Complete plastic Recycling Line	1,800,000 USD
7	Simsek sanayi Yun	Complete PET recycling line	400,000 USD
8	Opet	Presses	30,000 USD
9	Soncev Rajkovic Rid	Transportation equipment and collection containers	20,000 USD
10	EKO Pet	Complete Plastic recycling line and presses	600,000 USD
11	Municipalities	Public awareness and collection and sorting facilities	985,000 USD
<b>Total contribution by partners</b>			<b>5,865,000 USD</b>

#### V. Financial Audits

Financial audits for the Plastic Recycling project were performed for the year 2007 and 2008. The audit reports have been submitted and approved by the USAID. The same are available upon request.

#### VI. Inventory

The inventory transfer agreements have been signed by the USAID Mission director and USAID Plastic Recycling Project chief of party and the same have been submitted for signature to the municipalities, due to the summer vacations the transfer agreements will be finalized by end of August.

#### VII. Statement for liquidation of obligations

Please see annex 1 to this report