

UNITED NATIONS DEVELOPMENT PROGRAMME

Country: Lebanon PROJECT DOCUMENT



Project Title	The Rehabilitation of Saida Dumpsite
UNDAF Outcome(s):	Outcome 5: By 2014, improved accessibility and management of natural resources and enhanced response to national and global environmental challenges
Expected Output(s):	Output 5.1: Environmental considerations are mainstreamed in sector/local-level strategies
Implementing Agency:	United Nations Development Programme
Execution Entity:	Ministry of the Environment

Brief Description

This project aims at rehabilitating the existing Saida landfill to solve an environmentally unacceptable situation and to use the land again for the benefit of the Saida municipality. The procedure of the rehabilitation is "Landfill Mining" which includes a treatment of excavated waste at site to produce secondary construction material complying with local and EU standards. To enable rehabilitation of the Saida landfill, acceptance of waste will have to cease at the moment the rehabilitation starts. Daily incoming municipal solid waste will be transported to and processed at an alternative facility.

The project will be implemented with the Ministry of the Environment and will be coordinated very closely with the municipality of Saida.

Programme Period:	2010 - 2014
Atlas Award ID:	00068385
Atlas Project ID:	00083622
Start date:	01 September 2012
End Date	31 December 2015
PAC Meeting Date:	
Management Arrangements	Support to NIM

Total resources required	25 million USD
Total allocated resources:	25 million USD
• Government of Lebanon	20 million USD
• Other	5 million USD
• ISS	475,919 USD
• GMS:	728,155 USD
• Programmable budget:	23,795,926 USD

Agreed by the Ministry of Environment: H.E. Mr. Nazem El Khoury, Minister

Agreed by the CDR: Mr. Nabil el Jisr, President

Agreed by UNDP: Mr. Robert Watkins, Resident Representative



I. SITUATION ANALYSIS

Outside Beirut and Mount Lebanon (excluding the Caza of Jbail), municipalities continue to assume lead responsibility for carrying out SWM operations (sweeping, collection and disposal), pursuant to Municipal Law No. 118 (dated 30 June 1977). Municipalities either use their own waste collection vehicles and workers or outsource the service to private contractors. Towns with no municipal councils typically piggyback on the collection and disposal system of neighboring municipalities based on mutual agreement, or illicitly. A number of municipalities have received assistance (technical and financial) from international development organizations to improve SWM services by building small and medium-sized solid waste sorting and composting facilities, providing waste containers and waste collection vehicles.

Lebanon has two sanitary landfills (Naameh and Zahlé) and one landfill for inert materials (Bsalim). Combined, the three landfills receive solid waste from about half of Lebanon's population (2 million people). According to a master plan prepared by UNDP and the Ministry of Environment in 2011, there are around 670 open uncontrolled dumpsites spread across Lebanon.. In this study Saida was ranked number one with respect to the risk and environmental hazards it presents. In fact, saida dumpsite scored the highest grade of 47.49 on the risk sensitivity index scale of 55, which implies that it presents the most risk to human health and the environment, and suggests it requires the most urgent intervention (See Annex I for Action Fiches for Saida).

Saida dumpsite is located in the southern part of the city of Saida, at the sea front, only 200 meters from nearby residences and commercial units. The city urban areas are closely surrounding the landfill site at a distance of several hundred meters.

Managed by the Municipality of Saida, the dumpsite receives about 300 tons of solid waste per day from 15 municipalities (or 250,000 people). Originally established in 1982 to receive rubble and demolition waste from destroyed buildings, the dumpsite has since received all kinds of waste, an estimated 1,500,000m³ so far (60 percent rubble and 40 percent municipal waste). The waste mountain stretches 55 meters high from the surrounding terrain, and covers an area of 60,000m²; it is an enduring eyesore and health threat to local residents and tourists. The environmental repercussions are severe; occupational hazards related to incoming health care waste, recurring waste slides into the Mediterranean Sea, and stench have invited countless complaints from local fishermen and residents, in addition to official complaints from the neighbouring island of Cyprus. The Dumpsite has no basal lining barrier and no leachate collection system. The site is not connected to the public water supply system; the water is supplied by water truck delivery.

Accordingly, the dumpsite has drawn a lot of media attention as well as calls for action from government officials, philanthropic organizations and the private sector. The Municipality of Saida in collaboration with UNDP, has decided to resolve the solid waste management issue in Saida and to treat the dumpsite. The on-going and planned activities include:

- In 2010, IBC (a private waste contractor) completed the construction of a Mechanical and Biological Treatment Plant located about 200m south of the dumpsite. Designed to handle organic waste, the plant will go online when a service agreement is reached between the Municipality of Saida and the waste contractor (who has reportedly requested a hefty tipping fee).
- The Prince Walid Bin Talal Humanitarian Foundation in 2004 pledged \$5 million to help clean up the dump. The receipt of this fund has been officially approved by the Council of

Ministers and will be transferred to the Ministry of Environment for implementation by UNDP

- The Council of Ministers has initiated the construction of a seawall around the dumpsite using \$20 million received from the Kingdom of Saudi Arabia (KSA). The works has been subcontracted through the Council of Development and Reconstruction (CDR) to a private company
- The final stage is the rehabilitation of the actual dumpsite and its conversion into stable reclaimed land. The cost of this activity is approximated at \$25 million; \$20 million of which has been committed by the Government of Lebanon from the national budget and \$5million will be topped up from the grant received from the Walid Bin Talal Foundation. The approval and use of these funds is awaiting the endorsement of the national budget.

II. DEFINITIONS

Project Turn Key Rehabilitation of the Saida Dumpsite

Landfill (Sanitary landfill) Construction work built in accordance with National standards and requirements for Design and, when not available, with European Standards, to safely accommodate waste upcoming from this Project

Refilling Placing waste from this Project on the new sanitary Landfill

Backfilling Placing inert material on adequate land for its utilization and further usage

Waste Material fraction from the treatment plant that does not meet criteria for backfill described in this document

Backfilling material Material fraction from the treatment plant that meets the criteria for backfill described in this document

Treatment plant Set of equipment (screens, crushers, separators, conveyors and others) used to process material from this project with aim to eliminate waste volume by separating all reasonably possible reusable components

Project site (site) Area of remediated stockpile and its direct vicinity that can be reached by truck without crossing any residential area

III. STRATEGY

The overall strategy of this project is to rehabilitate Saida dumpsite in the most environmental and cost effective manner. The aim is to convert the dumpsite site into an attractive environmentally friendly green area using the funding received from the Prince Walid Bin Talal Humanitarian Foundation (\$5 million) and the national budgetary allocation from the Government of Lebanon (\$20million).

The Saida dumpsite shall be transformed into a sanitary landfill using "landfill mining" technique where the dumpsite waste is treated in-situ. The process shall ensure that material is recovered to the maximum extent possible and all such recyclable waste will be treated within the vicinity of the dump. The rehabilitation process will take also tackle the issue of leachate which currently seeps into the sea as well as air pollution from the dumpsite gas. It must be noted that the sanitary landfill will be constructed and then closed; and thus, will not receive future waste from the area.

IV. ACTIVITIES

Phase I – Preparatory Stage

1. Technical Assessment of the site

An in-depth technical assessment of the site shall be undertaken as a first step in this project. The technical assessment will provide insight about the existing conditions and accordingly the optimum technical process for rehabilitation to be used. The site technical assessment activities shall include at a minimum, surveys, control stations, topographic maps, aerial photos/satellite imagery, geophysical, pits, boreholes, pump trials, laboratory support on soil, water, air, laboratory field testing/monitoring. The most appropriate and feasible solution will be decided upon in close coordination with the Ministry of Environment and the Municipality of Saida.

2. Prequalification of Contracting Companies

Also within this first stage involves the identification of technically qualified companies that could participate in the implementation of the rehabilitation works. The prequalification process will be based on UNDP procurement rules and regulations where an expression of interest will be launched internationally inviting firms experienced in the domain to apply. An evaluation of all applications shall be undertaken by a team of experts in the field. The companies that pass the prequalification process will be invited to bid in the following phases.

3. Contracting Process

Also during the first phase and based on the results of the technical evaluation, the tender documents for the implementation of the rehabilitation works will be prepared. Once ready, the prequalified firms will be invited to bid. The evaluation shall be done technically and financially and the winner (combining the highest overall combined score technical/financial) shall be awarded the contract. The tendering process will not be initiated prior to the receipt of the \$20 million from the Government of Lebanon.

Phase II: Implementation of works

During this phase, the awarded contractor will execute the works on site. In parallel, UNDP will establish a project management team consisting of a Project Manager and a site engineer that will supervise and monitor the implementation of works by the Contractor. The team will also ensure continuous coordination between the Ministry of Environment, the Municipality of Saida and all stakeholders involved. The team will also be responsible for ensuring public communication is maintained and project board meetings are held on a biannual basis.

Once the works is completed, the Municipality of Saida will ensure the operation and maintenance of the rehabilitated site. The technicians at the Municipality will be trained to ensure sustainable maintenance of the site.

IV. RESULTS AND RESOURCES FRAMEWORK

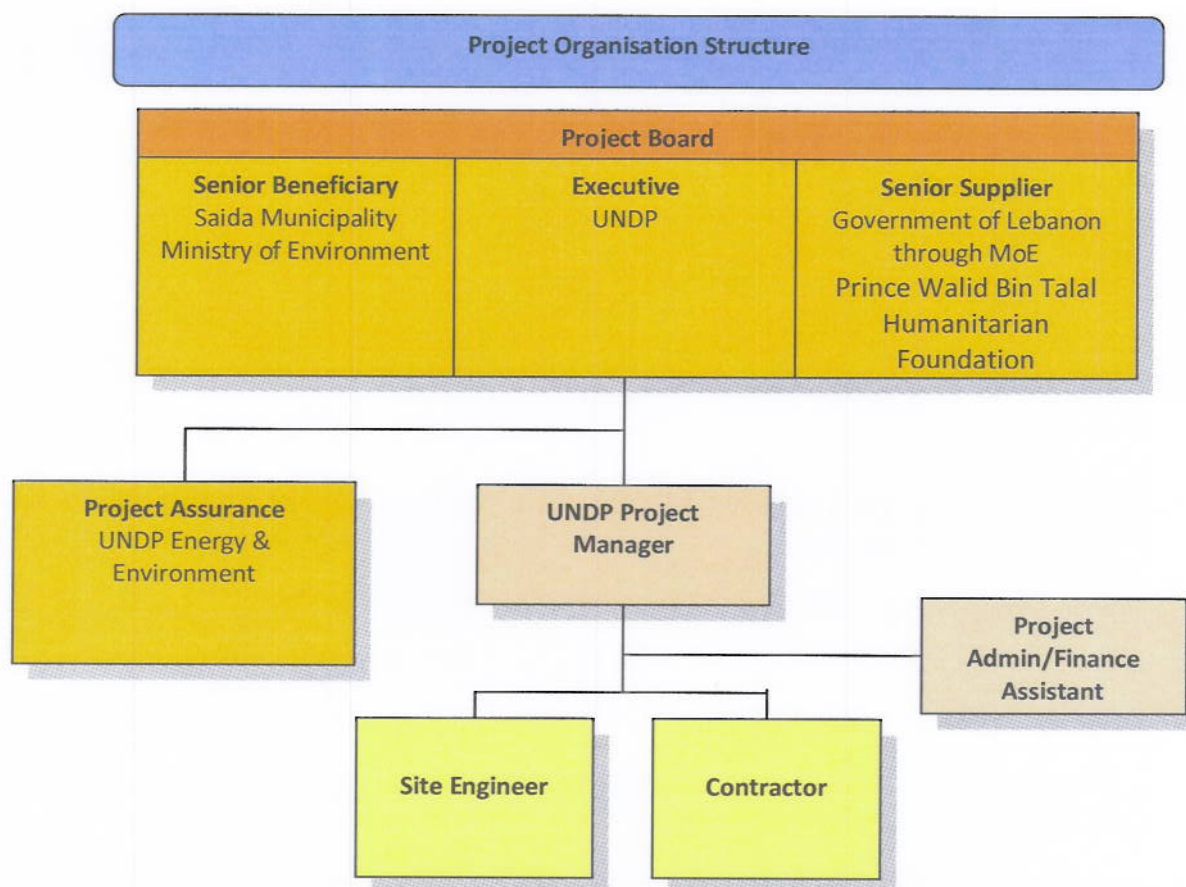
Intended Outcome as stated in the Results and Resource Framework:				
Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:				
Applicable Goal:				
Project title and ID (ATLAS Award ID): 00086066 and 73118				
INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
Output 1: Engagement of ministries and governmental institutions in continuous planning/decision making on climate change issues <u>Baseline:</u> weak coordination among ministries on matters related to climate change	- Targets (year 1): Coordination scheme established and strengthened - Targets (years 1,2): Training of the focal points	• Assignment of focal points from ministries, academia, and the private sector to establish GG and RTSG • Establishment of a cooperation scheme between ministries and governmental institutions for efficient communication and data sharing • Training of designated focal points for skills and knowledge improvement	PMO	• TORs of Focal points • Letters requesting designation of qualified and mandated representatives • NCE endorsement and exchange of letters with and among ministries and other institutions • Consultation with designated focal points on areas requiring training

	- Leachate collection and treatment system provided - Waste stabilized, and 40% of waste is treated (recyclable materials are recovered and secondary construction material produced at local and EU standards). Targets (year 3) - 100 % of waste is treated. - Capacity of Ministry of Environment and Saida Municipality built - Dumpsite 100% rehabilitated and converted into attractive green area. - Environmental impacts (sea, air visual pollution) are completely mitigated. - Operation and maintenance of the site commissioned to Saida Municipality	▪ Coordination of works implementation among stakeholders, contractor and team of experts. ▪ Follow-up and close monitoring of contract implementation. ▪ At least 5 on-the-job trainings to MoE and municipality staffs. ▪ Rehabilitation of dumpsite and leachate treatment system. ▪ Segregation of waste, recovery of recyclable materials and composting of organic waste ▪ Production of secondary construction material		
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V. ANNUAL WORK PLAN

EXPECTED OUTPUTS <i>And baseline, indicators including annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	RESPONSIBLE PARTY	PLANNED BUDGET						
			Funding Source	Budget Description	Amount year 1 (USD)	Amount year 2 (USD)	Amount year 3 (USD)	Amount year 4 (USD)	Total Amount (USD)
Output 1: The Rehabilitation of Saida Dumpsite Baseline: Current dumpsite presents high risk and environmental hazard, and absence of baseline data Indicators: Archaic disposal of mixed waste and pollution of surrounding environment Targets: Mitigation of environmental impacts through a proper rehabilitation of the site Related CP outcome: Environmental considerations mainstreamed	1. Project Management - Recruitment and establishment of Project Team - Day-to day monitoring of project implementation and coordination with the different stakeholders. - Recruitment of national and international consultants - Reporting and financial management of the project	UNDP	Prince Walid Bin Talal Foundation	71400 - Contractual Services Individuals	40,000.00	167,229.00	167,229.00	167,229.00	541,687.00
				72200 - Equipment and Furniture	2,000.00	3,000.00	-	-	5,000.00
				72500 - Supplies	2,000.00	2,000.00	2,000.00	2,000.00	8,000.00
				73400 - Rental & Maintenance of Other Equipment	1,000.00	7,000.00	7,000.00	7,000.00	22,000.00
				74100 - Professional services	-	-	-	10,000.00	10,000.00
				74200 - Audio Visual & Printing Production Costs	-	1,500.00	1,500.00	3,000.00	6,000.00
				74500 - Miscellaneous	2,000.00	5,000.00	10,000.00	10,000.00	27,000.00
				73500 - ISS WBT (2%)	940.00	3,715.00	3,754.00	3,985.00	12,394.00
				75100 - F&A WBT (3%)	1,438.00	5,683.00	5,745.00	6,096.00	18,962.00
				Subtotal	49,378.00	195,127.00	197,228.00	209,310.00	651,043.00
	2. Execution of works - Implementation of the turnkey contract for rehabilitation of Saida dumpsite	UNDP	MoE/ Prince Walid Bin Talal Foundation	72100 – Contractual Services companies (turnkey) - MoE	-	-	8,036,741.00	11,000,000.00	19,036,741.00
				72100 – Contractual Services companies (turnkey) -WBT	-	1,500,000.00	2,639,498.00	-	4,139,498.00
				73500 – ISS (2%) - MoE	-	-	160,735.00	220,000.00	380,735.00
				73500 – ISS (2%) - WBT	-	30,000.00	52,790.00	-	82,790.00
				75100 – F&A (3%) - MoE	-	-	245,924.00	336,600.00	582,524.00
				75100 – F&A (3%) - WBT	-	45,900.00	80,769.00	-	126,669.00
				Subtotal	-	1,575,900.00	11,216,457.00	11,556,600.00	24,348,957.00
Total				49,378.00	1,771,027.00	11,413,685.00	11,765,910.00	25,000,000.00	

plans <u>Baseline:</u> availability of few NAMAs and adaptation demonstration projects - Targets (years 1,2): Situation Analysis conducted - Targets (years 2): Adaptation pilot projects underway - Targets (years 2): NAMAs prepared Output 3: Engagement of Lebanon in the international climate change arena and promoting new national and international climate financial mechanisms <u>Baseline:</u> Weak role of Lebanon in the UNFCCC negotiations - Targets (years 1,2): Participation in the Climate Change negotiations - Targets (years 1,2): Financial mechanisms promoted	Situation analysis and selection of location of pilot demonstration adaptation project sites Strengthening Lebanon's role in international climate change negotiations and obligations Identifying new financing mechanisms for climate change	UNDP 	LRF 	75100 – F&A	16,800
				71400 - Contractual Services Ind	107,000
				71600 – Travel	21,290
				72220 – Equipment and Furniture	9,000
				72405 – Information and Technology Equipment	10,000
				74100 – Audit	7,000
				74500 – Miscellaneous	23,000
				75100 – F&A	12,410
					500,000



ii. UNDP Support Services

In accordance with the decisions and directives of UNDP's Executive Board reflected in its Policy on Cost Recovery from Other Resources, the Contribution shall be subject to cost recovery by UNDP for two distinct cost categories related to the provision of support services, namely:

UNDP general oversight and management services (**General Management Support - GMS**) recovered with a flat rate of **3%** and includes the following services:

- General oversight and monitoring, including participation in project reviews
- Briefing and de-briefing of project staff and consultants
- Resource management and reporting
- Thematic and technical backstopping through Bureaus
- Security management service and Malicious Acts Insurance Policy
- External access to ATLAS for project managers and other staff, Payroll management services and Medical Clearance Services for all staff

UNDP direct costs incurred for **Implementation Support Services (ISS)**, recovered on a **2%** of total expenditure basis and collected on a quarterly basis, for the following activities of the project:

- Payments, disbursements and other financial transactions
- Recruitment of staff, project personnel, and consultants
- Procurement of services and equipment including disposal
- Organization of training activities, conferences, and workshops, including fellowships
- Travel authorization, visa requests, ticketing, and travel arrangements
- Shipment, custom clearance, vehicle registration, and accreditation

iii. **Audit**

The audit of NIM projects is made through the regular external (UN Board of Auditors) or internal audits (audits managed by UNDP's Office of Audit and Performance Review).

iv. **Visibility**

UNDP will ensure that the Ministry of Environment and respective donors to the project will receive the maximum visibility possible.

UNDP will be responsible for determining when its name and logo are to be displayed and prior written authorisation must be granted by the UNDP Resident Representative on a case by case basis.

VII. MONITORING FRAMEWORK AND EVALUATION

i. Overall Monitoring Framework

UNDP will undertake periodic monitoring of the implementation progress through regular meetings with the project team, MoE and the Saida municipality. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely manner and to ensure smooth implementation of project activities. Furthermore, UNDP will be responsible for financial monitoring and reporting on all disbursements of the programme to MoE and respective donors.

Monitoring will be a continuous and systematic process review of the various activities and will be intended to

- measure input, output, and performance indicators;
- provide regular and up-to-date information on the progress towards meeting the overall Project Objectives;
- alert the implementing partners with problems in implementation, and provide basis on which performance may be improved, and
- determine whether the relevant stakeholders are responding as expected.

ii. Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
- An Issue Log shall be activated in Atlas and updated by UNDP to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (see section X), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Quarterly Progress Reports (QPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- a project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project.
- a Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

iii. Annually

Annual Review Report: An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.

Annual Project Review: Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.

VIII. QUALITY MANAGEMENT FOR PROJECT ACTIVITY RESULTS

OUTPUT 1: The rehabilitation of Saida dumpsite		
Activity Result 1	<i>Project Management</i>	Start Date: Sep. 2012 End Date: Dec. 2015
Purpose	<i>Ensure the smooth technical and operational management of the project</i>	
Description	<i>Set up project team</i> <i>Selection of national and international experts</i> <i>Technical and financial management</i> <i>Reporting</i>	
Quality Criteria		Quality Method
Qualified personnel recruited		Positive evaluation of the project team
Reporting and coordination of works		Delivery target reached and timely reporting
Activity Result 2	<i>Turnkey assignment for the rehabilitation of Saida dumpsite</i>	Start Date: Jan. 2013 End Date: Dec. 2015
Purpose	<i>Rehabilitation of the dumpsite</i>	
Description	<i>Finalizing the baseline assessment and selection of waste treatment method</i> <i>Awarding the contract (after completion of bidding process)</i> <i>Treatment of waste</i> <i>Production of secondary construction material</i> <i>Training of MoE and Saida Municipality Staff</i>	
Quality Criteria		Quality Method
Baseline assessment completed		Proper method adopted and Timely implementation of works
Procurement of turnkey contractor		Contract awarded
Treatment of waste		Site assessment, topography report and quality assessment of waste
Municipal and MoE staff trained		Capacity of staff increased Report on trainings submitted
Production of secondary construction material		Volume of waste reduced
		On quarterly basis

IX. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement (SBAA) between the Government of Lebanon and the United Nations Development Programme, signed by the parties on 10 February 1986.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the executing agency and its personnel and property, and of UNDP's property in the executing agency's custody, rests with the executing agency.

The executing agency shall:

- (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- (b) assume all risks and liabilities related to the executing agency's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The executing agency agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

The UNDP Resident Representative in Lebanon is authorized to effect in writing the following types of revisions to the Project Document, after consultation with the project partners:

- Revision of, or addition to, any of the annexes to the Project Document;
- Revisions which do not involve significant changes to the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of inputs already agreed to or by cost increases due to inflation;
- Mandatory annual revisions which re-phase the delivery of agreed project outputs or increased expert or other costs due to inflation, or take into account agency expenditure flexibility; and
- Inclusion of additional annexes and attachments

X. RISK ANALYSIS

#	Description	Date Identified	Type	Impact & Probability (1= low, 5=high)	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Political undermining	Project initiation	Political	P = 3 I = 5	Close coordination with the Ministry of the Environment to assess situation and take decisions accordingly	UNDP			
2	Political instability and security situation in the country	Project initiation	Security	P = 4 I = 5	Close coordination with UN Department of Safety and Security (UNDSS)	UNDP			
3	Willingness of other institutions to collaborate	Project initiation	Operational	P = 5 I = 4	Ministry of the Environment and UNDP to lobby for the active participation of all concerned stakeholders	UNDP			
4	Availability of sufficient data	Project initiation	Operational	P = 4 I = 4	Ministry of the Environment and UNDP to actively locate and facilitate data collection	UNDP			
5	Extreme weather conditions during the implementation of works (increasing hazards of landslides in winter season)	Project initiation	Environmental	P=3 I=3	Cater for possibilities of delay due to bad weather conditions in the project implementation workplan, and continuous situation assessment on site.	UNDP			

XI. ANNEXES

ANNEX 1 – ACTION FICHES FOR SAIDA



Preparation of a master plan for the closure & rehabilitation of uncontrolled dumps throughout the country of Lebanon



1- Site Name and Location X Y Z Mohafaza Caza Town	G2-Saida-0 35.365 33.552 38 m South Saida Saida
2- Type of Dump Distance to Urban areas Open Burning	Elaborated Hill or pile 40 m No
3- Estimated Volume Area Height Quantity of waste currently dumped Waste coming from	1,200,000 m3 30,000 m2 40 m 300 t/d Most municipalities in the caza of Saida
4- Priority Ranking for Rehabilitation Risk Sensitivity Index Score	1 47.492 out of 55
5- Preferred Rehabilitation Option	Excavate, treat and Transfer (to an on-site sanitary landfill)
6- Technical Requirements	a-Assess site conditions and conduct preliminary studies to determine actual volumes and characteristics of wastes and of the dump. Prepare the necessary design drawings for the required remedial measure. b-Drilling of an interconnected well system for active degasification of waste in the dump. This can be achieved through blowing air inside injected pipes within the dump to speed up waste stabilization. c- Conduct earth movement and excavation of old waste using the necessary machinery for the purpose of reducing the surface area of the dump, grading, compaction and sabilization of waste within the dump (surface slope 2 to 4 %) and for stabilization of side slopes to a vertical to horizontal ratio less than 1:3. d-Segregation of waste into hazardous and non hazardous material, organic material, secondary construction material, soil and recovery of recyclables using seiving techniques (rotating trommel screen, sorting platform, magnets, or any other separation technology). The organic material should be stabilized by on site composting. The remaining volume of waste (half the original volume) will be transferred to the on site sanitary landfill for final disposal. e-Installation of the necessary composite liner system and soil protection measures for preparing the bottom of the sanitary landfill. This should include all drainage layers, perforated pipes and sump pits for leachate collection within the landfill. f-Install a capping system to prevent gas migration divert rain from entering the waste dump. The cap should be composed of a 30 cm gravel drainage layer followed by 50 cm of well compacted clay layer and a 30 cm fine protective layer of soil. A geotextile protective membrane should be installed between the drainage and clay layers.

6- Technical Requirements	g-Active harnessing of gases from the dumpsite by drilling the necessary number of gas wells (minimum 1 gas well for each 7500 m3 of waste) and installing silica-based gravel inside gas wells, gas collection pipes (perforated and non perforated PVC pipes), headers and subheaders (HDPE pipes), grouts and plugs, and the appropriate blower and gas flaring unit. h- Construction of peripheral drainage channels to control leachate generation and diverting rain away from the dumpsite. Concrete channels can be constructed along the periphery of the dumpsite. Leachate and diverted rain water should be collected in an appropriately sized leachate collection tank supplied with the necessary pumping system to pump the leachate to an onsite treatment facility.
7- Responsibility	Union of Municipalities of Saida and Municipality of Saida
8- Legal requirements	Enforce legislation and ban open dumping.
9- Monitoring requirements	a-Assign experienced personnel to supervise closure activities. b- Monitor gas quantity and quality c- Monitor and extinguish fires and control odours c- Monitor and control leachate generation d- Control dust during earth moving works e-Monitor Health and Safety of operators f-Installation of an on-site laboratory for continuous quality control
10 - Operation and maintenance requirements	Continuous control and inspection of treatment activities, construction of the sanitary landfill including cap, gas collection system, leachate generation and management.
11 - Estimated cost (\$)	25,335,600 \$
Average rehabilitation/closure cost (\$ per m3 of waste)	21.113 \$/m3
12- Possible sources of financing	National Budget

COST ESTIMATE

Description	Unit	Quantity	Unit price (US\$)	Total price (US\$)
1. Preparatory Works				
1.1 - Mobilization and Demobilization: Mobilization to the site and demobilization after completion of all the required tasks including machineries and equipment needed for the completion of the works	LS	1	50,000.0	50,000
1.2 - Site Assessment: including visual inspection, topographic survey, initial assessment study and research, sampling, waste characterization, shop drawings, as built drawings and all necessary work needed to assess conditions of the dump.	LS	1	150,000.0	150,000
1.3-Design of remedial measures and of sanitary landfill	LS	1	150,000.0	150,000
2. Earth Movement Works				
2.1 - Excavate the waste dump for the purpose of treatment/sorting and earth movement	m3	1,200,000	4.0	4,800,000
2.2 - Sorting of waste: Segregation of waste into hazardous and non hazardous materials, organic material, soil material and recovery of recyclables using sieving techniques (rotating trommel screen, sorting platform, magnets, or any other separation technology suitable for this large quantity of waste)	m3	1,200,000	8.0	9,600,000
2.3-Installation of liner system and soil protection measures for re-landfilling the remaining waste and installation of leachate drainage works	m2	20,000	150.0	3,000,000
2.4 - Surface preparation and re-shaping: including movement of waste within the dump for the purpose of grading, compaction and stabilization of waste (old and new waste coming from nearby dumps, if any)	m3	300,000	2.0	600,000
2.5 - Slope stabilization: including grading of the surface of the fill to about 2 - 4% and the side slopes to a vertical to horizontal ratio less than 1:3.	m2	20,000	4.0	80,000

COST ESTIMATE

Description	Unit	Quantity	Unit price (US\$)	Total price (US\$)
3. Capping Works				
3.1 - Supply and install a well compacted low permeability clay liner (50 cm thickness)	m3	12,000	14.0	168,000
3.2 - Supply and install a gravel drainage layer (50 cm thickness)	m3	12,000	12.0	144,000
3.3 - Supply and install fine protective layer of soil (50 cm thickness)	m3	12,000	7.0	84,000
3.4 - Supply and install a geotextile protective membrane between the clay liner and the gravel drainage layer	m2	24,000	3.0	72,000
3.5- Planting trees	unit	500	500.0	250,000
4. Gas Management Works				
2.1-Active degasification of dump for the purpose of stabilizing the waste by injecting air inside the dump through drilling and pumping air inside perforated pipes.	unit	300	6000	1,800,000
4.1 -Drilling of gas wells: The drilling should be done using an auger (preferably a hollow stem Auger type). The diameter of all boreholes is fixed to 90 cm while the depth vary according to depth of waste. The Radius of influence of gas wells to vary between 15 and 20 m	lm	6,400	150.0	960,000
4.2 - Supply and install gravel (silica-based) inside gas wells: - The gravel size should vary between 5 mm and 5 cm. Preferably gravel should be of basaltic nature, otherwise it should be properly and extensively washed before usage	m3	4,064	150.0	609,600
4.3 - Supply and install PVC Pipes in gas wells (slotted and non slotted) complete including all accessories. Pipes thickness to be 5 mm minimum	lm	6,400	50.0	320,000
4.4 -Supply and install connection headers including main venting header and sub venting header, complete including all accessories. Pipes to be made of 150 to 200 mm HDPE. Accessories include T-junction, 90 degrees curves, m enlarger, reducer, caps, monitoring ports, gate valves, flexible hose, etc.	Lm	5,000	40.0	200,000
4.5 - Supply and install blower and flaring unit: including flare, blowers, connections, fittings, and accessories. Minimum flow to be 200 m3/hr	unit	4	200,000.0	800,000
4.6- Supply and install soil backfill material, Bentonite clay and grout for sealing the gas wells, complete including all accessories	unit	160	700.0	112,000
5. Leachate Management Works				
5.1 - Construction of a concrete leachate collection tank. Volume 200 m3 complete including pumping system	unit	1	150,000.0	150,000
5.2 - Construction of concrete peripheral drainage channels to collect leachate and divert rain away from the dump. Drainage channel to be 80 cm x 80 cm x 80 cm min.	lm	800	45.0	36,000
6. Control and Monitoring				
6.1-On Site Laboratory and testing	LS	1	900,000.0	900,000
6.2- Supervision of works, Control and Monitoring	LS	1	300,000.0	300,000
TOTAL COST (\$)				25,335,600
AVERAGE COST (\$/m3)				21.113



G-2-Saida

Type Of Dump , Multiple

Municipality , Saïda

Caza , Saïda

Mohafazat , South

Risk Score , 47.49

Type of rehabilitation , Excavate, treat and transfer.



ANNEX 2 – TERMS OF REFERENCE FOR PROJECT MANAGER

The Project Manager is responsible to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. The Project Manager is responsible for the technical implementation of the project and its day-to-day management and decision-making. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

Key Functions/Responsibilities:

Under the direct supervision of UNDP and in close coordination with the Ministry of Environment (MoE) and Saida Municipality, the Project Manager will be responsible for the overall execution of the project and will work in close coordination with UNDP, the Lebanese Government, and the national and international team of experts. The specific functions of the Project Manager are as follows:

Technical follow-up of the project

- Manage the realization of project outputs through activities;
- Draft needed technical specifications and develop criteria to evaluate tender documents;
- Follow-up on site work and determine if installation works is in line with technical specifications;
- Monitor progress against the initial quality criteria.
- Mobilize goods and services to initiative activities, including drafting TORs and work specifications;
- Monitor events as determined in the Monitoring & Communication Plan, and update the plan as required;
- Prepare the Project Quarterly Progress Report (progress against planned activities, update on Risks and Issues, expenditures) and submit the report to the Project Board and Project Assurance;
- Based on the review, prepare the AWP for the following year, as well as Quarterly Plans if required.

Running the project:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board or its appointed Project Assurance roles to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Liaise with any suppliers;
- May also perform Team Manager and Project Support roles;
- Manage requests for the provision of financial resources by UNDP, using direct payments;
- Monitor financial resources and accounting to ensure accuracy and reliability of financial reports;
- Manage and monitor the project risks as initially identified in the Project Brief appraised by the LPAC, submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risks Log;
- Be responsible for managing issues and requests for change by maintaining an Issues Log.
- Prepare Final Project Review Reports to be submitted to the Project Board and the Outcome Board;
- Identify follow-on actions and submit them for consideration to the Project Board;
- Manage the transfer of project deliverables, documents, files, equipment and materials to national beneficiaries;

Competencies/Qualifications:

The Candidate must have strong planning, managerial and technical skills to ensure quick project implementation and timely delivery of required outputs.

- Education: Graduate degree (MSc/MEng) in engineering or environmental sciences.
- Experience: Minimum of 8 years of experience in the field. Experience in development projects and prior experience with UNDP and/or solid waste is necessary. Computer literate.
- Language Requirements: Effective verbal and written communication skills in both Arabic and English. French is a plus.

ANNEX 3 – LETTER OF AGREEMENT

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT OF LEBANON FOR THE PROVISION OF SUPPORT SERVICES

Excellency,

1. Reference is made to consultations between officials of the Government of *Lebanon* (hereinafter referred to as “the Government”) and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed project “**The Rehabilitation of Saida Dumpsite**” – ID **00083622**. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution “The Ministry of Environment” being designated in the relevant programme support document or project document, as described below.
2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution, the Ministry of Environment is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.
3. The UNDP country office will provide, at the request of the designated institution, the following support services, covered by ISS charges collected on a quarterly basis, for the activities of the programme/project:
 - i. Payments, disbursements and other financial transactions
 - ii. Recruitment of staff, project personnel, and consultants
 - iii. Procurement of services and equipment, including disposal
 - iv. Organization of training activities, conferences, and workshops, including fellowships
 - v. Travel including visa requests, ticketing, and travel arrangements
 - vi. Shipment, custom clearance, vehicle registration, and accreditation
4. The UNDP country office will also provide, the following general oversight and management services for the activities of the project which include the following:
 - i. General oversight and monitoring, including participation in project reviews
 - ii. Briefing and de-briefing of project staff and consultants
 - iii. Resource management and reporting
 - iv. Thematic and technical backstopping
 - v. Security management service and Malicious Acts Insurance Policy
 - vi. External access to ATLAS for project managers and other staff, Payroll management services and Medical Clearance Services for all staff.
5. The procurement of goods and services and the recruitment of project and programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 & 4 above shall be detailed in the programme support document or project document in the Management Arrangements section. If the requirements for support services by the country office change during the life of a programme or project, related section in the programme support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.

6. The relevant provisions of the Standard Basic Assistance Agreement with the Government (the "SBAA") dated 10 February 1986, including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution, the Ministry of Environment. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the "Management Arrangement" section of the programme support document or project document.

7. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.

8. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 & 4 above shall be specified in the "Management Arrangement" section and the cover page of the programme support document or project document.

9. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

10. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

11. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.

Yours sincerely,

Signed on behalf of UNDP

Mr. Robert Watkins

Resident Representative

For the Government of Lebanon

H.E. Mr. Nazem El Khoury

Date:

ANNEX 4 – COST SHARING AGREEMENT

AGREEMENT BETWEEN THE UNITED NATIONS DEVELOPMENT PROGRAMME AND THE GOVERNMENT OF LEBANON

WHEREAS the United Nations Development Programme (hereinafter referred to as "UNDP") and the Government of Lebanon (hereinafter referred to as the "Government") have agreed to co-operate in the implementation of a project/programme in Lebanon (hereinafter referred to as "the Project") which Project is summarized in Attachment A to this Agreement;

WHEREAS the Government has informed UNDP of its willingness to contribute funds (hereinafter referred to as "the contribution") to the UNDP on a cost-sharing basis to increase the resources available for the Project;

WHEREAS the UNDP shall designate an executing entity or implementing partner for the implementation of each project financed from the contribution (hereinafter referred to as "the Executing Agency/ Implementing Partner")

NOW THEREFORE, UNDP and the Government hereby agree as follows:

Article I

1. The Government shall, in the manner referred to in paragraph 2 of this Article, place at the disposal of UNDP the contribution of 20,000,000 USD.
2. The Government shall, in accordance with the schedule of payments set out below, deposit the contribution in:

Bank Name:	BANK OF AMERICA
Address:	1401 Elm St., Dallas TX 75202
ABA:	111000012
Router:	026009593
Swift:	BOFAUS3N
Account No:	3752218192
Account Name:	UNDP Lebanon Representative in Lebanon US Dollar Account
Reference:	MoE Contribution to project: 00083622, "The Rehabilitation of Saida dumpsite"

Date payment due

Amount LBP

(c) Upon Signature of the Project Document	5,000,000,000
(d) March 2013	15,000,000,000
(e) March 2014	10,000,000,000

The above schedule of payment takes into account the requirement that contributions shall be paid in advance of the implementation of planned activities. It may be amended to be consistent with the progress of project delivery.

3. All financial accounts and statements shall be expressed in United States dollars.
4. UNDP may agree to accept contribution-payments in a currency other than United States dollars provided such currency is fully convertible or readily usable by UNDP and subject to the provisions of paragraph 5, below. Any change in the currency of contribution-payments shall be made only in agreement with UNDP.
5. The value of a contribution-payment, if made in a currency other than United States dollars, shall be determined by applying the United Nations operational rate of exchange in effect on the date of payment. Should there be a change in the United Nations operational rate of exchange prior to the full utilization by UNDP of the contribution-payment, the value of the balance of funds still held at that time will be adjusted accordingly. If, in such a case, a loss in the value of the balance of funds is recorded, UNDP shall inform the Government with a view to determining whether any further financing could be provided by the Government. Should such further financing not be available, the assistance to be provided to the Project under this Agreement may be reduced, suspended or terminated by UNDP.
6. Any interest income attributable to the contribution shall be credited to the UNDP Account and shall be utilized in accordance with established UNDP procedures.

Article II

1. In accordance with the decisions and directives of UNDP's Executive Board reflected in its Policy on Cost Recovery from Other Resources, the Contribution shall be subject to cost recovery for indirect costs incurred by UNDP headquarters and country office structures in providing General Management Support (GMS) services. To cover these GMS costs, the contribution shall be charged a fee equal to 3%. Furthermore, as long as they are unequivocally linked to the specific project(s), all direct costs of implementation, including the costs of executing entity or implementing partner, will be identified in the project budget against a relevant budget line and borne by the project accordingly.
2. The aggregate of the amounts budgeted for the project, together with the estimated costs of reimbursement of related support services, shall not exceed the total resources available to the project under this Agreement as well as funds which may be available to the project for project costs and for support costs under other sources of financing.

Article III

1. The contribution shall be administered by the UNDP in accordance with UNDP regulations, rules and directives, applying its normal procedures for the execution of its projects.
2. Project management and expenditures shall be governed by the regulations, rules and directives of UNDP and, where applicable, the regulations, rules and directives of the Executing Entity/Implementing Partner.

Article IV

1. The implementation of the responsibilities of the UNDP and of the Executing Agency/Implementing Partner pursuant to this Agreement and the relevant project document shall be dependent on receipt by the UNDP of the contribution in accordance with the schedule of payments set out in Article I, paragraph 2, above.
2. If unforeseen increases in expenditures or commitments are expected or realized (whether due to inflationary factors, fluctuation in exchange rates or unforeseen contingencies) UNDP shall submit to the Government on a timely basis a supplementary estimate showing the further financing that will be necessary. The Government shall use its best endeavours to obtain the additional funds required.
3. If the contribution-payments referred to in Article I, paragraph 2, above, are not received in accordance with the payment schedule, or if the additional financing required in accordance with paragraph 2, above, is not forthcoming from the Government or other sources, the assistance to be provided to the Project under this Agreement may be reduced, suspended or terminated by UNDP.

Article V

Ownership of equipment, supplies and other property financed from the contribution shall vest in UNDP. Matters relating to the transfer of ownership by UNDP shall be determined in accordance with the relevant policies and procedures of UNDP.

Article VI

The contribution shall be subject exclusively to the internal and external auditing procedures provided for in the financial regulations, rules and directives of UNDP.

Article VII

UNDP shall provide the Government on request with financial and other reports prepared in accordance with UNDP reporting procedures.

Article VIII

1. UNDP shall notify the Government when all activities relating to the contribution have been completed.
2. Notwithstanding the completion of all activities relating to the contribution, UNDP shall continue to hold unutilized contribution-payments until all commitments and liabilities incurred in implementation of the activities finance by the contribution have been satisfied and these activities brought to an orderly conclusion.
3. If the unutilized contribution-payments prove insufficient to meet such commitments and liabilities, UNDP shall notify the Government and consult with the Government on the manner in which such commitments and liabilities may be satisfied.

4. Any contribution-payments that remain unexpended after such commitments and liabilities have been satisfied shall be disposed of by UNDP in consultation with the Government.

Article IX

1. After consultations have taken place between the two Parties to this Agreement and provided that the contribution-payments already received are, together with other funds available to the Project, sufficient to meet all commitments and liabilities incurred in the implementation of the Project, this Agreement may be terminated by UNDP or by the Government. The Agreement shall cease to be in force thirty days after either of the Parties may have given notice in writing to the other Party of its decision to terminate the Agreement.
2. If the unutilized contribution-payments, together with other funds available to the Project, are insufficient to meet such commitments and liabilities, UNDP shall notify the Government and consult with the Government on the manner in which such commitments and liabilities may be satisfied.
3. Notwithstanding termination of this Agreement, UNDP shall continue to hold unutilized contribution-payments until all commitments and liabilities incurred in implementation of the activities financed by the contribution have been satisfied and these activities brought to an orderly conclusion.
4. Any contribution-payments that remain unexpended after such commitments and liabilities have been satisfied shall be disposed of by UNDP in consultation with the Government.

Article X

This Agreement shall enter into force upon signature and deposit by the Government of the first contribution-payment to be made by the Government in accordance with the schedule of payments set out in Article I, paragraph 2 of this Agreement and shall end no later than December 31, 2015.

IN WITNESS WHEREOF, the undersigned, being duly authorized thereto, have signed the present Agreement in the English language in two copies.

For the Government of Lebanon:

For the United Nations Development Programme

Name: H.E. Mr. Nazem El Khoury

Title: Minister of Environment

Date:

Place: Beirut - Lebanon

Name: Mr. Robert Watkins

Title: Resident Representative

Date:

Place: Beirut - Lebanon

ATTACHMENT A – SUMMARY OF THE “PROJECT”

Project Title:	The Rehabilitation of Saida dumpsite (ID 00083622)
UNDAF Outcome(s):	Outcome 5: By 2014, improved accessibility and management of natural resources and enhanced response to national and global environmental challenges
Expected Output(s):	Output 5.1: Environmental considerations are mainstreamed in sector/local-level strategies
Implementing Entity:	United Nations Development Agency
Execution Entity:	Ministry of Environment

This project aims at rehabilitating the existing Saida landfill to solve an environmentally unacceptable situation and to use the land again for the benefit of the Saida Municipality. The procedure of the rehabilitation is “Landfill Mining” **which includes a treatment of excavated waste at site to produce secondary construction material complying with local and EU standards.** To enable rehabilitation of the Saida landfill, acceptance of waste will have to cease at the moment the rehabilitation starts. Daily incoming municipal solid waste will be transported to and processed at an alternative facility.

The project will be implemented with the Ministry of the Environment and will be coordinated very closely with the Municipality of Saida.

Total resources required	25 million USD
Total allocated resources:	25 million USD
• Government of Lebanon:	20 million USD
• Other:	5 million USD
• ISS:	475,919 USD
• GMS:	728,155 USD
• Programmable budget	23,795,926 USD