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Swiss Agency for Development and Cooperation SDC



Republic of Macedonia Ministry of Environment and Physical Planning



RESTORATION OF THE STRUMICA RIVER BASIN IMPLEMENTATION OF THE STRUMICA RIVER BASIN MANAGEMENT PLAN

PROGRESS REPORT

for the period 01 January 2017 – 30 June 2017





Photo caption: Hands-on training on sustainable farming techniques in Strumica to help reduce harmful environmental practices and improve the livelihoods of farming families

Project Number: 00096178

Donor: Swiss Agency for Development and Cooperation (SDC)

Total Budget: 2,940,000 CHF

Project dates: 01 July 2015 – 30 June 2021

Reporting Period: 01 January 2017 – 30 June 2017

National counterparts: Ministry of Environment and Physical Planning, Ministry of Agriculture, Forestry and Water Economy, Basin's municipalities (Strumica, Radovis, Vasilevo, Bosilovo, Novo Selo and Konce), Center for Development of Southeast Region, Hydrometeorological Institute, water management entities (Water Management Organization, public utility enterprises), Public Forest Enterprise, Crisis Management Center and Directorate for Protection and Rescue, farmers associations and other NGOs.

PROJECT DESCRIPTION

THE CHALLENGE

The ecosystem of the Strumica River Basin plays an essential role in sustaining the livelihoods and wellbeing of some 124,500 people in the region. It provides a vital source of water for drinking and for agriculture, which is the chief source of income for the majority of the population. Covering almost seven per cent of the country's territory (with a total area of 1,649 km²), this valuable but fragile ecosystem also provides a vital habitat for a large variety of animal and plant species.

The health of the Strumica River Basin ecosystem has been under threat in recent decades from pollution and rising demand for water from farming, industry and growing urban centers. Unsustainable farming practices, including excessive use of fertilizers and pesticides to grow vegetables and fruits and inefficient irrigation methods, have undermined water quality. Demand for water from industry and towns, together with the current operating regimes of reservoirs, have exacerbated fluctuations in water levels, increasing the risk of droughts and floods.

These accumulated pressures have made the ecosystem especially vulnerable to climate change, which is causing higher temperatures and extreme weather events. These bring the risk of an extreme scarcity of water that could jeopardize the livelihoods of the region's farming families.

OBJECTIVES

The overall objective of the SDC-funded *Restoration of the Strumica River Basin* project is to introduce a set of comprehensive measures to help restore the Strumica River Basin's socio-ecological functions and increase its overall resilience to the complex pressures resulting from human activities and global changes. Aligned with the key principles of the EU Water Framework and Floods Directives, this project aims to address the main types of pressures in the Basin (point source and diffuse pollution, as well as hydromorphological modifications), maximizing at the same time the possibilities for mitigating flooding risk.

To address the point sources of pollution, the project will: a) strengthen the capacities of the basin's municipalities to enforce the environmental permitting system; and b) demonstrate low-cost small-scale decentralized wastewater treatment technologies with replication potential.

A comprehensive programme to introduce more sustainable farming practices will be developed and implemented to address the diffuse source pollution. Direct support to farmers comprising trainings backed by grants programmes will be provided to reduce pollution and introduce more sustainable farming practices.

The principles of Integrated Flood Risk Management as per the EU Floods Directive will be applied for the first time at national level, replacing traditional approaches derived from purely design-based standards and ad-hoc interventions triggered by flood events. Also, a comprehensive monitoring programme will be implemented to gradually increase the knowledge about the basin's water resources, allowing to document and quantify changes as a result of the implemented measures.

New cross-sectoral participatory mechanisms will be applied to democratize the management of water resources in line with the Management Plan for the Strumica River Basin. This approach will transform a highly centralized water management system into a modern system of water governance.

The project is expected to have significant positive environmental effects, and to support livelihoods by introducing better resource management practices and increasing the resilience of communities to water-related risks.

PROGRESS TO DATE:

OUTCOME 1

RGETS FOR 2016:	STATUS:
unching the capacity velopment assistance for	
e Basin's municipalities to	
grade the integrated	Achieved
llution prevention and	
ntrol system at local level	
mpletion of the training	
ogramme on	Achieved
vironmental procedures	
municipal administration	
npletion of the feasibility	
sessment of basin-scale	Achieved
istewater management	
ons	
ntification of pilot	
nmunities for	Achieved
nonstration of small-	
e decentralized	
tewater management	
ons	
tput 1.2: Diffuse source pollution from agricultural runoff a	nd erosion processes is reduced
RGETS FOR 2016:	
inching the training	Achieved
ogramme on agro-	- Achieved
logical farming practices	
tput 1.3: Overall resilience of communities to flooding haza	rd in the river basin is enhanced
RGETS FOR 2016:	
velopment of flood	
zard and flood risk maps	Achieved
the Strumica River Basin	- Achieveu
plementation of targeted fority flood risk mitigation	 Ongoing

OUTCOME 2

<u>Output 2.1</u>: Decentralized and adaptive basin-scale management of water resources is introduced TARGETS FOR 2016:

Pilot implementation of a basin-scale monitoring programme

Ongoing

Constitution of a Working Group on River Basin Management

Ongoing

<u>Output 2.2</u>: Lessons learnt and best practices are shared and replicated at national and international levels TARGETS FOR 2016:

None

HIGHLIGHTS

- Thirty local farmers were awarded grants to purchase necessary farming equipment after successfully completing a specialized training programme on agro-ecological practices;
- The first-ever Flood Risk Management Plan for the Strumica River Basin was developed based on the EU Floods Directive. This plan provides a good basis for future flood risk mitigation investments, while also creating a national model for replication;
- The newly hired personnel of the Hydro-Meteorological Services Institute gained new knowledge and skills on EU-based monitoring approaches thanks to the on-the-job training programme supported by the project;
- A series of on-the-job trainings and workshops were organized for all municipal personnel responsible for issuing environmental permits, to improve their knowledge on EU-based industrial emissions monitoring, prevention and control. Workshops and discussions were also organized for industry operators and non-governmental associations and they are now more aware of their important role in reducing pollution to tolerable limits.

NARRATIVE REPORT

PROGRESS UPDATE AND KEY ACHIEVEMENTS

OUTCOME 1: CITIZENS AND FARMERS REDUCE PRESSURES ON WATER BODIES AND ENHANCE STRUMICA RIVER BASIN'S RESILIENCE TO FLOODING HAZARDS

1.1. REDUCING POINT SOURCE POLLUTION

Integrated Pollution Prevention and Control (IPPC)

The project aims to increase local capacities for enforcing an EU-based Integrated Pollution Prevention and Control (IPPC) system that will have significant socio-economic and environmental benefits. Once operationalized, this system will be instrumental in preventing and/or minimizing emissions to key

environmental media (air, land and water), encouraging reductions in raw material and energy use, increasing waste recycling and reuse, and promoting the use of cleaner technologies to reduce pollution at sources. While the regulatory basis for such an environmental permitting system has been in place for many years, its enforcement is challenged by multiple factors, including: a) limited specialized knowledge of the responsible municipal personnel (on permitting and compliance monitoring); b) political reasons (authorities tend to be too tolerant to industry operators regarding their responsibility to implement emission reduction measures); c) low community awareness on the causes and management of and technological responses to industrial pollution; and d) lack of incentive for industrial operators to comply with the permit conditions. In such a setting, industrial operators routine disregard their legal and social responsibilities for a cleaner environment, and the project is attempting to improve this situation by addressing some of the key causes (e.g., knowledge barriers, community and industrial operators' awareness, and indirectly – the political reasons).

The responsible municipal personnel, industrial operators and local environmental NGOs underwent a comprehensive training programme on the key aspects of the IPPC system and procedures. The programme also helped improve the communication between local administrations, IPPC permit holders and communities.

The theoretical knowledge gained by participants was further expanded through the work on six selected industrial facilities, used as case studies. This has provided the responsible staff with on-the-job training experience and better access to information. Furthermore, operators received feedback on the effectiveness of the measures and recommendations on how to comply more efficiently with permit conditions.

As part of the training programme, sixteen trainees from all six municipalities received technical support to process real-case IPPC applications submitted by two local industrial facilities.

In addition to the technical training, the project has also supported a comprehensive assessment of the IPPC capacities of all municipalities, the effectiveness of the current institutional setup and the staff qualifications. Based on this assessment, an expert report was produced, proposing several alternative institutional setup models, including a joint inter-municipal IPPC administration. The proposed models are currently being discussed with the local authorities – however, this process has been delayed because of the current political situation in the country.

The project also provided a dedicated training to a group of fourteen local NGOs which expressed interest in the topic and commitment to support the project objectives regarding IPPC operationalization. The training included an overview of the industrial pollution in the Basin, current status of the IPPC system, roles and responsibilities of different actors in reducing industrial emissions, and a thorough analysis of the private and societal costs and benefits of having a functional system in place. After this training, it is expected that the local NGOs will be even more directly involved in future pollution prevention and control.

Next Steps

- Additional trainings for the municipal administration, with a focus on drafting IPPC permits;
- Designing and publishing a handbook on calculating administrative permitting fees;
- Developing a geo-spatial database of IPPC installations in the Basin and its integration in the Strumica River Basin Management Plan;
- Developing a report summarizing the environmental pressures / impacts caused by the industrial facilities in the Basin;

• Preparing and publishing a manual to provide guidance on how to deal with multiple pollution sources.

Wastewater Management Systems

Following the findings and recommendations of the *Feasibility Study on Wastewater Management Options in the Strumica River Basin* (developed during the previous reporting period), the project initiated the preparation of full technical documentation for six identified agglomerations (Staro Baldovci, Edrenikovo, Novo Konjarevo, Samoilovo, Robovo and Sedlarci). This includes infrastructural and basic designs for all wastewater management systems including sewerage collection and treatment facilities.

In order to maximize the sustainability prospects of the future small-scale wastewater management systems, the project will attempt to demonstrate different, site-specific cost-effective and affordable treatment options. For the selected agglomerations, two technologies are being considered – MBBR (Moving Bed Biofilm Reactor) and constructed wetland. The latter has already been successfully demonstrated as part of the Lake Prespa Restoration Programme and has proven to be suitable for communities which possess sufficiently large areas located at a sufficient distance from living areas. MBBR is a modern, internationally renowned wastewater treatment technology for providing sound solutions to common wastewater applications (organic and nutrient reduction). It is flexible, cost-effective, and easy-to-operate, and can address current and future wastewater requirements.

As part of the feasibility assessment process, two local communities were selected for project-backed demonstration of the two different treatment approaches. The MBBR technology will be demonstrated in the village of Novo Konjarevo (Municipality of Novo Selo) and a constructed wetland will be built in the village of Edrinikovo (Municipality of Vasilevo). For the remaining four communities, support will be provided to the local authorities to mobilize funding from different sources. One of the goals of these demonstration projects, besides solving local pollution issues, will be to showcase successful examples of decentralized treatment systems, to facilitate future replication.

Next steps

- Completion of design documentation for the wastewater management systems in the selected communities;
- Launching the construction of the selected demonstration projects (one in 2017 and the other one in 2018);
- Support to municipalities' fundraising efforts for implementing additional small-scale wastewater treatment systems.

1.2. REDUCING DIFFUSE SOURCE POLLUTION FROM AGRICULTURAL RUNOFF AND EROSION PROCESSES

A comprehensive training programme on modern, agro-ecological practices was designed to facilitate the transformation of Basin's farming practices. The main focus was put on promoting sustainable farming practices in fruits production (apples, peaches and plums) in the Radovis and Konce municipalities, and vegetables (tomatoes and peppers) in the Strumica, Vasilevo, Bosilovo and Novo Selo municipalities.

A total of 67 farmers (of whom 10 were women) attended the training programme that comprised 13 theoretical and 5 practical trainings. The trainings were delivered in the period from July to September 2016 by a team of top experts specialized in modern fruit and vegetable farming, pest management, irrigation and fertigation, soil management and plant nutrition, as well as contemporary greenhouse production.

As part of the training programme, thirteen manuals on different farming aspects were co-designed with farmers and used as an educational material for the exam that was organized to identify the most successful participants in the training programme. Due to the great interest among farmers, these thirteen manuals are currently being combined into two manuals (one on fruit and the other one on vegetable production). They will be published and distributed among local farmers.

This entire training programme provided an excellent hands-on experience for the representatives of the Regional Office of the National Agriculture Extension Agency – a Government-funded entity responsible for providing expert advice to farmers. The Agency's agronomists who completed the training programme, positively evaluated its outcome and expressed an interest to deepen the cooperation with the project for further promotion of modern farming practices.

Following the completion of the training programme, the farmers took a test of the knowledge that was one of main selection instrument for awarding grants. The test was organized in October. Based on a multicriteria evaluation that took into account the test results and the training attendance records, a total of 30 farmers were awarded grants for implementing new farming practices (20 vegetable and 10 fruit producers). Thanks to the gender-specific criteria applied, 5 out of the 30 selected grantees are women (applications by women and families with more women than men were scored higher). This figure, despite being disproportionally low toward female farmers, is still considered relevant, taking into account that region's agriculture is traditionally a men-dominated economic activity. Similar efforts will be taken during the subsequent calls for grants, aiming to enhance the role of women in management of resources and securing revenues for farming families.

The procurement of the necessary equipment is underway, following a process of negotiation with all individual farmers. The farmers will receive the equipment before the next growing season. The implementation of the measures will be monitored throughout a continued hands-on training provided by the expert team.

Besides through small grants, the project will attempt to expand the area under agro-ecological practices through a partnership with a major grapes producer (Agro Lozar/Dalvina) as part of a co-funding effort.

The initial project idea was to promote the new practices on a limited area of 2-3 hectares of a vineyard as a demonstration activity, expecting follow-up private investments to enlarge the area under more sustainable practices. However, this has matched the vineyard owner's plans to erect new vineyards on a territory of over 20 hectares. He showed interest in immediately following on the pilot activities by expanding them in the newly planned vineyards. The measures to be promoted as part of this cooperation include: a) precise irrigation scheduling and fertilizer dosage based on soil analyses and in line with crop demand; b) solar pumping for irrigation; and c) integrated pest control based on field and weather monitoring data. The scaling-up and replication potential of this effort is significant having in mind the importance of grapes and wine production for the country.

To make the new farming knowledge more accessible to the general farmer community, the project will support the preparation of innovative training tools, including videos, animations, pocket-size manuals and mobile phone applications. All these will be co-designed with local farmers in order to make them as user-friendly as possible.

Overall, although the project is expected to make some positive changes in the way farming is practiced in the region, still, a broader shift toward more sustainable farming practices would require an increase in funding. This is mainly due to the number of farmers and the diversity of crops.

All of these activities have attracted media attention, resulting in a high number of positive media reports. Furthermore, the most popular national TV show among farmers on agriculture 'Agrar' is regularly reporting and promoting the project's progress and results.

Next steps

- Supply of necessary equipment for all selected farmers
- Development of innovative training material/tools
- Establishing a vineyard in cooperation with a major local producer

1.3. ENHANCING RESILIENCE OF COMMUNITIES AGAINST FLOODS

Having in mind the importance of long-term flood risk management planning for the Strumica River Basin, a Flood Risk Management Plan (FRMP) was developed in line with the objectives of the EU Floods Directive. The FRMP followed the earlier Preliminary Flood Risk Assessment (PFRA), the flood hazard and flood risk mapping exercise. During the consultation process, the FRMP was revised and the final draft version was completed in October. It will be shared formally with the authorities once the entire documentation is translated and adapted.

The FRMP is already being used to identify priority flood mitigation measures to be funded by the project and/or other UNDP-backed projects. For example, as part of the UNDP-implemented EU Floods Recovery Programme, about 30 km of regulated riverbed/drainage canal network have already been restored to improve discharge capacity and reduce flooding of developed areas.

Recognizing the importance of using existing systems (e.g., dams/reservoirs), the project supported the formulation of decision-support plans and policies for the operation of Turija and Vodoca – the region's largest reservoirs. The goal of this highly sophisticated modeling effort was to provide a more objective basis for the management of water levels in the reservoirs that would maximize flood control, by also securing sufficient quantities of water for the remaining purposes (irrigation and water supply). These models will be discussed with the dams' operator (Vodostopanstvo A.D.), and training to their responsible personnel will be provided on the application of the models and use in supporting decision-making procedures.

The full use of the models will be achieved if coupled with improved meteorological and hydrological monitoring as well as weather forecasting. This will allow for a more dynamic management of water levels in reservoirs thus balancing the competing demands of their operation. For this purpose, new water level gauges will be installed on both reservoirs, in addition to the newly designed network of meteorological and hydrological monitoring stations to be established through the support of the project (explained below under Output 2.1).

The new sophisticated hydro-meteorological monitoring network will also enable the establishment of a basin-scale early warning system for floods. The system will provide timely warning of future floods so that adequate measures can be taken by institutions and communities so to avoid/prevent damage to property and save lives. The work on the systems is already underway in cooperation with the Hydro-meteorological Services and other responsible institutions at central and local levels.

Next steps

- Finalization of the optimization models for Turija and Vodoca dams/reservoirs followed by training for the responsible personnel;
- Installation of meteorological and hydrological monitoring equipment;
- Introduction of a basin-scale floods early warning system;

• Identifying and detailing priority flood risk mitigation interventions to be implemented during the upcoming stages of the project.

OUTCOME 2: MUNICIPALITIES AND THE CENTRAL LEVEL AUTHORITIES EFFICIENTLY APPLY INTEGRATED WATER RESOURCE MANAGEMENT IN THE STRUMICA RIVER BASIN

2.1 INTRODUCING DECENTRALIZED AND ADAPTIVE BASIN-SCALE MANAGEMENT OF WATER RESOURCES

Basin-scale monitoring system

The first-ever comprehensive basin-scale monitoring programme is being implemented in line with the requirements of the EU Water Framework Directive (WFD) combining hydrological and ecological status parameters (physico-chemical and biological) for the previously defined water bodies. HMS professionals, backed by project-hired experts, conducted five full monitoring campaigns, with over 20 days spent in the field. Based on the field and laboratory findings, the HMS prepared and submitted two monitoring reports synthesizing all data that provide the foundation for better understanding the ecological status, sources and magnitude of pressures, aiming to inform decisions about prioritization of future measures.

The HMS personnel are benefiting from the newly gained knowledge that they will be able to apply in all other basins of the country, given their newly mandated responsibilities for country-wide EU WFD-based monitoring.

These pioneer efforts for introducing new capacity for a basin-scale monitoring system are complemented with ongoing measures to improve the monitoring network and the activating of a basin-scale meteorological and hydrological monitoring network. Currently, seven meteorological monitoring stations are in the process of being made operational (two new central automatic stations in Radovis and Novo Selo, an upgrade of the existing central station in Strumica, two rain gauges in Kosturino and Suvi Laki, and an additional two on the Turija and Vodocha reservoirs), as well as three hydrological monitoring stations (Susevo, Novo Konjarevo and Trkanja). The installation process will be carried out in phases as it involves preparatory construction works, placement of equipment, software installation, connection to the ongoing national monitoring networks and training on the use of new/advanced features of the equipment.

Besides the stationary monitoring stations, HMS was also provided with a modern field Acoustic Doppler Current Profiler (ADCP) for in-stream flow measurements on river sections without permanent hydrological monitoring or unstable eroding sections. Co-funding for this device was provided through the ongoing UNDP project on reducing flood risk in the Polog region. The use of this device will enable the plotting of stage-discharge relation for different critical river sections (e.g., frequently flooded areas, and water extraction points), and better understanding of the longitudinal flow patterns in rivers that is important from an economic and environmental perspective.

Besides the hydro-meteorological equipment, the project also provided the HMS laboratory with equipment for water quality analyses (e.g., special microscopes for algae and zoobenthos). All laboratory equipment was installed and is currently in use after successfully delivered training to the relevant HMS staff.

Next steps

- Completion of the initial year-long monitoring programme;
- Operationalization of the hydro-meteorological monitoring system.

Organizational/Institutional model for river basin management

The Strumica River Basin Management Plan includes a detailed stakeholder analysis, including identification of relevant institutions, and various water-user groups, along with an assessment of their potential role in the future basin-scale water resources management system. Based on these findings, a special report containing proposals for future institutional setup models for the basin was produced and shared with key stakeholders. Unfortunately, currently there is a very little interest in undertaking any major changes in the management structure for the Basin as it is conditioned by the developments in the water sector at national level. The prolonged unfavourable political conditions are additionally inhibiting the national water management system reforms and the delay is having a subsequent effects on the overall river basin management. The project strategy is to join the efforts with other ongoing initiatives pursuing similar objectives, which are also supported by SDC and the EU. Once conditions improve, the project will be prepared to support a swift change toward a more appropriate, modern organizational structure.

Democratizing water resources management

The protracted political situation and the lack of interest in advancing the country's environmental agenda is the key reason for the delays in the establishment of the national River Basin Management Councils. An exception to this is the creation of the Bregalnica River Basin Management Council that is result of a long-term commitment and facilitation of the Swiss-funded project that has already reached full maturity. As reported earlier, in order to bypass these constraints, the project will first establish an informal Working Group on River Basin Management.

This process will be initiated in 2017 and will also involve national authorities, because the composition of the Working Group needs to correspond with the composition of the future Council in order to ensure a smooth transition from an informal to a formal stakeholder involvement process in the river basin management. A capacity development programme on river basin and flood risk management will be developed for the Working Group upon its establishment.

Next steps

- Establishing a Working Group on River Basin Management;
- Launching the capacity development assistance programme on integrated river basin management;
- Communicating the proposals on an organizational/institutional model for Strumica River Basin with the authorities and facilitating the identification of the most suitable one.

PROJECT CO-FINANCING STATUS

The basin municipalities are undertaking a variety of complementary activities that are contributing to the achievement of the project goals and the objectives of the River Basin and Flood Risk Management Plans. The largest, and the most significant ongoing projects – the EU-funded wastewater treatment plants for Radovis and Strumica (covering about 50% of the entire Basin's population) – are nearly 70% completed. Their commissioning is planned to take place by the beginning of 2018.

In addition, a few smaller infrastructure development projects (mainly sewerage systems) were also initiated, or are already in advanced stages of implementation. Three of them, located in the villages of Dobrejci, Lubnica and Dolni Lipovik (Municipality of Konce) are already completed, the project in Novo Konjerevo (Municipality of Novo Selo) is about 80% complete, while the remaining projects located in

villages of Vasilevo, Gradosorci, Dabile and Prosenikovo were recently launched and are planned to be completed during 2017.

The municipalities of Novo Selo, Vasilevo and Bosilovo also invested over 25,000 CHF in implementing flood control measures mainly by cleaning regulated riverbeds and drainage canals from debris that reduces their discharge capacity.

Finally, other complementary municipal activities include the construction of a new water supply system in Ilovica village (app. 200.000 EUR), purchase of a waste disposal truck for the Municipality of Vasilevo (app. 20.000 EUR), cleaning of dumpsites in the municipality of Bosilovo, as well as other of small-scale initiatives for improving farming practices, and inclusion of women in the agri-business sector. Overall, by the end of the reporting period, the six Basin municipalities have together implemented complementary projects with a total value of app. 13 million EUR, including the costs so far for the construction of the EU-funded wastewater treatment plants.

CONCLUSION

Thanks to early planning efforts, the stakeholder participation mechanisms and the commitment demonstrated by the local authorities, the project can report considerable progress during the reporting period. The majority of the set targets have been achieved and some have been slightly postponed as they depend on longer-term processes. No major risks to the achievement of the project's key results are anticipated at this stage, with the exception of the results related to institutional development, which is affected by the complex political situation in the country.

The involvement of the Center for Development of the Southeast Planning Region has been instrumental in ensuring local level participation, identification of implementation priorities through inclusive processes, securing information from different sources, as well as providing complex logistical assistance for the majority of local activities (e.g., a multitude of workshops, hands-on training for farmers). It is expected that the role of the Center will grow in the future, along with its capacities to deal with more complex projects.

FINANCIAL REPORT:

Project:	Restoration of Strumica River Basin Phase II
Donor:	00232 Government of Switzerland
Source of Fund:	30000 Programme Cost Sharing
Currency:	USD

Financial status as of 30.06.2017 (in U.S. Dollars) as per CDR

Income:		Expenses	
Date/Period	<u>Amount</u>	Date/Period	<u>Amount</u>
Advance Received (12.08.2015):	278.000,00	31.12.2015	203.633,14
Advance Received (11.07.2016)	333.000,00		
Advance Received (30.12.2016)	999.950,00	31.12.2016	485.518,20
Advance Received (30.06.2017)		30.06.2017	189.153,08
Total received 01.07.2015 – 31.12.2016	1.610.950,00	Total Expenditures	878.304,42
		Cash Balance	732.645,58

Expenditures by Sub-line:			
Description	CMBL	Exp.	
ACTIVITY 1			
Salary Costs - Regular Staff	61100	10225.73	
Recur Payroll Costs - NP Staff	62100	2862.26	
Insurance and Security Costs	63500	1436.69	
Direct Project Costs	64100	204.53	
Services to projects	64300	1009.42	
After Service Insurance	65100	1059.09	
Local Cons	71300	1614.84	
Service Contracts-Individuals	71400	6318.66	
Daily Subsistence aloow	71600	23.71	
Svc Co-Construction & Engineer	72100	60786.19	
Svc Construction and Engineering	72300	6184.61	
Connectivity Charges	72400	69.20	
Stationery other office supplies	72500	86.91	
Utilities	73100		
Maint, Oper of Transport E	73400		
Audio Visual Productions	74200		
Sundry	74500	710.61	
Facilities & Admin – Implement	75105	7407.40	
Realized Gain- Loss	76100		
SUBTOTAL:		99999.85	

Detailed Expenditures for the period 01.01.2017 – 30.06.2017

ACTIVITY 2		
Direct Project Cost	64300	536.57
Local Consult Sht Term-Tech	71300	11564.23
Contractual Services – Individ.	71400	3338
Travel	71600	145.90
Svc Co-Trade and Business Serv.	72100	640.16
Machinery and Equipment	72200	51436.75
Other Materials and Goods	72300	0
Connectivity Charges	72400	0
Acquis of Computer Hardware	72800	0
Utilities	73100	1129.48
Direct Project Costs	74500	229.96
Facilities & Admin – Implement	75105	5521.69
Realized loss	76100	0.01
SUBTOTAL:		74542.75
ACTIVITY 3		
Direct Project Cost	64300	33.99
Travel – Other	71600	0
Svc Co-Trade and Business Serv.	72100	303.71
Svc Co-Transportation Serv.	72200	0
Capacity Assessment	74100	0
Direct Project Costs	74500	14.57
Facilities & Admin – Implement	75100	28.18
SUBTOTAL:		380.45
ACTIVITY 4		
Direct Project Cost	64300	135.97
Contractual Services – Individ.	71400	0
Travel	71600	349.28
Svc Co-Trade and Business Serv.	72100	10588.29
Machinery and Equipment	72200	0
Connectivity Charges	72400	756.40
Maint. Operation Transport Equipment	73400	0
Direct Project Costs	74500	58.27
Facilities & Admin – Implement	75105	951.06
SUBTOTAL:		12839.27
ACTIVITY 5		
Direct Project Cost	64300	223.60
Local Consult Sht .Term-Tech	71300	0
Travel	71600	968.31
Svc Co-Trade and Business Serv.	72100	0

Connectivity Charges	72400	0
Publications	72500	0
Printing	74210	0
Sundry/ Direct Project Costs	74500	95.83
Facilities & Admin – Implement	75100	103.02
SUBTOTAL:		1390.76
TOTAL Expenditures: 01.01.2017-30.06.2017		189153.08