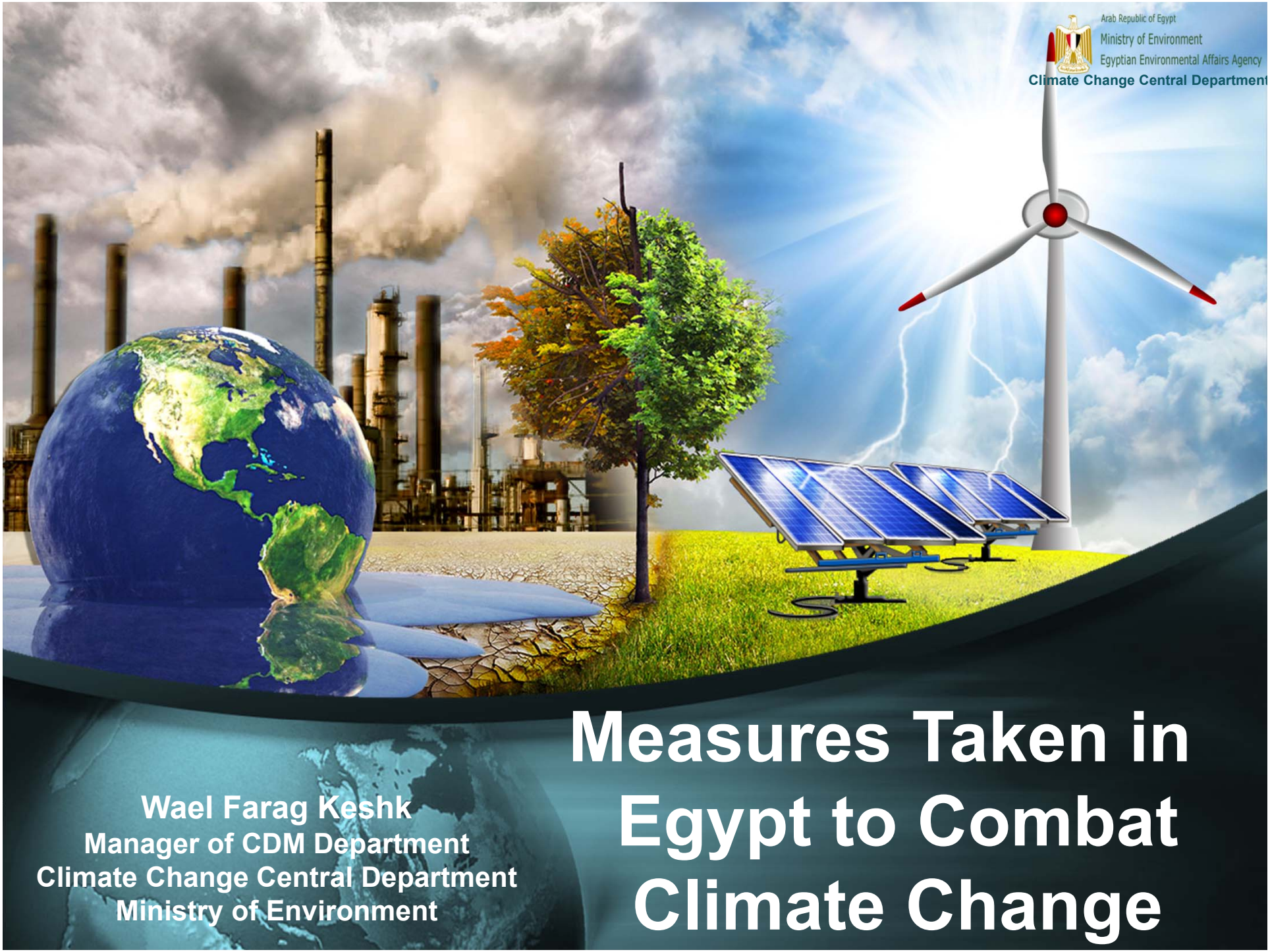


Measures Taken in Egypt to Combat Climate Change

Wael Farag Keshk
Manager of CDM Department
Climate Change Central Department
Ministry of Environment

OUTLINE

- **Key data**
- **Institutional Structure (Footsteps Evolution)**
- **Examples for Measures Taken**
  - **Mitigation (e.g. Energy Subsidy Reform).**
  - **Adaptation**
- **Conclusion**

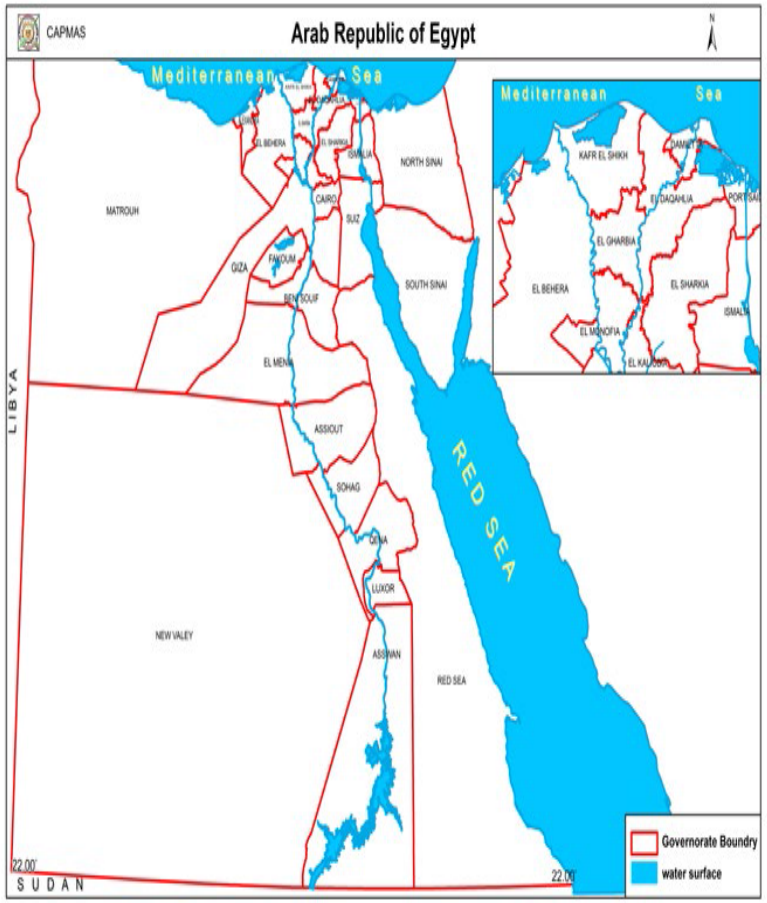
1 Key Data.(Geographic)

•Arab Republic of Egypt, located in the northeast corner of the continent of Africa.

•Arab Republic of Egypt from the north Mediterranean coast with a length of 995 km, and is bordered to the east of the Red Sea coast with a length of 1941 km,

•The area of the Arab Republic of Egypt is about 1,002,000 square kilometers and the populated area of around 7.8% of the total area.

1 Key Data.(population)



- Population of about 99.3 million people (approximate from the Central Agency for Public Mobilization and Statistics in 2019)(CAPMAS).

- Most of Egypt's population is concentrated in the Nile Valley and in urban areas constitutes the Nile Valley and Delta,

- And the largest population blocs are Greater Cairo, which by almost a quarter of the population, followed by Alexandria.(North Coast)

1 Key Data.(Economy)

GDP contribution by selected economic sectors, FY 2014/2015 (CAPMAS, 2016)

Sector	GDP Value (Million EGP)	Contribution to Total GDP (%)
Agriculture	274,959	11.18%
Mining (Oil ,Gas & Other)	313,738	12.75%
Manufacturing industries	407,868	16.58%
Construction	118,035	4.8%
Tourism	45,144	1.83%
Other services	1,299,281	54.69%
Total	2,459,025	100%

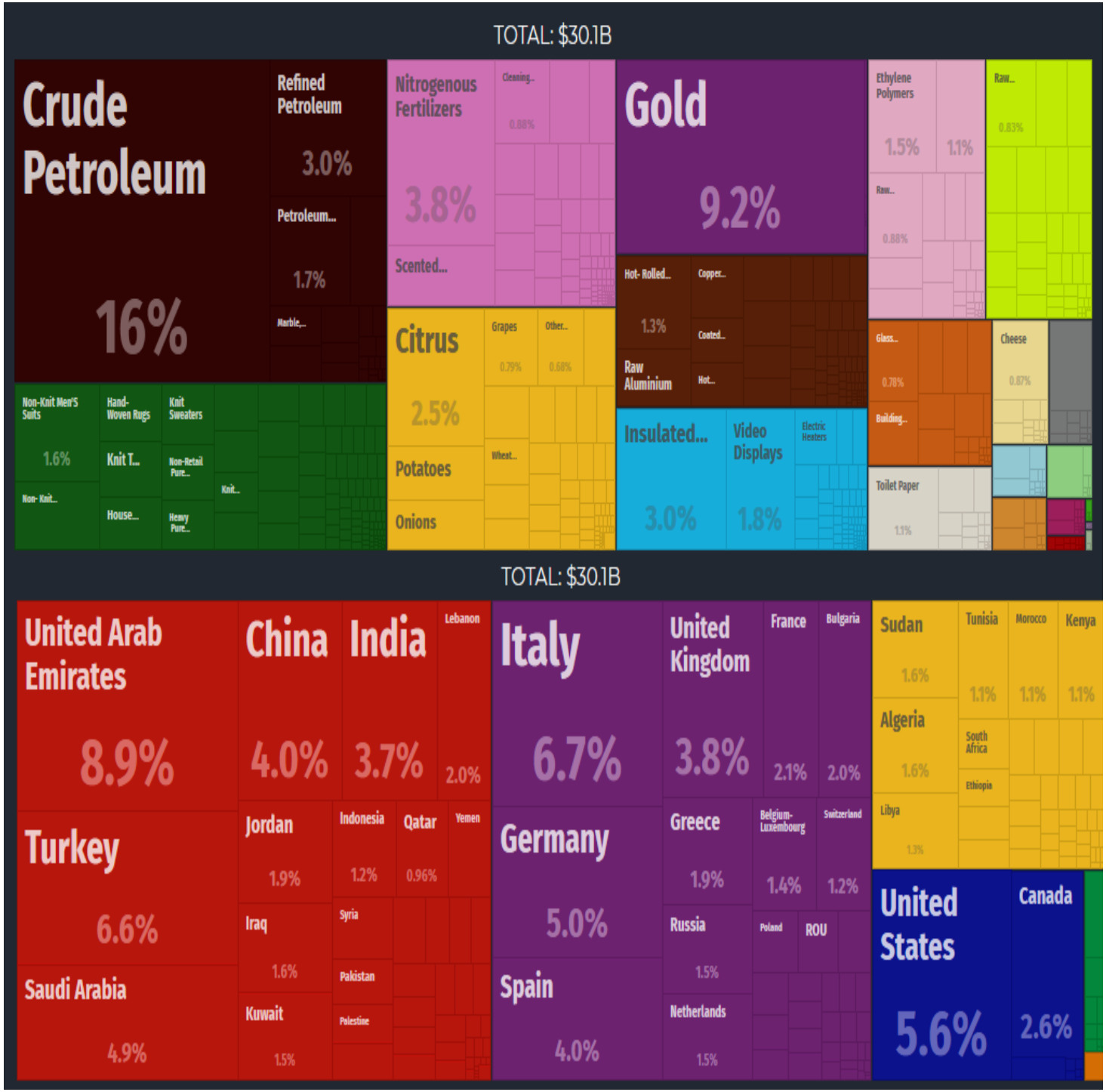
- Egypt's economy is one of the economies diversified, with agriculture, industry, tourism and services sectors.

- The gross domestic product (GDP) in Egypt about 250 billion US dollars in 2018 (World Bank)

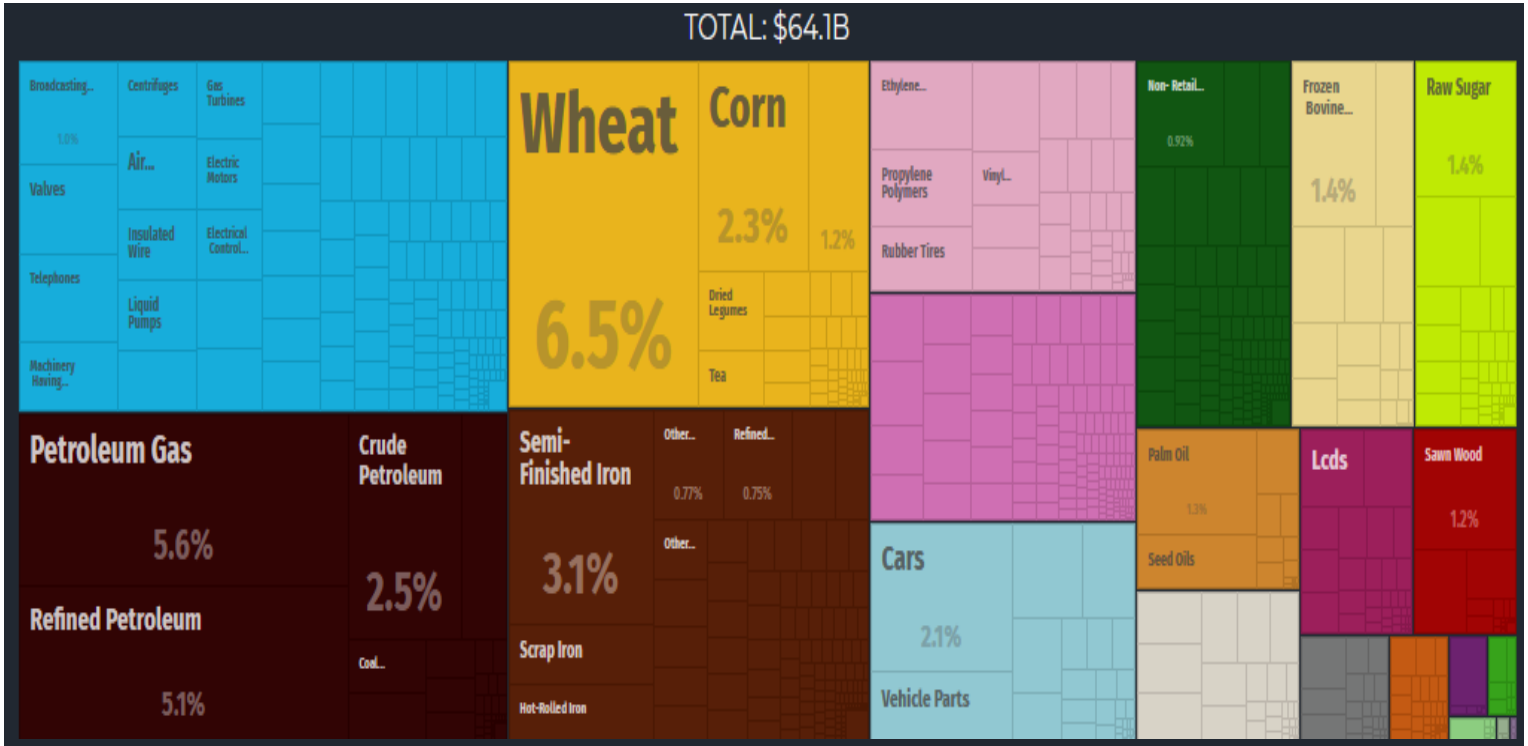
In 2017
The top exports of Egypt were Crude Petroleum, Gold, minerals products, Nitrogenous Fertilizers, chemical products, cement, Refined Petroleum and Insulated Wire , cotton, textile.

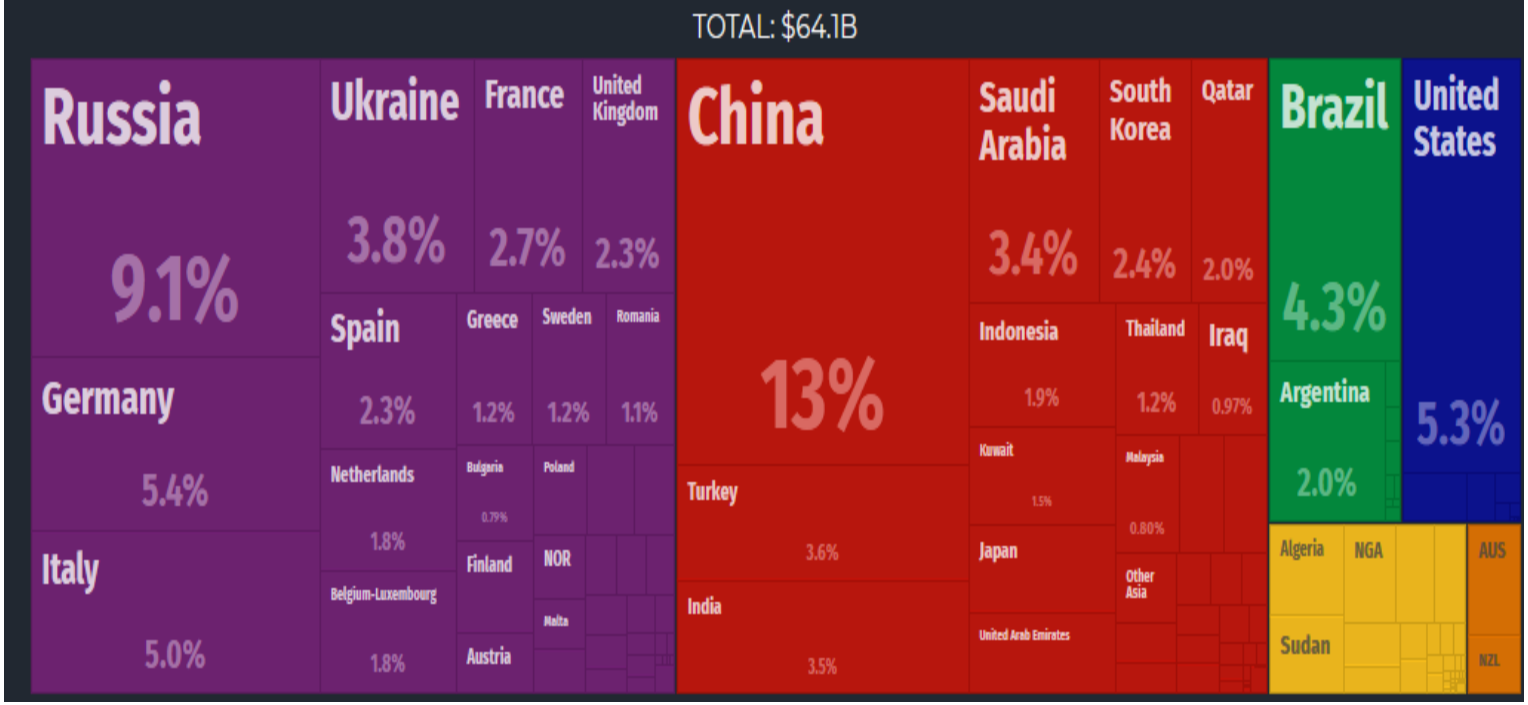
The top export destinations of Egypt are the United Arab Emirates, Italy, Turkey, the United States and Germany .

Source: OEC - Egypt (EGY) Exports, Imports, and Trade Partners



In 2017
Top imports are Wheat, Petroleum Gas, vehicles, Refined Petroleum , Semi-Finished Iron, machinary & electrical appliances, equipment, wood products.





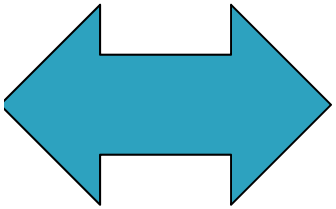
The top import origins are China, Russia, Germany, the United States and Italy

Source: OEC - Egypt (EGY) Exports, Imports, and Trade Partners

2030 EGYPT VISION

By 2030, the new Egypt will achieve a competitive, balanced, diversified, and knowledge based economy, characterized by justice, social integration and participation, with a balanced and diversified ecosystem, benefiting from its strategic location and human capital to achieve sustainable development for a better life of all Egyptians

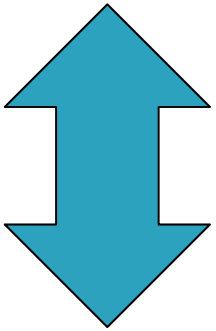
The SDS serves as the national umbrella; through which the SDGs, NDCs will be implemented in the light of national circumstances



NAS - NAP

Draft LEDS

SES 2035



NDCs

Mitigation

Adaptation

MOI

Climate Change Footsteps Evolution

Mission
LED, Increase adaptive capacity & resilience

Vision
Reduce risks & seize opportunities in light of SDS 2030

National Action

UNFCCC Signing

UNFCCC Ratification

CCU
Climate Change Unit EEAA

CCC
Climate Change Committee EEAA (ministerial)

Rio Earth Summit 1992
Local, national and international action

International Response

UNFCCC

UN-Klimakonferenz Berlin 1995

COP2 BONN

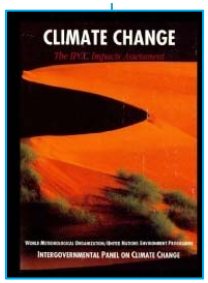
Kyoto Protocol

UNFCCC COP3/KYOTO

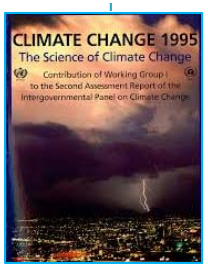
COP4

Science

IPCC
INTERGOVERNMENTAL PANEL ON climate change
WMO UNEP



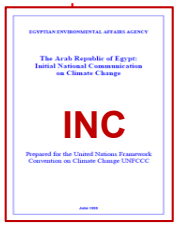
FAR



SAR

1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998

Climate Change Footsteps Evolution



Sign KP

National Action

Kyoto Protocol Ratification

CDM–DNA

CCCD

Climate Change Central Department EEAA

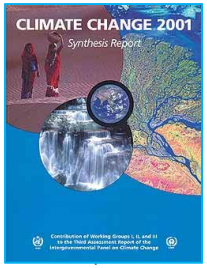
NCCC

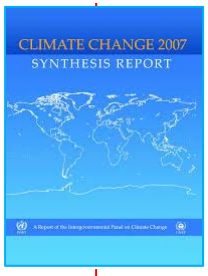
National Committee For Climate Change EEAA(interministerial)

NAMAs

GCF

International Response





Science

TAR

AR4

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

Climate Change Footsteps Evolution

National Adaptation Strategy

SNC

National Action

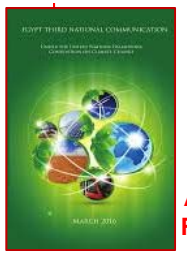
INDC

SDS 2030

NCCC

National Counsel on Climate Change

EEAA



TNC

Sign PA

PARIS2015 COP21·CMP11

Paris Agreement Ratification

BUR

FNC

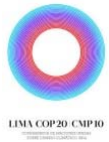
NAP

New Agreement

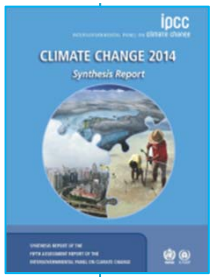
Kyoto Second Commitment Period

INDCs

INDCs



International Response



AR5

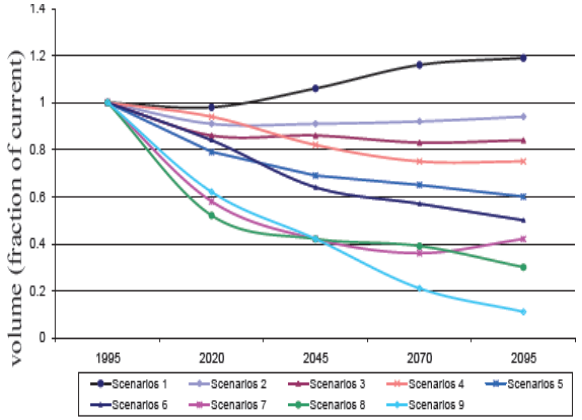
Science

2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Emissions / Vulnerability

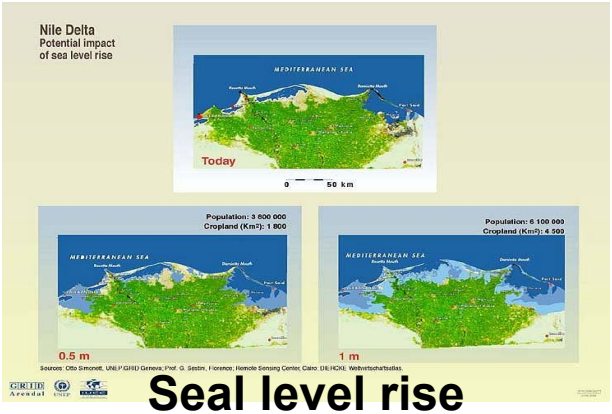
Year	1990 (INC,99)	2000 (SNC, 10)	2005 (TNC, 16)
GHG Emissions	116.7	193.3	247.9
Egypt's Global share	0.4 %	0.58%	0.6%

Extreme weather events



Water stress

Source: ر: Strezpek et al., 2001



Seal level rise

Salt water intrusion

Source[Simonett & Sestini, 2002]

Health – Diseases

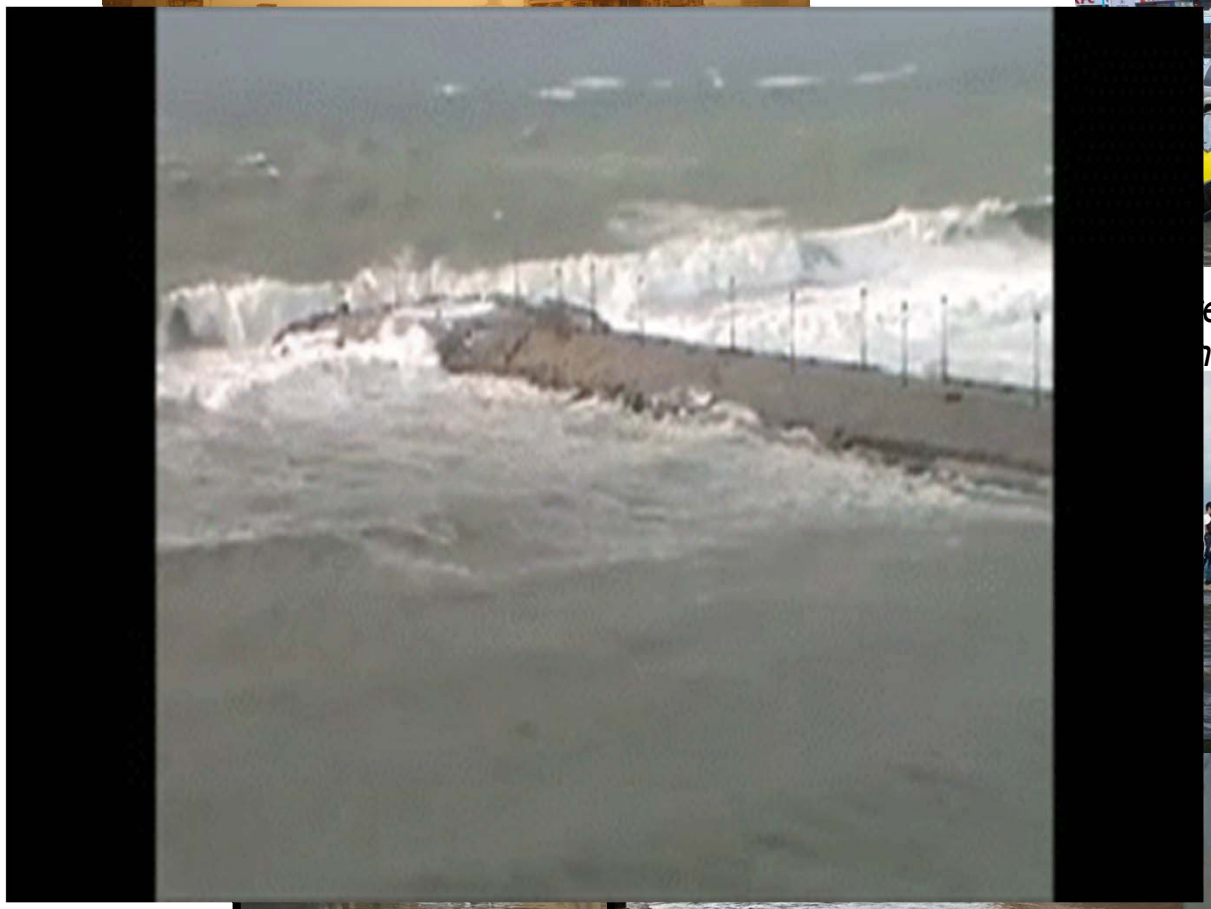
Food Security

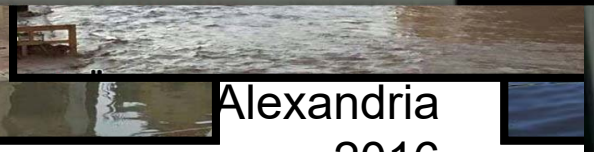
Source: IPCC AR3

Biodiversity

Coral reefs bleaching

ential rain in Alexandria, Egypt.
n Ramadan/Anadolu Agency/Getty

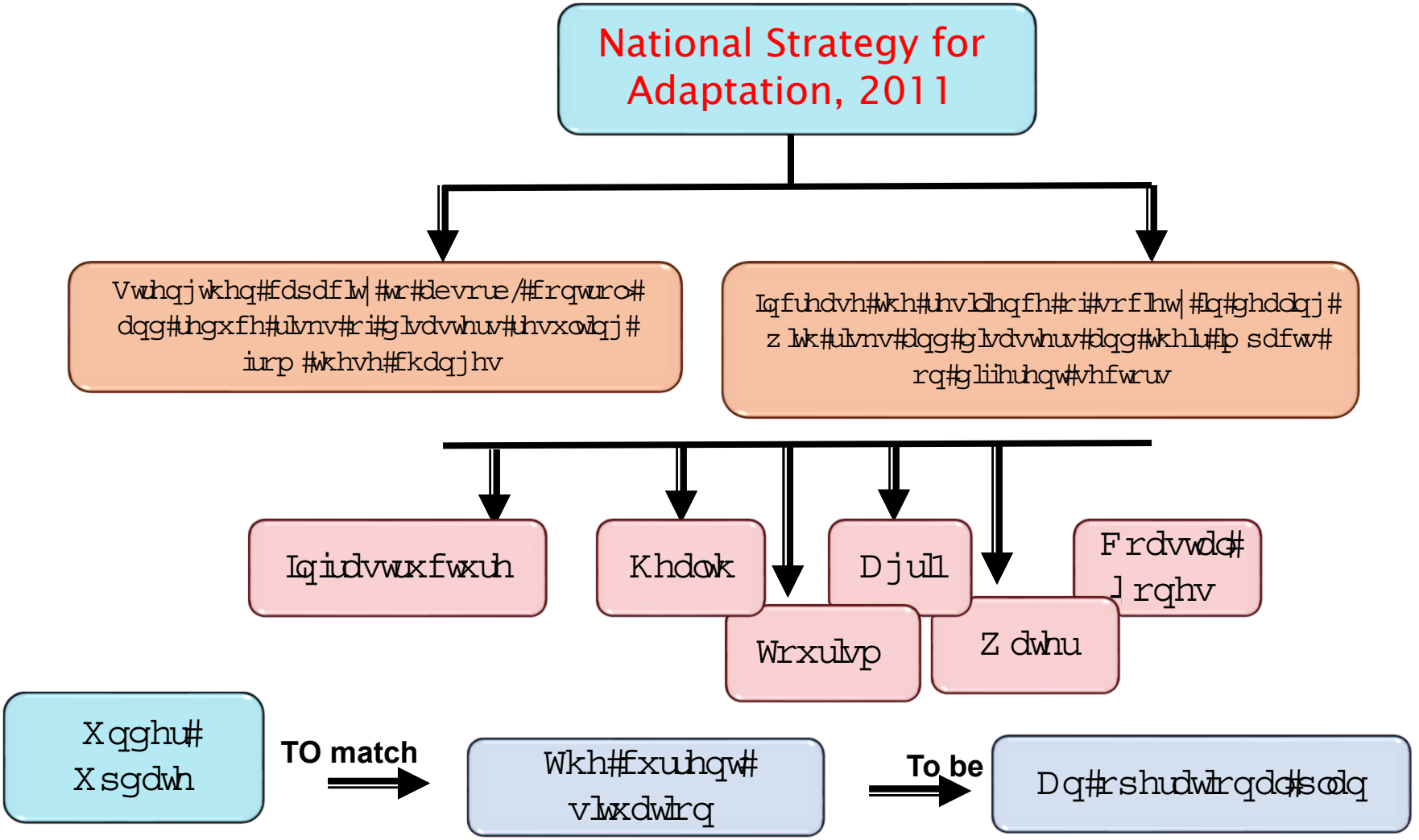




Alexandria
2016

Alexandria
2016

Egypt's efforts on Adaptation to Climate Change


National Strategy for Adaptation, 2011
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Lqfuhdvh#wkh#uhvlolhqfh#ri#vrflhw|#lq#ghdolqj#z lwk#ulvnv#dqg#glvdvwhuv#dqg#wkhlu#lpsdfw#rq#gliihuhqw#vhfwruv
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Purpose of the (NAP)

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Ghvljqlqj#d#frppxqlfdwlrq#vwudwhj|#rq#folpdwh#fkdqjh

Ghyhors#sodqv#iru#lqwhu0vhfwrudo#frrshudwlrq#dqg#zlwklq#dgplqlvwudwlyh#xqlw# vxfk#dv#flwlhv#dqg#orfdo#jryhuqphqw

Establishing a climate change an interactive vulnerability Map for Egypt

Objective

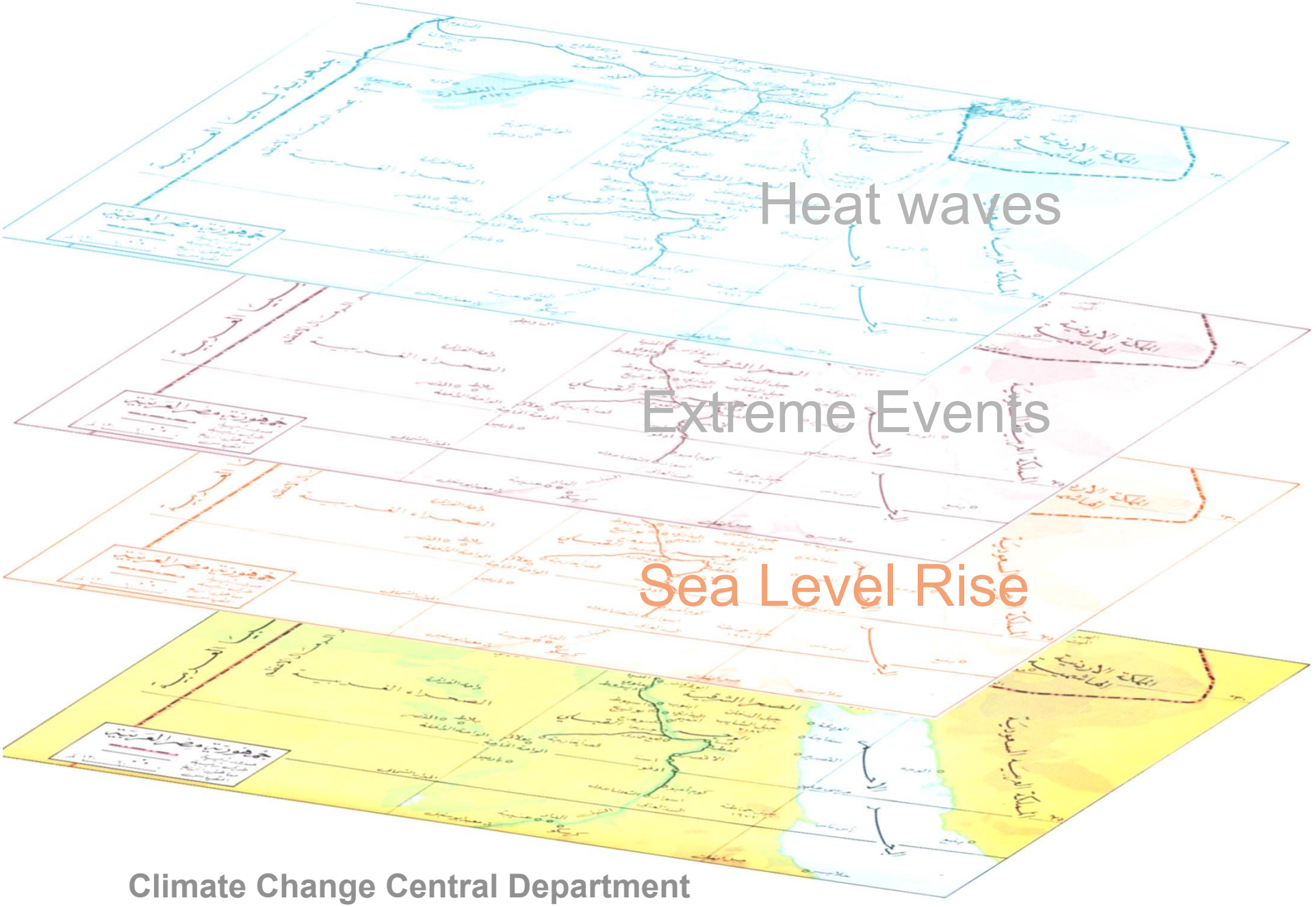
provides a precise location for sites where people, the natural environment or property are at risk because of the potential for a disaster that could lead to death, injury, pollution or other damage.

This map is combined with information on different types of risks.

Can be used at all stages of crisis and disaster management: prevention,, preparedness, operations, relief and recovery and lessons learned.
After the disaster, the new risk map can help assess the crisis management approach that has been followed.

-These sites that will be located at the map will highlight adaptation projects that needs support.

Vulnerability Map to climate Change



Climate Change Central Department

Adaptation To Climate Change In The Nile Delta Through ICZM Project

Funding Agency: the GEF, UNDP, Ministry of Water Resources and Irrigation (MWRI) and National Water Research Center (NWRC) (2009 - 2017)

Red line refers to the region to be monitored

The overall aim of the project is to enhance Egypt's resilience and reduce vulnerability to climate change impacts.

The specific objective of the project is the management of Sea level rise risks through capacity strengthening to improve resilience of coastal settlements and development infrastructure, innovative and environmentally friendly adaptation measures within a Nile Delta ICZM framework, and a knowledge management plan to document lessons learned and best practices for climate change adaptation responses.

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iurp#wkh#dfw#ri#ghvwuxfwlrq#wkurxjk#wkh#
zdyhv

أعمال الحماية الهندسية لصد الأمواج وعمليات النحر فى الشواطئ

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منطقة رشيد قبل وبعد أعمال الحماية الهندسية لها

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+dqh#ri#ghihqvh,

الطريق الدائرى الدولى على الشريط الساحلى لمنطقة الدلتا

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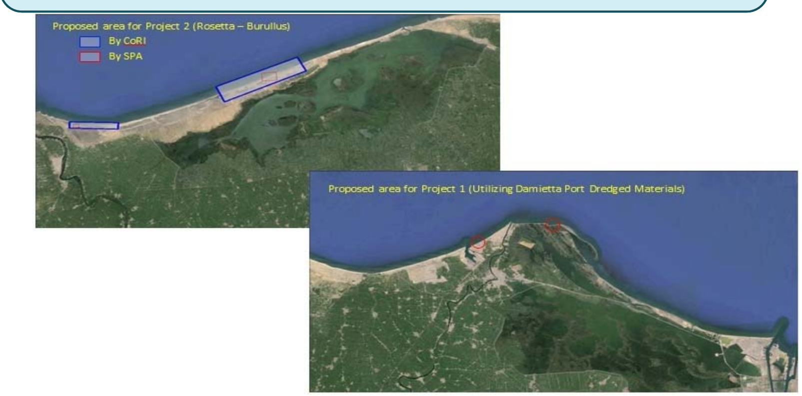

أعمال الحماية الهندسية للمناطق المنخفضة على الشريط الساحلي للدلتا

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فول الصويا القمح الأرز الذرة

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’jjmd\oji#aajm

Implementing Entity: WFP
Executing Entity: Agriculture, Environment
Start Date: March 2013
Due Date: October 2018

Building Resilient Food Security Systems to Benefit the Southern Egypt Region

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Build institutional capacity at all levels to enable sustainability and replication

Improving the adaptive capacity of the Southern region of the country in the face of anticipated climate-induced reduction in food production

Building Resilient Food Security Systems to Benefit the Southern Egypt Region

Main achievements:

•Provided field trainings on planting wheat, sugarcane and medicinal plants with more than 600 beneficiaries.

•Building resilience and improving economic situation regarding livestock and poultry production with more than 1573 beneficiaries.

•Spreading early warning information among farmers through early warning units established in civil society organizations with 416 direct beneficiaries and 5000 indirect beneficiaries.

•Following up on the improvements of irrigation canals and introducing water pumps working with solar panels with 598 beneficiaries.

Egypt's Efforts to Mitigate GHGs Emissions

- Policies
  Strategies
- Projects / Activities

Policies/ Strategies

•SDS 2030
•Protect energy security while reducing GHGs emissions and local pollution

In 2008, National RE Strategy to achieve a generation of 20% of the country's electricity from renewable resources by 2022.

In 2015, a new Strategy for Integrated Sustainable Energy 2035 targeting energy diversification, increasing share of renewable energy and a subsidy reform plan:

A target to reach the share of renewable energy 37% by 2035.

•Enabling public and private investment in RE (RE Law Decree No 2013/2014).

Source: Ministry of Electricity & RE

Energy (RE)

Benban Solar Energy Farm.
To generate 1.8 GW through Feed in Tariff Program

- **Zafarana Wind Farm in the Red Sea up to: 547 MW installed, 1444 GWh production in 2015, and 0.9 MtCO2e reduction in 2015.**
- Note: 400 MW of the 547 MW installed capacity (74%) is registered under 4 CDM projects.

Source: Ministry of Electricity & RE

EGYSOL Project for Solar Water Heaters in Hotels (Red Sea, South Sinai), in cooperation with UNEP & Italy, 2012
Covered 3820 m2 in 30 hotels/ target 5000 m2

Solar PVs for Off-grid villages, with capacity 300 Watt per each covering 6943 households

Solar Energy
2011- Kureimat Hybrid Concentrated Solar Power (CSP) plant:
20 MW CSP installed, 167 GWh production in 2015, and 0.1 MtCO2e reduction in 2015.

Source: Ministry of Electricity & RE

Energy Subsidy Reform

- **The GoE has taken substantive steps to reform the energy sector.**

Energy subsidies had exceeded 20% of the national budget in 2013/2014.

In 2014, the Ministry of Electricity announced a five-year program (FY 2014/2015 – FY 2018/2019) to reform energy subsidies and encourage rationalization.

Egypt has been subsidizing energy for a long time with the well-intentioned objective of providing inexpensive energy services to the low income class, helping some industries to compete internationally and attracting FDI.

However, subsidizing through controlling prices means that those who use energy more are subsidized more so the greatest beneficiaries are the rich who ride cars and have air conditionings in their houses.

By analyzing Egypt's household surveys, it is found that the richest 40% of the population get about 60% of the energy subsidy while the poorest 40% of the population enjoy only about 25% of the subsidy.

Energy Subsidy Reform

Untargeted subsidies benefit the high income households because the rich, constitute a relatively higher proportion of total income and consumption.

Reform is not limited to price reform, but includes actions to improve energy efficiency, enable alternative energy sources, and promoting the transition to clean and renewable energy.

The target of 20% of all electricity to be generated from renewables by 2022, was upscaled to 37% renewable energy share by 2035.

Coupled with increasing oil & gas production, GoE is also looking to diversify its energy mix.

The fuel mix target for electricity generation in FY 2034/2035 is,,,,,,

- 34% coal
- 19.9% fuel oil and natural gas
- 14.6% wind
- 11.8% solar photovoltaic (PV)
- 7.6% concentrated solar power (CSP)
- 3.2% hydro power

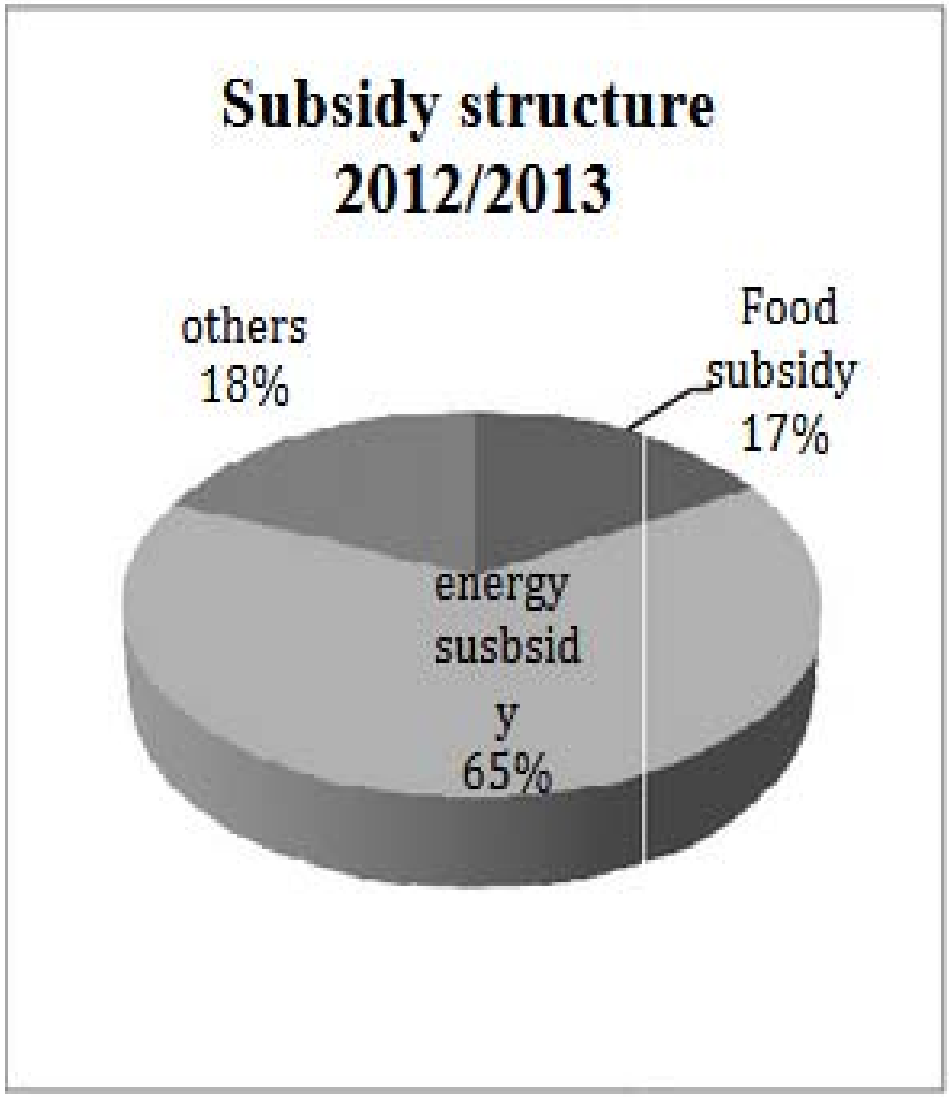
Positive impacts of Subsidy Reform

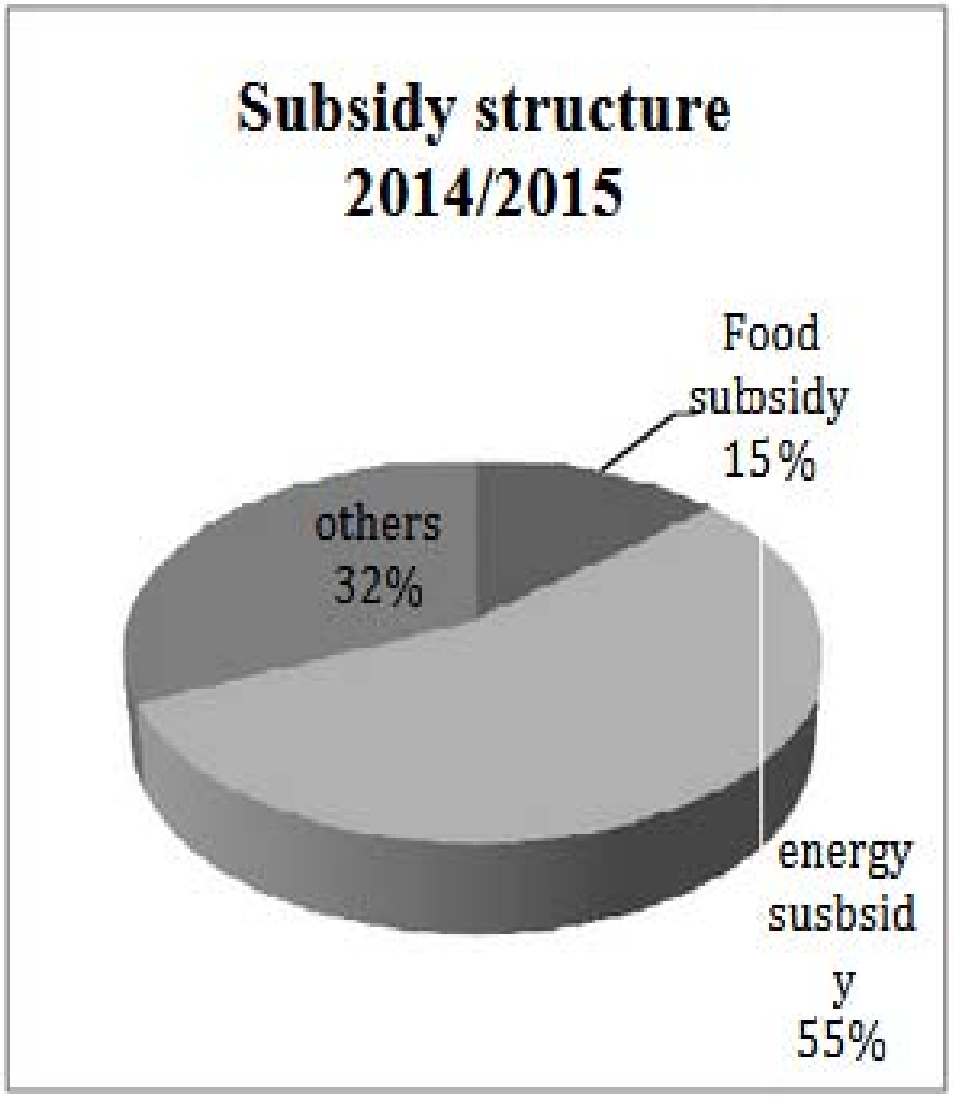
1- Narrowing the Budget Deficit

- **On the spending side, the government is moving on with its plan to reduce energy subsidies.**

- "The main impacts of the subsidy cuts are an **improvement in the government budgetary results**, and hence a better control over domestic public debt towards fiscal sustainability, (but it will lead to a short-term increase in the rate of inflation because of upward price adjustments in energy-dependent goods and services)

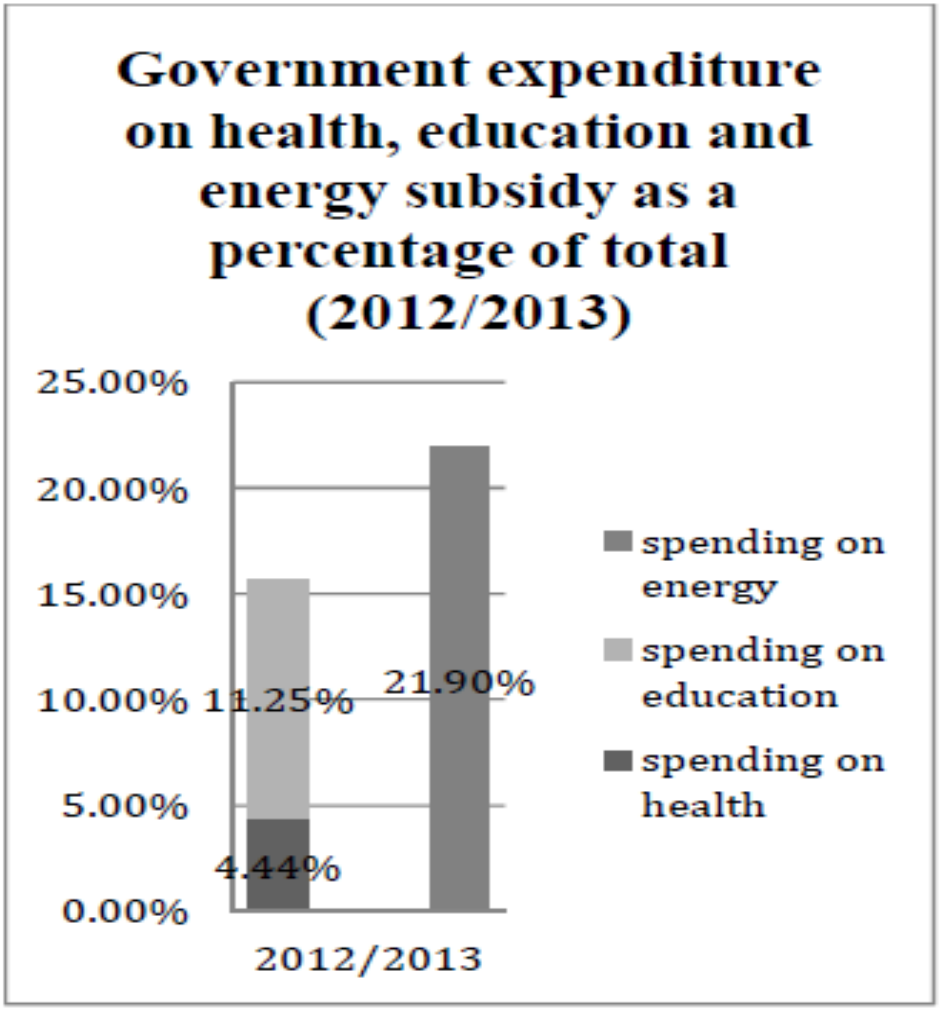
Efficient allocation of resources (Before the subsidy reform in 2014, spending on the energy subsidy was more than spending on health and education together)

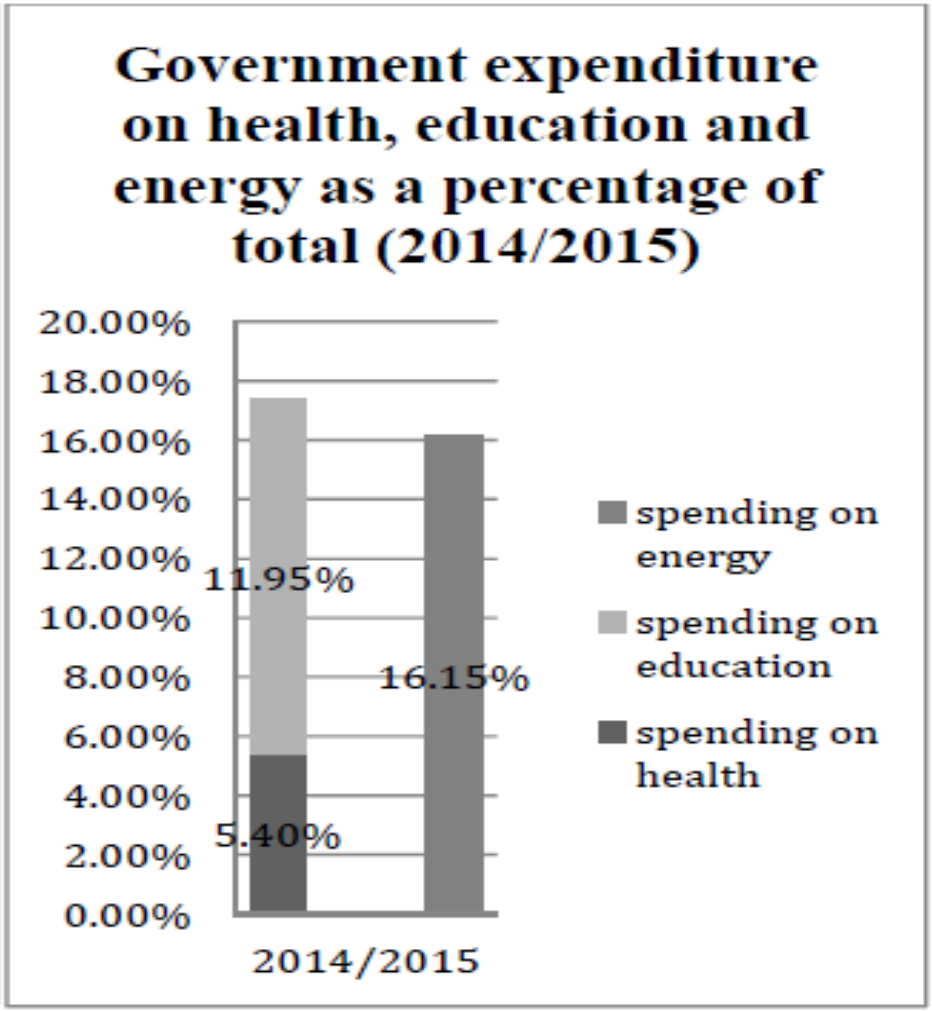




Source: Ministry of Finance 2014/2015

Comparing government spending on energy subsidy to spending on health and eduction





Source: Ministry of finance 2014/2015.

Positive impacts of Subsidy removal

2- Reduced fossil fuel / energy consumption

3- Reduced GHGs emissions/ Reduce air pollution / Protect health.

4- Opportunities for investments and technologies in renewables and in more efficient fossil fuel consumptions

5- Opportunities for new employment opportunities (in RE)

Negative impacts of Subsidy removal

Inflationary pressures that reduce households' welfare & social effects due increased prices of goods and services

However, removing the energy subsidy will have an adverse effect on the poor as expenditure on energy constitutes a larger portion of their income.

Negative labor market effects(e.g. Loss in employment)

Decline in consumption

How to face the challenge?

- Set policies including just transition models that support maximization of positives and minimization of negative of impacts of response measures

1) Measure the impacts of response measures

2) Determine impacted areas and, accordingly, evaluate and design policy response solutions

3) Measure the effects of the policy solutions.

SOCIAL PROTECTION PROGRAMS

The mitigation of Negative Impacts

The reform plan is currently on going, **it became crucial concern for government of Egypt to analyze the impact and take immediate actions to mitigate the burden on the households from the rise in price of energy.**

The government could **use the amount of the subsidy savings devoting that amount to the most needed groups in the society** (the poor and most vulnerable) using more efficient compensation programs.

With the initiation of the reform in 2014, Government has **fixed publicly distributed food prices,** including breads, sugar, rice, tea, flour and oil.

Additionally, **food subsidy system was expanded** including 20 commodities.

Public Transportation cost was fixed under government control, however private transportation and microbus fare immediately increased.

Enhanced welfare mechanism is needed on currently operating measures of compensation in order to ensure the practical protection of the vulnerable groups in the society.

A study has been conducted used qualitative method, partial equilibrium approach, in measuring the impacts of energy subsidy removal on welfare level of households.

The impact arises through two channels namely direct and indirect channel.

- Direct: is the real income loss of households due to the price increases in petroleum products (including natural gas, kerosene and LPG, and operation of personal transport equipment which includes gasoline, natural gas and diesel)

- Indirect: the real income loss of households due to the price increases in goods and services that include energy as an input to the production process.

Source: https://www.researchgate.net/publication/304014198_Impact_of_The_Energy_Subsidy_removal_in_2014_on_the_all_income_groups_and_poverty_in_Egypt

The study found that the adverse effects of the fuel subsidy change occurred in Egypt 2014 caused a rise in the poverty rate by 2.4% using the 2014 national poverty line.

The results concluded that after the subsidy reform, about 85% of the poor people are residing in rural areas, using 2014 poverty line, which can be recommendation for the government to devote most of the mitigation programs to these regions instead of the urban areas.

Various measures for successful reform are connected in a whole picture of the reform process starting from initiation to final phase.

Government needs to be more active in public communication about the reform and provide necessary information and outcome to get public trust toward Government and avoid lack of transparency

Adverse impact falling on the poor households should be compensated for the successful reform.

Improved efficiency of currently existing compensation program to mitigate adverse impact of the reform to the most vulnerable groups will secure them from being more vulnerable.

The smart card system which has been introduced in food subsidy was required to be applied to the energy subsidy distribution.

The success of this measure will ensure the efficiency in the compensation for the poor group and shed a light on successful energy reform, curbing the leakage and distortion which hurt the poor.

The reform must accompany the proper and tangible compensation for the vulnerable groups.

- **Without sustainability and commitment of government, reform is very unlikely to succeed and protect the poor households.**

- Not to deal with the reform concept as a price increase process, while the reform must include a plan to provide the citizens with support, market control regime, a flexible time frame to fulfill the reform program and mitigation procedures

Energy efficiency is an important component of Egypt's Strategy for Integrated Sustainable Energy 2035 to achieve three policy objectives:

i) reduce the reliance on limited energy sources and thus contribute to the security of energy supply;

ii) introduce less expensive alternative energy solutions that create a competitive market;

iii) decrease local pollutants and GHGs emissions.

In 2012 adopted the National Energy Efficiency Action Plan (NEEAP) of Electricity Sector, for 2012- 2015 updated for 2018 – 2020 in the context of Sustainable Energy Strategy 2035.

The action plan reinforces energy efficiency standards, expands energy efficiency labeling for household appliances, application of energy efficiency code for buildings and disseminating efficient lighting.

- In 2009 Energy Efficiency Unit (EEU) for streamlining energy efficiency activities nationally and fulfilling the national energy efficiency target of 8.3% reduction in energy use by 2022.

- In addition, Energy Efficiency Units have been established in several ministries (i.e. MoERE, MoP, MoTI).

Source: Ministry of Electricity & RE

The preparation of a framework for low Emission Development Strategy, in line with Egypt sustainable development Strategy 2030.

-Having both national development planning and national climate change planning in more coordinated, coherent and synergistic manner.

Started the preparation of a study on the establishment of a national carbon market in Egypt:

-A comparative study on the various mechanisms that the carbon market includes and recommending one or some of these mechanisms in the Egyptian market to achieve and be consistent with the aspirations of development.

-Setting the institutional, legal & technical arrangements.

Source: Ministry of Environment

Projects / Activities

- **Dissemination of efficient lighting system (CFL)** that resulted in total energy saving in 2010 of 4.96 TOE and 14.8 million tCO2.

The installation 9 million LED lamps in 2015 (from total target of 13 million lamps) resulted in electricity savings of 519 GWh (equivalent to 323,337 tCO2).

Implemented Standards and Labeling programme on home appliances for electricity rating (2011-2015): led to savings between 25 and 40 percent of total electricity consumption.

Source: Ministry of Electricity & RE

Transport

Expanding the greater Cairo underground metro network mitigating GHGs, improved air quality and reducing traffic jam. (1MtCO2e in 2015 from lines 2 & 3 of the Cairo Metro)

Improving transport sector using natural gas in commercial vehicles; facilitating the replacement of old taxis

Intensifying the use of environmentally sound river transport;

Source: Ministry of Transport

Industrial Energy Efficiency Project

Industrial Energy Efficiency Project (IEE)
EEAA – IDA, EOS, IMC, FEI, and implemented by UNIDO.

The project is implemented through main components:

- National program to identify energy measurement indicators and formulate policy to improve energy efficiency.

- Raise awareness on improving energy efficiency and management in the industrial sector.

- Capacity Building for Energy Efficiency Services: A cadre is available of specialized/certified energy management and system optimization experts.

- Increased access to financial assistance for implementing EE projects.

- Application of energy management systems and optimization of systems efficiency.

Source: Ministry of Environment

Egyptian National Solid Waste Management Programme

conducted capacity building for government and non-governmental actors to establish and operate an effective waste management system at national, governorate, and local level.

Bio-energy for Sustainable Rural Development (GEF/ UNDP)

Advanced the use of renewable biomass as an energy resource, for the purpose of promoting sustainable rural development in Egypt and thus producing biogas for cooking and lighting, compost and reducing greenhouse gas emissions.

Source: Ministry of Environment

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7 Fuel Switching Projects

Estimated Annual ER = 1.039 MTCO2

•4 Industry Projects (N2O Abatement)

•Estimated Annual ER = 1.6 MTCO2e

•4 RE Projects & 2 PoAs,
•Installed capacity: 400 MW

•Estimated Annual ER = 0.8 MTCO2e

•1 Transport POA

•Estimated Annual ER = 0.06 MTCO2e

•2 Waste Projects

•Estimated Annual ER = 0.4 MTCO2e

•5 EE Projects & 1 PoA

•Estimated Annual ER = 0.4 MTCO2e

There are many mitigation efforts that have been implemented or still being implemented or planned in different sectors in Egypt.

Based on that:
There was a need for
- Mapping for Mitigation Opportunities.
- MRV System

Mapping of mitigation opportunities in Egypt

Low Emission Capacity Building Program

In cooperation with UNDP, EU, German, Austria Government.

Objective

- To develop Nationally Appropriate Mitigation Actions (NAMAs);
- To elaborate a Low Emission Development Strategy;

Outcomes

- NAMA mapping for mitigation opportunities in 10 sectors; leading to 260 mitigation projects ideas (Seeking for support).
- Preparing 11 NAMA idea notes and 4 detailed ones.
- Capacity building activities for mainstreaming the concept of climate change.

Source: Ministry of Environment






Nationally Appropriate Mitigation Actions (NAMAs) Mapping in Egypt-Short List

Waste Management

- Methane capturing from landfills
- Incineration with energy recovery
- Anaerobic digestion/treatment
- Composting
- Co-firing in cement kilns
- Recycling
- RDF

Renewable Energy

- Large scale Concentrated Solar Power
- Large scale photovoltaic
- Large scale wind farms
- Large scale bio-energy power plants
- Large scale agriculture waste to energy
- Large scale hydropower

Tourism

- Solar water heaters;
- Solar cooling systems
- Energy efficient lighting
- Photovoltaic for on/off grid hotels and resorts;
- Concentrated Solar Power-based water desalination
- Energy management system
- Waste-To-Energy
- High efficiency chillers
- Green areas and tree plantation using grey water

Agriculture

- Improve nitrogen fertilizers use efficiency and reduce losses
- Develop agricultural wastes management
- On-farm water management
- Mitigation of methane emissions from paddy rice
- Improve manure application management
- Bioenergy uses
- Agro-forestry & Afforestation
- Reduce methane from livestock
- Smart Agricultural

Industry

- Fuel switching
- Utilization of concentrated solar power in boilers pre-heating
- Utilization of photovoltaic
- Utilization of wind farms
- Development of biomass power plants
- Utilization of waste to Energy
- Waste heat recovery
- GHG abatement in fertilizer/nitric acid production plants
- Steam/processes system improvement
- High-efficiency motors/pumps
- High efficiency lighting
- Cogeneration
- Energy management systems

Irrigation and Drainage

- Replacement/Rehabilitation of pumps working with low efficiency
- Variable speed drive for pumps
- Renewable energy pumping

Housing & Urban Settlements

- Energy efficient air conditioning equipment
- Energy efficient insulation
- Efficient space heating systems
- Energy efficient motors and electric appliances
- Energy management system
- Solar water heaters
- Photovoltaic for lighting
- High efficiency electric lighting
- High efficiency water pumping motors
- Application of energy efficiency codes for building
- Energy efficient street lighting
- Tree planation and manmade forests using treated sewage water
- Green roofs

Oil & Gas

- Minimizing gas venting and flaring (Flare gas recovery).
- Fuel switching
- CO_2 Capture and Storage (CCS)
- Electricity generation from turbo expanders
- Minimize natural gas transportation losses
- Increase efficiency of natural gas processing plants
- Minimize natural gas transportation & distribution losses
- Fuel switching
- Natural gas utilization as a fuel for vehicles
- Improve natural gas utilization efficiency
- Price increase and subsidy removal (gas pricing policy)

Electricity

- Integrated targeted coal Gasification Combined Cycle (IGCC) instead coal power plant
- Improving combustion efficiency (Boilers)
- Waste heat recovery
- Small scale hydro power plant
- Nuclear energy
- Price increase and subsidy removal

Transport/Aviation

- Model shift to group transport (Metro/Railway/River)
- Promote walking and cycling
- New Suez canal axis
- High speed electric trains (IC/ICE)
- Traffic demand management
- Freight transport management
- Old vehicles scrapping and Recycling
- Aviation fuel efficiency
- Plane weight reduction
- Using electric lithium batteries in Ground Support Equipment (GSE)
- Renewable fuel
- Energy efficient lighting
- High efficiency chillers
- Energy Management System (EMS)

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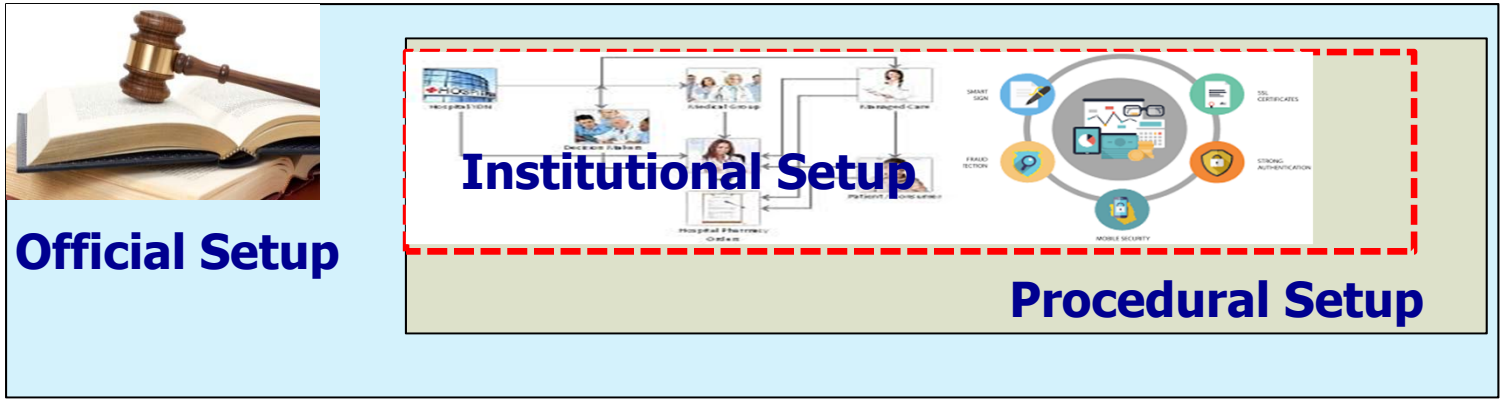
MRV Africa Project

Objective
Capacity building on monitoring, reporting and verification (MRV) of the GHG emission in developing countries.

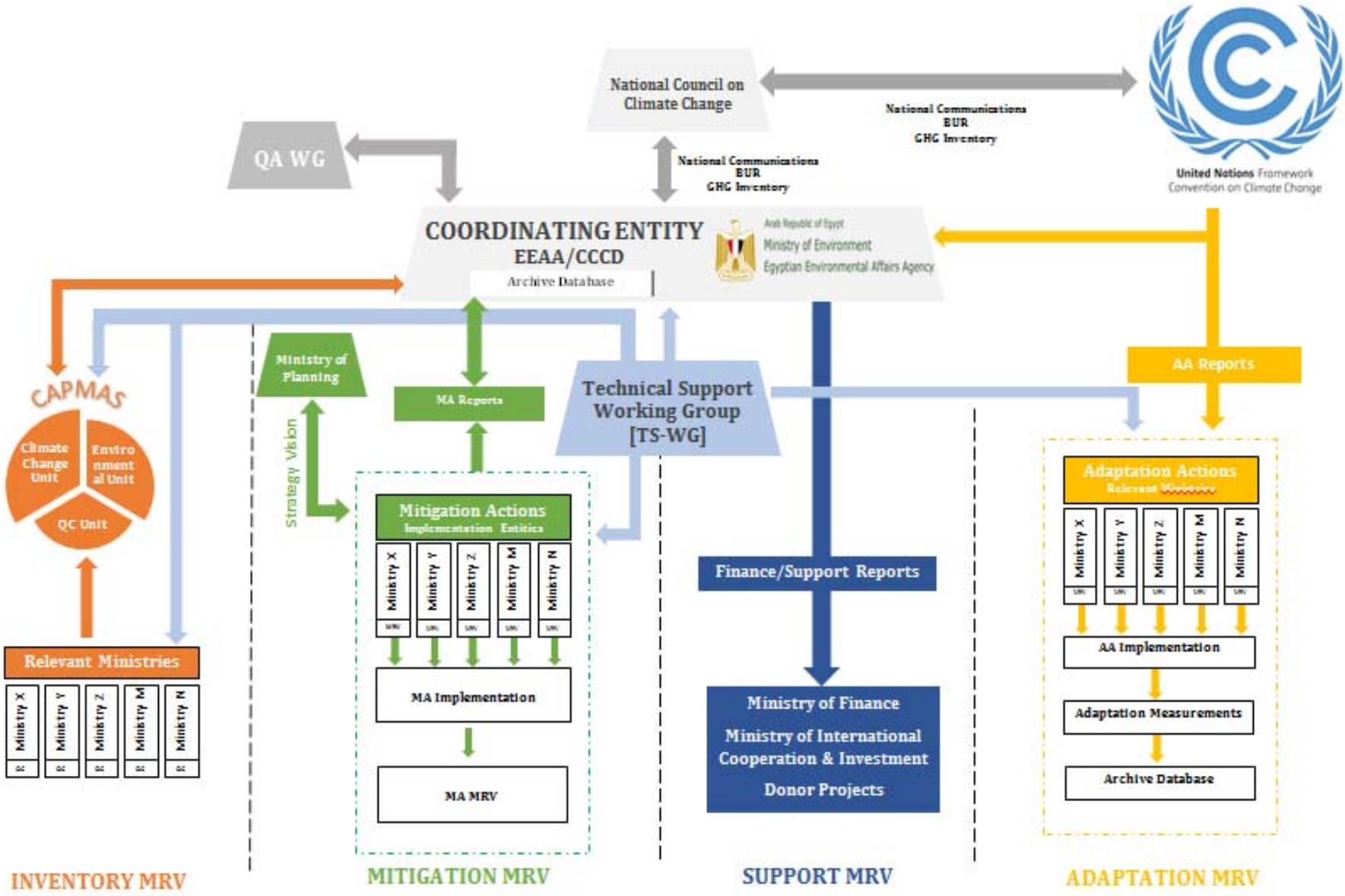
A national Climate MRV system, not yet formally adopted by the NCCC, was proposed based on engagement of representatives from all concerned ministries and national entities.

The kick-off for the domestic MRV depends on funding availability and other resources, which once available would support the national institutions for implementation.



Source: Ministry of Environment

Proposal of Institutional Setup Concept



Conclusion

Egypt is taking many measures to combat climate change impacts through adaptation and mitigation efforts.

Climate Change aspects are being included in the national development plans (SDS2030). While sustainability is the key in combating Climate Change.

Adaptation and mitigation measures requires the provision of sustained support to be implemented on the ground.

MRV System proposal need to be implemented

The importance of assessing the socioeconomic impacts of measures to maximize positive impacts and minimize negative impacts, while considering that the impact of response measures is not limited to national boundaries.

For Subsidy reform, enhanced welfare mechanism is needed on currently operating measures of compensation in order to ensure the practical protection of the vulnerable groups in the society.


Thank You