Conservation of Marine Environment - Only Way of Sustaining the Very Existence of Human Civilization on our Planet

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Abstract

In order to find out the solution of various problems prevailing in the marine and offshore ecosystems in India, the present authors, as regular routine practice of versatile research work respectively, have been concentrating their respective scientific research on marine pollution, ocean acidification, coastal resource management and its social impact study and have presented their respective papers in various national and international conferences and obtained interactions. In order to ponder the real time solution, the present paper deals with the observation and experience obtained by the respective authors which are the derivatives of scientific and societal thought presented in this paper as a product of intermittent and cumulative manners and opined suggestive issues on the present and future significance of marine and coastal research activities, apprehensions and its various hindrances. Issues of marine conservation, threats to securities of marine & coastal ecosystem including the direct impacts for not taking appropriate measures of marine conservation, and the suggestive remedial measures have been categorically discussed from new dimensions.

Keywords: Marine conservation; Offshore environment; Coastal ecosystem; Criminal laws; Civilization support system; Oil spill; Ocean acidification; Over fishing; Biodiversity; Disaster management

Introduction

‘Conservation of marine environment’ or ‘marine conservation’ broadly is a development program through scientific management of natural coastal and offshore ecosystems of marine environment which:

I. Has been generated as perception from the study of marine & coastal ecosystems.

II. Is comprising of various activities within the ambit of estuarine, coastal, onshore and offshore areas.

III. On techno-scientific application, marine & coastal resources are more beneficially effective in their ecosystem services; and finally.

IV. Requires a good and moral coordination in the management of such resources and their respective ecosystem services with and/or without requirement of development law and policy both for the development of human society and natural ecosystem without pollution and/or degradation.

The marine environment is the specific environment significantly differs from the land or terrestrial environment and influenced by ocean, sea, gulf, bay and estuarine ecosystems. The marine ecosystem therefore is a continuing interactive process induced by-and prevail in between all the living beings and their respective ambient physical environment. By land-water ratio of occupancy, the marine environment shelters largest ecosystem known as marine ecosystem on our planet earth. From various research findings, it is established by scientific evidence that different but unique marine and related ecosystems provide at least one common phenomenon of continuous release of oxygen (O2) by all green pigment plant and plankton by taking Carbon-di-Oxide (CO2) from atmosphere. This is that Carbon-di-Oxide (CO2) which is released and/or coming out of utilization of energy- be it the respiration of living being, or be it the consumption of energy primarily in our industry to the bedroom air conditioner to refrigerator for our ‘civilization support system’.
This is that Carbon-di-Oxide (CO2) which is released and/or coming out of activities of the world-wide sale of arms and using of that arms by one person against the other, by one nation against the other. This is that Carbon-di-Oxide (CO2) which is released and/or coming out from the illegal release/spillage of huge quantity of petroleum oil into the sea by one tanker, lifting that oil to different tanker, and the rest oil spillage onto the surface sea water by incineration in order to the procurement of insurance money. This is that Carbon-di-Oxide (CO2) that could not have been utilized by the plant and plankton of the marine and coastal ecosystems because of such plant and plankton were died because of toxicity of such spilled petroleum oil or its chemical fractions mostly soluble/miscible in the sea water.

This is that Carbon-di-Oxide (CO2) not being used by the plant and plankton of the marine ecosystem released into atmosphere by the human activities, and now said to be the ‘most notorious culprit’ causing the global warming at local and regional levels, and manifested/inflicted upon human natural social life as local and regional ‘weather anomaly’ in the form of disasters like hurricane and cyclone (both are same weather phenomenon but called differently because of its geographical positions) caused damage of properties, civilization system and thus huge monetary loss pushing our social economy backward.

What are the issues in Marine Conservation?

In order to conserve the marine ecosystem prevailing in any part of the world are:

Prevention/mitigation of

a. Marine and coastal pollution (oil spill & land-based waste disposal).
b. Ocean acidification and local climate change.
c. Overfishing and subsequent un-employment/under employment of fisher-persons.
d. Loss of biodiversity and coral bleaching.
e. Coastal erosion and un-scientific coastal development.

Development and management of

i. Coastal habitat conservation in island and mainland coast.
ii. Coastal Tourism.
iii. Disaster management and preparedness team with intra-national and international coordination;
iv. Appropriate policy not only for the threatened and endangered species protection but also for further development of coastal resources and their appropriate management.
v. Criminal/penal laws at local and national levels of any maritime nations, Small Islands Developing States (SIDS) for committing Item 1 to 5 above and acting directly and/or indirectly against Item 6 to 9 including practice of espionage activities relating to prevention of marine environment/ecosystem development research and policy(s).

What are the Threats to Marine Environment/Ecosystem?

Although the overall threat to global marine ecosystem security is ‘warming’ or ‘temperature increase’ in the atmosphere at various local/regional/national levels even though it would be wise to visualize such threat from different angles primarily finding out or determining the sources of threat in order to appropriate management of such threat to cope with.

There are categories of sources of threat to security of surviving marine ecosystem. Maritime countries appears to have such sources of threats at varying magnitude to their respective marine environment/ecosystems. Such sources of threats are varying country to country, region to region, but globally there are commonalities in nature. These are:

1. Lack of knowledge of the fisher-people’s about the surviving marine & coastal ecosystems and their greed to earn more money by overfishing.
2. Lack of political willingness of local/national government to deploy regulatory authority with the honest and knowledgeable people armed by the appropriate law making and introduction of appropriate training.
3. Not deployment of specific type of appropriately educated & trained ‘Watch-Guard’ both at coast land, and offshore water.
4. Inducing misrepresentation and wrong explanation in presentation of usage of terms and knowledge by various means of social application.
5. Ignoring & screening appropriate people/organization by:
   (i) Not paying heed apparently to their suggestions relating to marine & coastal conservation but copying the idea from them for other personal purpose including forms of monetary gain.
   (ii) Not paying heed to their timely suggestions relating to marine & coastal conservation if it is ‘politically thought to be deferred and/or not to be taken action’ silently.
   (iii) Inducing process of destruction by:
      (a) Bribing key fellows through their personal career and gain as an outcome – apparently invisible.
      (b) Secretly taken decision making for such organization to deprive them for being granted financial assistance compelling them to stop their
research activities relating to marine & coastal development which include 'conservation' as the first and foremost step (Our Asian Marine Conservation is a rarest exceptional education and research organization that has never been granted any financial assistance from any government/ corporate/ intergovernmental bodies at local/ national/ international levels but continue to excel in its research globally for more than 25 years).

6. National Intelligence Bureau including military intelligence have not been appropriately taught/trained so that all illicit/illegal money including bribe could be earned by the person having vested interest at the cost of primary national security which includes military security and natural ecosystem security.

7. Lack of appropriate legislation.

What are the Direct Impacts for Not Taking Appropriate Measures of Marine Conservation?

Of various dimensions and all are negative in nature. Amongst those the most important and primary ones are:

a. Deficit in national natural resource base (NRB).

b. Overall delay in sustainability in the national growth & development.

c. Resource conflict amongst people at the local levels and instability in the national socio-political system.

What is/are the Remedial Measure(s)?

Reversing the modes of indirect 'threat perception', as stated before, by systematically adopting special political willingness and incorporate such programme in the national planning commission or national planning board.

Conclusion

In order to reversing the trend of global climate degradation due to pollution of marine environment that lead to degradation of natural quality of marine & coastal ecosystem services, national and global leaders must be ethically honest to:

i. Become humane.

ii. Perceive quick decision making in scientifically fighting global warming and preventing marine & coastal pollution.

iii. For the act of increase global coordination at regional levels forgetting enmity to each other nations which will create a huge job creation and that in turn boost up global economy at national and regional levels.