1. Environmental Challenges Call for a Holistic Approach

Context:

- Mankind's progress has had unintended consequences on the environment. These include climate change, extreme weather events and the reduced availability of potable water.

Background:

- Unintended consequences of human progress over the past decades have begun to adversely impact the environment we live in, which provides the basic conditions for life on earth to exist.

- For example, the layer of ozone in the upper atmosphere, which protects us from harmful radiation, is being depleted due to our excessive use of aerosol chemicals. Predictions made back in the 1980s about climate change are starting to come true.

- **Extreme weather events** around the world appear to be more common than before. Cities like **Chennai and Mumbai get flooded** during the monsoon, and yet run out of water later in the year.

Water Crisis:

- One of the most critical crises that we face today is **access to potable water**. There are three kinds of access problems.

- The first one is where there are no systems in place for the regular supply of water; for example, in urban slums.

- The second is where there is a regular system in place, but a section of society faces challenges due to the seasonal unavailability of water. This situation is becoming common in cities like Chennai, Bengaluru, Mumbai, and is giving rise to widespread distress.

- The third kind of situation has often been observed in rural areas where people depend on natural sources of drinking water that are fast becoming inaccessible because of pollution and environmental changes.

- More than a **billion people worldwide lack access to water** and a total of 2.7 billion people find water scarce for at least one month of the year.

- This is largely due to pollution, climate change, population growth and changes in consumption patterns. At the current rate of consumption, **two-thirds of the world's population may face water shortages by 2025.**

- This also leads to other issues like the **spread of water-borne diseases**. Children and women often face the burden of fetching water, resulting in increased school drop-out rates, particularly for girls.

How did we come to this Point, and what can we do about it?

- An understanding of our current environmental challenges can only come from studying them in the context of both technology and society.

- Technology is one of the key attributes of today's human society, one that makes our era entirely different from thousands of years of human presence on earth.

- On one hand, our tech-centred orientation is one of **the primary causes of our alienation from nature**; on the other, t**echnology can help us cope with the environmental stresses** being faced by human society.

- From a different point of view, technology is one of the major factors inducing environmental pollution. To accommodate technological progress, humans have always sacrificed the environment, which eventually led to complex issues like climate change and wide-scale biodiversity loss.

Relationship between Environment and Technology:

- In the context of the global environmental crisis, it is paramount to revisit our relationship with technology. This could be in three ways:

- First, how technology can help society manages environmental issues.

- Second, how society can act to manage the externalities of technology within environmentally acceptable standards.

- Third, how technology can aid in evaluating the current environmental condition and its impact on society.

Environment and Society:

- When we look at environmental issues in the context of society, we recognize that environmental migration is one of the key issues that future generations will need to cope with. The United Nations forecasts that there could be up to 1 billion environmental migrants by 2050, mostly from coastal areas.

- We must think through current land-use changes, diversification of livelihoods at a community level, building resilience, and policies for environmental migrants.

- An added layer of complexity, given our political boundaries, is how humanity should respond to environmental migrants.

Environment Issue in the Context of Philosophical View:

- Moving from a societal to a philosophical view, we must redefine the needs of an individual, and understand the reasons behind increasingly consumerist lifestyles across the globe.

- Humans do not harm the environment intentionally. Environmental disturbance is a by-product or negative externality of human actions that arise due to our needs and aspirations—in other words, the unintended consequences of human progress.

- Exploring the nature of our progress and the consumption landscape could be one way to address the latter. The cycle of production and consumption does not happen in a void. It is a way to respond to individual needs and desires.

- We must therefore also be aware of how the aspirations of one section of society could leave the needs of other sections unfulfilled. We must ponder how the very notion of "need" is in transition in the 21st century, and what impact it has on earth's finite resources.

- When questions of the distribution of environmental resources converge to become the departure point, issues like injustice, marginalization, and resource extraction come to the fore.

Conclusion:

- It is evident that our challenges related to the environment are interwoven with challenges from societal, technological and philosophical perspectives.

- We must confront these challenges holistically, and evolve sustainable pathways through individual, societal and state actions.