

Arctic Cleanup 2021-22

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Keep Norway Beautiful

About Keep Norway Beautiful

Keep Norway Beautiful (Hold Norge Rent) is a non-profit organization working to end littering. The organization aims to both prevent littering and to help clean up litter. Keep Norway Beautiful invites stakeholders from the public, private and voluntary sectors to contribute to a joint effort against littering through cooperation and membership.

This report was produced with funding from the Norwegian Ministry of Climate and Environment and the Ocean Conservancy.

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Introduction

International cooperation is crucial to the success of efforts to combat marine litter. Voluntary cleanups and citizen science can also play a key role in this work. This is the basis for the creation of Arctic Cleanup which was originally an initiative of the Ocean Conservancy¹.

So far, Arctic Cleanup has faced a number of challenges. The pandemic delayed the startup, and the invasion of Ukraine led to the suspension of cooperation with Russia.

Furthermore, it has proved difficult to engage volunteers in the region. So far, the project has only succeeded in mobilizing participants in Finnmark and Iceland, but after two years of efforts, it now looks like the project will get underway in Greenland, Canada and Alaska in 2023.

About Arctic Cleanup

Arctic Cleanup is an international collaboration between Hold Norge Rent (HNR), Ocean Conservancy (OC) and local cleanup groups² in the Arctic. The project is part of the Arctic Council program "Protection of the Arctic Marine Environment" (PAME) and is aligned with the "Regional Action Plan on Marine Litter in the Arctic"³.

Arctic Cleanup aims to contribute to the prevention of marine litter in the Arctic by encouraging and facilitating voluntary cleanups and by gathering knowledge about marine litter in the region.

The project is funded by the Norwegian Ministry of Climate and Environment, the Ocean Conservancy and Norrøna.

Background

Parts of the Arctic are highly polluted, and scientists point to the danger of a sixth 'plastic patch'⁴ in the Barents Sea. Moreover, ⁵new evidence suggests that much of the litter comes from local sources, as well as from sources outside the Arctic via ocean currents. To reduce the input, there is a need for increased awareness and knowledge of the sources and causes of littering in the region.

Arctic Cleanup is a three-year project that focuses on voluntary cleanups and citizen science in Arctic areas. The project mobilizes and facilitates voluntary cleanup operations across the region and collects data on litter from these operations.

The project aims to engage and raise awareness among the local population, tourists visiting the region, industry and local government.

¹ https://oceanconservancy.org

² See Appendix 1

³ Chapter 7 - ACTIONS FOR THE PREVENTION AND REDUCTION OF ARCTIC MARINE LITTER Section 5 - Cleaning Arctic Coasts

⁴ Cózar, Andrés et al (2017) The Arctic Ocean as a dead end for floating plastics in the North Atlantic branch of the Thermohaline Circulation.

⁵ Strand, Opstad Kjersti et al (2021) Potential sources of marine plastics from survey beaches in the Arctic and Northeast Atlantic

Project Status

Arctic Cleanup was supposed to start in 2020, but the pandemic meant it was delayed. The start-up in 2021 was also affected by the pandemic, and the project was therefore organized as a pilot in Finnmark and Iceland.

In 2022, the project was fully implemented in Finnmark and Iceland, and a pilot was carried out in Greenland. Contacts were also established with local partners in Alaska and Canada.

Originally, Russia was also included in the project, but despite several attempts to establish dialog with relevant stakeholders in Russia, the project did not succeed, partly due to the pandemic. In 2022, cooperation with Russia was suspended due to the invasion of Ukraine.

The project has partnered with the Finnmark Outdoor Recreation Council, which mobilizes volunteers and coordinates the cleanup operations and data collection in Finnmark. In Iceland, the project collaborates with Worldwide Friends Veraldarvinir, which is responsible for the implementation of the activities there.

In 2022, dialog was also established with the Center for Alaskan Coastal Studies and CSR Greenland with the aim of expanding to Alaska and Greenland in 2023.

7th International Marine Debris Conference (7IMDC)

In September 2022, nearly 1,000 delegates from around the world gathered at the 7th International Conference on Marine Debris.

During the conference poster session, Hold Norge Rent presented Arctic Cleanup⁶.

⁶ See Appendix 2

Results

Citizen science is a key part of Arctic Cleanup. The data is collected using a tailor-made tool developed by HNR and OC in consultation with the region's participants⁷. HNR guides local participants in the use of the tool.

The data is recorded in OC's Tides⁸ and the Norwegian cleanup operations are also recorded in the Rydde digital tool⁹.

The citizen science data is quality assured and analyzed by HNR. Here is an overview of results from 2021 and 2022.

Key figures from 2021 and 2022

Key Figures	2021	2022
Number of areas cleaned	6	13
Number of recorded volunteers ¹⁰	54	226
Number of kilograms of marine litter collected	3,743	20,938
Number of items collected	3,034	14,944

The project's database is currently limited in both quantity and geographical coverage. Therefore, no conclusions are drawn at this stage on the basis of this data.

Top five finds in numbers from clearance operations in Finnmark, Iceland and Greenland 2022

Items	Number	Share of Total
Plastic and EPS pieces smaller than 2.5 cm	5,780	43 %
2) EPS/XPS (larger than 2.5 cm)	1,818	14 %
3) Fishing line	953	7 %
4) Floating elements in EPS	660	5 %
5) Fishing nets (pieces of)	600	4 %

⁷ See Appendix 3

⁸ https://www.coastalcleanupdata.org

⁹ https://ryddenorge.no

¹⁰ The number of volunteers participating in Iceland in 2021 was not recorded

Top ten most common items¹¹ during cleanups in Finnmark and Iceland 2022

Items	Number of actions	Share of actions where the object has been registered
1) Food containers (plastic)	11	85 %
Food packaging (candy, potato chips, etc.)	11	85 %
3) Shopping bags (plastic)	11	85 %
4) Buoys/floats (hard plastic)	10	77 %
5) Plastic bottles/canisters (gas/oil)	10	77 %
6) Construction materials	10	77 %
7) Drink cans	10	77 %
8) Other bags (plastic)	10	77 %
9) Fishing line and ropes <50cm	9	69 %
10) Bottle caps (plastic)	9	69 %

Going Forward

Our activities will continue in Finnmark and Iceland in 2023. In addition, start-ups are planned in Greenland, Canada and Alaska. Dialog will also be established with stakeholders in Sweden and Finland who have shown interest in the project.

To increase the amount of data collected in the project, HNR has looked into the possibility of analyzing the litter collected by local volunteer groups on Svalbard, and the goal is to materialize these plans in 2023.

HNR is also planning an expedition in parts of the Arctic in 2023. This will be carried out in collaboration with the Norwegian organization In the Same Boat and is funded by Norrøna.

The objectives of the expedition are to increase engagement among the project's target groups, contribute to increased mobilization of volunteers in the region, stimulate more cleanup operations and map the litter situation in selected areas.

¹¹ Litter most frequently found by volunteers during Arctic Cleanup operations

Appendix 1: Arctic Cleanup Data Sheet

RYDDESKJEMA FOR MARIN FORSØPLING I ARKTIS



Takk for at du rydder og bidrar med data i dette ryddeskjemaet som er skreddersydd for arktiske områder. Vennligst ta hensyn til de unike forholdene der du rydder. Spesielt med tanke på sårbare habitater og kulturelle og/eller historiske gjenstander som ikke skal fjernes. I dette skjemaet kan oppsamlet søppel registreres på ulike måter: etter antall gjenstander, etter vekt eller etter volum (antall poser). Du trenger ikke rapportere på alle disse verdiene – velg den metoden som fungerer best for gruppen basert på forholdene. Takk for at du gjør en forskjell og bidrar til verdens største database om forsøpling i havet.

SLIK BRUKER DU SKJEMAET: ORGANISER OG 3 PUBLISER RESULTATENE 4 SPRE RESULTATENE OG ■ PLUKK SØPPEL OG REGISTRER FUNN ANALYSER DATAEN REDUSER MILIØAVTRYKKET NAVN: E-POST: ANTALL FRIVILLIGE (PÅ DETTE SKJEMAET): DATO FOR bam (under 12 år): RYDDEAKSJONEN: voksne: BESKRIVELSE AV STED FOR OPPRYDDINGEN STEDSINFORMASJON Navn på sted for Type miljø (velg ett): opprydding: Saltvann (strand/bukt/øy/havbunn) Fylke: Ferskvann (elv/bekk/innsjø) Innland (ingen vanmasse i nærheten) Land: Type datainnhenting (velg én): På Land (strand/kystlinje/innland) Område Under vann Nærmeste veikryss eller landemerke Kjøretøy (motorbåt/seilbåt/kajakk/kano) ETTER RYDDAKSJONEN - KOMMENTARER Generelle kommentarer: Forurenset søppel eller søppel med tydelige bitemerker av dyr: Gjenstander som ikke fjernet (skadelige materialer, gjenstander Identifiserbare merkevarer (f. eks Nidar, Freia, Cooca Cola osv.): av kulturell eller historisk betydning):

Send dette skjema tilbake til koordinator for ditt område. cleanup@oceanconservancy.org

STATUS

DØDT ELLER SKADET

BIFANGST

JA ELLER NEI

DØDT/SKADET DYR

Trash Free Seas: www.oceanconservancy.org/cleanup
Be a Green Boater: www.oceanconservancy.org/goodmate
Velg papirlost! Last ned Clean Swell
www.oceanconservancy.org/cleanswell



TYPE BIFANGST

FUNNSKJEMA

Folkeforsker: Plukk opp søppelet og registrer alle gjenstandeene du finner nedenfor. All data du registrer er viktig for Trash Free Seas.® uavhengig av størrelsen på gjenstandene.

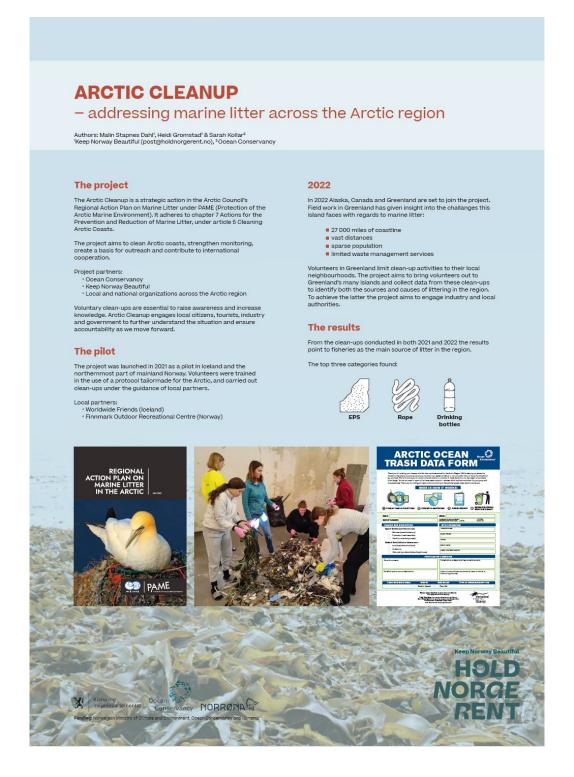
TRE MÅTER Å REGISTRERE DATA:

1. Tell gjenstandene

VEXT	POSER Samilet	ANTALL Gjenstander
	4	
	EKT	POSER SAMILET

Oppgi totalt antall fylte poser og størrelsen på posen(e) ELLER Oppgi totalvekten på søppelet som ble samlet inn		В	øyer/flåter (isopor)	120 liter poser		4			
FISKERI OG HAVBRUK:	VEXT	POSER ANT Samlet gjenst	TAL TANDER				VEKT	POSER Samlet	ANTALL Gjenstander
Akvakulturrelatert utstyr (tønner/ slanger):		DAME T		Apparater:				un meet	
•				Tønner og bøt	ter (plast):				
Emballasje/bokser/beholdere til agn:			Tønner (metall):						
Bøyer/flottører (EPS/isopor):				Samlebånddeler:					
Bøyer/flottører(hardplast):				Plastflasker/kanner (gass, olje):					
EPS/Isopor (flyteelementer:				Metallflasker/kanner (gass, olje):					
Fiskekasser (EPS/isopor):				Byggematerial	er:				
Fiskekroker, sluker osv.:				Skumemballas	sje/isolasjon:				
Fisketeiner:					idshansker, stoffha	insker):			
Fiskesnøre: ca. lengde eller antall				Pakkebånd/stri	ps:				
•				Paller:					
Fiskenett (hele):				Dekk:					
Fiskenett (biter):				Annet avfall (r	netall, behandlet tr	e, osv.):			
Snøre og tau > 50 cm(noter type, f.eks. tralletau, nylon	, med by,	osv.):		Værballonger:					
				FORBRUKS	VARER OG MATV	ARER:		т	OTALT #
Snøre og tau < 50 cm(noter type, f.eks. tralletau, nylon	, med by,	osv.):		Ballonger:				=	•
				Drikkeflasker	(glass):			=	
Ruller fra emballasje:				Drikkeflasker	(plast):			=	
Plastduker/tarpaulin:				Drikkebokser:				=	
PERSONLIG HYGIENE OG ANNET SØPPE	L:	TOTAL	T#	Drikkepakninge	er(sachet):			=	
Holdere til 6-pakning:		=		Flaskekorker (metall):			=	
Klær:		=		Flaskekorker (plast):			=	
Kondomer:		=		Sneiper:				=	
Bleier:		=		Bomullspinner:				=	
E-sigaretter:		=		Kopper, tallerkener (EPS/isopor):				=	
Elektronisk avfall (telefoner, batterier):		=		Kopper, tallerkener (papir):				=	
Fottøy:		=		Kopper, tallerkener (plast):			=		
Hansker (gummi/lateks) og masker (PPE):		=		Beholdere til mat (EPS/isopor):			=		
Papirposer:		=		Beholdere til mat (plast):			=		
Forladninger/patroner:		=		Matemballasje (godteri, potetgull osv):			=		
Tobakksprodukter (lightere/ sigarrester/innpakning):		=		Handleposer	(plast):			=	
Leketøy:		=		Andre poser (plast):			=		
Annet plastavfall:		=		Lokk (plast):				=	
MINDRE ENN 2,5 CM 2,5 cm (fakti	isk størrel	se) TOTALI	T #	Sugerør/rørep	inner:			=	
Plast/EPS-biter (isopor):		=		Bestikk:				=	
				ANDRE GJENS	STANDER SOM IKKE	ALLEREDE ER L	ISTEN:	Т	OTALT #
				1. Snus:				=	•
				2.				=	
				3.				=	
SAMMENDRAG (SETT SIRKEL RUNDT RIK	TIG MÅ	LEENHET	T)						
Antall fylte poser: Samlet vekt :			kg	Avstand rvddet:	km	Område rvddet:			km²

Appendix 2: Arctic Cleanup poster 7IMDC 2022



Appendix 3: Local Partnerships Arctic Cleanup

Iceland:

Veraldarvinir/Worldwide Friends represented by Þórarinn Tóti Ívarsson

Finnmark:

Finnmark Outdoor Recreation Council represented by Hugo Tingvoll

Greenland:

CSR Greenland represented by Ivinnguaq Kristiansen

Alaska:

Ocean Conservancy represented by Kristina Tirman

Canada:

Ocean Conservancy represented by Sarah Weller

