

# CLIMATE CHANGE

Dr. Omaima Ezzedin Mohamed

Director of general administration of environmental health

# Introduction:

## Potential impacts of the climate change on the global level :

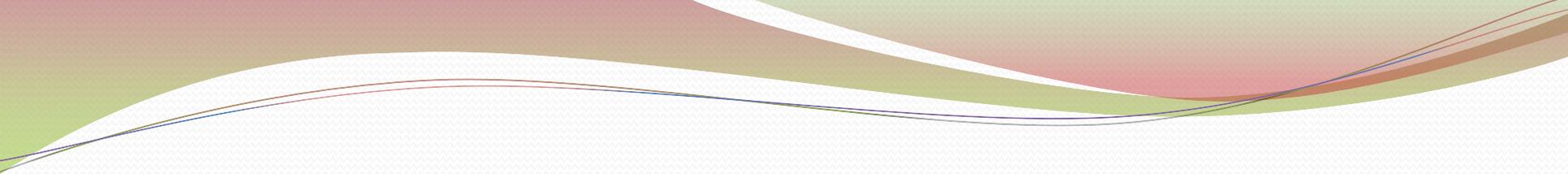
Represented by reduction of green coverage, decrease in the level of agricultural production and loss of biodiversity ..... blatant threat to food security therefore a big threat to all vital economic investments as well as social implications .

# Health effects of climate change

Public health is affected by climate change as result of heat, cold, floods and drought waves which greatly affect human health.

Ecological and social systems will be greatly affected .....great changes in the pattern of occurrence of some infectious diseases.

Increase intensity of some natural phenomena such as storms, floods and hurricanes will adversely affect human health.....loss of life or loss of shelter, population displacement, water pollution and decrease food production so increase risks of epidemics and infectious diseases .....**Great damage to medical services infra structures.**



Rising temperature and increased amount of rainfall leads to significant changes in the geographic ranges ,modes of transmission of some infectious diseases and its duration.

# DIRECT HEALTH EFFECTS:

1-Sunstrokes and thermal stresses.

2-High death rates from some diseases especially cardiovascular ones.

3-increase mortality and morbidity rates of certain diseases(**respiratory diseases** )due to air pollution as a result of lacking enough wind movement ,increased humidity and dust storms.

# INDIRECT HEALTH EFFECTS:

## 1-Epidemics and infectious diseases:

Climate change may contribute to prolonging seasons of spread of some infectious diseases and changing its geographic ranges which will lead to its transmission to new areas its population lack enough immunity to resist or its governments lack the appropriate infrastructures in the field of public health to cope with these diseases such as **malaria, elephantiasis and rift valley fever.**

## 2- Diseases transmitted through contaminated water or food:

An expected increase of diseases transmitted through contaminated water and food as a result of increased drought and lack of clean fresh water in some places which will hamper for personal hygiene and surrounding environments cleanliness so spread of insects .....certain diseases such as diarrhea and among children.malnutrition specially

### 3- Parasitic diseases:

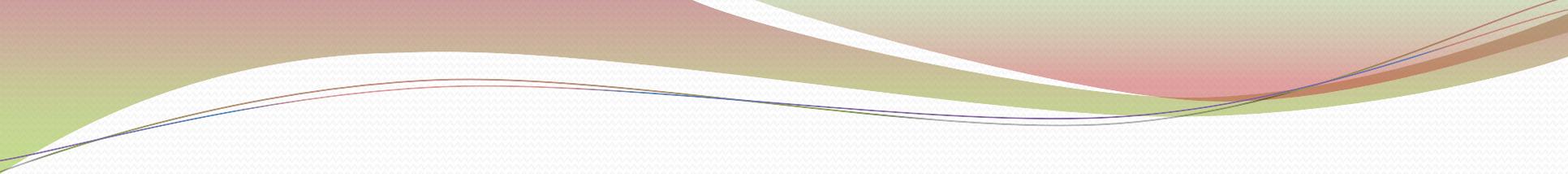
Correlation between climate change and spread of certain parasites (schistosomiasis) ,as its intermediate hosts(snails) are affected by air temperature and presence of shallow water and suitable conditions for breeding so changes in its geographic location so..... harmful effects on health.

#### **4-Viral diseases:**

Emergence of some viral diseases caused by migratory birds (**avian flu**) and then its transmission to **poultry** and after that to humans in contact which represent a significant risk for both human and poultry .

#### **5- fungal diseases:**

High incidence of fungal diseases is highly associated with increase of temperature and humidity



The use of air conditioners indoor increase the incidence of fungal diseases

Some studies approved that there is relation between fungal disease especially in the cornea of the eye and increase temperature and humidity at the same time

# ADAPTION TO CLIMATE CHANGE IN HEALTH SECTOR:

**Through :**

1-Raising the quality of health services provided to citizens.

2-Upgrading of the national vaccinations program.

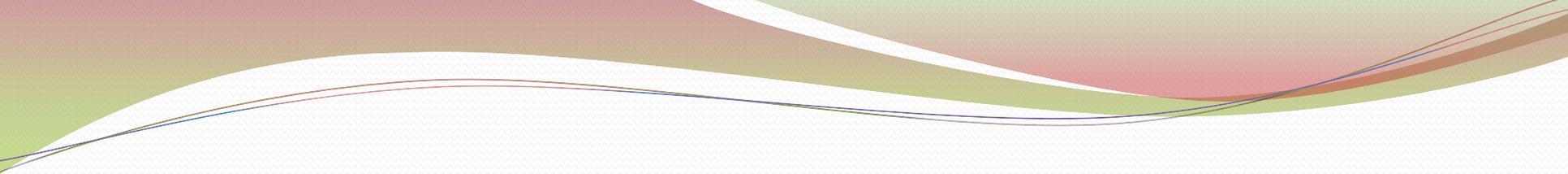
# Efforts of preventive sector in ministry of health and population

**FIRST: In the field of epidemiological and insecticidal surveillance .**

## **A-EPIDEMIOLOGICAL SURVEILLANCE:**

1-Negative surveillance:

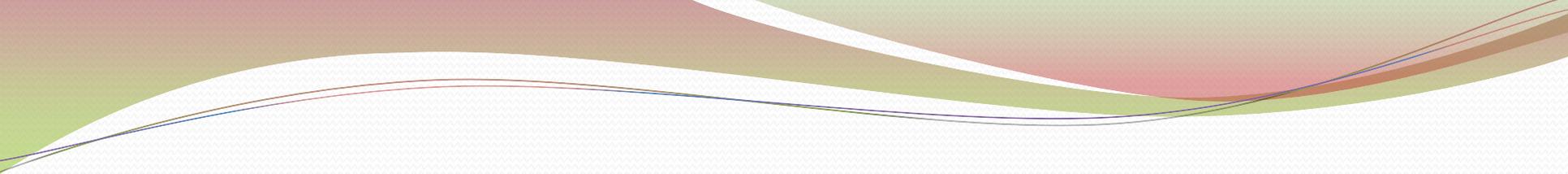
Surveillance units all over Egypt (fever hospitals, central hospitals and primary care units).



## 2-Positive surveillance:

By taking random samples from different areas all over the country ,especially areas of epidemiological importance .

Samples of arrivals from affected areas and their contacts.



3- Early detection:

Through training and raising efficiency of health care workers in the surveillance field.

B- Insecticidal surveillance:

Raising the efficiency of health care workers in the field of pests transmission control (eg: malaria)

**SECOND: In the field of disease control .**

Through.....free follow up and treatment of all patients suffering from infectious Diseases.

Spray lands to combat larvae as well as adult insects(in dealing with insects).

### **Third : prevention**

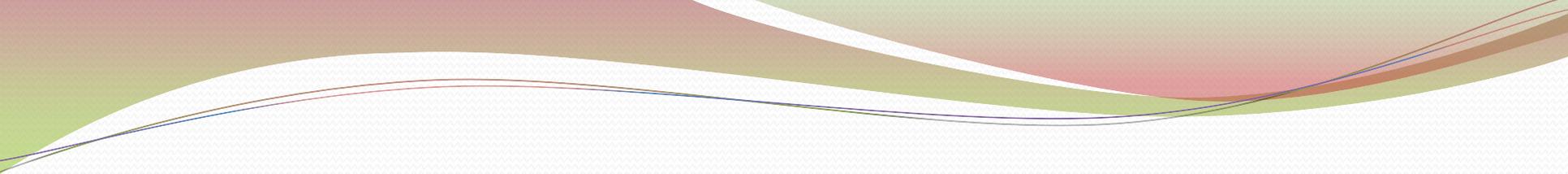
**Giving free preventive treatments to all Egyptians travelling to countries where any infectious disease is endemic (e.g malaria)**

**Examination of all cases coming from abroad suspected of being struck by an infectious diseases and making the required surveillance to them with giving the necessary treatment in case of proven hit**

# Recommendation of general administration of environmental health.

1- COORDINATION between all governmental and academic agencies ,research centers private sectors and civil society in the integration and dissemination of policies and strategic plans to deal with the expected health effects of the climate change .

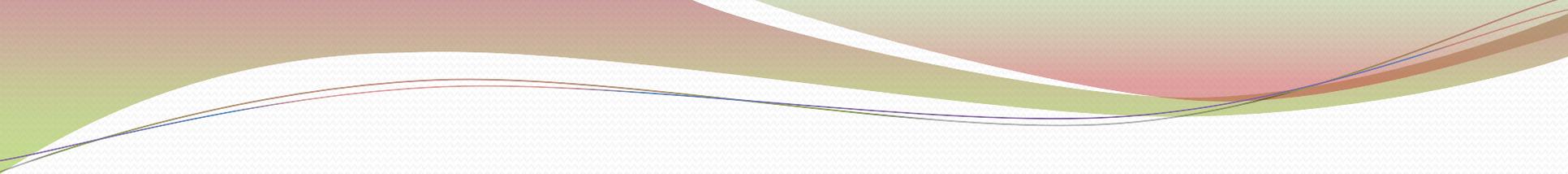
2-Exchanging data and information related to climate change between information centers in all concerned ministries .



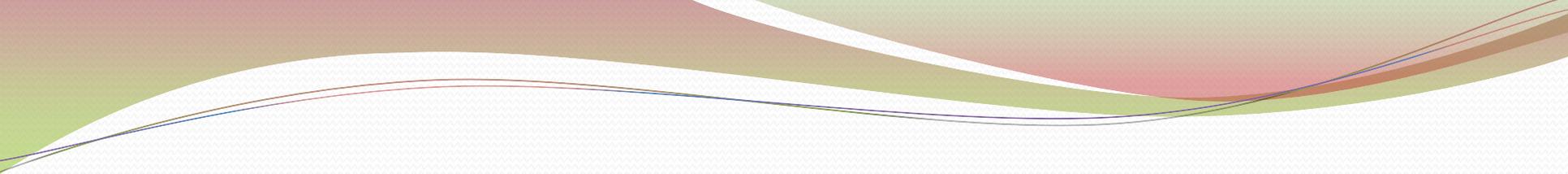
3- Raising technical capacities of all concerned institutions responsible for dealing with the health effects of climate change .

4- expansion in researches and studies concerned with the evaluation of health effects of climate change .

5-Perpartion and implementation of training programs to raise awareness of climate change effects and to be directed to all society's categories .



6-Formulation of technical committee in the General administration of environmental affairs ,in ministry of health and population with membership of all stakeholders to follow up the previous recommendations and to coordinate efforts to face the expected health effects of climate change.



Thank you