# **Egyptian Development & Climate Change**

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# Introduction

# Climate Change is now considered as one of the most important issues on the international arena



# Key Data.(Geographic)



•Arab Republic of Egypt, located in the northeast corner of the continent of Africa, and has over the Asian where the Sinai in ,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 78 990 km<sup>2</sup> 7.8% of the total area.

# Key Data.(population)



•Egypt has a population of about 90 million people (approximate from the Central Agency for Public Mobilization and Statistics in 2013)(CAPMAS).

•Most of Egypt's population is concentrated in the Nile Valley and in urban areas where the Nile Valley and Delta less than 4% of the total area of the country, or about 33,000 km,

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

# Key Data.(Economy)



•Egypt's economy is one of the most countries of the Middle East economies diversified, with agriculture, industry, tourism and services sectors.

•The manpower in Egypt about 26 million people, according to 2010 estimates, are distributed on the service sector by 51%, ,agricultural sector by 32% and the industrial sector by 17%.

•The gross domestic product (<u>GDP</u>) in Egypt about <u>284 billion US dollars in 2014</u> (World Bank)

# **Development ambitions in Egypt**

Egypt aims to achieve a high economic growth during the next 15 years by adopting many of the mega-projects rates



# **New Suez Canal project**



# Planting 3 million acres project

# **Development ambitions in Egypt**



# Infrastructure and paving roads projects



The development of social services (education / health)

م ....وقضية التغيرات المناخية

# **Development ambitions in Egypt**





# Egypt unveils plan to build glitzy new capital



# **Egypt and Climate Change**

Egypt signed the Convention of Climate Change in 1992, ratified it in 1994. During the first commitment period Egypt was the second African countries in terms of ranking in the CDM projects, that has 25 project registered in EB around.

Egypt's sharing less than 1% from the global greenhouse gas emissions, where the first national communication record 116 million tons of carbon dioxide equivalent for the base year 1990 rose to 193 million tons for the base year 2000.

At the same time and in accordance with international and national studies, Egypt is one of the most vulnerable country will be affected by the risks of climate change.

# Impacts of climate change on Egypt.



# Impacts of climate change on Egypt. Sea Level Rise on the Coastal Zones



# According to SNC-2010 & IPCC 4<sup>th</sup> AR:

• A global sea level rise of 18-59 cm is expected by the end of this century, based on the prevailing scenario.

•The vulnerable areas that will be affected by Sea level rise under two modules. :

•The first case assumed zero levels for lake borders,

•While the second one assumed protecting lake borders.

 In both cases namely the two IPCC assumes an increase rate of sea level till
2100 with temperature projection depending on long term tidal measurements in Alexandria, Al-Burullus

# Impacts of climate change on Egypt. Water resources.

•Egypt depends on more than 95% of its water resources on the River Nile. The country enjoys, so far, the use of 55.5 billion m<sup>3</sup> of water from the river every year, based upon an agreement signed with Sudan in the year 1959.

#### **Vulnerability of Nile Water to Climate Change**

•In its Fourth Assessment Report (2007), IPCC identified Africa as one of the most vulnerable regions to climate change specifically with respect to water resources.

•The report indicated that <u>most of north and</u> <u>southern Africa will be subject to water stress</u> while east, central and West Africa is projected to receive heavy rain resulting in increased flooding

### In the field of voluntary contribution in reducing emissions

Expansion of solar energy



Awareness campaigns to rationalize water consumption



Establishment the wind farm for power generation .



Improving energy efficiency Industrial Sector



#### In the field of Adaptation(Studies & Pilot Projects)



مركز المعلومات الوزرام مركز المعلومات ودعم المطلة القرار نظاع إدارة الأردات والعراب والعراب دو العد من أخطارها

الإستراتيجية الوطنية للتكيُّف مع التغيرات المناخية والحدّ من مخاطر الكوارث الناجمة عنها

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Egypt's National Strategy for Adaptation to Climate Change And Disaster Risk Reduction in 2011 as a framework of adaptation policy

Soil type and irrigation systems could play an important role in determination of yield losses under climate change conditions. This concept is tackled in order to shed a light on the importance of developing a strategy to reduce dimute change risk on whireit and make. Wheat was clibrated and validated and two climate change scenarios were incorporated in the model. The model was run and the effect of climate change was asseed. The model was run and the effect of climate change was asseed. The model was run and the effect of climate strategy of the order of the strategy of strategy of the strategy of stra



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#### Simulation of Adaptation to Climate Change on Wheat and Maize in Egypt

Simulation of the yield of wheat and maize grown in different soil types and under different irrigation systems Climate Change Risk Management programme in 2013 in Agriculture ,Water , Energy and CDM.



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#### In the field of Adaptation(implementing Projects.)



# In the field of agriculture,

### •Developed kind of crops cultivate in high temperatures

# In the field of water,

•Use of modern irrigation systems to water saving

#### In the field of Adaptation(implementing Projects.)





•Protection of the costal zone along the northern coast.

#### In the field of information System

•Use of information systems to protect against the extreme weather events.





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The link between development ambitions and plans to adapt

Need to convert the national strategy for Adaptation into National Adaptation Plan (NAP) and Integrate it with the National Development Plan (This workshop help to do that).

Emphasized that Adaptation is a priority for African States in any future agreement and the means of implementation is the Is key to the implement any projects related to mitigation and adaptation.

Because of the impact of climate change, Egypt insists that any future agreement must take the adaptation as priority.

# In this regard the Egyptian INDC:

- •Will focus on national needs of adaptation.
- •Mitigation will be the third priority after adaptation and the means of implementation, <u>without any negative</u> <u>impact on the future Egyptian</u> <u>sustainable development ambitions .</u>

