



Country: Libyan Arab Jamahiriya

UNDAF Outcome(s)/Indicator(s):

Expected Outcome(s)/Indicator (s):

CP Outcomes: - Supporting the on-going modernization process for better economic performance and the improvement of the delivery of services and governance

(CP outcomes linked t the SRF/MYFF goal and service line)

Service line: 1.3 Local Poverty Initiatives, including Microfinance.

Expected Output(s)/Indicator(s):

Increasing the capacity of the Libyan National Meteorological Centre to strengthen its Cloud Seeding Research capabilities.

(CP outcomes linked to the SRF/MYFF goal and service line)

SL 1.3: Outcome 1.2.1.1 Coordinating the provision of services to facilitate the privatization process and increasing the accessibility of services to the different sectors including meteorology, civil aviation, industry, agriculture and tourism

Implementing partner: Libyan National Meteorological Centre (NMC)

Other Partners: United Nations Development Programme in Libya (UNDP Libya)

Programme Period: 2006-2007 (signed 28/11/2006)
Programme Component:
Project Title: Strengthening of Cloud Seeding Research in Libya
Project ID:
Project Duration: 1 year
Management Arrangement: NEX

Budget US\$ 156,000
General Management Support Fee: US\$ 7,800
Total budget: US\$ 163,800
Allocated resources:
• Government
• Regular
• Other:
o Donor
o Donor
o Donor
• In kind contributions
Unfunded budget:

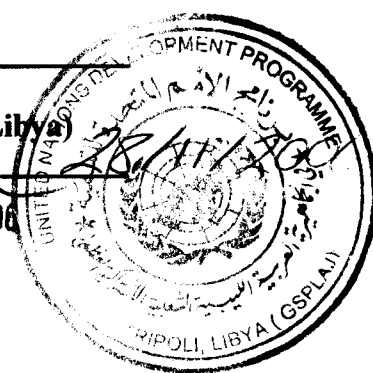
Agreed by Libyan National Meteorological Centre (NMC)

(Mr. Ahmed El-Haj - Director-General)

Agreed by United Nations Development Programme in Libya (UNDP Libya)

(Mr Julio Grieco – Resident Representative)

28 NOV 2006





Project of the Government of the Great Socialist People's
Libyan Arab Jamahiriya (GSPLAJ)

United Nations Development Programme

Libyan National Meteorological Centre

Strengthening of Cloud Seeding Research in Libya

This project aims to build capacities within the Cloud Seeding Research division of the Libyan National Meteorological Centre (NMC). In line with UNDP's Country Programme 2006-2009 objectives of capacity building for vocational education and training, this project will build on previous cooperation between UNDP, the NMC and the World Meteorological Organisation (WMO). Through the training of NMC staff, the project hopes to work towards a more advanced level of technical and scientific competence of Meteorological industry in Libya .

PART I. SITUATION ANALYSIS

The availability of water for domestic, agricultural and industrial use in Libya has been a critical problem for many years. The country is geographically located in the sub-tropical belt, with the coastal regions experiencing a Mediterranean climate with annual precipitation ranging 200mm in the central part to 300mm in the eastern Green Mountain region and the region around Tripoli. However, most of the country can be classified as a desert region with an annual rainfall of only a few millimetres or tens of millimetres. While most of the population is concentrated in the coastal regions, it is also this region that experiences the most acute problems in water resources. Decreasing ground water levels and seawater intrusion are some of the most pressing problems. It is for this reason that the authorities in Libya continue to explore the possibilities to augment water resources via other methods such as desalination, importing water, and via cloud seeding to enhance rainfall.

Libya has been conducting cloud seeding experiments for approximately 30 years. However, most of the cloud seeding work was in the form of operational programmes without a strong scientific basis and evaluation component. Throughout the past 30 years the Libyan cloud seeding experiments have been conducted by the Libyan National Meteorological Centre (NMC). The primary objective of the centre, as pertains to Cloud Seeding research, has been to create an environment to conduct meteorological research to provide a better scientific basis and an evaluation component for cloud seeding operations in Libya, and to assess its economic impact on all sectors of society. Since 2003, the NMC has partnered UNDP Libya and the World Meteorological Organisation in a project to Strengthen Cloud Seeding Research in Libya.

PART II. STRATEGY

The Libyan national authorities have outlined their commitment to provide water ensure continued economic development, sustain the life of Libya's citizens and agricultural productivity, to improve efficiency of reforestation, conserve the nation's water resources, explore augmenting water resources with unconventional methods, and increase the understanding of water related issues. To achieve these responsibilities, the government of the Great Socialist Peoples Libyan Arab Jamahiriya have committed themselves to investing in the building of human capacities and technical competence of the Libyan National Meteorological Centre in regards to Cloud Seeding Research.

Within the framework of this project, UNDP will coordinate with the NMC for the provision of expertise, technical advice and training to the Centre's Cloud Seeding Research staff. During implementation, UNDP will ensure that this project is integrated with the other related UNDP project LIB/00/003, titled "Modernising and Upgrading of Meteorological Services" which is being implemented by the WMO, thereby avoiding duplication of activities between the two projects.

PART III. MANAGEMENT ARRANGEMENTS

The implementing agent for the project will be the Libyan National Meteorological Centre. The project will be managed and implemented according to UNDP rules and procedures for National Execution.

The UNDP country office will provide support for project realization and for National Execution implementation. UNDP will strengthen its role of supporting national partners in the conduct of operations.

All contracts under National Execution funds will be signed by UNDP on behalf of NMC and all payments will be effected by UNDP on behalf of NMC.

The UNDP country office will be responsible for:

- project payments;
- financial management;
- contracting of project personnel, consultants and services;
- participation in the Joint Steering Committee Meetings;
- supervision of project staff .

A Steering Committee (SC) will be established composed of representatives and members of UNDP and the NMC. The SC meetings will be organized based on project needs and will take place on a bi-monthly basis.

PART IV. MONITORING AND EVALUATION

The project will be subject to monitoring by the UNDP Country Office along with representatives from the government counterpart in accordance with UNDP Monitoring and Evaluation rules and procedures to ensure the timely implementation of the project activities. The Final Project Report will be prepared to ensure progress towards envisaged outputs, and outcomes will be prepared and submitted to UNDP.

PART IV. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Agreement (SBA) between the Government of Libya and the United Nations Development Programme, signed by the parties in 1976. The host country-executing agency shall, for the purpose of the SBA, refer to the Government Co-operating Agency described in that agreement.

The following types of revisions may be made to this project document with the signature of the UNDP Resident Representative only, provided he or she is assured that the other signatories of the project document have no objection to the proposed changes:

1. Revisions in, or addition of, any of the annexes of the project document;
2. Revisions which do not involve significant changes in 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; and
3. Mandatory periodical revisions, which re-phase the delivery of, agreed project inputs or reflect increased expert or other costs due to inflation, or take into account cooperating agency expenditure flexibility.



PROJECT RESULTS AND RESOURCES FRAMEWORK*

Complete the table below for the outcome that the project is designed to address.

Intended Outcome as stated in the Country Results Framework:				
1.1.1 A growing stability in inclusive policies for diversification of the economy and a greater coordination between the stakeholders in the provision of services, promoting manufacturing, tourism and others.				
Outcome indicator as stated in the Country Programme Results and Resources Framework, including baseline and target.				
1.2.1.1 Coordinating the provision of services to facilitate the privatization process and increasing the accessibility of services to the different sectors including meteorology, civil aviation, industry, agriculture and tourism.				
Applicable MYFF Service Line:				
1.3 - Local poverty initiatives, including microfinance				
Partnership Strategy				
UNDP will coordinate with the Libyan National Meteorological Centre for the provision of expertise, technical advice and training to the Centre's Cloud Seeding Research staff. During implementation, UNDP will ensure that this project is integrated with the other related UNDP project LIB/00/003, titled "Modernising and Upgrading of Meteorological Services" which is being implemented by the WMO, thereby avoiding duplication of activities between the two projects.				
Project title and ID:				
Strengthening of Cloud Seeding Research in Libya				
Intended Outputs	Output Targets	Indicative Activities	Responsible Parties	Inputs
1.1. Build Human Capacities of staff from the Libyan National Meteorological Centre	2007	1.1.1 Training for aviation staff in: <ul style="list-style-type: none"> • Principles and history of weather modification. • Cloud seeding techniques. • Training for seeding with the twin engine at cloud base. 		1. Training Expenses

<p>(1.1 cont.) Build Human Capacities of staff from the Libyan National Meteorological Centre</p>	<p>2007</p>	<p>1.1.2 Training of Collaboration and Maintenance Technicians in:</p> <ul style="list-style-type: none"> • Principles and history of weather modification. • TITAN and RDAS maintenance. • Aerosol influences on rain formation <p>1.1.3 Training of Operations Staff in:</p> <ul style="list-style-type: none"> • TITAN and RDAS maintenance <p>1.1.4 Evaluation Missions:</p> <ul style="list-style-type: none"> • Send NMC staff to evaluate the capabilities of the appointed training centre and determine where the Libyan National Meteorological Centre stands in relations to its neighbouring counterparts in order to evaluate what further measures are required to strengthen the NMC's Cloud Seeding capabilities in the future 		<p>2. Travel & Accommodation Expenses</p> <p>3. Miscellaneous Expenses</p>
<p>2.1 Enhance Technical Capacities of staff at Libyan National Meteorological Centre</p>	<p>2007</p>	<p>2.1.1 Invite international consultant to train local staff at the NMC in theoretical and practical aspects of:</p> <ul style="list-style-type: none"> • TITAN and RDAS • Aerosol influence 		<p>1. Consultancy Expenses</p> <p>2. Travel & Accommodation Expenses</p> <p>3. Miscellaneous Expenses</p>



United Nations Development Programme

Libyan Arab Jamahiriya

Year: 2006

Project No:

Project Title: Strengthening of Cloud Seeding Research in Libya



Proj. ID: Expected Output	Key Activities	Timeframe				Resp. Partner	Fund	Donor	Planned Budget Description	Amount
		Q1	Q2	Q3	Q4					
Build Human Capacities of staff from the Libyan National Meteorological Centre	Training	X	X	X		NMC		Training of Aviation Staff	US\$16,000	
						NMC		Training of collaboration and maintenance technicians	US\$55,000	
						NMC		Training of Operations Staff	US\$14,000	
	Evaluation Mission	X	X	X		NMC		Travel and Accommodation Expenses	US\$35,000	
	SUBTOTAL								US\$145,000	
	Build Technical Capacities of staff from the Libyan National Meteorological Centre	International consultant		X			NMC		Capacity Building of Local staff Travel and Accommodation Expenses	US\$6,500
		SUBTOTAL								US\$11,000
	General Management Support	X	X	X	X	NMC		General Management Support Fee (0.05%)	US\$7,800	
	SUBTOTAL								US\$7,800	
TOTAL									US\$163,800	