



**United Nations
Environment
Programme**



Distr.: General
June 2016

Original: English

**Consultation Meeting on Implementation
of UNEA-2 Resolution on Coral Reefs**
Manado, 28 and 29 June 2016

Chair's Summary

Overview

1. Resolution 2/12 on sustainable coral reefs management (EA/2/12) was adopted at the second session of the United Nations Environment Assembly (UNEA-2) in May 2016. The resolution, inter alia, calls for initiatives, cooperation and commitments to conserve and sustainably manage coral reefs, including cold-water coral ecosystems and mangroves; recognizes that education, capacity-building and knowledge transfer is crucial; and encourages integrated, ecosystem-based and comprehensive approaches including partnerships with industry, as well as establishment of MPAs and other spatial and relevant sectoral approaches to enhance climate change resilience. The resolution further requests UNEP to pursue a number of specific actions, inter alia in relation to awareness raising; knowledge transfer; coral reef climate change resilience; coral reef policy instruments; development and implementation of national or regional measures and action plans; and development of indicators and assessment of coral reef status and trends. The resolution provides direction for coral reef policy and management in the context of the 2030 development agenda, and has implications for UNEP's coral reef work.

2. The Consultation Meeting on Implementation of the UNEA-2 Resolution on Coral Reefs, hosted by Indonesia in Manado, on 28-29 June 2016, was organized by UNEP and Indonesia in order to initiate the process of implementation of the resolution and strengthen communication between UNEP and Member States on this.

3. The objectives of the meeting were therefore to identify opportunities for implementing action as called for in resolution EA/2/12; prioritize follow-up actions by UNEP, including support provided to Member States in implementing the resolution; as well as to identify technical, operational and financial needs in implementation of the resolution.

Opening and organization of the meeting

4. The meeting was opened with remarks by the Governor of North Sulawesi Province, Mr. Olly Dondokambey; Mr. Sefanaia Nawadra, Coordinator of UNEP Pacific Office, on behalf of the UNEP Regional Director and Representative, Asia and the Pacific; and Mr. Brahmantya Satyamurti Poerwadi, Director General of Marine Spatial Management, Ministry of Marine Affairs and Fisheries of Indonesia. In these opening remarks speakers welcomed participants, including representation from all major reef regions and representatives from several SIDS, to Indonesia and North Sulawesi; noted that resolution EA/2/12 has elevated coral reefs to the highest level in international environmental policy; and emphasized that the meeting is a first, important step towards implementation of the resolution, by providing a forum for discussions on how the aspirations in the resolution can be turned into concrete and meaningful action.

5. Mr. Jerker Tamelander, Head, UNEP Coral Reef Unit, gave an overview of the meeting and its objectives. He noted that resolution EA/2/12 has broad implications for coral reef policy and management in the context of the 2030 development agenda as well as for UNEP's coral reef work. He emphasized that the meeting is a first step in an iterative process towards implementation of resolution EA/2/12, and as such a very important meeting laying the foundation for further actions. He also noted that holding the meeting soon after UNEA-2 helps to keep the momentum and enables feeding results from the meeting into relevant global and regional processes, not least the general meeting of the International Coral Reef Initiative in November 2016, and the SDG 14 Conference in June 2017, preparations for which are already underway.

6. The meeting elected the following officers based on nominations from the floor:
Chair: Ms. Carolina Tinangon, Ministry of Foreign Affairs, Indonesia
Vice-chair: Mr. Pauliasi Tokasaya, First Secretary, Fiji Embassy for Indonesia, Fiji
Rapporteur: Mr Denis Matatiken, Ministry of Environment, Energy and Climate Change, Seychelles

7. The agenda of the meeting, as adopted, is provided in Annex 1. The list of working and information documents of the meeting is provided in Annex 2. The list of participants of the meeting is provided in Annex 3.

8. It was agreed that the output of the meeting would be a Chair's summary, containing the main issues highlighted in discussions and concrete recommendations on initial actions towards implementation of resolution 2/12.

Tropical coral ecosystems: status and outlook

9. The session discussed coral reef status and outlook, based on working document 3 and a brief presentation by Jerker Tamelander, UNEP.

10. The following issues were highlighted in discussion:

- Coral reefs are uniquely vulnerable to climate change, in particular temperature increase. The aspiration of keeping global temperature increase to less than 1.5°C is a safer, albeit not safe, space for coral reefs, than the 2°C target adopted in the Paris Agreement.
- The mass bleaching in 1998 was a wake-up call for coral reef management in many areas but the responses triggered were often too focused on the science of coral bleaching, at the expense of focus on what needs to be done at the national level to address the problems.
- Most countries have experiences of repeated bleaching events. Several countries now have relatively well established bleaching task forces or committees and others are developing such, including assessment methods and reporting formats. It was recognized that the ongoing, third global bleaching event has again illustrated that consistency in bleaching reporting is desirable and that internationally established guidance may be beneficial in this respect.
- Continued high direct anthropogenic stress on coral reefs contribute to significant reef decline and undermine the ability of the ecosystem to cope with climate change. Strategic reduction of direct anthropogenic stresses on coral reefs can “buy time” by protecting relative climate refugia and promoting reef resilience, including preventing further damage and supporting recovery of areas already degraded.
- Much emphasis needs to be placed on advancing reef management through the use of broad-scale, integrated tools and process such as MSP and ICZM.
- One of the findings of the 2016 International Coral Reef Symposium (Hawaii, June 2016) is the need for more and stronger efforts through regional fora to foster cooperation in tackling the many transboundary issues facing coral reefs.
- While vulnerable, coral reefs provide a number of opportunities for blue economy development.
- Adoption of the SDGs and implementation of the UNEA-2 resolution is an opportunity to refocus how policy-making at national level is addressed and how spatial and sectoral planning and management processes are used to advance sustainable coral reef management.
- All targets under *SDG 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development* are immediately and directly relevant to coral reefs. However, full implementation of the SDGs is necessary to address many of the root causes of coral reef degradation, and coral reefs warrant particular attention in planning for and tracking of SDG implementation.

Report from UNEA-2

11. Mr. Suseno Sukoyono, Indonesia, provided a report from UNEA-2, including on the process for development, negotiation and adoption of resolution EA/2/12. He also mentioned that the adoption of other resolutions, including in particular resolution EA/2/4 Role, functions and modalities for United Nations Environment Programme implementation of the SAMOA Pathway as a means of facilitating achievement of the Sustainable Development Goals; EA/2/10 on Oceans and Seas; and EA/2/12 on Marine Plastic Litter and Microplastics, offer opportunities to find synergies when pursuing implementation of resolution EA/2/12.

12. He also gave an overview of the side event organized by Indonesia and UNEP entitled “Coral Reefs in the 2030 Development Agenda: Safeguarding the health and resilience of half a billion

reef dependent people”. He noted that feedback on the side event was overwhelmingly positive, with several Member States noting it helped raise the profile of coral reefs and contributed positively to the adoption of resolution EA/2/12. He also noted that further information on coral reef related events at is provided in working document CR.1/3.

13. The meeting thanked Indonesia for drafting and tabling the resolution and expressed strong support for the resolution. The meeting further noted that the resolution should be implemented globally and fully, with all nations having an interest and duty to conserve coral reefs.

14. The following issues were highlighted in discussion:

- Global and in particular regional collaboration is important in pursuing implementation of the resolution and there are a number of existing entities, such as the International Coral Reef Initiative and the Regional Seas that provide a basis to build on. Regional collaboration may be advanced through the establishment or, where relevant, revitalization, of regional coral reef task forces and similar entities. Some regional collaborative efforts, such as on coral reef monitoring and reporting, have lost momentum with a changing funding climate, and there is a need to find ways of reinstating these mechanisms with a stronger basis in efforts taken by countries.
- Finance is critical. The need for further funding for sustainable coral reef management was recognized, including for implementation of several of the actions requested in resolution EA/2/12. It was also noted that the funding basis for reef management needs to be broadened. Coral reef ecosystem services bring considerable social and economic benefit, and those that draw benefit from coral reef ecosystem services, including in particular the private sector, also have a role in supporting sustainable coral reef management. Each country will have to find their own modalities to address coral reef management finance, but collaboration and sharing of information and experiences in the identification of options is important. The meeting noted that the resolution in this respect provides space for collaboration between Member States and UNEP in identifying funding sources for implementation of the resolution and developing appropriate frameworks for financing sustainable coral reef management.

Ongoing efforts relevant to implementation of the UNEA-2 resolution on coral reefs

15. Jerker Tamelander presented an overview of UNEP’s ongoing work through the Global Coral Reef Partnership with Regional Seas Conventions and Action Plans relevant to the action requested in resolution EA/2/12.

16. Meeting participants shared information on experiences in coral reef management and dealing with past bleaching events:

- Thailand provided an example of mobilizing volunteers in assessing the impact of bleaching and noted that the new Marine and Coastal Promotion Act of June 2015 gives DMCR significant powers to regulate reef uses during and immediately after bleaching events; and mentioned ongoing efforts to map resilient reefs for designation as MPAs in the future.
- Philippines pointed out that a lesson learned from past bleaching events was that where management is good the recovery is likely to be good, illustrating that resilience is important and that the cost-effectiveness of managing reefs for resilience compares very favourably with the cost-effectiveness of reef restoration.

- Maldives mentioned that most countries now have experiences of repeated bleaching events, including tracking bleaching and supporting recovery of reefs. It is important to learn from these experiences and to think seriously about partnerships with tourism establishments that have a direct relationship with and dependence on reefs, as this can help distribute reef assessment as well as management responsibilities and costs.
- Indonesia mentioned investments in coral reef management amounting to over USD 180M, e.g. through WB and ADB projects, including considerable effort on assessment of reef status as well as current work to encourage local governments to develop local trust funds for reef management.
- Myanmar noted challenges in addressing serious bleaching in 2010 as well as coastal development, e.g. establishment of a deep sea port and dredging, tourism as well as fishing. Experiences with reef management in the country are limited and awareness low. There is good potential for ecotourism extension especially in the coastal area in south but this requires capacity building and financing.
- Malaysia cited examples with MPA development, noting that private sector entities and also policy makers don't always see the real value in marine and coral reef management and that further effort needs to be placed on expressing economic values of ecosystem services and losses incurred without appropriate management. Governments as well as companies need to recognize that gaining benefits from reefs requires spending some money. It was also noted that the snowflake coral (*Carijoa riisei*) has been observed on coral reefs in Malaysia (in addition to previous records e.g. from India), and that this alien invasive species has previously had considerable impacts on coral reefs in Hawaii. A regional response may be required to understand and manage the spread of this species.
- Eritrea mentioned national ICZM efforts also encompassing MPAs, and mentioned community-based mangrove afforestation and reforestation initiatives and an increased emphasis on outreach e.g. through TV shows and seminars. The national coral reef monitoring programme has been in operation over two decades but regional data sharing and collaboration on reporting is weak. A regional coral reef task force may assist in this regard.
- Vietnam mentioned that extensive experience from initiatives related to reef management showed that conserving coral reefs must be based on an integrated coastal management approach, involve local people in management and lead to improved conditions for local people e.g. through livelihoods. It was noted that there is continued exploitation of coral reef biota for souvenirs and at least parts of the tourism industry are in a weak position to contribute to reef management. In relation to MPAs it was also pointed out that working in partnerships with organizations such as IMO may be useful, especially where shipping poses a risk to coral reefs.
- Tonga noted many challenges in relation to reef management due to capacity constraints, including challenges in accessing available funding sources. The importance of regional organizations such as SPREP in assisting Pacific countries in this respect was noted. It was also recommended that UNEP Programme of Work activities should align with national action plans where such exist, and also contribute to implementation of the SAMOA Pathway, in line with resolution EA/2/4, to effectively support Member States.
- Antigua and Barbuda noted the need to manage reefs in a data-poor environment, partly as a result of limited funding for environmental monitoring, and expressed interest in the UNEP Barbados demonstration project on sustainable financing of marine management as well as in the follow-up to the Caribbean status report in relation to regionally consistent coral reef monitoring methods.

- Grenada echoed the comments of Antigua and Barbuda, and also inquired about the applicability of the model for using economic instruments to finance reef management in MPA that are small or with limited numbers of visitors.

17. The following issues were highlighted in discussion:

- Adoption of the SDGs and the resolution EA/2/12 is an opportunity to refocus how coral management is planned and carried out, including how policy-making at national level is addressed and how spatial planning and management processes are used.
- Ongoing efforts by many Member States in relation to MPAs and other spatial and sectoral approaches can contribute to EBM, and many past efforts embody EBM principles. In this respect it was noted that regional collaboration, including regional reporting on the state of the coast, provides an important venue for exchanging experiences and ideas on best practices e.g. related to threat reduction.
- The role of regional initiatives and regional and national coral reef task forces in working at the science-policy interface was recognized, including their role in ensuring that sustainable coral reef management is pursued through the use of existing tools and process such as MSP and ICZM.
- There is a need to ensure local managers have capacity to effectively manage coral reefs. This can be supported through exposure to best practices and tools, awareness raising, and training. It was suggested that Decision Support Tools for local MPA managers are still needed in some areas
- In pursuing development and implementation of effectively and equitably managed marine areas, the full range of governance options and management arrangements need to be used, drawing on available guidance and best practice. This may include greater emphasis on community-based as well as privately operated protected areas. The success of the LMMA approach in the Pacific, building on the foundation provided by traditional management systems, and the need to elevated the approach further in global fora, was noted. It was further noted that privately operated protected areas in the marine realm are relatively limited globally, but that different models are being used e.g. in Fiji, Maldives, Seychelles and Tanzania, and that this presents an opportunity to further broaden and strengthen marine management.
- There is scope for significant expansion of partnerships with tourism industry establishments that have a direct relationship with reefs, including as partners in managing reef assets and also in providing revenue streams for management.
- There is a broad range of actions underway in relation to gender and social issues including Indigenous Peoples, by Member States as well as organizations and initiatives operating from local to global level. It was noted that national policies, regulations and initiatives have been developed in the national context and responding to national need and that a broad range of guidance and information products exist and are readily available.
- Reporting on coral reef status and trends by GCRMN has been too focused at the global level, and while the reports have been good their utility in policy and management decisions is limited. Similarly, the focus on coral cover in GCRMN reporting as well as in tracking coral reef health at the national level, while relevant, is not in itself sufficient. The increased focus on regional reporting by GCRMN was encouraged in this regard. It was noted that national as well as regional and global reports need to address the science-policy nexus in a

manner relevant to the geographic scale, policy and governance structures and target audience.

- The Global Coral Reef Partnership of UNEP and the Regional Seas provides an important mechanism in promoting and supporting implementation of resolution EA/2/12, and its ongoing work in relation coral reef resilience, use of ecosystem service values in decision making, and strengthening data for ecosystem-based management, including the datasets, tools and approaches developed, are directly relevant to and can be applied by Member States as well as other entities in actions towards implementation of the resolution.
- It was recognized that the primary mechanisms for UNEP's regional engagement are the Regional Seas, but also suggested that UNEP has a mandate to and comparative advantage in engaging with and interlinking other regional initiatives where these exist.

Recommended priority actions in implementing the UNEA-2 resolution on coral reefs

18. Priorities and modalities for implementation of action requested in resolution EA/2/12 was discussed based on thematic clustering of operative paragraphs in the resolution and the initial proposed actions identified in working document CR.1/4.

19. In relation to enhanced liaison between UNEP and Member States in implementation of the resolution, the meeting recommended that:

- i. a mechanism should be established for regular direct engagement and liaison between UNEP and Member States in relation to sustainable coral reefs management and specifically in relation to implementation of resolution EA/2/12. In this regard, UNEP was requested to convene an 'open-ended advisory committee' on implementation of resolution EA/2/12, including developing brief terms of reference for the committee and inviting nominations of national focal points from Member States as well as relevant regional and global entities.

20. In relation to financing implementation of the resolution, the meeting recommended that:

- i. Member States need to find modalities for broadening the funding basis for sustainable coral reef management and undertaking the actions requested in the resolution. The need for collaboration and sharing of information and experiences was recognized, and UNEP was encouraged to support such information sharing.
- ii. While a number of actions requested of UNEP can be pursued based on ongoing activities and through the Global Coral Reef Partnership of UNEP and Regional Seas, a number of actions are dependent on additional external funding (as identified herein). The meeting encouraged entities in a position to do so to financially support the work of UNEP in this regard.

21. In relation to awareness raising, education, capacity building and knowledge transfer (OP3 10, 11), the meeting recommended that:

- i. GEO-6 regional assessments should be used in outreach activities carried out by Member States, by UNEP and other entities. To this end, UNEP was requested to pursue GEO-6 outreach focusing on coral reefs, using existing GEO-6 outreach channels. Member States

- were encouraged to utilize GEO-6 in awareness raising and outreach relevant to coral reefs, as well as to, where possible, integrate relevant content of GEO-6 in school curricula.
- ii. The global GEO-6 report currently being developed for presentation to UNEA-3 should incorporate information on the 3rd global coral bleaching event, findings from downscaling of climate model projections for coral reef bleaching conditions, and information on mesophotic reefs. UNEP was requested to support this through the GEO-6 process.
 - iii. Further coral reef information should be incorporated into GEO-7. In this regard it was recommended that Member States ensure coral reef scientists as well as management and policy experts are nominated for relevant functions in the GEO process.
 - iv. Science-to-policy studies be prepared on priority issues identified in resolution EA/2/12 as well as EA/2/11. In this regard UNEP was requested to prepare concept notes on a thematic study on cold-water coral ecosystems as well as a thematic study on marine litter on coral reefs, with particular attention to marine plastic litter and microplastics, including description of policy and management relevance of such studies and potential implementation modalities, based on the initial identification of implementation modalities identified in working document CR.1/4, and invite comments/input from Member States, relevant regional initiatives and partnerships. Additional financial support for the implementation of the studies would need to be identified.
 - v. Status and ecosystem impacts of the snowflake coral (*Carijoa riisei*) in Asia may warrant further attention. UNEP was requested to, in consultation with relevant organizations such as IMO/Globallast, identify the need for analysis of its status and possible management responses, and develop a concept note on this for consultation with Member States as well as potential collaborating institutions and funders. Member States were encouraged to conduct monitoring and research on the ecology of the species and to detect spread as well as impacts on coral reef ecosystems; and to raise the issue in relevant regional and global fora.
 - vi. Declaration of an International Year of the Reef 2018 should be pursued, initially through a motion at ICRI GM 31 submitted by country co-proponents with support from UNEP. It was further recommended that IYOR be a formal UN observance, and in this respect Member States were encouraged to seek inclusion of text in relevant UNGA resolution (e.g. Oceans and Seas), drawing on the outcomes of ICRI GM 31. Member States, regional initiatives and civil society were encouraged to actively engage in the development and implementation of IYOR, including seeking synergies with existing observances where appropriate.
22. In relation to partnerships, including those with tourism, fishery and aquaculture sectors (OP 4), the meeting recommended that:
- i. Member States consider applying the Green Fins and Blue Finance approaches developed by UNEP in the context of ‘national and regional measures’ towards implementation of actions requested in resolution EA/2/12 (OP 5, 6, 7 and 12), and making specific requests to UNEP in this regard. UNEP was requested to provide information to Member States on preconditions and requirements, including financial requirements, for replication of these initiatives.

- ii. The potential for partnerships with companies in the coral reef fisheries value chain should be further explored, and that opportunities for developing and applying sustainability labels for coral reef fisheries to encourage sustainable consumption and production could be identified (recognizing that establishment and implementation of such initiatives is resource intensive). UNEP was requested to approach FAO to exchange information on relevant ongoing initiatives and identify potential areas for collaborative actions.
 - iii. Marine spatial management through private sector partnerships should be further developed and applied. In this regard UNEP was requested to identify opportunities to provide further guidance or information on governance arrangements for marine spatial management by the private sector, based on past and ongoing work in relation to MPA governance.
23. In relation to ecosystem-based management, MPAs and other spatial approaches, national and regional measures (OP 5, 6, 7, 12), the meeting recommended that:
- i. The action requested in the resolution needs to be pursued in the context of the SDGs, in particular goal 14 but also other goals that have direct bearing on coral reefs, such as 2, 6, 11, 12 and 13, but it was recognized that there is a dearth of information on what concretely this entails or how to go about it. UNEP was encouraged to support action by Member States at the national or regional level, based on available tools, and in this regard UNEP was requested to:
 - a) Communicate to Member States what support UNEP can provide, based on ongoing work in relation to coral reefs as presented in the meeting and other efforts in relation to ocean governance, EBM, marine spatial planning and MPAs; and call for expressions of interest/requests for assistance from Member States in pursuing implementation of action requested in the resolution. It was recognized that development and implementation of such actions would require securing adequate financial support;
 - b) Conduct an analysis of the 2030 Development Agenda and SDGs to identify targets and indicators particularly relevant to sustainable management of coral reefs, and based on this provide guidance that would support Member States in the formulation of national or regional coral reef action plans or strategies. UNEP was further requested to support development of such action plans or strategies, on request and subject to availability of funding.
 - ii. Member States should identify and use opportunities to pursue actions requested in resolution EA/2/12 in the context of projects e.g. under the adaptation fund, GEF, GCF and other relevant projects and initiatives, and share experiences on this. In doing so Member States may draw on approaches and tools developed through UNEP's work, and seek collaboration with UNEP in project development and implementation.
24. In relation to gender and social issues (OP 9), the meeting recommended that:
- i. Mainstreaming of gender should be emphasized in all initiatives pursued towards implementation of resolution 2/12. It was recognized that this will in many cases require Member States and other entities to ensure provisions for gender analyses to support design, and gender disaggregated data collection to support monitoring, reporting and evaluation. Member States were encouraged to draw on the the broad range of existing guidance and information products including the Global Gender and Environment Outlook (GGEO) in developing, implementing and communicating initiatives. UNEP was requested to

- a) Explore opportunities for coral reef related outreach based on the GGEO process;
 - b) Advice and support Member States in accessing and using existing mechanisms for South-South and Triangular cooperation to facilitate dialogue and transfer of knowledge, experiences and tools in relation to gender and social dimensions of coral reef management;
 - c) Based on these actions and in consultation with Member States, identify needs with respect to additional tools and guidance for addressing gender and social issues in coral reef management, if/as relevant.
- ii. Youth groups should be increasingly involved in management and protection of coral reef ecosystems, to support ongoing efforts and encourage a conservation mentality among future generations. In this respect Member States were encouraged to make youth an important target audience in awareness raising and education activities.
25. In relation to analysis of policy instruments and governance mechanisms (OP 13), the meeting recommended that:
- i. The analysis should be undertaken through a process that includes broad consultation with Member States, relevant regional and global entities as well as civil society, and the analysis should aim to draw conclusions and provide recommendations for policy responses at global or regional level that enable and encourage concrete, science/evidence-based actions. The important role of regional organizations in providing input to the analysis as well as acting on its findings was recognized.
 - ii. UNEP was requested to develop terms of reference for the analysis including further elaboration on the scope and format of the analysis as well as funding requirements, based on the proposed draft modalities as described in working document CR.1/4. UNEP was further requested to identify and establish a technical team for the analysis; liaise with ICRI Secretariat on inclusion of the analysis in the Secretariat Action Plan and on the agenda of ICRI GM 31; and liaise with potential donors to secure sufficient financial resources to undertake the analysis.
26. In relation to indicators and assessments (OP 14), the meeting recommended that:
- i. Coral reef assessment and reporting should be based on indicators that connect to the sustainable development agenda and the top level SDG indicator framework. In this regard the meeting encouraged development of coral reef indicators that can be adopted and applied at national and regional levels, encompassing ecological status as well as threats to coral reef ecosystems, so that effectiveness of measures taken can be tracked. UNEP was requested to pursue this recommendation through its ongoing engagement in GCRMN and ICRI, including further identification of how the recommendation can be implemented and resource requirements for this.
 - ii. Regional GCRMN reporting processes should be initiated in regions where this has not yet been done. In this regard Member States and regional entities were encouraged to identify opportunities and seek collaboration, including in identifying and securing funding for such initiatives. UNEP was requested to follow up on tentative expressions of interest for the development of regional GCRMN reports for the South Asian Seas and East Asian Seas, including identification of initial steps towards establishing collaboration with relevant

regional entities and ICRI/GCRMN, and seeking input on how such processes may be financed based on ongoing/emerging projects as well as new grant funding. UNEP was further requested to liaise with ICRI/GCRMN on initiation of the preparation of a global GCRMN status of coral reefs of the world report, including preparation of a description of the process and costs/fundraising needs.

- iii. Member States were encouraged to consider seeking formal anchoring of coral reef related indicators in the SDG indicator framework (top level indicators and/or 'operationalization' of these), through the Oceans Conference 2017.

Any other business

27. It was noted that coral reefs often occur in close association with mangroves and seagrass beds, and that action requested in EA/2/12 OP3 in relation to awareness raising; OP4 in relation to partnerships with the private sector; and OP5 in relation to national and regional measures explicitly mention mangroves. It was further noted that mangroves and seagrass beds provide ecosystem services of a similar magnitude to coral reefs, and that they are important CO₂ sinks/reservoirs and significant sources of CO₂ emissions when they degrade. A number of global and regional initiatives specifically addressing mangroves and seagrasses were recognized, including e.g. the UNEP GEF Dugong and Seagrass project, and the Mangroves for the Future Initiative.

28. The meeting recommended that Member States, where relevant, give due consideration to mangroves and seagrass beds in implementation of actions requested under resolution EA/2/12, and also consider strengthening regional collaboration towards enhanced management of mangroves and/or seagrass beds, e.g. through regional initiatives, establishment of regional task forces and other appropriate means. UNEP was requested to provide information to Member States on relevant ongoing initiatives as well as tools developed or under development by UNEP.

29. To support UNEP in reporting on progress in implementing the resolution to the CPR and to UNEA-3, Member States were encouraged to provide information to UNEP on progress made in implementing action called for in the resolution.

Side Events

30. Two side events were held in association with the meeting, organized by the Government of Indonesia, in collaboration with UNEP:

- "Coral Bleaching: Challenges and Roadmap to Address the Phenomenon" was held to discuss the ongoing 3rd global coral bleaching event – the longest on record – and provided insight and analytical perspectives from policy makers and researchers on how to expand global and national bleaching alert and observation systems, such as the Indonesian Coral Bleaching Alert System (INACOBAS) as well as current efforts on sustainable coral reef management in a changing climate.
- "Marine Litter and Micro-Plastic: The Way to Achieve Less Plastic, More Fantastic" was held in light of the adoption of UNEA-2 resolution 11 on marine plastic litter and microplastics, which calls for initiatives, cooperation and commitments to initiate and develop environmentally friendly alternatives to plastic packaging and deposit refund

systems, and to raise awareness of the sources and negative effects of and possible measures for reducing marine plastic debris and micro-plastics. The event provided insights from policy makers and practitioners on how to address the challenge of marine litter, including through clean-ups, waste management, and stakeholder engagement initiatives.

Conclusion

31. The consultation meeting was a successful first step towards implementation of resolution EA/2/12, identifying initial, concrete key actions by Member States and UNEP, based on the active participation and constructive input by participants representing Member States in all reef regions, including many SIDS.

32. Participants welcomed organization of the consultation meeting, thanked Indonesia and UNEP for convening it, and emphasized the need for continued, regular engagement between UNEP and Member States on implementation of the resolution based on the initial recommendations provided here.

33. To this end, the chair's summary will be communicated to all Member States as well as to relevant global and regional entities.

34. Indonesia expressed particular thanks to UNEP for its support in the process of negotiating resolution 2/12, as well as in organizing the consultation meeting.

Annex 1. Agenda

Annex 2. List of Working and Information Documents

Annex 3. List of Participants



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Distr.: General
June 2016

Original: English

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Manado, 28 and 29 June 2016

Agenda

Background

Resolution 2/12 on sustainable coral reefs management was adopted at the second session of the United Nations Environment Assembly (UNEA-2) in May 2016. The resolution, *inter alia*, calls for initiatives, cooperation and commitments to conserve and sustainably manage coral reefs, including cold-water coral ecosystems and mangroves; recognizes that education, capacity-building and knowledge transfer is crucial; and encourages integrated, ecosystem-based and comprehensive approaches including partnerships with industry, as well as establishment of MPAs and other spatial and relevant sectoral approaches to enhance climate change resilience. The resolution further requests UNEP to pursue a number of specific actions, *inter alia* in relation to awareness raising; knowledge transfer; coral reef climate change resilience; coral reef policy instruments; development and implementation of national or regional measures and action plans; and development of indicators and assessment of coral reef status and trends. The resolution provides direction for coral reef policy and management in the context of the 2030 development agenda, and has implications for UNEP's coral reef work. The objectives of the meeting are therefore to:

1. Analyse the UNEA-2 resolution on coral reefs in the broader context of the 2030 Development Agenda and the SDGs, and identify opportunities for implementing action called for based on ongoing as well as new initiatives, tools and activities;
2. Provide further guidance on and prioritization of follow-up actions by UNEP, including support provided to member states in implementing the UNEA-2 resolution;
3. Identify key needs (technical, operational, financial) in implementation of the resolution and provide recommendations on addressing such needs.

Programme

<i>Time</i>	<i>Activities</i>	<i>Responsible</i>
<i>Day 1: 28 June 2016</i>		
0900-0930	Item 1: Opening of the meeting Welcoming remark Opening statement Opening statement	Mr. Olly Dondokambey Governor of North Sulawesi Province Mr. Sefanaia Nawadra, Coordinator, UNEP Pacific Office <i>Mr. Brahmantya</i> , DG Ministry of Marine Affairs and Fisheries, Indonesia
0930-0945	Meeting Overview and Objectives	Jerker Tamelander, UNEP
0945-1000	Item 2: Organization of the meeting Election of co-Chairs and Rapporteur Introduction of meeting documents	UNEP (until co-chairs are elected and take office) Jerker Tamelander, UNEP
1000-1020	Coffee/tea break	
1020-1130	Item 3: Tropical coral ecosystems: status and outlook Presentation of a working document Overview of Paris Agreement Overview of Aichi Targets Overview of SDG14 and other relevant SDGs Overview of ICRI and GCRMN Other agreements and initiatives Discussion	Jerker Tamelander
1130-1230	Item 4: Report from UNEA-2 Introduction of UNEA Resolution 2/12 Questions and answers	Indonesia
1230-1400	Lunch break	

<i>Time</i>	<i>Activities</i>	<i>Responsible</i>
1400-1430	Item 5: Implementation of the UNEA-2 resolution on coral reefs Introduction of working document and presentation of UNEP's ongoing initiatives Questions and Answers	Jerker Tamelander, UNEP
1430-1545	Item a: Awareness raising, education, capacity building and knowledge transfer (OP3 10, 11) Item b: Partnerships (including those with tourism, fishery and aquaculture sectors) (OP 4) Item c: Ecosystem-based management, MPAs and other spatial approaches, national and regional measures (OP 5, 6, 7, 12)	
1545-1600	Coffee break	
1600-1730	Item c: Ecosystem-based management, MPAs and other spatial approaches, national and regional measures (OP 5, 6, 7, 12) continued Item d: Gender and social issues (OP 9)	
<i>Day 2: 29 June 2016</i>		
0900-1030	Item e: analysis of policy instruments (OP 13)	
1030-1050	Coffee/tea break	
1050-1200	Item f: assessments and indicators (OP 14)	
1200-1230	Any other business	
1230-1400	Lunch break	Lunch will be served at the CTI Building
1400-1630	Side events (including coffee/tea break)	Separate programme, side events will take place in CTI building

<i>Time</i>	<i>Activities</i>	<i>Responsible</i>
	<ul style="list-style-type: none">- Coral Bleaching : Challenges and Roadmap to Address the Phenomenon- Marine Litter and Micro-Plastic: The Way to Achieve Less Plastic, More Fantastic	
1630-1720	Review of the chair's summary report	
1720-1730	Closure of the meeting	



SIDE EVENT
Consultation Meeting on Implementation of
UNEA-2 Resolution on Coral Reefs



**“CORAL BLEACHING: CHALLENGES AND
ROADMAP TO ADDRESS THE PHENOMENON”**

Theatre 1 - Coral Triangle ILC Building
Jl. A.A Maramis Kayuwatu, Kairagi II, Manado 95254, Indonesia
29 June 2016
14:00 – 16:30 WITA

About the Event

Oceans are already in the midst of the longest coral bleaching event on record. Many of the world’s coral reefs will be exposed to abnormally high temperatures for the third year in a row, exposing them to further bleaching. With the world’s oceans experiencing higher-than-normal temperatures since mid-2014, coral reefs are experiencing a major bleaching event, and in some cases are dying off.

Mass coral bleaching events have affected Indonesian coral reefs several times, including in 1982/183, 1997/1998, 2010, 2014 and currently in 2016. This event will provide insight and analytical perspectives from policy makers and researchers on how to expand the Global Coral Bleaching Alert System and incorporate it country alert systems such as Indonesian Coral Bleaching Alert System (INACOBAS). It will presents current efforts on sustainable coral reef management.

Panels and Agenda

Time	Speaker	Title
14.00 – 16.00	Mr. Jerker Tamelander <i>Head, Coral Reef Unit, UNEP</i>	<i>Opening and keynote</i> Why does coral bleaching matter?
	Dr. M. Firdaus Agung Kunto <i>DG MSM, Ministry of Marine Affairs and Fisheries</i>	Coral Bleaching Monitoring Network in Indonesia
	Dr. Novi Susetyo Adi <i>R&D Center for Marine and Coastal Resources, Ministry of Marine Affairs and Fisheries</i>	Development of Indonesia Coral Bleaching and Harmful Alga bloom Alert System (INA-CoBHAS)
	Dr. Anastasia Kuswardani <i>R&D Center for Marine and Coastal Resources, Ministry of Marine Affairs and Fisheries</i>	Enhancing Coral Bleaching Research Network in Indonesia
	Dr. Ofri Johan <i>R&D Center for Marine and Coastal Resources, Ministry of Marine Affairs and Fisheries</i>	In-situ observation of Indonesia of Coral Bleaching 2016
	Dr M. Saleh Nugrahadi <i>Indonesia Coordinating Ministry on Maritime Affairs</i>	Initiative on Indonesia Coral Reef Garden
16.00 – 16.30		Discussion and Closing

Moderator : Mr. Yoshi Iskandar (Minister Counsellor, Indonesia Embassy in Nairobi and Permanent Representative to UNEP and UN-HABITAT)



SIDE EVENT
Consultation Meeting on Implementation of
UNEA-2 Resolution on Coral Reefs



**“MARINE LITTER AND MICRO-PLASTIC:
THE WAY TO ACHIEVE LESS PLASTIC, MORE FANTASTIC”**

Theatre 2 - Coral Triangle ILC Building
Jl. A.A Maramis Kayuwatu, Kairagi II, Manado 95254, Indonesia
29 June 2016
14:00 – 16:30 WITA

About the Event

Global production of plastics is increasing every year (245 million metric tonnes in 2008) and the amount of plastic litter that is finding its way into the environment and into the oceans is also increasing, especially in the areas of the world where waste management practices are not keeping up with the rapid development. The first World Ocean Assessment points to the emerging issue of the smallest microplastic particles, which are nano-sized, and expresses concern about the ability of microplastics to enter marine food chains and the potential risk for the environment and human health. Plastic and microplastics may be transported through freshwater systems such as rivers and are found in all compartments of the marine environment; that their input is rapidly increasing; that the plastics in the marine environment degrade extremely slowly; The plastics contain and can adsorb and emit chemicals, such as persistent organic pollutants, and can contribute to their distribution and spread of harmful organisms; and has negative effects on marine life, ecosystems and ecosystem services including fisheries, maritime transport, recreation and tourism as well as local society and economy,

Resolution 2/12 on marine plastic litter and microplastics was adopted at the second session of the United Nations Environment Assembly (UNEA-2) in May 2016. The resolution, inter alia, calls for initiatives, cooperation and commitments to initiate and develop environmentally friendly alternatives to plastic packaging and deposit refund systems, to raise awareness of the sources and negative effects of and possible measures for reducing marine plastic debris and microplastics. This event will provide insights from policy makers and practitioners on how to address challenges of marine litter.

Panels and Agenda

Time	Speaker	Title
14.00 – 16.00	Dr. Tuti Hendrawati Mintarsih <i>Director General of Solid Waste, Hazardous waste and Non-hazardous waste Management, Ministry of Environment and Forestry</i>	<i>Opening and Keynote Address "Marine Litter and Micro-plastics in Indonesia: Issues and Challenges"</i>
	Mr. Heru Waluyo Koesworo <i>Director of Environmental Degradation Control on Coastal and Marine, Ministry of Environment and Forestry</i>	<i>"Implementation of Coastal Clean-up Program: Shore and Underwater Clean Up"</i>
	Mr. Basilio Dias Araujo <i>Indonesia Coordinating Ministry on Maritime Affairs</i>	<i>"Pathway to Achieve Less Marine Plastic"</i>
	Mr. Jacky Latuheru, World Bank Environment Specialist	<i>Marine Pollution Hotspot Assessment in Jakarta, Makassar, and Manado</i>
	Ms. Husniyati Amirullah <i>Initiator of Community Garbage Bank in Makassar</i>	<i>"Community Initiative in Transforming Plastic Debris into Productive Income Generation"</i>
16.00 – 16.30		<i>Discussion</i>

Moderator : Ms. Carolina Tinangon (Environmental Division, Directorate of Economic Development and Environmental Affairs, Ministry of Foreign Affairs)



**United Nations
Environment
Programme**



Distr.: General
June 2016

Original: English

**Consultation Meeting on Implementation
of UNEA-2 Resolution on Coral Reefs**
Manado, 28 and 29 June 2016

List of Documents

Working Documents

- | | |
|--------|---|
| CR.1/1 | Provisional Programme |
| CR.1/2 | Coral Reef Status and Outlook, and Implications of Recent Global Agreements |
| CR.1/3 | Report from UNEA-2 with Particular Attention to Coral Reefs |
| CR.1/4 | Implementation of the UNEA-2 Resolution on Coral Reefs
and Proposed Modalities for Actions Requested of UNEP |
| CR.1/5 | Chair's Summary |

Information Documents

- | | |
|------------|---|
| CR.1/INF.1 | Information for Participants |
| CR.1/INF.2 | Annotated Provisional Agenda |
| CR.1/INF.3 | Provisional List of Documents |
| CR.1/INF.4 | UNEP RS Global Coral Reef Partnership factsheets |
| CR.1/INF.5 | UNEP RS Global Coral Reef Partnership progress update, March 2016 |
| CR.1/INF.6 | UNEP RS Global Coral Reef Partnership
Report from the 1 st Steering Committee |
| CR.1/INF.7 | GCRMN strategic directions |
| CR.1/INF.8 | Priority Actions to Achieve Aichi Target 10 booklet |



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