



Criteria and Guidelines for Identifying Other Effective Area Based Conservation Measures (OECMs) in India



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India**



About the Publication

Other Effective Area-based Conservation Measures (OECMs) are a new conservation approach, separate from protected areas, where effective conservation of biodiversity is achieved mainly as a by-product of other management objectives. A wide variety of sites in India have the potential to become OECMs.

The publication provides the criteria and guidelines developed by the Ministry of Environment, Forest and Climate Change (MoEFCC), National Biodiversity Authority of India (NBA) and United Nations Development Programme (UNDP), to identify OECMs in India. A 14-category classification, clustered under three broad groups- terrestrial, waterbodies, and marine, has been developed by India, covering a broad spectrum of potential OECMs in India including unique agricultural systems, biodiversity parks, industrial estates, coastal waterbodies, and important marine biodiversity areas.

The MoEFCC, NBA and UNDP invite central and state departments, bilateral and multilateral funding agencies, civil society organisations, defence establishments, industry, academic and research institutes, and local communities to share information on local conservation initiatives, which could be identified as potential OECMs. In this regard, the booklet also extends guidance about the application procedure.

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The guidelines for identifying Other Effective Area Based Conservation Measures (OECMs) in India are the outcome of a series of expert consultations led by the MoEFCC with support from the NBA, Government of India, and the United Nations Development Programme (UNDP). Primary inputs were received from the final report of the Small Group created in 2020 by the MoEFCC for developing the criteria and guidelines for identifying OECMs in India. Member organisations of the Small Group include the Wildlife Institute of India (WII), NBA, World Wide Fund for Nature (WWF)-India, Foundation for Ecological Security (FES), UNDP, Wildlife Trust of India (WTI), International Union of Conservation of Nature (IUCN) India, Network for Certification and Conservation of Forests (NCCF), and The Energy and Resource Institute (TERI).

The further development of the OECMs guidelines was taken forward through a series of consultative meetings conducted by the NBA with support from UNDP, with domain experts including the National Centre for Sustainable Coastal Management (NCSCM).

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Abbreviations

ABS	Access and Benefit Sharing
BSIP	Biodiversity Samrakshan Internship Programme
CBD	Convention on Biological Diversity
CMS	Conservation of Migratory Species of Wild Animals
CoP	Conference of Parties
CPCB	Central Pollution Control Board
CRZ	Coastal Regulation Zone
CSR	Corporate Social Responsibility
CVCAs	Critically Vulnerable Coastal Areas
CZMP	Coastal Zone Management Plan
ECSCMA s	Ecologically/Culturally Significant Coastal & Marine Areas
EIA	Environmental Impact Assessment
e-PBR	electronic People's Biodiversity Register
FAO	Food and Agricultural Organization
FSI	Forest Survey of India
ICBA s	Important Coastal Biodiversity Areas
IMBA s	Important Marine Biodiversity Areas
IUCN	International Union for Conservation of Nature
MoEFCC	Ministry of Environment, Forest and Climate Change
NBA	National Biodiversity Authority
NCSCM	National Centre for Sustainable Coastal Management
OECMs	Other Effective area-based Conservation Measures
PAs	Protected Areas
PIC	Prior Informed Consent
UAS	Unique Agricultural Systems
UNDP	United Nations Development Programme
UNEP-WCMC	UN Environment Programme-World Conservation Monitoring Centre
UTF	Urban Trees and Forests
WDPA	World Database on Protected Areas

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और
श्रम एवं रोजगार
भारत सरकार



MINISTER
ENVIRONMENT, FOREST AND CLIMATE CHANGE
AND
LABOUR AND EMPLOYMENT
GOVERNMENT OF INDIA

भूपेन्द्र यादव
BHUPENDER YADAV



MESSAGE

Conservation of biological diversity has always been integral to the cultural ethos of India. We have a vast repository of traditional knowledge, which is a testimony to the values of the people who have co-existed with nature for many centuries.

Our food security, economic growth, health and wellbeing rely on ecosystem services derived from biodiversity. Therefore, sustainable development of the country requires maintaining a harmonious balance between development concerns and conservation imperatives. The ministry's motto – 'Nature protects, if she is protected' amply reflects this approach.

India is a frontrunner in meeting its national targets and global commitments, demonstrated through the achievement of the Aichi Biodiversity Target 11. We have also increased our land restoration target from 21 to 26 million hectares by 2030, and are actively participating in developing a comprehensive and impactful Post-2020 Global Biodiversity Framework.

Other Effective area-based Conservation Measures (OECMs) are the future of conservation, recognizing that conservation of biodiversity must go beyond protected areas and provide opportunities to all sections of the society and the economy to participate.

I congratulate officials in the MoEFCC, NBA and UNDP on developing the criteria and guidelines to identify OECMs in India, which is an important driver for achieving our biodiversity conservation targets. I urge everyone to come together and achieve the shared vision of 'living in harmony with nature'.

Date: 16.06.2022

(Bhupendra Yadav)

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पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
SECRETARY
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND
CLIMATE CHANGE



FOREWORD

The intrinsic value that the diversity of biological resources provides is vital for sustaining life on earth. Mankind depends on natural resources for a range of things, particularly production of food, maintenance of the global hydrological cycle, moderation of the climate, clean air and water, and many other ecosystem services.

The rich biodiversity of India has played an important role in shaping our society, culture and economy. For securing ecosystem functions, conserving important flora and faunal habitats, and enhancing resilience against threats, the Other Effective Area-based Conservation Measures (OECMs) can provide significant opportunities.

It is a matter of pride that India has achieved the Aichi Biodiversity Target 11. The country now looks forward to Target 3 of the upcoming Post-2020 Global Biodiversity Framework, which emphasizes that by 2030, at least 30 percent of land areas and marine areas globally, are conserved through effectively and equitably managed, ecologically representative, and well-connected systems of protected areas and OECMs.

I would like to commend the MoEFCC, NBA and UNDP India teams for developing and compiling India's guidelines on OECMs. I am certain that this publication will encourage more efforts for sustainable management of biodiversity rich areas.


[Leena Nandan]

New Delhi, June 15, 2022



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FOREWORD



Biological diversity is vital for a healthy planet, human wellbeing, food security, climate change mitigation, and sustainable development. The loss of biodiversity and ecosystem degradation puts our planet under tremendous pressures, leading to broad and systemic implications such as climate change, food insecurity, water scarcity, and loss of livelihoods.

India has made significant strides in bringing over 22 percent (terrestrial) and 5 percent (coastal and marine) area under the protected area network through the government's efforts of establishing National Parks, Wildlife Sanctuaries, Biosphere Reserves as well as through Reserved Forests.

Other Effective Area-based Conservation Measures (OECMs) are areas beyond the traditionally protected areas which provide a range of benefits including the conservation and promotion of agro-biodiversity leading to food and nutritional security; restoration of degraded land; rejuvenation of water bodies and improving ground water table.

Recognizing their conservation potential, OECMs are also an essential part of the Target 3 of the Post-2020 Global Biodiversity Framework. Together with the protected areas, OECMs could also help to achieve the 30 × 30 target - a global goal to conserve 30 percent of the planet by 2030.

Based on several ecological and social characteristics, the National Biodiversity Authority with support from UNDP has developed a 14-category classification organised into 3 major sub-groups- terrestrial, waterbody, and marine. The 14 categories cover the whole spectrum of potential OECMs in India including unique agricultural systems, biodiversity parks, industrial estates, lakes and ponds, riverine water bodies, important coastal biodiversity areas, etc.

I congratulate the team at the MoEFCC, NBA and UNDP in developing these criteria and guidelines to identify OECMs in India. I am confident that these will be found extremely useful in recognizing the commendable efforts towards area-based conservation being practiced by myriad of stakeholders all over India.


Dr. V. B. Mathur
Chairperson

May, 2022
Chennai



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1. Introduction

Biological diversity is crucial for the functioning of the environment through the provision of essential ecosystem services. The loss of biodiversity and ecosystem degradation due to pollution, overexploitation of natural resources, introduction of invasive species and habitat loss put our planet under tremendous pressure. This leads to broad and systemic implications such as climate change, food insecurity, water scarcity, loss of livelihoods and expansion of zoonoses. Biodiversity loss also has significant economic implications since more than half of the world's GDP, or USD 44 trillion, is moderately to highly dependent on nature and its services – and, therefore, exposed to nature-related risks.

One effective way of conserving our rich biodiversity is through declaration of protected areas, where natural resource exploitation and human activities are legally controlled and limited. These areas are the cornerstone of biodiversity conservation as they maintain key habitats and ensure the maintenance of natural processes across the landscape. In India, areas included within the Protected Areas are as per six IUCN categories: National Parks, Wildlife Sanctuaries, Conservation Reserves, Community Reserves, as per Wildlife (Protection) Act, 1972; Reserve Forests, Protected Forests and Village Forests as per Indian Forest Act, 1927; Lakes and Water Bodies as per Wetland (Conservation and Management) Rules, 2017; Biodiversity Heritage Site as per Biological Diversity Act, 2002.

Recognising the need to address the biodiversity and climate crises, India has made significant strides in bringing over 22% (terrestrial) and 5% (coastal and marine) area under the protected area network through the government's efforts of establishing National Park, Wildlife Sanctuaries, Biosphere Reserves as well as through Reserved Forests. However, India needs to extend its conservation efforts beyond the traditionally protected areas since there is limited scope of expanding the protected area network in India.

Other Effective Area-based Conservation Measures (OECMs)

Many areas outside the protected area and forest networks also contribute to the effective in-situ conservation of biodiversity in its natural habitat along with serving as effective carbon sinks which help in absorbing carbon from the atmosphere. To this end, Other Effective Area-based Conservation Measures (OECMs) will play a major role. OECMs are a new conservation approach, separate from protected areas, where effective conservation of biodiversity is achieved mainly as a by-product of other area management.

In November 2018, at the 14th Conference of the Parties to the Convention on Biological Diversity, a definition of an 'other effective area-based conservation measure' (OECM) was adopted along with guiding principles, common characteristics, and criteria for identification of OECMs.

An OECM is defined as "a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values".

Role of OECMs in Achieving National and Global Commitments

Recognizing their conservation potential, OECMs were included in Aichi Global Biodiversity Target 11 and subsequently in India's National Biodiversity Target 6. The Aichi Biodiversity Target 11 will be superseded by Target 3 of the upcoming Post-2020 Global Biodiversity Framework, which states that,

"By 2030, ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative, and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes".

As a part of the High Ambition Coalition for Nature and People, a group of more than 90 countries are now encouraging the adoption of the global goal to protect at least 30 percent of the world's land and ocean by 2030 (30x30 movement). Together with the protected areas, OECMs could also help to achieve the global 30 × 30 movement – a goal to conserve 30% of the planet by 2030.

Through its Nationally Determined Contributions, India is also committed to creating an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030, for which there is a need to partner with more stakeholders to support the government's efforts and commitments.

Further, recently at the UN Climate Change Conference, the Hon'ble Prime Minister of India made 5 key commitments for a carbon neutral future of India:

1. Raise the non-fossil fuel-based energy capacity of the country to 500 GW by 2030
2. By 2030, 50% of the country's energy requirements would be met using renewable energy sources
3. Reduce the total projected carbon emission by one billion tonnes by 2030
4. Reduce the carbon intensity of the economy to less than 45% by 2030
5. Become carbon neutral and achieve net zero emissions by the year 2070

While OECMs seem like an emerging concept, India has a time immemorial tradition of conservation which is reflected in the areas maintained by local communities as part of their sustainable lifestyle practices. Recognising such areas as OECMs offers a significant opportunity to identify and report effective long- term conservation that is taking place outside the protected area network, under a range of management arrangements, implemented by a diverse set of actors, including local communities, the private sector, government agencies and shared governance measures.

The OECM mechanism will provide ample opportunity to promote biodiversity conservation in India, can complement existing protected areas across landscapes and seascapes, and contribute to achieving ambitious conservation and climate targets.

Benefits of OECMs

OECMs have the potential to contribute to ecologically representative and well-connected conservation systems, integrated within wider landscapes and seascapes, and in doing so, generate a range of benefits, such as:



Conserving important ecosystems, habitats and wildlife corridors



Restoration of degraded agricultural, forest and pasture lands



Supporting the recovery of threatened species



Maintaining ecosystem functions and securing ecosystem services such as



Rejuvenation of springs and water bodies, aquifers, and improving ground water table



Conservation and promotion of agro-biodiversity leading to food and nutritional security



Enhancing resilience against threats



Retaining and connecting remnants of fragmented ecosystems within developed landscapes

OECMs gathering momentum in India

OECMs present an opportunity to expand India's network of conserved areas, operating cooperatively with protected areas. OECMs sustain both economies and ecologies, thereby ensuring that ecosystems thrive by protecting ecological components against overexploitation. Further, since OECMs are less restrictive than protected areas, the value acceptability of OECMs could be much higher with the stakeholders concerning economic interests, who oppose more exclusive conservation efforts.

A wide range of sites in India have the potential to be recognised as OECMs, which can be government managed, community managed, privately managed, and co-managed. Based on a number of ecological and social characteristics, the Government of India with support from the United Nations Development Programme (UNDP) has developed a 14-category classification organised into 3 major sub-groups- terrestrial, waterbodies, and marine. The 14 categories cover the whole spectrum of potential OECMs in India including unique agricultural systems, biodiversity parks, industrial estates, lakes & ponds, riverine water bodies, important coastal biodiversity areas, etc.

Further, there is an urgent need to raise awareness about the opportunities of OECMs as a tool for recognising diverse management strategies that result in conservation outcomes in India. It is important to appropriately recognize and report the OECMs in meaningful categories. As India has almost exhausted the PA categories, these conservation areas may be explored for achieving global priorities and national targets on biodiversity conservation.

The Ministry of Environment, Forest and Climate Change (MoEFCC), National Biodiversity Authority of India (NBA) and UNDP along with other partners are engaged in the process of identifying, mapping and documenting OECMs in India. As the Government of India looks forward to expanding the country's conservation estate through the OECM route, this is an opportune time to tap this conservation mechanism by identifying and mapping large numbers of OECM sites in the country.



2.The OECMs Route in India

India is one of the 17 mega diverse countries in the world, with over 47,000 species of flora and 1,00,000 species of fauna. The country's economy and the livelihoods of millions of people are dependent on the conservation and sustainable use of these biological resources. India is committed towards achieving global priorities and national targets that aim to expand and effectively conserve areas of significance to biodiversity, such as the National Biodiversity Target 6, Aichi Biodiversity Target 11, and Target 3 of the forthcoming Post-2020 Global Biodiversity Framework. Besides state-driven conservation in the form of legally designated protected areas, people's strong belief in protecting trees, animals, their habitats and associated religious and cultural traditions have prompted the adoption of conservation models led by communities and traditional institutions.

Considering the importance of OECMs, as a first step towards identifying OECMs in India, in January 2019, the MoEFCC, with the support of UNDP, organised a sensitisation workshop inviting a range of reputed organisations and experts.

In continuation, the MoEFCC organised a meeting in January 2020 to discuss the possibilities of various landscapes/ conservation areas to report as OECMs, which may help in achieving the global and national targets. In pursuance to the decision taken during this meeting, a Small Group of nine members was created in June 2020 by MoEFCC to develop Criteria and Guidelines for identifying OECMs in India. The Small Group met several times and evolved a country specific methodology for identification of OECMs based on the guidance provided by IUCN. Initially the group started screening all OECM categories and found 51 such potential categories. Subsequently, after reviewing these 51 categories of OECMs, the Small Group finalised 12 broad categories of OECMs to be reported in the country, and submitted a report to the MoEFCC in September 2020.

In a bid to accelerate the identification, mapping and reporting of OECMs to the UN Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC) database on OECMs, a Working Group was constituted in October 2020, headed by the Chairperson, NBA. Subsequently, representative organisations from the Small Group were engaged to identify and share information on potential OECMs to UNDP.

To aid the reporting process, a tutorial was conducted with a representative from UNEP-WCMC on the World Database on Protected Areas (WDPA) manual for reporting OECMs, following which, a reporting template and an assessment form was prepared and circulated by the UNDP. Post-screening of the potential cases, an official letter was issued by the NBA to the stakeholders for obtaining additional information and consent for sharing information with the UNEP-WCMC. Finally, the UNDP team supported and coordinated with the lead agencies and stakeholders to collate the information and document the potential OECMs, many of which were identified through UNDP's existing database of nature-based solutions and India Biodiversity Awards. By December 2020, 19 cases were submitted to UNEP-WCMC as potential OECMs.

In a further development, India recognized all its Reserved Forests under the protected area network, thereby achieving the Aichi Biodiversity Target 11. Consequentially, two of the OECM categories identified by the small group, namely 'unclassified forests' and 'deemed forests', were withdrawn from the list to avoid double counting.

Further, a series of brainstorming sessions with experts were conducted by the NBA with support from UNDP during July-October 2021 to further refine the classification for identifying OECMs in the coastal and marine areas of India. Based on the inputs received from domain experts including the National Centre for Sustainable Coastal Management (NCSCM), three categories were added to include potential marine and coastal OECMs as well.

Three follow up consultations were convened in October 2021 by the NBA and UNDP to further discuss the categories of potential OECMs in India. A critical outcome of these meetings was the recalibration of the classification of the potential OECMs into 3 major groups- Terrestrial, Waterbodies and Marine which were further classified into various categories. Further, the categories 'private forests' and 'private sanctuaries' were merged to avoid the possibility of overlap.

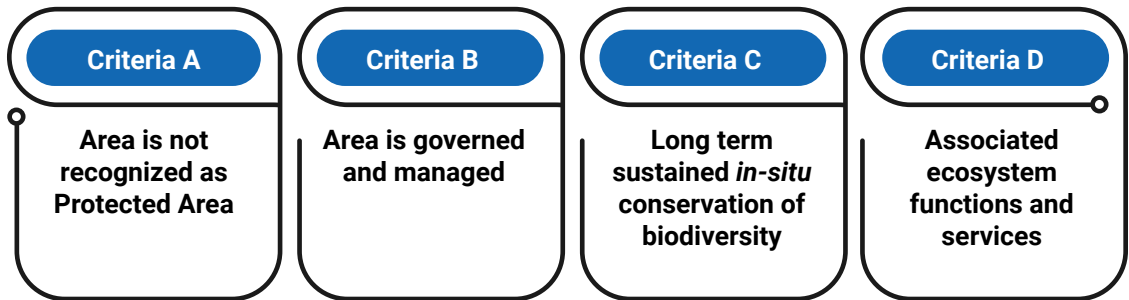
A final meeting under the chairpersonship of Advisor, CS III Division, MoEFCC was convened on 28 February 2022, during which the categories were reviewed and finalised. Thus, as of April 2022, there are 14 OECM categories in India.





3.Mandatory General Criteria

Four General Criteria have been adopted from IUCN guidelines (IUCN-WCPA Task Force on OECMs, 2019), which will be applicable for the basic identification of potential OECMs in India. Once confirmed, the potential site will be assessed based on the specific criteria developed for each of the 14 categories.



Criteria A: Area is not recognized as Protected Area

This is the first criteria, essential to qualify an area as OECM. An area may be declared as OECM, that has not been recognized as PA in any of the six categories of IUCN. Areas included in PAs in India are as per 6 IUCN categories; National Parks, Wildlife Sanctuaries, Conservation Reserves, Community Reserves, as per Wildlife (Protection) Act, 1972; Reserve Forests, Protected Forests and Village Forests as per Indian Forest Act, 1927; Lakes and Water Bodies as per Wetland (Conservation and Management) Rules, 2017; Biodiversity Heritage Site as per Biological Diversity Act, 2002; should not be included in OECM. The notification/ records of the area may be cross-checked while identifying the area as OECM in ground.



Criteria B: Area is governed and managed

There are three elements in this criterion:

i) Geographically defined space: The area should have been clearly demarcated on the ground and geographically defined in the landscape with proper boundary and coordinates (Notification/ Revenue records, maps etc. may be checked for verification).

ii) Some level of governance: The area should have some level of governance. Governance implies that the area is under the authority of a specified entity or an agreed upon combination of entities. Governance may be by Government, by private, by indigenous/ local communities, or under shared governance, which may be supported through government rules/ acts to ensure long term sustenance of biodiversity. Area should be regulated through the Govt. rules/ Acts or traditional/ customary rules to ensure long term sustenance of biodiversity. Tenurial and ownership status should be unambiguous. The reporting of OECM must require a Prior Informed Consent (PIC) from the governance authority/ owner (Annexure - IV) (Government rules/ customary laws may be checked for verification).

iii) Management of the area: The area should be managed by some authority in a way that it achieves positive and sustained long term biodiversity conservation outcomes. Management of the area should not be temporary or short-term, but it should be managed long term over generations. An area where there is no management regime will not be an OECM, even though its biodiversity may remain intact. For example, unmanaged areas of the high seas, areas under military conflict, and other areas currently in a natural or near-natural state should not be considered as OECMs in the absence of a management regime that provides effective and enduring in-situ biodiversity conservation. Management regimes can include deliberate decisions to leave the area untouched (IUCN-WCPA Task Force on OECMs, 2019) (e.g., Management Plan/ Operational Plan).

Criteria C: Long term sustained in-situ conservation of biodiversity

OECMs should be effective at delivering positive and sustained outcomes for the *in-situ* conservation of biodiversity, which may be validated through Management Plan/ research papers/ field visits.

The CBD defines *in-situ* conservation, with respect to biodiversity, as:

The conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties (CBD Article 2).

The key points to follow related to this criterion:

- a) The proposed area should primarily support native species. Areas with monoculture plantations, dominated with exotic biodiversity should not be considered as OECM.
- b) OECMs are expected to achieve the conservation of nature, rather than only selected elements of biodiversity.
- c) Management of OECMs should be consistent with an ecosystem and precautionary approach, with the ability to adapt to maintain biodiversity outcomes in the long-term and to address potential new threats.

- d) OECMs should effectively protect one or more elements of native biodiversity, such as, rare, threatened or endangered species and habitats; representative natural ecosystems; areas with a high level of ecological integrity; range-restricted species and ecosystems; important species aggregations, including during migration, spawning, feeding, resting, moulting and breeding; areas of importance for ecological connectivity or that are important to complete a conservation network within a landscape or seascape; areas that provide critical ecosystem services, such as clean water and carbon storage, species and habitats that are important for traditional human uses, such as native medicinal plants.
- e) An intensively managed farm with a small proportion of the original native plants and birds will likely not be an OECM.
- f) Short-term or temporary management strategies do not constitute an OECM. For example, a commercial fishing closure that stays in place only until an overfished area recovers, will not be an OECM.
- g) Environmentally damaging industrial activities and infrastructure development should not occur in OECMs. For example, dams, roads and pipelines etc.



Criteria D: Associated ecosystem functions and services

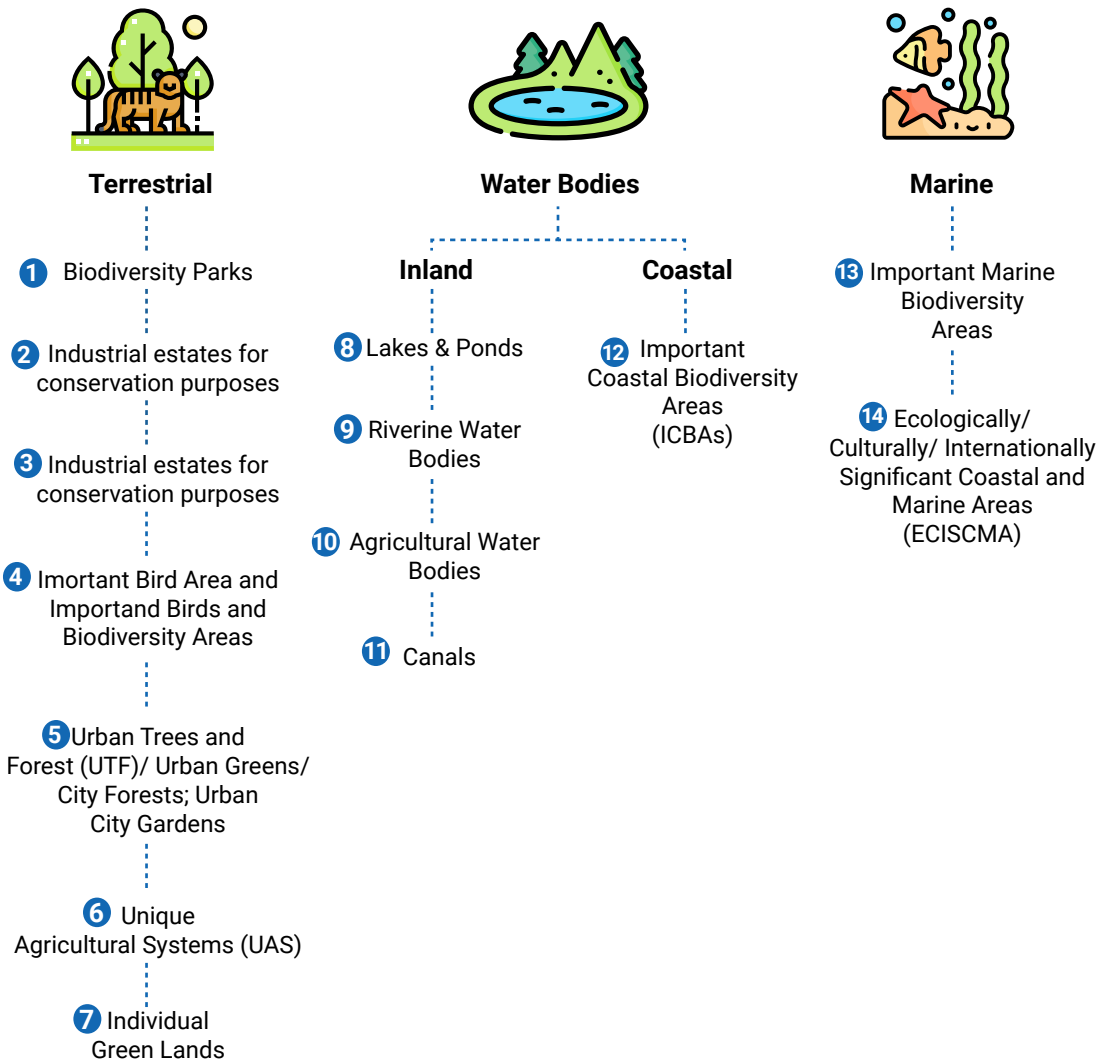
The proposed OECM should provide ecosystem functions and services. Ecosystem functions include biological, geochemical and physical processes that take place or occur within an ecosystem. Ecosystem services include provisioning services such as food and water; regulating services such as regulation of floods, drought, land degradation and disease; and supporting services such as soil formation and nutrient recycling. OECMs include areas where the protection of key species and habitats and management of biodiversity may be achieved as part of cultural, spiritual, socio-economic, and other locally relevant values and practices, which may be verified through field visits, meeting with local authorities, discussion with communities.

This criterion is an important tool to screen the OECM. However, the management to enhance ecosystem services and cultural values should not impact negatively on the site's overall biodiversity conservation values.



4. Categories and Specific Criteria

In addition to the four mandatory general criteria and guidelines described earlier, following are the specific criteria and guidelines for the 14 OECM categories:



(i) Terrestrial Categories

There are seven categories under the terrestrial categories group, recognising the conservation efforts of a variety of stakeholders across landscapes and management arrangements.



1. Biodiversity Parks

Biodiversity Parks are unique landscapes in urban and rural areas, that serve as nature reserves and harbour a vast variety of native plants, animals and microbial species rendering ecological services to the region.

Biodiversity Parks support the natural heritage of an area and have conservation, educational and cultural values and enhance the quality of environment in urban centres. They can serve as nature reserves, promote conservation, create livelihoods for local communities, act as a sink for carbon dioxide and other pollutants.

Specific guidelines:

1. The biodiversity park should have owned/ governed/ managed by a local body.
2. Only those Biodiversity Parks existing outside forest areas mapped by Forest Survey of India (FSI) or PAs (National Parks, Wildlife Sanctuaries, Reserved forests, etc.) can qualify as OECMs.
3. The biodiversity park should serve as sites for ecosystem restoration and should not have a pre-dominance of exotic species
4. The biodiversity park should have been managed for long duration for delivering effective *in-situ* conservation of biodiversity.

2. Industrial Estates for Conservation Purposes

Green belts are areas where vegetation is maintained to function as pollutant sinks, and provide other benefits like aesthetic improvement and providing possible habitats for birds and animals, thus recreating hospitable nature in an otherwise drab Urban-Industrial scene.

Specific guidelines:

1. The site should be privately owned/ leased Industrial estates
2. Industrial estates located outside forest areas mapped by FSI can only qualify as OECMs.
3. The area should be substantial to support habitat conservation of any major species (e.g., native species, Rare, Endangered and Threatened Species, etc.), as per approved conservation plan.
4. Comprehensive Environmental management plan should exist for management of operations and activities, and also covering biodiversity management.



Potential cases identified and mapped:

Godrej's Pirojshanagar Mangroves, Godrej & Boyce Manufacturing Company Limited, Maharashtra

Godrej mangroves are located on Western bank of Thane creek adjoining suburbs of Ghatkopar, Vikhroli and Kanjurmarg. The 1,698 hectare Godrej Industrial Garden Township hosts approximately 1,228 hectares of mangrove forest and 47 hectares of open forest together constituting 75 percent of the Township area. Godrej Construction, a Business Unit of Godrej & Boyce Mfg. Co Ltd has formed a dedicated Wetland Management Services (WMS) for conservation of mangroves. WMS is responsible for conserving mangroves and is supported by other departments like Environmental Engineering Services, Horticulture Management Services, etc. for various management activities. Godrej mangroves are managed on a three-pronged approach of Research, Conservation and Awareness.



Coromandel Bird Paradise, Coromandel International Limited, Andhra Pradesh

Coromandel International Limited, one of the largest manufacturers of complex fertilizers in Andhra Pradesh, has maintained this wetland in one of its manufacturing units. The area has transformed into a thriving bird habitat for resident as well as migratory birds from across the globe. The conservation initiatives gathered momentum following the Philin and Hudhud cyclones, in 2013 and 2014 respectively, which severely affected the bird population and the habitat. With the support of The East Godavari River Estuarine Ecosystem (EGREE) Foundation, they commenced wetland conservation initiatives. The management, monitoring and evaluation of Biodiversity Conservation is carried out by a Biodiversity Management Committee (BMC) established by Coromandel International Limited. A green belt has been constructed over an area of 1.2 square kilometre (sq. km.) which serves as a nesting and breeding site for the birds. Shelters mimicking natural habitats have been created for birds. Round the clock security has been established to monitor poaching activities. Awareness programmes are conducted regularly for communities and corporates, highlighting the need for conservation of birds and their habitats through street plays, video shows, development of knowledge products, and exposure visits. Nearly 97 bird species have been identified and recorded so far out of which 24 are migratory including the black-tailed godwit and curlew sandpiper.



A green belt has been constructed over an area of 1.2 sq.km which serves as a nesting and breeding site for the birds. Nearly 97 bird species have been identified and recorded so far out of which 24 are migratory including the black-tailed godwit and curlew sandpiper.

TVS Motor Company Nature Conservation Reserve, Tamil Nadu

Located in Hossur Campus of TVS Motor Company Limited, an Indian multinational motorcycle company. Of the total campus area, 0.198 sq.km has been allocated for maintaining the green cover and conservation of native biodiversity. An ecosystem of its own, the forests harbour a total of 288 faunal and 442 floral species. They have a dedicated team of conservations horticulturists, naturalists and forest officials who make decisions related to biodiversity conservation and restoration. In addition, they are advised by the Bombay Natural History Society on their conservation initiatives. As part of the Farming for wildlife programme, millets of various species such as pearl millet and sorghum (as well as maize) are sown in areas within the campus to create a field-like profile. This has seed-eating birds in large numbers. They have also worked towards construction of percolation ponds, streams, stone shelters and nesting platforms to attract and retain wildlife. Species include the rare slender loris, Indian grey pangolin, the big-4 snakes of India, painted stork and several species of butterflies and other invertebrates.



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3. Village Commons/ Lands

Common lands are natural and/or modified ecosystems containing significant biodiversity values, ecological services and cultural values, are conserved by local communities, both sedentary and mobile, through customary laws or other effective means.

Specific guidelines:

1. Forested community lands cannot not qualify as OECMs as forested areas outside of private ownership are considered state owned, and therefore, documented in the WDPA as PAs.
2. Village areas clearly demarcated and governed by traditional laws and regulations including long term sustenance of biodiversity. Often unwritten long term in-situ conservation values will be determined by the extent of the area under each village, sustenance use could be done from these areas.

Potential case identified:

Kibber Village Reserves, Himachal Pradesh

Kibber village is located in the trans-Himalayan landscape of Himachal Pradesh in Spiti. It is an important snow leopard landscape. It was initiated in 1998 with community's consent and a written agreement, which is renewed every five years. The objective of the reserve is to keep it free from livestock grazing and secure this area for wildlife. Decision making entirely remains with the village council, which is represented by the reserve committee. Any suggestions pertaining governance are recorded through regular meetings. A reserve guard has been appointed from within the village, by the community, to monitor and guard this area.

The region is also crucial for high altitude flora and fauna. This reserve falls in the trans-Himalayan, high altitude landscape where the snow leopard is the apex predator. This region has recorded abundance in the blue sheep/ bharal population since the establishment of the reserve.

4. Important Bird Area and Important Bird and Biodiversity Areas

The IBAs serve as conservation areas for protection of birds at the global, regional or sub-regional level. According to Birdlife International, designation of IBAs is based on standardized criteria, namely

- i. Hold significant numbers of one or more globally threatened bird species,
- ii. Be one of a set of sites that together hold a suite of restricted-range species or biome-restricted species and
- iii. Have exceptionally large numbers of migratory or congregatory birds.

The IBAs contain a range of habitats, such as waterbodies, mudflats, microhabitats in biodiversity hotspots, grasslands, scrublands and forests making them excellent indicators of biodiversity richness (India's 5th National Report to the Convention on Biological Diversity, 2014). To define Important Bird Areas, global standards and guidelines needs to be followed.

Specific guidelines:

1. IBAs existing outside forest areas mapped by FSI or PAs (National Parks, Wildlife Sanctuaries, Reserved forests, etc.) can only qualify as OECMs.



The Important Bird Areas contain a range of habitats, serving as conservation areas for native and global birds.

Potential cases identified and mapped:

Kadwa Kosi Floodplains, Bihar

A small breeding population of the Greater Adjutant Stork was discovered by a team of bird watchers of the local Mandar Nature Club in the Bhagalpur district on the floodplains of river Ganges and Kosi. The population seems to be increasing every year in different hamlets (tola) of Kadwa and Khairpur Panchayat (Naugachhia Block) of Bhagalpur District, located on the floodplains of river Kosi, popularly known as Kadwa-Kosi floodplains. These floodplains are a 16 km² community conserved area that function as a breeding and foraging ground for the greater adjutant stork and many other birds. Mandar Nature Club, a local conservation group, is involved in sensitisation and motivation of local communities for protection of the area, resulting in a steady increase in their numbers, that have been recorded as 75-80 in 2006-07, 155-160 in 2007-08, over 300 in 2010-11 and over 750 in 2018-19.



The Kadwa Kosi Floodplains serve as a breeding and foraging ground for the Greater Adjutant Stork

Jagatpur Lake, Bihar

The Jagatpur waterbody is of utmost importance in terms of bird and wildlife conservation. It supports many threatened species, such as the greater adjutant stork (*Leptoptilos dubius*) (endangered); pallas's fish-eagle (*Haliaeetus eucoryphus*), lesser adjutant (*Leptoptilos javanicus*), common pochard (*Aythya ferina*) (Vulnerable); and oriental darter (*Anhinga melanogaster*), black-necked stork (*Ephippiorhynchus asiaticus*), black-headed ibis (*Threskiornis melanocephalus*), ferruginous duck (*Aythya nyroca*), black-tailed godwit (*Limosa limosa*) (Near threatened).

The waterbody and surrounding lake, besides moderating floods, also work as an important link and corridor for birds and other wild fauna in between different landforms. The trees and crop fields around provide breeding, foraging and roosting ground to many aquatic and terrestrial species.

While the site is protected by the local community, the local NGO Mandar Nature Club and the forest department facilitate its conservation and management. The area is governed by local communities. Recently the Eco-Development Committee (EDC) has been constituted in the Panchayat by the Forest Department to share the responsibilities of protection of birds and their habitat along with other biodiversity of the area.



The Jagatpur Lake area is protected by the local community with management support of the local NGO Mandar Nature Club and the forest department.

5. Urban Trees and Forests (UTF)/ Urban Greens/ City Forest, Urban/ City Gardens

Networks or systems comprising all woodlands, groups of trees and individual trees located in urban and peri-urban areas outside forest areas. These include trees outside the forest, forests, street trees, trees in parks and gardens, and trees in derelict corners. They provide economic, environmental and sociocultural benefits (Source: FAO).

Specific guidelines:

1. Urban Trees and Forests (UTF)/ Urban Greens/ City Forest, Urban/ City Gardens located outside forest areas mapped by FSI can only qualify as OECMs.
2. Area should be substantial to support habitat conservation of native species, as per approved management plan.
3. Remarks: The urban green areas should be managed by the urban local body and be integrated in the city master plan.



6. Unique Agricultural Systems (UAS)

Unique Agricultural Systems (UAS) can be defined as unique land use systems and landscapes which are rich in indigenously significant biological diversity evolving from the co-adaptation of communities with its environment and needs, resulting in food and livelihood security and sustainable development of the region.

The system should support a rich agro-biodiversity and genetic resources for food and agriculture (e.g., endemic, domesticated, rare, endangered species of crops and animals) and not harbour invasive species. UAS should not have intensive agriculture activities.

Specific guidelines:

1. UAS should not have land-use changes over a period of time.
2. UAS should have evolved over generations through the integration of food production, environment protection and culture.
3. Established MoUs with communities to ensure no land-use change and commercial crop cultivation for a long time period.
4. The UAS should include only those sites that are not designated as Biodiversity Heritage sites under the Biological Diversity Act, 2002



Potential cases identified and mapped:

Zabo Farming System, Nagaland

The Zabo system of farming is practiced by the farmers of Chakhesang tribe of Kikruma village, in Phek district in Nagaland. The term Zabo is derived from the word zabö, which means 'impounding runoff water', in the Chokri dialect of Nagaland. Even though the Kikruma region received enough rainfall, water scarcity persisted due to surface runoff. This motivated the communities to develop an elaborate water harvesting arrangement called Zabo. This system has an inbuilt water harvesting and recycling systems with well-founded conservation base to control soil erosion and maintain soil fertility. Zabo is also known as Dzüdüor Ruza system in other parts of the region. It is a combination of forestry, horticulture, agriculture, fishery and animal husbandry. This integration of different enterprises enhances the overall income of farmers and the production of crops.



The Zabo farming system is employed in Nagaland to control soil erosion and maintain soil fertility.

Apatani Landscape, Arunachal Pradesh

The Apatani landscape represents an agrosystem collectively practised by the Apatani tribe in the Ziro valley of Arunachal Pradesh. The Apatani in the Ziro valley have developed systematic land-use practices based on rich traditional ecological knowledge, which has been acquired over centuries of managing their natural resources, including their agricultural lands. Such agricultural landscapes which are developed over centuries, combine rich biological diversity with human ingenuity to provide local livelihoods and nutrition.

Almost everyone in the Ziro Valley has agricultural landholdings, where the Apatani practice the unique paddy-cum-pisciculture, comprising a composite of rice cultivation along with fish culture. The agro-ecosystem of the Apatani provides for the *in-situ* conservation of sixteen traditional paddy varieties of unique grain characteristics and nutrition value. These varieties of grains are passed on from one generation to the next and are cultivated as per the local customary laws and traditional practices.



The Apatani in the Ziro valley have developed systematic land-use practices based on rich traditional ecological knowledge

Saffron Heritage System, Kashmir

Saffron Heritage system is characterised by rich agricultural biodiversity which contributes to livelihood security, adds to the nutrition value and provides for conservation of the endemic saffron variety. Saffron is generally followed with linseed/oats/wheat under crop rotation. In some villages, rajma/ lentil and fruit crops are also being cultivated. Sheep and goats are bred within this agricultural system providing a source of manure for the soil, thus improving soil quality. Rural Kashmiri women also contribute to this agriculture heritage site through traditional tilling and flower picking. Given the rich cultural values associated with the age-old cultivation practices of the crop in the region, the area has been designated as one of the Globally Important Agricultural Heritage Systems (GIAHS) by Food and Agriculture Organization (FAO) in 2011 and is referred to as the 'Saffron Heritage of Kashmir, India'.



The Saffron Heritage System is characterised by rich agricultural biodiversity which contributes to livelihood and nutrition security

7. Individual Green Lands

Individual Green Lands refers to those areas which are not the property of the Government or over which the Government has no proprietary rights. The land rights of Individual green lands are owned by an individual. The area is offered protection from exploitative activities like hunting, logging, etc.

Specific guidelines:

1. Area should be owned and managed by private individuals
2. Individual Green Lands that do not fall under, lie adjacent to or is contiguous with Protected areas such as National Parks, Wildlife Sanctuaries, etc., or forest areas mapped by FSI can only qualify as OECMs
3. Since there are no legal restrictions, an alternate mechanism for long term sustenance of biodiversity should be ensured.
4. The area should be managed as per management plan with the primary objective of biodiversity conservation



Potential cases identified and mapped:

Gadoli and Manda Khal Fee Simple Estates, Uttarakhand

The Gadoli and Manda Khal Fee Simple Estates are located in the district of Uttarakhand, at an elevation of 1400m to 2100m above sea level. Lying within the biodiversity hotspot and endemic bird area of the western Himalayas, the forests are ecologically significant. The temperate forests of these estates include coniferous, broadleaved evergreen, broadleaved deciduous and mixed forest types along with temperate grasslands. The forests and their micro-catchments, from which eight Himalayan freshwater springs originate, are an important part of the micro-watershed of the Nayyar river, which is the major river system of the Pauri Garhwal district of the Garhwal Himalaya. These eight perennial springs provide clean water for drinking and agriculture to local villages on the periphery of the estates. The Gadoli and Manda Khal Fee Simple Estates are privately owned by the heirs of Reverend David Albert Chowfin; the joint – owners Mrs. Christine M. Chowfin and Mr. Subir Mario Chowfin, established The Gadoli and Manda Khal Wildlife Conservation Trust in 2010 with the primary objective to conserve and restore wild flora and fauna and their habitats.



Local community members at Jabarkhet Nature Reserve, Dehradun have been trained and involved in management and monitoring activities

Save Animals Initiative, Karnataka

This private initiative is located in the Western Ghats of southern India—the heart of the watershed area for the entire south Indian peninsula, and one of the ‘Hot Spots’ of biodiversity in the world. Established in 1992 by private individuals with the primary objective of protecting the biodiversity found within the area, it houses a rich variety of indigenous floral and faunal species. This private initiative has added an additional 1.2 km² of forest buffer area to the bordering Brahmagiri Wildlife Sanctuary. Home to more than 100 tree species, 104 butterfly species, over 110 bird species, and 43 snake species of snakes including the big four snakes of India. The rewilding also saw the return of the Eurasian River Otter after hundred years.

Jabarkhet Nature Reserve, Dehradun

It is a green stretch owned by an individual family, and has been with his family for over 90 years. Until 2012, trees in the Jabarkhet forest area were being lopped, felled and illegal logging and hunting activities were prevalent. Thus, the Jabarkhet Nature Reserve was established in 2015 to protect and restore the forest and its wildlife while also creating local livelihoods through eco-tourism and promoting conservation awareness. It acts as a corridor and connects various forest patches along the rivers originating in the middle Himalayas. Three waterholes have been developed to augment the water supply for wildlife. 800 kgs of waste removed. Local community members have been trained and are involved in management and monitoring activities.

(ii) Waterbody Categories

Waterbodies under this group include areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters.

For the ease of understanding, this group of potential categories is further subdivided into inland and coastal waterbodies.



Inland Waterbodies

Four potential OECMs categories have been identified under inland waterbodies subgroup, namely, lakes and ponds, riverine waterbodies, artificial waterbodies, and canals.

8. Lakes and Ponds

Bodies of standing water occupying distinct basins. These waterbodies occur in natural depressions and normally fed by streams/rivers. Both natural and artificial lakes/ponds can qualify as potential OECMs. Glaciers will also be included in this category.

Specific guidelines:

1. Only waterbodies existing outside forest areas mapped by FSI or Pas (National Parks, Wildlife Sanctuaries, Reserved forests, etc.) can qualify as OECMs.
2. The waterbody is either primarily managed for biodiversity conservation, or for water resource management, and such management delivers effective ancillary conservation due to restricted access leading to effective protection of habitats and species.
3. The waterbody is known for its biodiversity values for providing habitat - including special habitats (such as, breeding grounds) to threatened, and or endemic flora and fauna; stopover of migratory birds; fish breeding grounds etc.
4. There are sufficient management provisions and safeguards to ensure that structure of waterbody would be maintained for achieving its primary objective, and use of the waterbody would not be changed in the near future.

Potential cases identified:

Lake Pichola, Udaipur, Rajasthan

9. Riverine Waterbodies

Riverine waterbodies are those systems that are contained within a channel (e.g. river, creek, waterway, rivulets or springs) and their associated streamside vegetation. They can be natural or artificial and may connect to lacustrine, palustrine, estuarine and marine waterbodies.

Specific guidelines:

1. Only waterbodies existing outside forest areas mapped by FSI or PAs (National Parks, Wildlife Sanctuaries, Reserved forests, etc.) can qualify as OECMs.
2. The waterbody is either primarily managed for biodiversity conservation, or for water resource management, and such management delivers effective ancillary conservation due to restricted access leading to effective protection of habitats and species.
3. The waterbody is known for its biodiversity values for providing habitat - including special habitats (such as, breeding grounds) to threatened, and or endemic flora and fauna; stopover of migratory birds; fish breeding grounds etc.
4. There are sufficient management provisions and safeguards to ensure that structure of waterbody would be maintained for achieving its primary objective, and use of the waterbody would not be changed in the near future.



10. Artificial Waterbodies

An artificial waterbody is a body of surface water created by human activity. Although their primary objective is water resource management, they also provide habitat to many fish, birds, aquatic mammals, and reptile species.

This category will include all artificial waterbodies apart from canals, including dams and reservoirs that are not included under the Wetland Rules.

Specific guidelines:

1. Only artificial waterbodies existing outside forest areas mapped by FSI or PAs (National Parks, Wildlife Sanctuaries, Reserved forests, etc.) can qualify as OECMs.
2. The artificial waterbody management delivers effective biodiversity conservation, even if as an ancillary function, leading to effective protection of habitats and species.

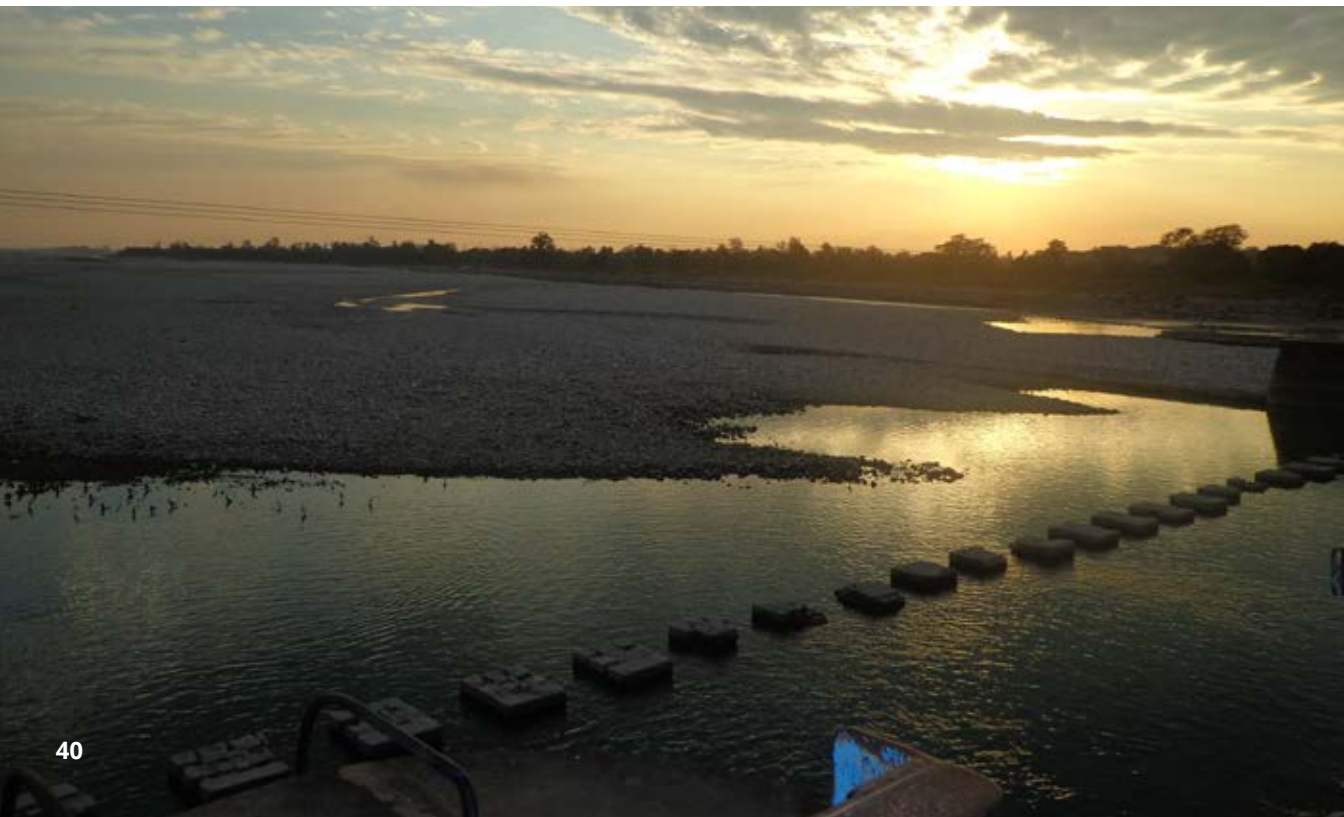


11. Canals

Canals are long channels of water used for irrigation or transportation to a bigger body of water. They can be natural as well as artificial. Larger canals have the land on either side owned by irrigation departments. They are linear but can harbour significant biodiversity. The availability of water and biodiversity make as potential OECM.

Specific guidelines:

1. Only those canals existing outside forest areas mapped by FSI or PAs (National Parks, Wildlife Sanctuaries, Reserved forests, etc.) can qualify as OECMs.
2. The canal management delivers effective biodiversity conservation, even if as an ancillary function, leading to effective protection of habitats and species.
3. Only those canals which are not in use for the purpose of transportation qualify as OECMs.
4. The canal must not be contributing to environment harming activities.





Indicative List of Potential OECMs identified under the category 'Artificial Waterbodies'

Name	States	Location	Indicative Area
Indira Gandhi Canal	Punjab, Haryana, and Rajasthan	This canal originates from Harike Barrage at Firozpur and spans three states including Punjab, Haryana, and Rajasthan. The canal terminates in the irrigation facilities in the Thar Desert in the north-west of Rajasthan.	Main canal: 47.5 sq km Total: 462.25 sq km
Narmada Canal	Gujarat and Rajasthan	The origin of this canal is Sardar Sarovar Dam, Navgam in Gujarat, and spans the states of Gujarat and Rajasthan.	26.7 sq km
Kakatiya Canal ¹	Telangana	The origin of this canal is Sriram Sagar Reservoir (Dam) and irrigates major cities in the state of Telangana.	14.2 sq km

¹Management Authority - Central Water Commission, Ministry of Jal Shakti

Length	Important Attributes	Conservation Potential and Wildlife Values
<p>Length of main canal is 950 km</p> <p>The total length of the canal including the main canal, feeder canal, and distributary canal is 9245 Km making it the largest canal project in India.</p>	<p>It is one of the longest canals in India. The average discharge of the canal is 138 cubic meters per sec which make this canal also one of the largest flow rate canals of India. This canal has turned the barren lands of thar desert into lush green fields. The cities like Bikaner, Barmer, Jaisalmer of Rajasthan are the most gaining cities from this canal. The upper portion of this canal which lies mostly in Punjab is called as “Rajasthan Feeder”.</p>	<p>The Indira Gandhi Canal is a major step in reclaiming the Thar Desert and checking desertification of fertile areas. This consists of the planting of shelter belts and native species along the canal for sand dune stabilization.</p>
<p>It runs for 460 Kms in Gujarat and then 74 Kms in Rajasthan making a total length of 534 Km.</p>	<p>Narmada canal is a major canal in the western part of India. It is mainly an irrigation-type canal and irrigates an area of 52,60,000 acres of western India. The width of this canal is 73 meters, and the depth is 7.6 meters. This canal has transformed the arid lands of the Gujarat Kutch region and adjacent dry areas of the Jalore and Barmer districts of Rajasthan.</p>	<p>Solar panels are being installed along a 1 kilometre (0.62 mi) pilot project section of the Sanand Branch Canal near Chandrasan village to generate 1 megawatt (1,300 hp) of electricity. The panels are forecast to also reduce evaporation of water from the canal by 9,000,000 litres (2,000,000 imp gal; 2,400,000 US gal) per year.</p>
<p>The total length of this canal is 284 Km.</p>	<p>Kakatiya canal is an important canal of Telangana state. The origin of this canal is Sriram Sagar Reservoir (Dam) and it discharges/ empties into Lower Manair Dam. This canal irrigates and provides drinking water to many cities of North Telangana including Nizamabad, Warangal, Karimnagar, and Khammam.</p>	

Name	States	Location	Indicative Area
Sharda Canal ¹	Uttar Pradesh and Uttarakhand	This canal originates at Banbasa from the Sharda River near the India Nepal border, irrigating the states of Uttar Pradesh and Uttarakhand in India.	46.9 sq km
Agra Canal ¹	Uttar Pradesh	The Canal originates south of Delhi and spans the state of Uttar Pradesh.	11.5 sq km
National Waterway 3 ²	Kerala	The canal runs along the coast of Kerala.	10.25 sq km

¹Management Authority: Inland Waterways Authority of India, Ministry of Ports, Shipping and Waterways

Length	Important Attributes	Conservation Potential and Wildlife Values
The total length of this canal including all branches is 938 Km.	This canal originates at Banbasa from the Sharda River near the India Nepal border. This river is also known as Kali Ganga in Uttarakhand. Sharda Canal is the longest canal in Uttar Pradesh. This canal irrigates nearly 8 lakh hectares of land including the cities of Pilibhit, Bareilly, Shahjahanpur, Lakhimpur, Khiri, Lucknow, Sitapur, Pratapgarh, Unnao, Raebareilly, Barabanki, etc.	The river is proposed as a source in the Himalayan component of the Indian Rivers Inter-link project. The Indian Rivers Inter-link is a proposed project that aims to effectively manage water resources by linking Indian rivers by a network of reservoirs and canals to enhance irrigation and groundwater recharge, reduce persistent floods in some parts and water shortages in other parts of India.
The canal is 230 km in length	Agra canal originates from Okla barrage, 18 Km south of Delhi. It draws water from the right bank of the Yamuna River. Agra canal is responsible for the irrigation of nearly 1.5 lakh hectares of cultivated land of Agra, Mathura, Faridabad, Bharatpur.	
This canal is 205 Km in length running from north to south along coastal Kerala.	The North end of the West Coast Canal starts from Kottapuram and extends up to Kollam to its southern tip. West Coast canal is not like other traditional canals used for irrigation etc but basically, it is a waterway used for navigation purposes. These canals are also known as the backwaters of Kerala and have added significantly to the economy of Kerala by promoting tourism.	As an alternative mode of transport, the waterways help in dealing with Air pollution.

Name	States	Location	Indicative Area
Handri Neeva Canal Project ¹	Andhra Pradesh	The canal spans South Andhra Pradesh.	28.45 sq km
Sirhind Canal ¹	Punjab	This canal originates from the Sutlej River near Ropar city, Rupnagar district of Punjab. This canal is meant for irrigation of most of the Malwa region of Punjab.	2.97 sq km

Length	Important Attributes	Conservation Potential and Wildlife Values
The length of this canal is 569 Km.	This canal project is one of the longest canals of the Rayalseema (South Andhra Pradesh) region. This canal originates from Srisaillam reservoir and runs through four districts namely Anantpur Chittoor, Kadapa and Kurnool. This canal along with its course links a number of rivers of the Rayalseema region like Penna, Chitravati, Mandavya, Papagni, etc, and feeds numerous reservoirs along its course.	This canal is a multi-utility canal that is meant for irrigation, supplying drinking water, and removal of excess floodwater from srisaillam reservoir.
Main canal length is 59.44 km irrigates more than 5,200 square km (2,000 square miles) of farmland	Sirhind canal is basically an irrigation-type canal. Once the arid lands of Malwa have turned very fertile and cultivable due to the waters of this canal. The headstream of the canal splits into three sub-streams at Dohara, Ludhiana. These three sub-streams are the Bhatinda stream, Abohar stream, and Patiala stream. Abohar stream is 142 Km long and flows west to rejoin the Sutlej River near the Pakistan border. Bhatinda branch flows southwest towards Rajasthan and Patiala branch flows southeast towards Patiala.	The subdivides extensively irrigates a large swathe of the Malwa region of Punjab. Once a partially arid zone, this area is now extremely fertile due to the water distributed by the canal network.

Name	States	Location	Indicative Area
Western Yamuna Canal1	Uttarakhand, Punjab and Haryana	Western Yamuna Canal originates from the Hathnikund barrage near Dakpathar, Dehradun of Uttarakhand state, and irrigates the states of Punjab and Haryana.	Main canal: 4.3 sq km Total including branches: 16.25 sq km
Upper Ganges Canal1	Uttarakhand and Uttar Pradesh	The Upper Ganga canal originates from Bhimgoda Barrage, Har ki Pauri, Haridwar, and covers the state of Uttarakhand and Uttar Pradesh.	Main canal: 17.1 sq km Total length: 300 sq km
Lower Ganges Canal1	Uttar Pradesh	The Lower Ganges Canal spans Uttar Pradesh.	Main canal: 13.2 sq km Total length: 412 sq km

Length	Important Attributes	Conservation Potential and Wildlife Values
The length of the main canal is 86 Km and the total length including branches is 325 Km.	Tajewala barrage of Yamunanagar district, Haryana regulates and controls the flow of water to Western Yamuna Canal. Pathrala barrage, Somb river dam is constructed on this canal to harvest the water efficiently. Sirsa branch is one of the largest branches of this canal which was built in 1895. One of the branches of this canal feeds the Agra Canal near Okhla. This canal and its branches irrigate the vast expanse of Punjab and Haryana namely cities like Ambala, Karnal, Rohtak, Jind, Hisar, etc.	The Canal aids in conservation of water resources in domestic and irrigation use, maintaining minimum flow in the river Yamuna and controlling pollution discharges in the western Yamuna Canal.
The length of the main canal is 342 Km but with distributaries included the total length becomes about 6000 Km.	The cities which are most benefited from this canal are parts of western UP like Meerut, Saharanpur, Bulandshahar, Mathura, Farrukhabad, Aligarh, Kanpur, Etawah, etc. This canal irrigates an area of 9000 Square Km region of the Ganga Yamuna doab which is covered by nearly 10 districts of Uttar Pradesh.	
Main canal length is 264.7 km The Lower Ganga Canal, extending 8240 km with its branches, begins at Narora.		

Coastal Waterbodies

12. Important Coastal Biodiversity Areas (ICBAs)

ICBAs include interface or transition areas between land and sea that hold ecological value. The area can also be socio-economically important with significant ecosystem and cultural functions.

Specific guidelines:

1. Only those important coastal areas will qualify as OECMs which have not been mapped as forest areas by FSI and recognised as PAs.
2. The management of the area delivers effective biodiversity conservation, even if as an ancillary function, leading to effective protection of habitats and species.
3. Areas existing within Critically Vulnerable Coastal Areas (CVCAs) that do not fall under PA network or forests under FSI will qualify as OECMs under this category.
4. Examples: Mudbanks (Kerala), Varkala Cliff (Rocky cliffs of Kerala), Mudflat in Alia Bet (Gujarat), Turtle hatchery in Madhavpur (Gujarat).



(iii) Marine Categories

13. Important Marine Biodiversity Areas (IMBA)

Important Marine Biodiversity Areas (IMBAs) are defined as discrete portions of habitat, important to marine biodiversity, that have the potential to be delineated and managed for conservation.

IMBAs consist of areas that may merit place-based protection and/or monitoring. 'Important' in the context of the IMBA classification refers to any perceivable value, which extends to the marine species within the IMBA, to improve the conservation status of those species or populations of interest.

Specific Guidelines:

1. IMBA existing outside PAs (National Parks, Wildlife Sanctuaries, Reserved forests, etc.) qualify as OECMs.
2. IMBA existing outside 'Designated Area' for marine protection under the Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act (Maritime Zones Act), 1976 qualify as OECMs.
3. Important Marine Mammal Areas (IMMAs)⁴ or Important Bird Area (IBA) or Ecologically or Biologically Significant Areas (EBSA)⁵ that are outside 'Designated Area' (Maritime Zones Act), 1976 qualify as OECMs as IMBA.
4. IMBA should serve as site for marine biodiversity conservation reserve
5. IMBA should have been managed for long duration for delivering effective in-situ conservation of biodiversity and ecological services to the nation.
6. IMBA can cover marine islands and reefs.

Examples: Gulf of Kachchh, Sindhudurg-Karwar, Gulf of Mannar and Palk Bay, Sundarbans, Coastal Northern Bay of Bengal, South Andaman Islands, Lakshadweep Archipelago

⁴ Important Marine Mammal Areas (IMMAs) are defined as discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation. IMMAs are identified to prioritise their consideration for conservation measures by governments, intergovernmental organisations, conservation groups, and the general public. The IMMA Initiative is a major activity of the Marine Mammal Protected Areas Task Force, created in 2013 by the International Committee on Marine Mammal Protected Areas (ICMMPA), the International Union for Conservation of Nature's (IUCN) World Commission on Protected Areas (WCPA) Marine Vice Chair, and members of the IUCN Species Survival Commission (SSC).

⁵ <https://www.cbd.int/ebsa/about>

14. Ecologically/Culturally/Internationally Significant Coastal & Marine Areas (ECISMA)

ECISMAs are those coastal and marine areas which have been identified as aesthetic, historic, archeological, scientific, social or spiritual value for past, present or future generations. This will also include the submerged archeological heritage sites in the country.

Specific Guidelines:

1. Only those coastal and marine areas will qualify as OECMs which have not been recognized as PAs or forests
2. ECISMAs should have been managed for long duration for delivering effective in-situ conservation of biodiversity.

Examples: Poompuhar (ancient port in Tamil Nadu), St. Mary's island (Karnataka coast), submerged Dwarka



Sl. No	Indicative List of Potential OECMs identified under the category 'Important Coastal Biodiversity Areas (ICBAs)'	Remarks
1	Mandarmoni to Junput stretch, West Bengal	Home for the red crabs (red ghost crabs <i>Ocypode</i> sp.). Ground verification required to demarcate the extent.
2	Vellar Estuary, Tamil Nadu	The Upper Ganga canal originates from Bhimgoda Barrage, Har ki Pauri, Haridwar, and covers the state of Uttarakhand and Uttar Pradesh.

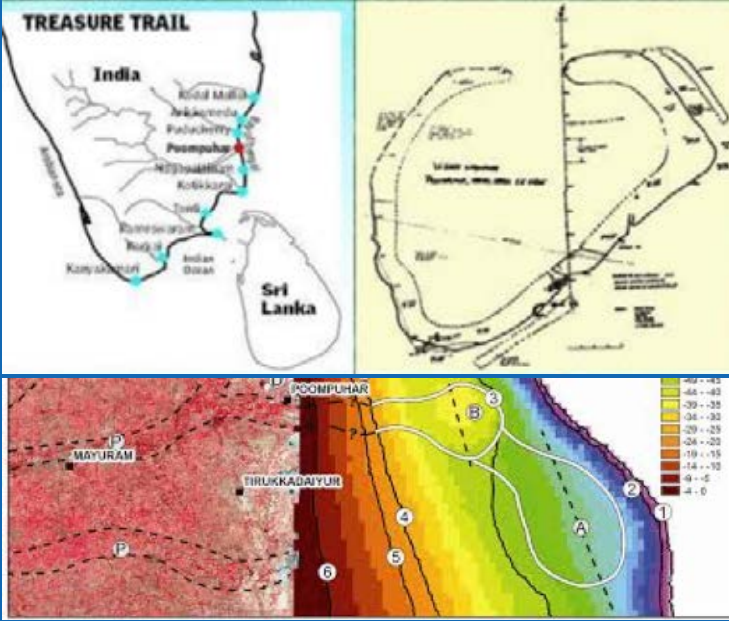
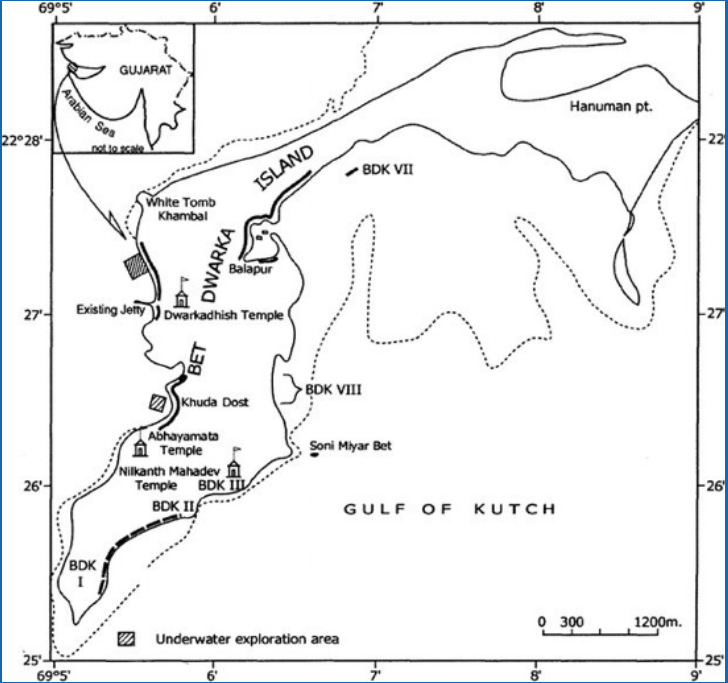


Sl. No	Indicative List of Potential OECMs identified within Critically Vulnerable Coastal Areas (CVCAs)	Remarks
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2 Vellar Estuary, Tamil Nadu

Coringa CVCA Area has been clearly demarcated by NCSCM. The maps have been integrated in the Coastal Zone Management Plan (CZMP) of Andhra Pradesh



Sl. No	Indicative List of Potential OECMs identified under the category 'Ecologically/Culturally Significant Coastal & Marine Areas (ECSCMA)'	Remarks
1	<p>Poompuhar, Tamil Nadu</p> 	<p>Malwan CVCA area has been clearly demarcated by NCSCM (contains 4 Resource Areas – RA). The maps have been integrated in the Coastal Zone Management Plan (CZMP) of Maharashtra</p>
2	<p>Beyt Dwaraka, Gujarat</p> 	<p>No clear demarcated boundary available. From secondary data it is understood that some underwater surveys were carried out on the north western side. NIO Goa had undertaken some surveys and should provide leads to demarcate the area. ASI is another agency that might have relevant information about the site</p>

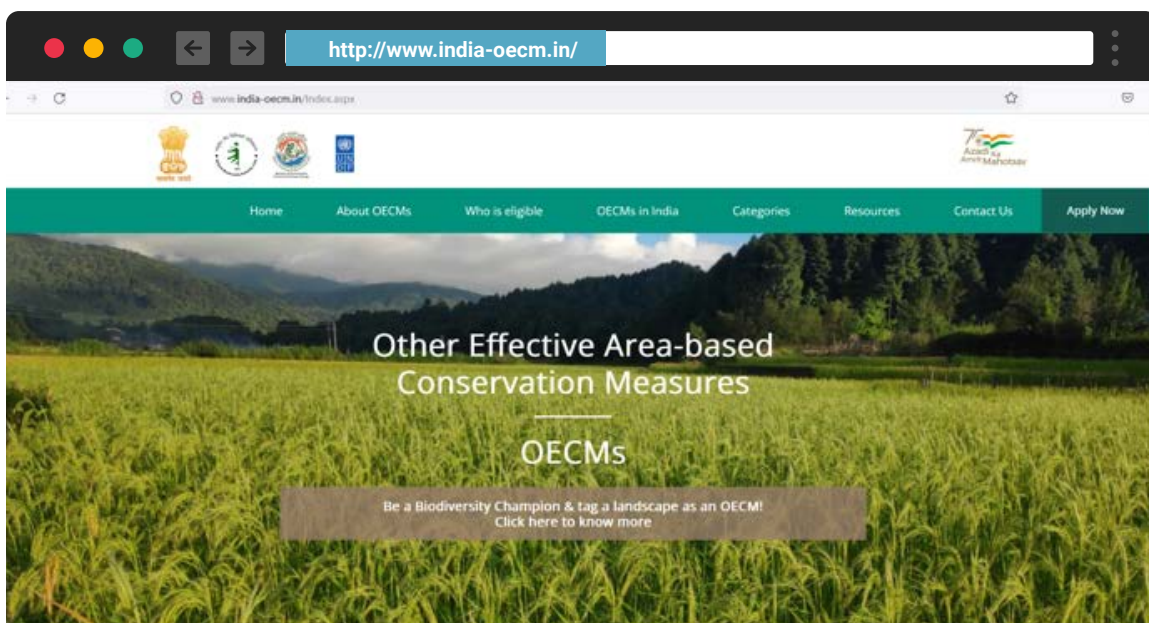
5. How to apply for tagging a site as an OECM in India

The MoEFCC, NBA and UNDP invite State Biodiversity Boards, central and state departments, bilateral and multilateral funding agencies, civil society organizations, defence establishments, industry, academic and research institutes, and local communities to share information on local conservation initiatives, which could be identified as potential OECMs.

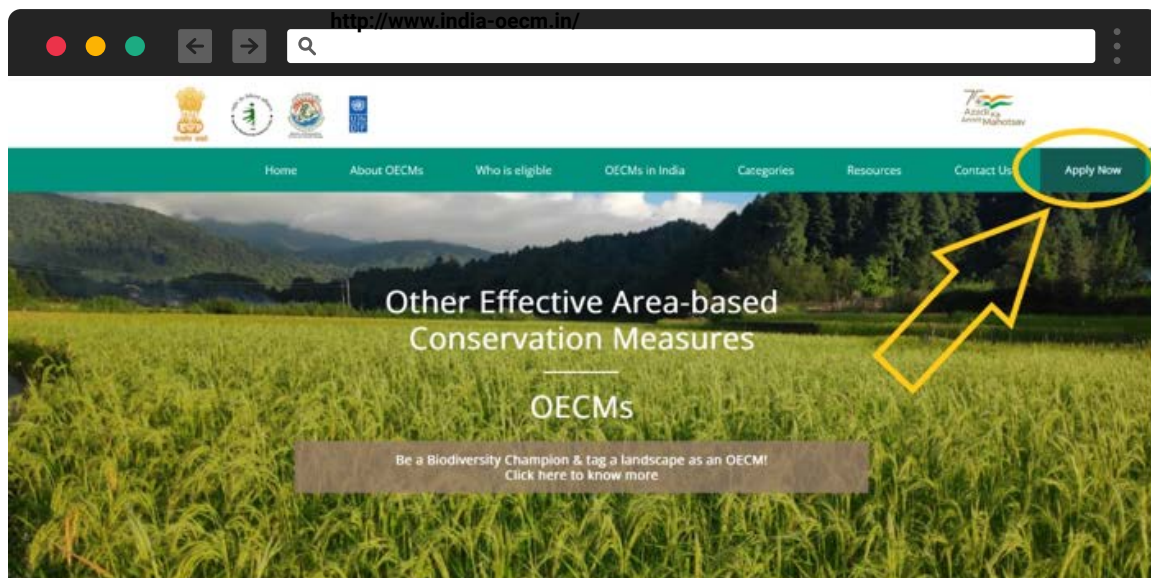
To support information collection and awareness generation regarding OECMs in the country, a dedicated web portal has been developed. The portal provides information about identifying OECMs with detailed examples under various categories. It also invites applications from all over the country to tag landscapes or seascapes as OECMs.

Here is how you can apply to tag a site as an OECM in India:

STEP 1: Visit the web portal at <http://www.india-oecm.in/>



STEP 2: In the extreme right of the navigation menu, click on Apply Now



STEP 3: In the 'Apply Now' page, before applying, kindly click on 'refer to the document attached here' to access a PDF containing the details about the various OECM designation and criteria.

STEP 4: After reading the above-mentioned document, answer the set of questions on the 'Apply Now' page. If available, these will also include the photos and/or videos related to the case, geographic information of the proposed site, governance and management details, and information related to the conservation activities taking place in the proposed area.

←

→

⌕ http://www.india-oecm.in/apply-now

OECMs SUBMISSION

The Government of India invites State sectoral departments, bilateral and multilateral funding agencies, civil society organisations, industry, academic and research institutes, and communities to share information on local conservation initiatives which could be identified as potential OECMs. In view of the above, kindly fill out the questionnaire below to provide details about the conservation area that could be a potential OECM. Please note that this is a voluntary process and the OECMs recognition will not have any legal, financial or management implications.

We request you [refer to the document attached here](#) before filling the questionnaire.

1. NAME OF THE PROPOSED CONSERVATION AREA

In English

2. CONTACT DETAILS

Full Name

Email Address

Phone Number

3. DESIGNATION

Does the area fall under the protected area network?/Reserved Forest Network?

☐ Yes ☐ No

Select Designation of the conservation Area *

4. GOVERNANCE AND MANAGEMENT

Who governs the proposed conservation area?

Select Governance Type *

Who owns the proposed conservation area?

Name of the Owner

Select Ownership Type *

Who manages the proposed conservation area?

Name of the Management Authority

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5. GEOGRAPHIC INFORMATION OF THE PROPOSED CONSERVATION AREA

States/UTs *	District	Block
Panchayat	City Corporation Municipality	
Biodiversity Management Committee	Size of Conservation Area in km.	
Latitude	Longitude	

Upload Shape file [Browse...](#) No file selected.

6. Key Biodiversity Species

Please provide names and number of key species of plants & animals (both wild and domestic) found in the proposed area.

7. CONSERVATION INITIATIVE

Please provide any supporting documents on conservation initiatives carried out in the area

[Browse...](#) No file selected. [Add](#)

8. PHOTOS / IMAGES/ VIDEO

Please provide some photos / videos of the site, initiatives impact and key stakeholders.

[Add](#)

STEP 5: Once all the information is added to the form, click on 'Submit' to submit the application.

7. CONSERVATION INITIATIVE

Please provide any supporting documents on conservation initiatives carried out in the area

Browse... No file selected.

8. PHOTOS / IMAGES/ VIDEO

Please provide some photos / videos of the site, initiatives impact and key stakeholders.

Add

Submit

Need support to apply? Get in touch!
mail to oecmindia@gmail.com

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Please note that:

1. It is NOT necessary to provide all the information for initially submitting the form. Upon submission, the support team will contact the cases for further information, if required.
2. In case of any queries, you may reach out to the national support team at oecmindia@gmail.com.
3. Post-screening of the potential cases, additional information and consent will be sought from the stakeholders for obtaining for sharing information with the UNEP-WCMC.

Consent Form Template for OECMs in India

Name of the site: _____

Governance Authority (ADD name --an individual /committee)

I/we declare that we have the authority to represent the area mentioned above.

We have received the request letter from National Biodiversity Authority (NBA) and have understood the request made by the NBA.

I/We confirm that I/we have the rights, permissions and authority to provide our informed consent to recognise our area as an OECM and also provide the required dataset to the NBA/Ministry of Environment, Forest and Climate Change.

We also understand that the OECM recognition will not have any legal, financial or management implications.

We also wish to state that we have the right of withdraw our consent, if needed and shall inform you accordingly.

We, the undersigned, in representation of the governance authority _____
[name of indigenous people, local community, private individual, organisation, industry or other governance authority], responsible for _____
[name of potential OECM case], reconfirm that:

1. Our area can be recognised as an OECM.
2. NBA/MOEFCC are authorised to provide data and information to the World Database-OECM in accordance with this consent form.
3. We have followed an appropriate process of discussion and consultation in accordance with our normal decision-making practices to make the above decisions.

Name of Governance Authority
(and signing representatives)

Signature

Date

