

INITIATIVES MMAF ON REDUCING MARINE DEBRIS

MARINE DEBRIS – APEC BALI

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LEAKAGE PLASTIC FROM LANDBASED TO OCEANS ENVIRONMENT IN INDONESIA



150 Millions
population

38 Millions
ton/year increase
of garbage

80 %
Leakage of
plastic waste
comes from land

17 Ton Millions/year
waste is not organized.

45% waste is throw away to
drains, park and burned.

1,29 Millions
ton matrix/year leakage of
plastic waste to oceans.

30% Leakage of
waste is plastic

RIVERS IN INDONESIA



Kali di Cipinang, DKI Jakarta



DAS Citarum, Jawa Barat



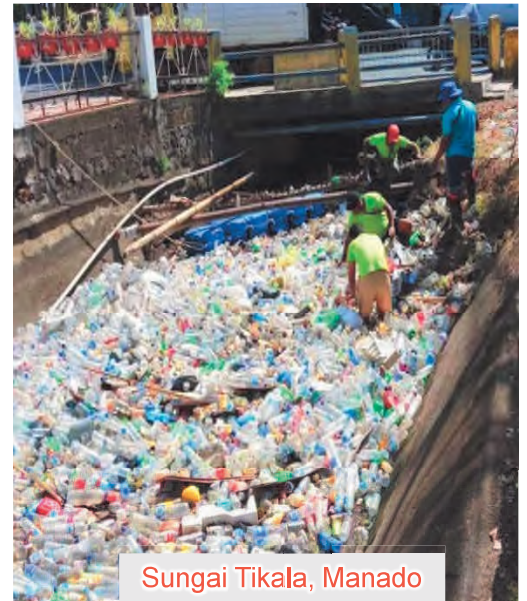
Sungai Cikapundung, Bandung



Kali Brantas, Jawa Timur



Kali Bahagia, Bekasi



Sungai Tikala, Manado

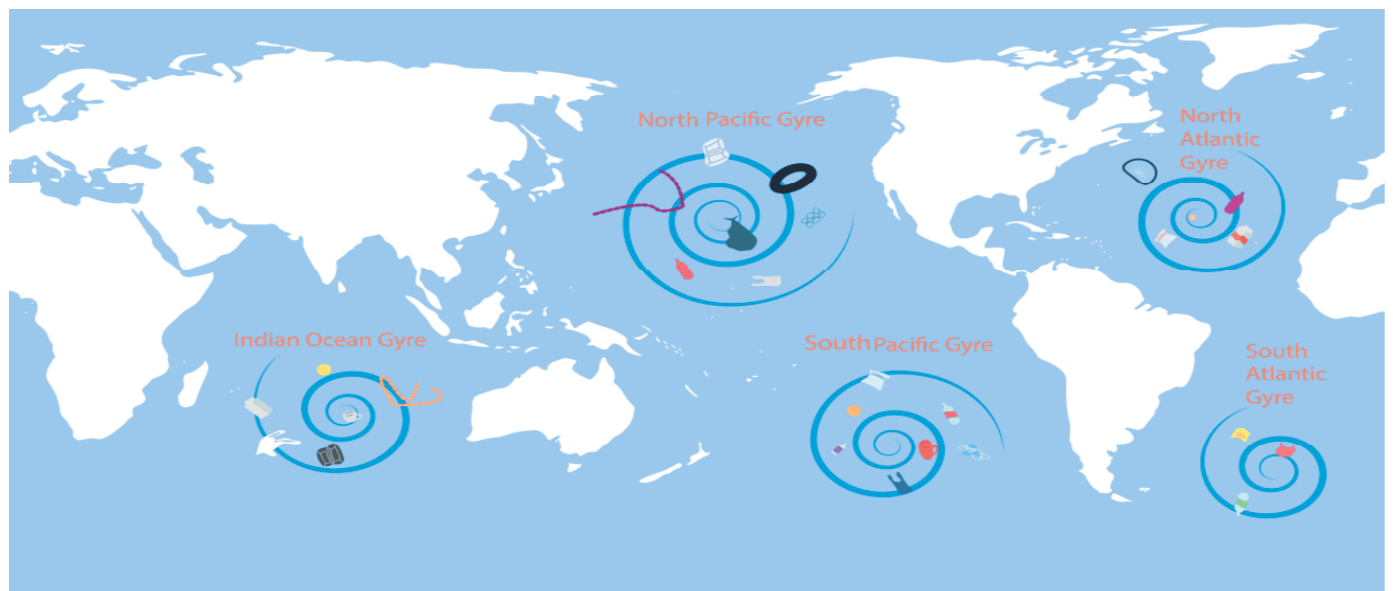


Sungai Winongo, Yogyakarta



Sungai Deli, Medan

GLOBAL GYRES CURRENT



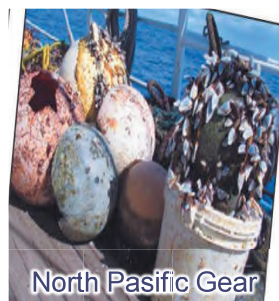
Hawaii



Maine, USA



Vietnam



North Pacific Gear

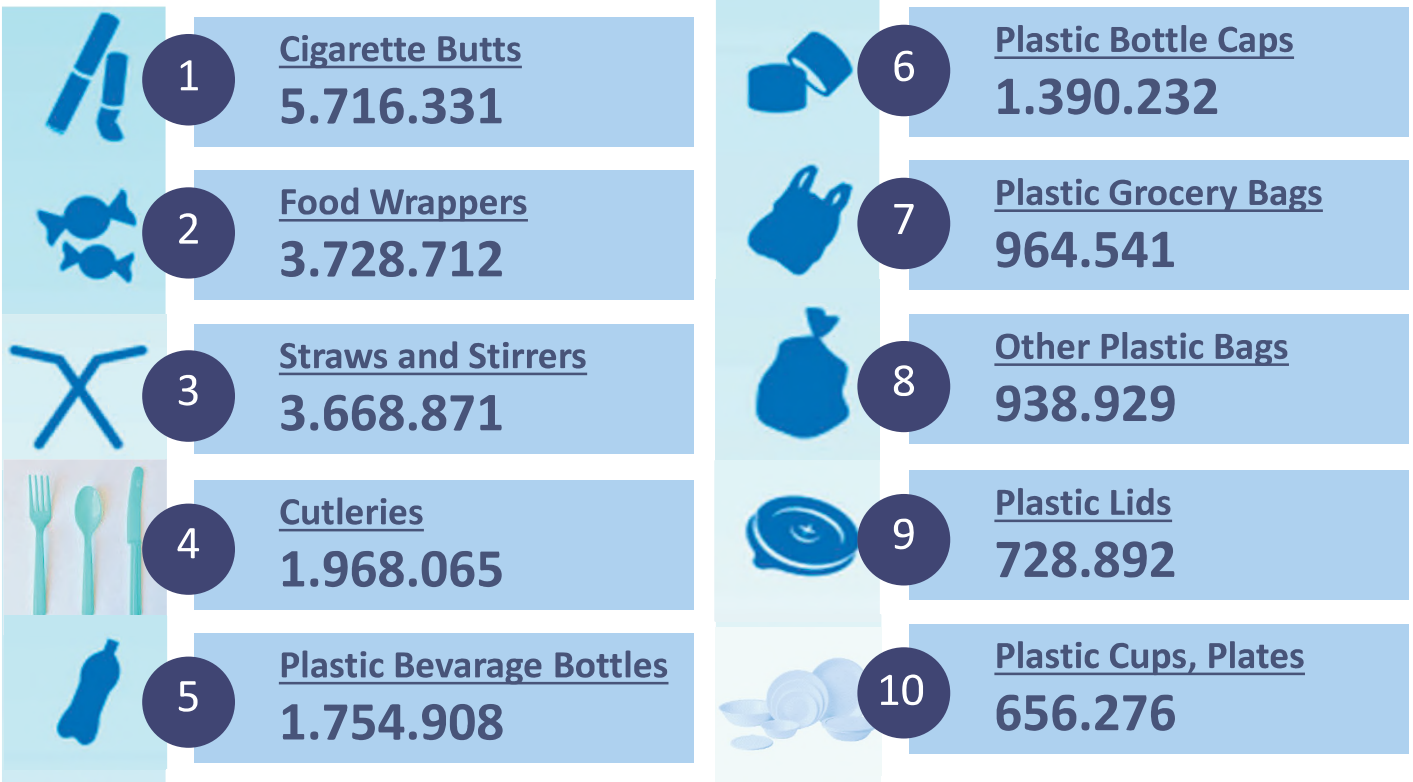


Pekalongan

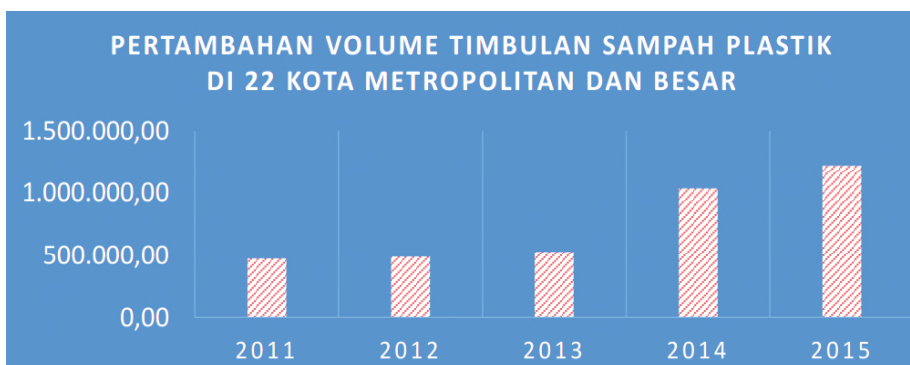
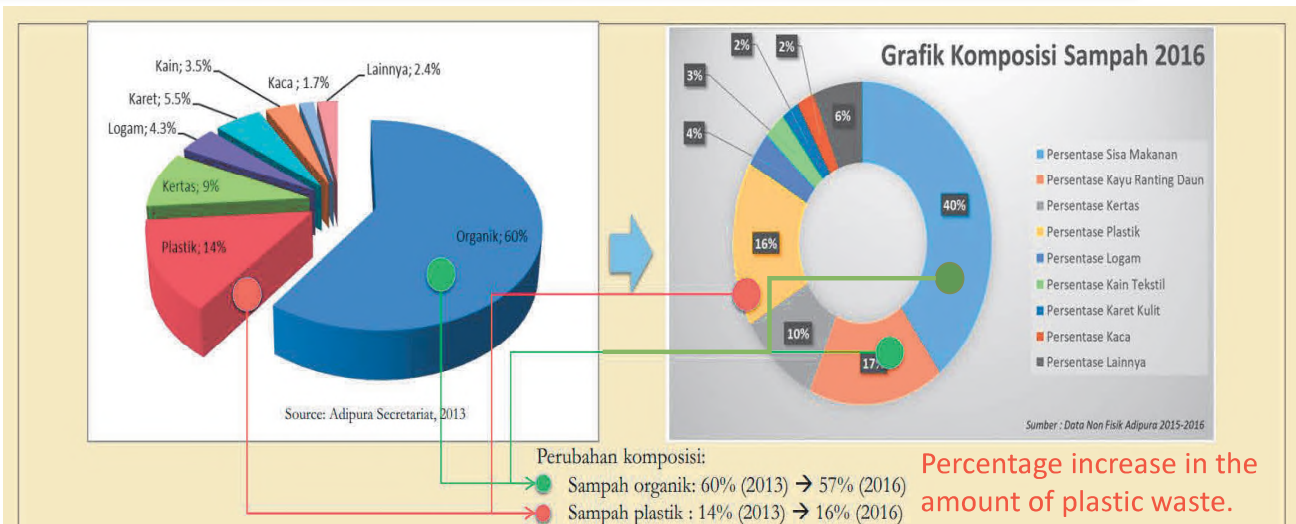
TOP TEN WASTE FOUND IN THE WORLD



Based on the 2019 **International Coastal Cleanup Report** that carried out by Ocean Conservancy on May 10, 2019, (MMAF participated). The total of marine debris collected are 97.457.984 items from around the world and weighing around 10.584.041 kgs, and here the following are 10 most types of waste found in the world:



NATIONAL WASTE COMPOSITION



Source : KLHK, 2017

SCIENTIFIC REPORTS ANTHROPOGENIC DEBRIS IN FISH AND MARINE BIODIVERSITY



Fossil Coelacanth, Sulawesi Utara



The living fossil "coelacanth": captured by fisherman, found consuming marine plastic debris, captured in Manado Bay, North Sulawesi (Newspaper, Tribun Manado, may 24th, 2012)

Mahi-Mahi Fish Stomach Contents, Costarica, December 2017

JOINT STUDY HASSANUDIN UNIVERSITY AND UC DAVIS
24 December 2015

PAOTERE FISH MARKET: Makassar

76 fish of 11 species.
28% of fish eat plastic with debris size 0.1 – 1.6 mm

HALFMOON BAY FISH MARKET: California

64 fish of 12 species and 12 shellfish.
67% of fish and 25% of shellfish eat plastic with debris size 0.3 – 5.9 mm



Plastic size 0.2mm found in Ikan Teri/Anchovy fish (LIPI, 2017)

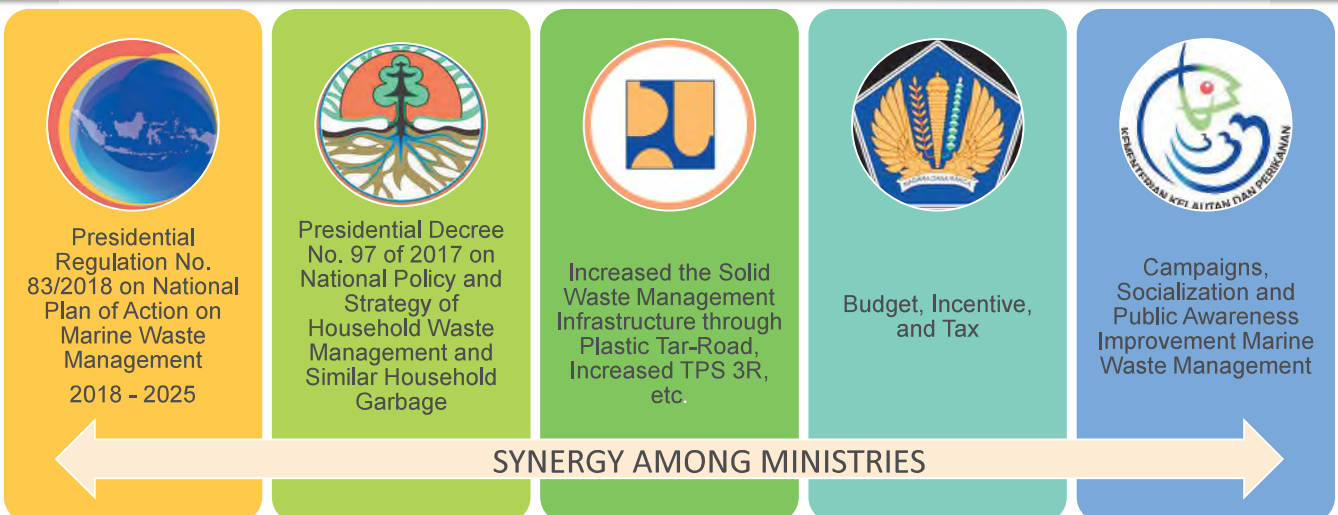
GoI COMMITMENT



President Joko Widodo, at the Leaders Retreat, G20 Summit, Germany, July 7th, 2017
OOC 2018 Bali
G20 Summit Osaka

Indonesia is to reduce land wastes 30% and to manage through **reduces-reuse-recycle** up to **70% until 2025.**

FOLLOW UP FROM GOVERNMENT OF INDONESIA



5-R CONCEPTS



Changing people's **mindset** that the ocean is not a "garbage bin"

waste **LESS** food™

GERAKAN NASIONAL **PILAH SAMPAH DARI RUMAH**



Begin to **refuse** excessive use of plastic products



Reduce or limit your shopping according to needs and **reduce** of disposable products



Use products that can be used **repeatedly**



Recycle waste into products that have economic value or become energy

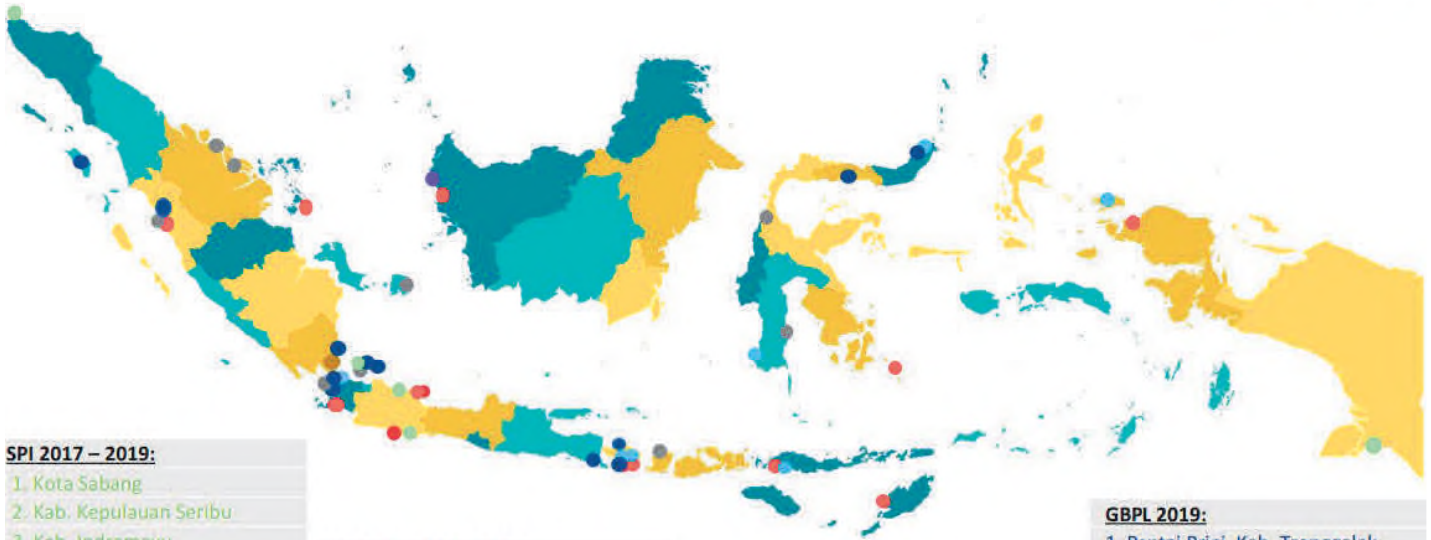


LOVE OUR OCEANS (GITA LAUT) - MMAF



- 1 Beach and Underwater Clean Up (Gerakan Bersih Pantai dan Laut) *Re-think, Refuse*
- 2 Indonesian Coastal Education (Sekolah Pantai Indonesia) *Reuse*
- 3 Boy scout Coastal Jamboree - *Reduce*
- 4 Procurement of Waste Processing Machinery (Plastic Crusher, Press and Composting) *Recycle*
- 5 Active in National and International Cooperation

LOVE OUR OCEANS (GITA LAUT) 2017 - 2019



SPI 2017 – 2019:

1. Kota Sabang
2. Kab. Kepulauan Seribu
3. Kab. Indramayu
4. Kab. Pangandaran
5. Kab. Merauke
6. Kab. Pesisir Selatan
7. Kab. Meranti
8. Kab. Belitung Timur
9. Kab. Serang
10. Kota Palu
11. Kab. Bone
12. Kab. Lombok Utara
13. Kab. Kepulauan Seribu
14. Kab. Bengkalis

JAMBORE 2017 – 2019:

1. Kota Cirebon
2. Kab. Pangandaran
3. Kab. Paloh
4. Kab. Lampung Selatan
5. Mertasari, Bali

GBPL 2017:

1. Labuan Bajo, Kab. Manggarai Barat
2. Kota Batam, Kepulauan Riau
3. Kota Cirebon, Jawa Barat
4. Kab. Wakatobi, Sulawesi Tenggara
5. Tanjung Benoa, Badung, Bali
6. Pantai Merthasari, Denpasar, Bali

GBPL 2018:

1. Pantai Aeng Batu-Batu, Makassar
2. PPS Nizam Zachman, Jakarta
3. GBPL lebih dari 73 Lokasi di Indonesia
4. Pantai Padang Galak, Bali
5. Labuan Bajo, Kab. Manggarai Barat
6. Pantai Kuta, Bali
7. Raja Ampat, Papua Barat
8. Manado, Sulawesi Utara

GBPL 2019:

1. Pantai Prigi, Kab. Trenggalek
2. Pantai Cerri, Pandeglang
3. Lampung Selatan
4. Kepulauan Seribu
5. Pantai Merthasari, Bali
6. Pantai Timur, Kelurahan Ancol (dalam rangka GML 2.0)
7. Underwater Cleanup di Pulau Air dan Pulau Panggang
8. Nias dalam rangka Sail Nias
9. Pohuwato, Provinsi Gorontalo
10. Manado (dalam rangka AIS Forum)
11. Mertasari, Bali
12. Kota Pariaman, Padang

WASTE FACILITY LOCATIONS 2017 - 2019



- Shredder machines (11 locations)
- Composters (6 locations)
- Plastic Press machines (5 locations)

GITA LAUT 2017-2019



BOY SCOUT COASTAL JAMBOREE (5 LOCATIONS)



BEACH AND UNDERWATER CLEANUP (26 LOCATIONS)



INDONESIAN COASTAL EDUCATION (14 LOCATIONS)

GITA LAUT 2017-2019



UNDERWATER CLEANUP 2019 IN KEPULAUAN SERIBU

GITA LAUT 2017-2019



PROCUREMENT OF WASTE FACILITIES (22 LOCATIONS)



ACTIVE IN MARINE DEBRIS INTERNATIONAL EVENTS: APEC, EAS, AMF, CSEAS, UNEP

TOTAL AMOUNT (KGs) OF MARINE DEBRIS THROUGH BEACH CLEANUP 2017 – 2019



NO	LOKASI	KOORDINAT	PELAKSANAAN KEGIATAN	JUMLAH SAMPAH TERKUMPUL (KG)
1	Pantai ASDP Labuan Bajo, Kab. Manggarai Barat	8°29'27.8"S 119°52'30.6"E	29-Sep-17	19.000,00
2	Pantai Nongsa, Kota Batam, Kepulauan Riau	1°11'18.3"N 104°04'37.5"E	21 Oktober 2017	555,50
3	Pantai Kejawanon Kota Cirebon, Jawa Barat	6°43'57.9"S 108°35'08.4"E	28 Oktober 2017	4.000,00
4	Kampung Mola Kab. Wakatobi, Sulawesi Tenggara	5°20'37.6"S 123°32'24.7"E	10-Nov-17	3.500,00
5	Pantai Bali Coral Tanjung Benoa, Badung, Bali	8°45'44.5"S 115°13'24.8"E	25-Nov-17	600,00
6	Pantai Merthasari, Denpasar, Bali	8°42'45.9"S 115°14'59.3"E	26-Nov-17	1.122,00
TOTAL JUMLAH SAMPAH TERKUMPUL 2017				28.777,50
NO	LOKASI	KOORDINAT	PELAKSANAAN KEGIATAN	JUMLAH SAMPAH TERKUMPUL (KG)
1	Pantai Aeng Batu-Batu, Makassar	5°14'04.2"S 119°22'56.4"E	6 Februari 2018	163,60
2	PPS Nizam Zachman, Jakarta	6°05'56.3"S 106°48'02.4"E	23 Maret 2018	693,50
3	GBPL lebih dari 73 Lokasi di Indonesia (Pantai Timur Ancol)	6°06'40.9"S 106°51'18.8"E	19 Agustus 2018	360.000,00
4	Pantai Padang Galak, Bali	8°39'23.3"S 115°15'59.9"E	15-Sep-18	841,53
5	Pantai Pede Labuan Bajo, Kab. Manggarai Barat	8°31'13.3"S 119°52'15.4"E	3 Oktober 2018	1.007,54
6	Pantai Kuta, Bali	8°43'20.1"S 115°10'09.8"E	28 Oktober 2018	366,80
7	Pantai Waisai Torang Cinta, Raja Ampat, Papua Barat	0°25'40.2"S 130°49'20.8"E	6 Desember 2018	1.418,95
8	Pantai Muara Bahu, Manado, Sulawesi Utara	1°27'40.3"N 124°49'13.0"E	12 Desember 2018	2.058,00
TOTAL JUMLAH SAMPAH TERKUMPUL 2018				366.549,92
NO	LOKASI	KOORDINAT	PELAKSANAAN KEGIATAN	JUMLAH SAMPAH TERKUMPUL (KG)
1	Pantai Prigi, Kab. Trenggalek	8°17'12.7"S 111°43'28.7"E	5 Februari 2019	616,00
2	Pantai Cerri, Pandeglang	6°15'59.5"S 105°49'40.4"E	28 Februari 2019	668,00
3	Terminal Executive Bakauheni, Lampung Selatan	5°51'57.0"S 105°45'25.0"E	15 Maret 2019	404,20
4	Pulau Untung Jawa dan Pulau Panggang, Kepulauan Seribu	5°58'44.7"S 106°42'20.1"E	24-25 April 2019	69,22
5	Pantai Merthasari, Bali	8°42'45.9"S 115°14'59.3"E	10 Mei 2019	634,94
6	Pantai Timur, Kelurahan Ancol (dalam rangka GML 2.0)	6°06'40.9"S 106°51'18.8"E	18 Agustus 2019	7.525,00
7	Pulau Panggang dan Pulau Air, Kep. Seribu dalam rangka IYMDS	5°44'17.6"S 106°36'01.8"E	26 Agustus 2019	10,37
8	Pantai TPI Teluk Dalam Nias, dalam rangkai Sail Nias	0°33'53.8"N 97°49'35.2"E	11-14 September 2019	321,00
9	Kampung Torosiaje, Puhuwato, Provinsi Gorontalo	0°28'26.3"N 121°26'13.9"E	24-Sep-19	461,50
10	Pantai Karangria, Manado (dalam rangka AIS Forum)	1°30'43.1"N 124°50'38.1"E	31 Oktober 2019	1.033,10
11	Pantai Merthasari, Bali	8°42'45.9"S 115°14'59.3"E	11 Desember 2019	228,00
12	Pantai Gandorih, Kota Pariaman	0°37'27.4"S 100°06'52.4"E	13 Desember 2019	1.303,57
TOTAL JUMLAH SAMPAH TERKUMPUL 2019				13.274,90
JUMLAH TOTAL SAMPAH TERKUMPUL PADA GBPL 2017 - 2019				408.602,32

MMAF ACTIONS FOR TACKLING ALDFG (ABANDONED, LOST OR OTHERWISE DISCARDED FISHING GEAR)



COMMITMENT ON FAO/GGGI WORKSHOP, 8-11TH JULY, 2019

Recommendations

- ALDFG should be included in global and regional funding mechanisms and projects, dealing with the major drivers of environmental degradation.
- International and regional organizations/bodies such as FAO, IMO, UNDP, UNEP, SEAFDEC, COBSEA, BOBP-IGO, APFIC, IOTC, PEMSEA, ASEAN and GGGI should collaborate and support initiatives for addressing ALDFG in the region. FAO should continue the collaboration with the Global Ghost Gear Initiative (GGGI) and others to facilitate the implementation of FAO's Voluntary Guidelines for the Marking of Fishing Gear (VGMFG) and GGGI's Best Practice Framework (BPF) at regional and national level, including through the development of a global ALDFG umbrella programme.
- Government and industry are encouraged to appropriately manage gear throughout its lifecycle including retrieval, reuse and recycling of ALDFG by using appropriate incentive mechanisms. Government and industry are also encouraged to remove those incentives that increase the risk of ALDFG and discourage related actions.
- Regional and national bodies, NGOs, associations and Governments are encouraged to facilitate the implementation of the VGMFG and best practice management of fishing gear framework through translation and localization of the gear marking guidelines and by developing outreach materials including train-the-trainer materials to raise awareness amongst fishing stakeholders and use them in solution projects.
- FAO is encouraged to complete annex B of the VGMFG which provide technical details on how different gears should be marked.
- FAO and other relevant organisations should assist developing countries, to develop and/or acquire cost-effective, easily accessible and environmentally friendly marking technologies in all types of fishing activities, in all oceans and seas.
- FAO and other relevant bodies and Governments should support inter alia but not limited to capacity building activities, facilitate technology transfer and conduct projects or case studies in the region to implement gear marking guidelines and the best practice framework and to disseminate information, including awareness programme for fisheries stakeholders to prevent, reduce, reuse and recycle ALDFG.
- Governments, NGOs and industry should involve fishers, their communities and other stakeholders to implement incentives, solutions, cost-effective technologies to eliminate, reduce, reuse, recycle and retrieve ALDFG as well as explore end of life gear recycling programmes, the development of biodegradable materials for fishing gear and support further research and development as well as the monitoring of the above
- Regional organizations and governments are encouraged to develop standard reporting mechanisms for ALDFG. National reporting of discard, abandonment or loss of fishing gear is encouraged to be implemented, recalling the provisions in MARPOL Annex V and in the Voluntary Guidelines for the Marking of Fishing Gear (VGMFG) and the BPF and to establish a baseline and monitoring system.
- Global, regional and national bodies and organizations are encouraged to undertake assessments; collate and share knowledge on the causes, effects, impacts solutions and drivers of ALDFG at national and regional level.
- IMO is encouraged to swiftly implement the ALDFG relevant actions contained in the IMO Action Plan on Marine Litter in collaboration with other agencies, organizations and countries.
- Recommendations and outputs from this workshop should be shared with all participants including those stakeholders in the region that weren't present.



MMAF ACTIONS FOR TACKLING ALDFG (ABANDONED, LOST OR OTHERWISE DISCARDED FISHING GEAR)



IN PEKALONGAN, DECEMBER 2019:

- Socialize to fishermen about handling waste from fishing gear
- Provide the Pekalongan Waste Bank with the plastic press machine
- Invite private sectors such as PT. PT. Wijaya Mandiri Tintex Jakarta and PT. Arida Cirebon in public private partnership
- Collaboration with World Bank through Techinal Assessment in 2020

Thank You, Muchas Gracias



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