

# Exploring the potential for adopting alternative materials to reduce marine plastic litter



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### Organisations and miscellaneous terms

Acronym/term	Definition
ALDFG	Abandoned, Lost or otherwise Discarded Fishing Gear
Biodegradable	Biologically-mediated process involving the complete or partial converted to water, $CO_2$ /methane, energy and new biomass by microorganisms (bacteria and fungi).
Compostable-domestic	Capable of being biodegraded at low to moderate temperatures, typically found in a domestic compost system
Compostable-industrial	Capable of being biodegraded at elevated temperatures under specific conditions and time scales
DECOIN	Organisation for the Defence and Ecological Conservation of Intaq, Equador
El	Environmental Impact Index
ESI	Ecological Sustainability Index
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
GESAMP	Joint Group of Experts on Scientific Aspects of Marine Environmental Protection
IUPAC	International Union of Pure & Applied Chemistry
LCA	Life Cycle Analysis
NOAA	National Oceanic and Atmospheric Administration
PEF	Product Environmental Footprint
SDG	Sustainable Development Goals
SWOT	Analysis of Strengths, Weaknesses, Opportunities and Threats
UNDP	United Nations Development Programme
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme

Naturally-occurring polymers and materials				
Material	Composition, derivation or process			
Abaca/Manila hemp	Cellulose, lignin & pectin from the inedible Banana (Musa textiliis)			
Alginate/alginic acid	Polysaccharide (copolymer of mannuronate and guluronate ) derived from Brown seaweed ( <i>Phaeophyceae</i> )			
Alpaca wool	Keratin fibre from the alpaca			
Angora wool	Keratin fibre from Angora rabbit			
Araca	Araca palm (Araca catechu), grown for the 'betel' nut			
Bagasse	Waste fibrous material from agricultural production			
Bamboo	Moso bamboo (Phyllostachys edulis) is most widely used species			
Casein	Protein fibre in milk			
Cashmere	Keratin fibre from Cashmere goats			

Cellulose	Naturally-occurring polysaccharide in plant cells
Chitin	Naturally-occurring polyester in fungal cell walls and the exoskeleton of crustacea (e.g. shrimps)
Coir	Cellulose and lignin fibre from coconut outer shell
Cotton	Cellulose fibre from the cotton plant (Gossypium sp.)
Cutin	Waxy biopolyester in plant cuticles
Flax/linen	Cellulose fibre from the flax/linseed plant (Linum usitatissimum)
Fibroin	Protein fibre forming silk
Gluten	Protein composite found in the endosperm of cereal crops, having viscoelastic properties
Hemp	Cellulose fibre from the hemp plant (Cannabis sativa)
Jute	Cellulose and lignin fibres from the plant Corchorus sp.
Keratin	Protein fibre forming wool
Kenaf	Fibres obtained from the stems a species of the hibiscus ( <i>Hibiscus</i> cannabinus)
Kraft paper	Paper manufactured using the kraft process, removing lignin and maintaining long cellulose fibres for greater strength
Lignin	Naturally-occurring polymer used to form cell walls in wood and bark
Maize	Species of large grain plant, also known as corn (Zea mays)
Phyllosilicate	Clay minerals with plate-like structure
Piña	Cellulose and lignin fibre from Pineapple leaf (Ananas comosus)
Piñatex™	Fabric made from pineapple leaves
QMilch™	Casein fibre from soured cow's milk
Retting	Process of extracting fibres from hemp, flax and coir by soaking in water and physical extraction
Seagrass	Marine species of flowering plant (angiosperms)
Sheep's wool	Keratin fibre
Silk	Fibroin fibre from the silk moth (Bombyx mori)
Sisal	Fibres obtained from a species of Agave (Agave sislana)
Staple fibre	A fibre of a defined length (natural or cut to length synthetic fibre)
Zein	Maize protein

Synthetic and semi-synthetic polymers and associated chemicals				
Short form	Composition/full name/function			
ABS	Acrylonitrile butadiene styrene resin			
Cellophane	Semi-synthetic cellulose-based film			
Cellulose acetate	Semi-synthetic cellulose-based fibre or film			
BPA	Bisphenol A			
Composite	A material composed of two or more polymers or other substances			
EP	Epoxy resin (thermoset)			
EPS	Expanded polystyrene			
Ingeo™	Fibre composed of PLA			
Monomer	The 'building blocks' making up a polymer			

PA	Nylon, Polyamide 4, 6, 11, 66	
PAN	Polyacrylonitrile, acrylic	
PBDE	Polybrominated diphenyl ethers – flame retardants	
PBS	Poly (butylene succinate)	
PBSA	Polybutylene succinate-co-butylene adipate	
PBT	Polybutylene terephthalate	
PCBs	Polychlorinated biphenols	
PCL	Polycaprolactone	
PE	Polyethylene	
PE-LD	Polyethylene low density	
PE-LLD	Polyethylene linear low density	
PE-HD	Polyethylene high density	
PES	Polyester	
PET	Polyethylene terephthalate	
PHA	Polyhydroxylkanoates	
Phthalate	Plasticiser	
PLA	Poly (lactic acid)	
PMMA	Poly (methyl) methacrylate	
PP	Polypropylene	
PS	Polystyrene	
PTFE	Polytetrafluroethylene	
PU (PUR)	Polyurethane	
PVA	Polyvinyl alcohol	
PVC	Polyvinyl chloride	
Rayon	Semi-synthetic cellulose-based fibre	
Spandex	Polyether-polyurea	
TPS	Thermoplastic starch	
Viscose	The most common form of rayon	

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