



International  
Science Council

SCAR Sub-Group

SG / SC

Person  
Responsible:

ImPACT

LS

Susan Bengtson  
Nash

## XXXVII SCAR Delegates Meeting

India, September 2022

# Input Pathways of Persistent Organic Pollutants to Antarctica (ImPACT-AG)

## 2020-22 Report

### Summary

*Chemical pollution continues to represent a major global threat, with the UN naming chemical pollution as one of three Planetary Crises faced today, alongside climate change and biodiversity loss. The global significance of this threat was underscored by the G7 commitment to establishing an International Panel for Chemical Pollution (IPCP) by 2024. As with climate change, the Earth's Polar regions play a pivotal role as sentinels of global chemical pollution and the work of ImPACT continues to work to fill an important gap in the Antarctic context for the generation, collation, and communication of policy-ready advice. This task, however, is beyond the scope of a SCAR Action Group and as such development of a larger Antarctic Monitoring and Assessment Programme (AnMAP), with associated baseline funding, is underway. AnMAP implementation was an explicit foundation goal of ImPACT, hence there is unresolved uncertainty surrounding the ideal path forward for the ImPACT Action Group. In light of this, the group is seeking an interim extension of 1 year to resolve AnMAP and ImPACT transition and placement within the SCAR framework.*

### Report Author(s)

Susan Bengtson Nash (Australia)

### Summary of activities from 2020-22

The main activities of 2020-2022 for the group are summarised below:

1. ImPACT have continued to hold twice yearly whole WG and task-specific meetings. Today we have 36 members representing from 18 countries.
2. ImPACT commenced their activities by collating two databases, **i)** A sample database that new projects could refer to for circum-polar collaboration and scope, and **ii)** An active projects database that members may use to navigate Antarctic access and samples via collaborators.
3. In 2021 ImPACT produced a white paper, a horizon scan of chemical pollution research needs in the Antarctic context, for the 2021 Antarctic Treaty Meetings. This article is in preparation as a Perspective paper for the Lancet Planetary Health.
4. Supplementary SCAR funding was secured to create an interactive pollution mapping tool in collaboration with EGABI (Expert Group on Antarctic Biodiversity

## ImPACT: 2020-22 Report, cont.

Informatics (EG-ABI). The supplementary funding secured the literature review and data entry for all POP literature and led to a collaboration with the PLASTICS group to commence data entry for plastics also. The map is available for viewing here: <https://aad.aad-science.cloud.edu.au/app/sopopp/>

5. In line with the goals of ImPACT to scaffold towards an Antarctic Monitoring and Assessment Programme (AnMAP) body, modelled on the [Arctic Monitoring and Assessment Programme](#), UN endorsement of AnMAP as an Ocean Decade Activity was secured.
6. Further submissions resulting from the January, 2022 “*ACT Now - Legacy and Emerging Contaminants in Polar Regions*” workshop were made to the Antarctic Treaty CEP meetings in Berlin, and ImPACT have been asked to respond to these submissions, reporting on AnMAP activities.
7. ImPACT will host the 2022 SCAR Open Science Conference Session “*Chemicals of Emerging Antarctic Concern; A rising tide in a warming climate.*”
8. An outcome of the Antarctic Treaty Meetings feed-back was a suggestion of hosting a multiple stakeholder workshop. This activity is planned for late 2022.

ImPACT Chair, Susan Bengtson Nash, has throughout 2021/22 met with Suzie Grant, Chief Officer of SC-ATS; Yan Ropert-Coudert, former Chief Officer of SCAR Life Sciences, and Birgit Njaastad, Chair of the CEP, to discuss the logical placement of AnMAP within the SCAR structure. The most promising model appears to be a ‘SOOS-type’ body and this option is being explored further. As there is considerable activity underway, and as it is yet unclear what model would best serve science-policy needs (i.e. AnMAP replacement of ImPACT, or transition of ImPACT to an Expert Group, representing the scientific contributions to AnMAP products), it is proposed that ImPACT be extended as an Action Group for a further 1-year interim period.

### Summary Budget 2021 to 2024

	2021	2022	2023	2024
	Spent	Allocated	Request	Request
(US\$)	\$4,500	\$10,771	\$2,500	

## Progress to date

### Sub-group Outcomes Summary

Sub-group	Activity/Outcome/Benefit/Achievement
ImPACT	Sample Database
ImPACT	Active Project Database
ImPACT	SC-ATS Information Paper (Horizon Scan of Chemical Pollution Research Needs in Antarctica)
ImPACT	Interactive pollution mapping tool developed with EGABI
ImPACT	UN Ocean Decade endorsement for the Antarctic Monitoring and Assessment Programme (AnMAP)
ImPACT	Hosting of SCAR Open Science Conference Session on Emerging Contaminants

### Sub-group Cash Flow

(Since previous report to Delegates in 2020)

Sub-group	Allocation	Amount spent		
		2020	2021	2022
ImPACT	Interactive Map (research officer hours for data entry)		\$14,305	

## Future plans

### Planned activities in 2022 to 2024

Sub-group	Planned activity
ImPACT	Multiple Stakeholder Workshop

**Planned use of funds for 2022 to 2024**

Year (YYYY)	Purpose/Activity	Amount (in USD)	Contact Name	Contact Email
2022	Multiple stakeholder workshop and outcome reporting	\$2,500	Susan Bengtson Nash	s.bengtsonnash@griffith.edu.au
<b>Total</b>				

**Any additional detail on funds usage and desired results/outcomes**

**Percentage of the budget to be used for support of early-career researchers**

2022:

2023:

2024:

**Percentage of the budget to be used for support of scientists from countries with developing Antarctic programmes**

2022:

2023:

2024:

## Membership

### Leadership

Role	First Name	Last Name	Affiliation	Country	Primary Language	Email	Date Started
Chief Officer / Chair	Susan	Bengtson Nash	Griffith University	Australia	English	s.bengtsonnash@griffith.edu.au	2017
Co-Chair Officer	Pernilla	Bohlin/Nizzetto	NILU	Norway	Norwegian	Pernilla.bohlin-nizzetto@nilu.no	2017

(Please identify early-career researchers with \* in first column)

### Other members

Name	Affiliation	Email	Country
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*(Please identify early-career researchers with \* in first column)*

## **Additional information (optional)**

### **Notable Papers**

1. Persistent Organic Chemicals in Antarctica: A horizon scan of priority challenges. 2021, Scientific Committee for Antarctic Research (SCAR) submission to the Committee for Environmental Protection (CEP) of the Antarctic Treaty.

This work communicates the priorities and recommendations for future chemical pollution research in the Antarctic context.

### **Major collaborations your group has with other SCAR groups and with organisations/groups beyond SCAR**

#### **Within SCAR**

1. EGABI, PLASTIC-AG – Collaboration on development of the interactive pollution mapping tool.

#### **Outside SCAR**

1. Arctic Monitoring and assessment Programme (AMAP) – ImPACT continues to work closely with the AMAP Secretariat and contributors for the co-design and development of AnMAP.

### **Outreach, communication and capacity-building activities**

Act Now – Legacy and Emerging Contaminants in Polar Regions (attendance by Rainer Lohmann, Susan Bengtson Nash, Pernilla Bohlin Nizzetto)

AMAP workshop on remote vs. distant sources (attendance by Rainer Lohmann, Susan Bengtson Nash, Pernilla Bohlin Nizzetto, Simonetta Corsolini, Nicoletta Ademollo and Zaneta Polkowska)

### **Contributions to equality, diversity, and inclusion (EDI)**

ECR co-Chair of SCAR Open Science Conference Session hosted by ImPACT is PhD student, Andrea Zimbelli.