

Question Two:
“Climate change is real. It is happening right now; it is the most urgent threat facing our entire species.” Comment on the last statement elaborating on:

- a. What is the impact of climate change on the economy, and on women? (1.5 marks)
- b. What are the policies done by developing and developed countries to address climate change? (1.5 marks)
- c. What are the recent projects made by Egypt as mitigation policies to address climate change phenomenon? (1 mark)

EFFECTS OF CLIMATE CHANGE ON THE ECONOMY

- Lowered industrial and agricultural output, and labor productivity (due to sea rise and flooding of coastal areas, water scarcity and crop failure, more frequent natural disasters).
- Higher inequality due to loss of income of poor people.
- Negative impacts on trade (lower exports of food, fish, etc.)
- Fiscal and macroeconomic burdens (due to infrastructure damage, relocation and financial aid of populations in natural disaster areas, higher health expenditures, less output and taxes).
- Reduced economic growth
- Higher unemployment
- Increased poverty.

EFFECTS OF CLIMATE CHANGE ON WOMEN & THEIR POVERTY

Although climate change affects everyone, it is not gender neutral. Climate change affects women more than men because of ,

1. Gender specific roles:

- a. Rural women are more dependent on natural environment for livelihood.
- b. More affected by crop failure (due to climate change) because women are responsible for food provision and a large percentage of female labor force work in Agriculture.
- c. More affected by water scarcity due to their role in fetching water in poor countries,
- d. More affected by fuel shortage due to their role in household fuel provision.
- e. More affected by climate change related diseases due to increased burden of caring for the sick.

EFFECTS OF CLIMATE CHANGE ON WOMEN

2. **Unequal access to resources** (due to traditions & gender inequality): More affected by resource scarcity due to limited access to land and more affected by diseases due to unequal access to healthcare services.
3. **Less access to technology, credit, agricultural services & training** to adapt to climate change.
4. **Limited mobility**: restricts their access to shelter, resources & healthcare services in case of displacement.

WHAT POLICY ACTIONS SHOULD BE TAKEN TO ADDRESS CLIMATE CHANGE

	Adaptation policies	Mitigation policies
Definition	Coping with climate change after it occurs.	Preventing or limiting the occurrence of climate change by reducing GHGs emissions at source or by increasing green areas .
Examples	Development of crops resistant to drought, early disaster warning systems, building sea walls	Strengthening of energy efficiency of power plants and forest conservation
Challenges	Human capacity, technology & financial resources limitations in developing countries.	Costs are borne now but benefits are delayed and received by later generations. Must act early despite uncertainty.
Requirements for successful implementation	<ul style="list-style-type: none"> - <u>Link with coordinated efforts</u> aimed at poverty alleviation, food security, water availability, combating land degradation and reducing loss of biological diversity. - <u>Integrate climate change adaptation</u> into development policies through <u>MDGs & SDGs</u>. - <u>Adjustment at: community level</u> (adopting technologies), national level (integrate climate change in national planning), <u>international</u> (global framework for cooperation) 	<ul style="list-style-type: none"> - must be <u>harmonized with the developmental needs</u> of developing countries. - <u>relying on a low-emissions path</u> that includes access to low-carbon and efficient energy technologies. - Must <u>act early</u>. - <u>Global coordination to reduce emissions</u>. - <u>Provide incentives to private sector</u> to reduce emissions.

Table (3): A comparison of mitigation and adaptation characteristics

CHARACTERISTICS	MITIGATION	ADAPTATION
Timing	Costs now, benefits delayed	Costs whenever, benefits may be later or relatively soon after
Temporal incidence	Costs now, benefits to later generations	Benefits more or less appropriable by those bearing costs
Geographic incidence	Local costs, global benefits	Local costs, often relatively local benefits
Sectoral incidence	Emphasis on emissions from energy consumption but also options in other sectors (land use, industrial processes)	Very heterogeneous
Sectoral and regional Sensivity	Reduces impacts on all sectors and regions	More feasible for certain sectors and region than others
Relation to uncertainty	Must act earlier despite greater uncertainty	May act later after reducing uncertainty, although anticipatory adaptation may require earlier action

Source: adapted from Wilbanks, T. J., Kane, S. M., Leiby, P. N., Perlack, R. D., Settle, C., Shogren, J. F., Smith, J. B., "Integrating mitigation and adaptation. (Possible responses to global climate change)", Environment, June 2003



Question Three: Essay (1D): some information

Egyptian experience

A total of 24 clean development mechanism projects were established (2006-2015) (solid waste, renewable energy, fuel switching & energy efficiency).

(Mitigation)

Increased resilience for food security in Upper Egypt to face the extreme weather events in 14 poor villages. (**Adaptation**)

Walls were built to protect beaches on the north coast against sea level rises.

Egypt prepared a study on climate change risk management resulting in recommendations to develop seeds capable of withstanding high temperatures and also in the field of modern irrigation.

Egypt has created units to deal with climate change within the different ministries.