From ocean science to sustainable blue economy

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Blue economy is defined as the ocean dependent economic development to improve the quality of life of people while ensuring inclusive social development as well as environmental and ecological security. India has committed to advancing the blue economy. The knowledge about fishery resources, sea bed, marine minerals and energy resources and vulnerability to natural hazards is a pre-requisite for the growth and development of the blue economy. The marine fish catch has been a major source of income for one million fishers in India. The technological development for product development to be addressed for commercialization of deep-sea fishery. Geophysical surveys have provided information about coastal placer minerals, gas hydrates on continental shelf and manganese nodules, hydrothermal systems and cobalt crusts in high seas. The investment in developing technologies and human resources for harnessing these resources is being made. The coastal and marine area spatial planning to be employed to understand risks involved and accordingly, developmental activities to be planned. The economic growth prospects beyond 2030 will be limited without large investments in ocean environments. An accounting system to be developed to bring together disparate data sources, both economic and environmental. An institutional framework for implementing activities related to blue economy to be set up. Investments in sustainable development of oceans will pay rich dividends for future generations and benefit humanity.

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is essentially an ocean-dependent economic development for improving the quality of life ensuring inclusive social development, along with environmental and ecological security[3].

The 2030 Agenda for the United Nations (UN) Sustainable Development Goal 14 also clearly recognized that social and economic development depends on sustainable management of the coastal and ocean environments and their resources. To achieve this goal by 2030, the UN has declared the current decade as 'The Decade of Ocean Science for Sustainable Development', to provide a common framework to ensure ocean science support for countries to achieve the 2030 Agenda for Sustainable Development.

These commitments reflect a growing understanding of how marine, coastal and other natural environments contribute to socio-economic development. Scientific research has identified a complex array of biophysical goods and services that marine and coastal environments provide to people. Economic and social research has identified multiple values of these environments and measured their contributions to human health, well-being and development.

Despite considerable progress, current efforts to better understand and manage oceans and coasts fall far short of the level of change required to achieve the 2030 Agenda's vision of sustainable development. This challenge prevails in most countries. Many of the benefits and opportunities provided by oceans and coasts are poorly understood, and are being missed or lost. Marine and coastal ecosystems, and the valuable goods and services they provide are being rapidly degraded because of pollution, overfishing, climate change, habitat destruction and other factors.