



The Association of Commonwealth Universities

# BLUE CHARTER PROGRAMME

**IMPACT REPORT** Waitrose-funded activities

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#### Background

The ocean is essential for nearly all processes of life on Earth and underpins livelihoods, food security and cultural traditions for communities around the world. However, the accumulation of marine plastics pollution increasingly threatens fragile underwater ecosystems and has become one of the most pressing environmental challenges of our time.

In 2018, all 53<sup>1</sup> Commonwealth countries signed the Commonwealth Blue Charter to affirm their collective commitment to addressing ocean-related challenges. The same year, the Commonwealth Clean Oceans Alliance (CCOA) spearheaded by the UK and Vanuatu was established to tackle marine plastics pollution. By bringing together governments, researchers, innovators, industry and practitioners from across the Commonwealth, the CCOA continues to provide a platform for international and multidisciplinary collaboration to produce solutions for ocean sustainability and pollution reduction.

#### Waitrose-funded activities

In 2019, Waitrose & Partners provided funding to the Association of Commonwealth Universities (ACU) to launch a second phase of the Blue Charter Programme, as part of their commitment to the Commonwealth Marine Plastics Research and Innovation Framework (MPRIF)<sup>2</sup>initiated by the UK government under the CCOA. The funding supported 10 research fellowships, an online knowledge exchange training programme, and a dedicated knowledge exchange grant scheme helping researchers turn knowledge into action.

The programme activities have been delivered in line with the ACU's approach to supporting research systems through programmatic interventions that strengthen capacity at the individual, institutional, and systems levels. Through working in partnership with our members and other global higher education and research experts, the programme has delivered outcomes that have engaged and connected universities across borders, promoted collaboration, and strengthened the long-term vitality of universities across the Commonwealth.

#### **Research Fellowships**

Waitrose-funded Fellows have completed 10 innovative research projects, and each Fellow on award received support from a supervisor at their host institution and a remote specialist mentor based in a third institution.

Through the Fellowships, 10 outstanding research talents have generated new knowledge which deepen our understanding of the social, environmental and economic dimensions of marine plastics pollution around the world.

They have enhanced the knowledge base on which effective policies can be formulated; passionate about making a difference, they continue to drive change, engage communities, and generate greater momentum to tackle marine plastics pollution across the Commonwealth and beyond.

#### Knowledge exchange training programme and grant scheme

To support Fellows in the delivery of knowledge exchange activities, Waitrose also funded the development of 9 online training modules on effectively engaging non-academic stakeholders in research for impact. The modules were launched in early 2020 for both cohorts of Blue Charter Fellows, and opened to all researchers working in the field of marine science at ACU member universities later in the year. At the time of reporting, a total of 170 researchers in the field have taken the modules.

A dedicated knowledge exchange grant was also made available to researchers who completed the online training, and successful applicants acquired up to £3,000 to plan and deliver external engagement activities which reinforce the impact and uptake of their marine plastics research.

#### Successful programme completion

All 10 Fellows successfully completed the programme and produced high-quality research outputs - a considerable achievement considering that the majority of Fellowships took place during the COVID-19 pandemic.

The present report captures the outcomes of the 10 Waitrose-funded Fellowships, the knowledge exchange training programme, and the knowledge exchange grant scheme. It also captures the impact Waitrose Blue Charter alumni continue to make in the field of marine plastics research and innovation.

The data contained in this report have been drawn from results of the one year follow-up survey, which has received a 100% response rate from alumni as well as input from 16 BEIS-funded alumni and 12 external knowledge exchange training programme participants.

The ACU is grateful for the outstanding support Waitrose has provided throughout the programme, and during the disruptions caused by the COVID-19 pandemic.





#### Subjective ratings: to what extent did Fellows achieve their objectives for the programme?

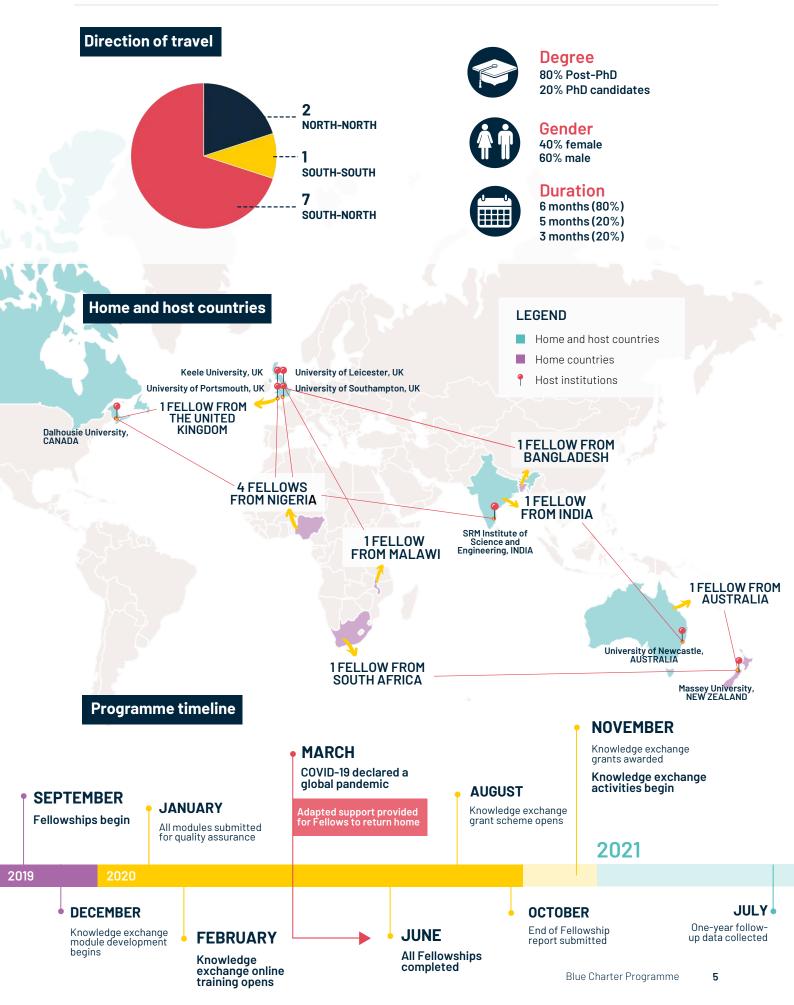
Fully achieved (7)

Partially achieved (3)

Reasons cited for partial achievement:

- COVID-19 disruptions
- Nature of work changed
- Ran out of time
- Publishing is a long process

#### **Programme overview**



### Increased evidence base

### on the impact, control, and governance of marine plastics across the Commonwealth.

Research and innovation play a key role in driving the Commonwealth Blue Charter. All 10 Fellows conducted in-depth, innovative projects in line with CCOA objectives. Over the course of 3-6 months, they have produced research outcomes which yield new insights into plastics pollution and control mechanisms.

#### **Research outputs**



publications and contributions to book chapters to date (See Annex A)

#### Africa

- Effective national-level plastics governance frameworks (Nigeria)
- Creating value from plastic wastes in urban coastal communities (Nigeria)
- Microplastics prevalence and routes in Lake Malawi (Malawi)

#### Asia

• Baseline study of microplastics types and prevalence in coastal regions (India)

#### Pacific

• Recommendations to reduce plastics use along commercial fishing industry supply chains (New Zealand)

#### **Global relevance**

- Waste exportation and practices which leak plastics into the ocean
- The potential of marine micro-organisms to degrade plastics in the ocean
- Applicability of plastic wastes to construction materials
- Estuaries as a natural filtration mechanism for marine plastics
- Developing sustainable crockery using agricultural wastes

#### **RESEARCH THEMES**

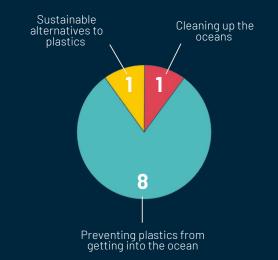




Photo: Dr Salom Vincent and her team collecting microplastics samples along 70 km of Kerala's coastline for a baseline study.



#### In focus: the first study of microplastics in Lake Malawi

In Malawi, little has been published about plastic pollution. With his Fellowship at the University of Leicester, Timothy conducted a trailblazing study on the origins and types of microplastics in Lake Malawi - the first study of its kind in his country. Despite the fact that laboratories had been shut down due to COVID-19, Timothy was able to successfully isolate samples and is currently processing the results for publication. By determining the origins, abundance, and distribution of the microplastics in Lake Malawi and tracing its journey, Timothy established a vital set of baseline data to inform future interventions and community-based clean-up operations.

On Commonwealth Day in 2020, the BBC interviewed Timothy about his Fellowship research at the University of Leicester. He also travelled to Buckingham Palace where, alongside a number of other Blue Charter alumni, he discussed the importance of his research, its implications, and its global relevance.

### **Strengthened capacity**

### for research, writing, collaboration, and knowledge exchange.

Fellows highlighted the exposure to international contexts, new research ideas, additional equipment and training, new platforms for knowledge exchange, and support from host supervisors as key benefits which helped them develop valuable skills for their career development and research ambitions.

All Fellows reported transferring the knowledge and skills they gained to their current studies, teaching, and research. They shared their experiences abroad with colleagues and, in some cases, proactively encouraged their own research students to take on marine plastics-focused projects. 50% of Fellows have published their Blue Charter research during or shortly after the programme, and the majority have pursued local community and media engagement activities to increase public awareness about marine plastics pollution.

# 100%

of Fellows have applied the knowledge and skills they gained through the programme in their current teaching and research.

#### Fellows have developed:

- Computational and writing skills for publication
- Greater teaching potential and confidence to guide their own research students, or form research clusters, at their home institution
- Improved ability to network, form and maintain international collaborations
- Greater understanding of foreign cultures and academic experiences abroad

#### Outcomes

media engagements and presentations at conferences and events

**10** community and public engagement activities:

- Beach cleans
- Training workshops
- Field demonstrations
- Stakeholder engagement meetings

#### Fellows' work have been featured in: • CBC

- Nature
- The Conversation
- Vanguard Nigeria
- <u>The Aotearoa Plastic Pollution</u> Alliance
- The Nigerian Tribune



#### In focus: influencing plastics governance in Nigeria

In 2019, the Nigerian Assembly proposed a new Nigerian Plastic Bags Prohibition Bill as a national-level strategy to reduce plastics use. Drawing from his background in jurisprudence, Dr Ndubuisi Nwafor used his Blue Charter Fellowship as an opportunity to investigate the strengths and limitations of the Bill - which was largely punitive - and suggest ways to redraft it for greater efficacy and impact. Working closely with his supervisor at Dalhousie University in Canada, Dr Nwafor compared best practices in plastics governance across sub-Saharan Africa. Together, they published a paper suggesting solutions for Nigeria.<sup>3</sup>

Upon his return home, Dr Nwafor pursued a study visit at the Nigeria House of Representatives on the issue of plastics, upon which he received an invitation from the Nigerian Assembly to put forward the recommendations he developed through his research. He also reached out to the Nigerian National Environmental Standards and Regulations Enforcement Agency (NESREA) to pursue a collaborative relationship, in the hopes of supporting new, evidencebased programmes that would help Nigerian communities respond to growing plastics crises across the country.

### **Enhanced networks**

### and international collaborations for marine plastics research and innovation.

Each Blue Charter Fellow on award received support from a supervisor at their host institution, as well as a remote specialist mentor in a third institution providing topical insights into the Fellow's area of research. This dual support base was designed to help Fellows quickly build research capacity, produce quality outputs and establish lasting networks across the Commonwealth.



#### Post-programme follow-up actions and activities:



collaborative research papers or manuscripts between Fellows and host supervisors are being finalised for publication.

Fellows have plans to conduct further joint work with their host supervisors which build on the outcomes of their Blue Charter research.



joint grant applications between Fellows and host supervisors are under development or have recently been submitted.

# 70%

of Fellows have participated in events and activities with their host institution and supervisor since completing the programme.

## 100%

of Fellows believe that the support from their host supervisors helped them achieve their Fellowship goals.



Photo: Dr Oluwarotimi Olofinnade with colleagues in India during his Fellowship at the SRM Institute of Science and Technology.



#### In focus: a lasting connection across continents

Six months into Dr Salom Vincent's Fellowship at the University of Newcastle in Australia, she had formed lasting connections with like-minded scientists from Australia and the UK and published several collaborative papers.<sup>4</sup>

'There were a lot of knowledge exchange discussions and field visits during the Fellowship,' Dr Vincent recalls. 'This impacted me, because I got a lot of information working with my hosts and made connections that are being continued. We shared ideas on how we can make the research more in-depth, and looked at the issue from a holistic perspective from different horizons.'

Dr Vincent was instrumental in forming a new Indo-Australian research team, which secured further grants to develop two new collaborative projects on marine plastics. Following her return to the University of Kerala, Dr Vincent began to guide several of her own research students, who became interested in working with marine plastics under her wing. She keeps in contact with her Australian collaborators and organises regular virtual workshops to enable continued discussions and exchange between marine plastics research students in India and Australia.



### Knowledge Exchange Training Programme and Grant Scheme

Knowledge exchange - or the two-way exchange of ideas, evidence, and experiences between researchers and research end users - is essential for academic research to have its desired impact on pressing global challenges.

To support researchers looking to enhance the impact of their research, Waitrose funded the development of an online training programme comprised of 9 modules aimed at strengthening researchers' theoretical and practical understanding of knowledge exchange, communications skills, and confidence to engage key stakeholders across sectors. All researchers who completed the modules were eligible to apply for the Knowledge Exchange Grant Scheme to acquire up to £3,000 to design and implement their own knowledge exchange activity.

This section of the report overviews the outcomes and impact of the training programme and grants, which supported 170 marine and ocean researchers to better promote best practices, effective interventions and innovative solutions emerging from their work.

I have benefitted immensely from the Knowledge exchange programme and I have also used the opportunity to launch my university to the forefront of the war against marine plastics pollution in Nigeria."

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DR NDUBUISI NWAFOR BLUE CHARTER ALUMNUS 2019-20

I am thankful for the support that the Blue Charter programme provided. It has helped me to lay the groundwork for building a community of environmental stewards who are determined to make a difference."

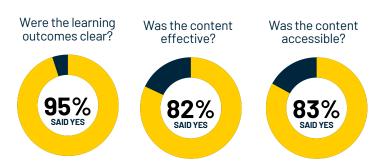
> DR ANDREA CLAYTON BLUE CHARTER ALUMA 2018-19

#### **Online training programme**

At the time of reporting, a total of 170 researchers in the field of marine and ocean sciences enrolled in the online training course. Each of the 9 modules were designed to cover one particular aspect of knowledge exchange, to give participants comprehensive and practical support to plan, develop, and deliver research dissemination and communication activities.

The data contained in this section is drawn from a sample of 27 respondents - including Blue Charter alumni (Cohorts 1 & 2) as well as external training participants.

#### **Overall course ratings**



#### Confidence increase

Confident

Very confident

## 170

total participants have enrolled in the online training programme to date.

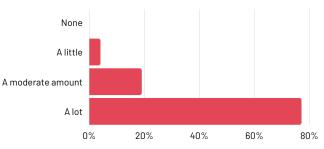
### MODULES

- 1. Introduction to research impact, knowledge exchange, and research uptake
- 2. Developing an effective knowledge exchange and research uptake plan
- 3. Communicating with non-academic audiences: getting your message heard
- 4. Communicating with non-academic audiences: creating engaging content
- 5. Event planning
- 6. Working with businesses & industry
- 7. Working with policy actors
- 8. Working with local communities
- 9. Monitoring, evaluating, and capturing research impact

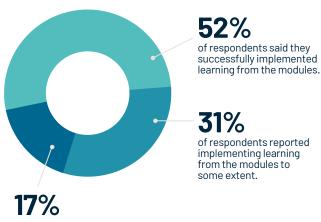


Respondents' self-rated confidence to conduct knowledge

Extent of increase in respondents' confidence to conduct knowledge exchange activities after training



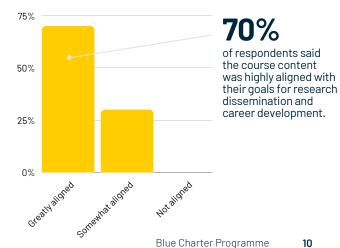




of respondents said they did not implement any learning from the modules.

#### Alignment with career goals

75%



#### The value of knowledge exchange training

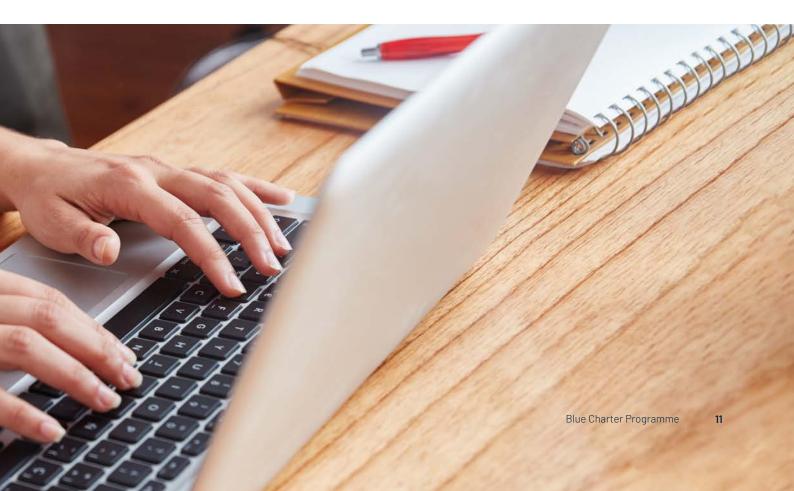
Respondents found a variety of aspects from the training programme highly useful in application to their current research and career development. The following captures some of the respondents' anecdotal feedback on what they found to be most valuable:

- 'I learnt about the involvement of stakeholders in designing and implementing the research theme'
- 'I never know how important knowledge transfer was worth in evaluating the impact of research, until I underwent this training.'
- 'I was able to access a good quality and quantity of research and knowledge exchange information at the comfort of my home/office, at any time. In addition, the lessons for all modules I took up were very educative and has made my research journey easier.'
- 'Creative ways of engaging with communities. I had a one to one session about Photovoice and I could get feedback on my ideas.'
- 'I gained expert knowledge and skills in the area of how to communicate and disseminate my research in order to add value to the society.'
- 'I found it really useful to clarify the meaning of impact and knowledge exchange. I also found the parts about engaging with non-academic audiences and using images particularly valuable.'
- 'From my consideration, all the topics are very important to achieve the research goals.'

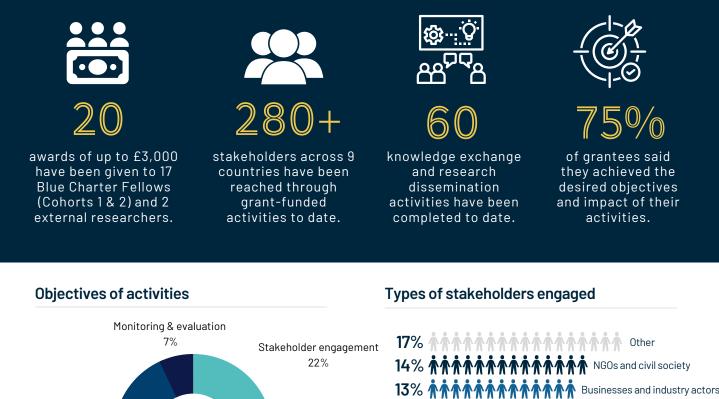
#### Applications to the Knowledge Exchange Grant Scheme

At the time of reporting, 75% of respondents to the course evaluation survey applied for the Grant Scheme. Of the respondents who applied, 90% reported that the online training programme helped inform their application. The modules helped applicants better understand the meaning of research impact and how to achieve it, develop new activity ideas, gain confidence with new tools for stakeholder engagement and evaluation planning, and formulate a clear strategy to execute planned activities.

Those who chose not to apply to the Grant Scheme cited a few main reasons, including competing priorities with ongoing workloads, study, or other grant applications; COVID-19 related stress; irrelevance of virtual activities to their knowledge exchange plan; missed deadlines; or having too little time to put together an application.



#### Knowledge Exchange Grant Scheme





| <b>17</b> % | <b>************</b> Other                           |
|-------------|---|
| 14%         | <b>፟፟፟፟፟፟፟ ້ ້ ້ ້ ້ ້ ້ ້ ້ ້ ້ ້ ້ ້ ້ ້</b>      |
| <b>13</b> % | <b>**</b> ** <b>*</b> * <b>*</b> * <b>*********</b> |
| 13%         | Media outlets and newspapers                        |
| <b>12</b> % | <b>***</b> * <b>***********</b>                     |
| <b>9</b> %  | National government                                 |
| <b>8</b> %  | Regional government                                 |
| <b>7</b> %  | <b>ተተለተሰላ በ</b> Local government                    |
| <b>7</b> %  | <b>ት ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ ስ</b>      |

#### Collaborations

**72**%

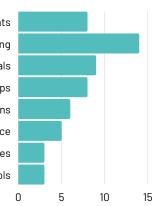
of awardees collaborated with their host supervisors and specialist mentors in the design and delivery of their grant-funded activities.

**33**%

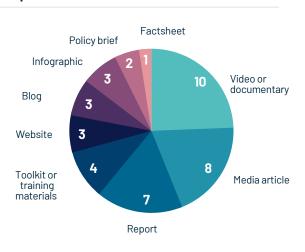
of awardees collaborated with other Blue Charter fellows and alumni in the design and delivery of their grant-funded activities.

#### Activity types





#### Outputs



#### In focus: knowledge exchange activities around the world

Montreal, Canada Development of communications materials for news and video platforms to increase public awareness plastics packaging and pollution

- Cape Coast, Ghana Focus group discussions with women's fishing groups to increase understanding of local challenges in marine plastics pollution
- Production of documentary on how behaviour change to reduce single-use plastics consumption

#### LEGEND

- Completed
- In progress
- Delayed due to COVID-19

#### Thiruvananthapuram, India

- Meeting with municipal leaders, pollution control board representatives, local women's self-help groups, and boat owners associations to discuss plastics management
- Community sensitisation workshops

Enugu, Nigeria Study visit Nigerian Assembly and the National Environmental Standards and Regulations Enforcement Agency (NESREA).

Lliongwe, Malawi A beach clean-up in Salima district involved local secondary school students.

> Durban, South Africa A series of community engagement programmes, including school visits and meetings with businesses to discuss plastics management

Adelaide, Australia Creation of a professional science communication video on marine plastics pollution.

Palmerston North, New Zealand Production and dissemination of professional report on strategies to reduce plastics use in fishing supply chains

#### Virtual knowledge exchange: successes and challenges

Due to largely to COVID-19 social restrictions, 11 grantees reported that they delivered their activities to stakeholders using virtual platforms such as Zoom. Of those, only 3 grantees reported facing challenges with virtual delivery. One of the top challenges reported was the lack of reliable internet connection, which meant that international event participants - often those from low to middle income countries - were unable to fully engage with virtual knowledge exchange activities. It was also reported that maintaining feedback using multimedia delivery methods, as well as routinely soliciting feedback from the audience, proved more challenging compared to the in-person experience. Some found that confirming guest attendance before virtual events and maintaining contact with stakeholders following the event proved difficult.

Interestingly, the remaining grantees reported benefits unique to virtual delivery. More stakeholders were able to participate in events without the need to travel, for example. 'Virtual engagement allow you to engage anyone or person at any parts of the world,' writes one grantee. Others cited safety from COVID-19 and cost savings as a major benefit. 'There was less set-up cost which allowed me to engage more people than originally thought possible,' writes another.

While virtual events can be time-consuming to organise and deliver, there is a general consensus that they enable researchers to save on event costs, reach more people, and pursue knowledge exchange activities during unprecedented disruptions such as the COVID-19 pandemic.

Ota, Nigeria Virtual workshops to raise public awareness about recycling

Kingston, Jamaica

Ibadan, Nigeria

Lagos, Nigeria

the environment and health

Six sessions with staff and parents of local schools to discuss the impact of plastics on

Oko, Nigeria

Online focus group discussions with SMEs, regulatory bodies and tradespeople to facilitate the uptake of sustainable road pavers built using waste plastics

A series of training workshops for coastal communities on generating economic value from plastic wastes

Two-day training workshop on volunteerism for plastics management with local resource persons

Ilara-Mokin, Nigeria In-person and virtual meetings with communities and an academic summit on bioplastic development

Televised video presentation and specialized training for students on plastic waste management

Grahamstown, South Africa Meeting with members of the

scientific services for the Garden Route National Park to discuss new plastic pollution projects, including under the South African National Park (SANParks)'s Biodiversity Social Projects (BSP) initiative

The majority of Waitrose-funded Fellowships were impacted to some degree by the pandemic, with the largest disruptions experienced by those who started their Fellowships in early 2020 and had to abruptly return to their home countries. The ACU provided adapted support throughout this time to ensure that Fellows returned home promptly and safely.

#### Leavy impact

The 3 Fellows reporting heavy impacts were those who had to return home before completing their fieldwork activities. For some, remote working was more time consuming and often hampered by connectivity issues, which significantly impacted their ability to achieve their Fellowship goals.

#### **L L L Moderate impact**

4 Fellows reported a moderate impact, whereby the shift to remote working - or the need to purchase protective equipment during in-person engagements - incurred greater research costs. Additionally, campus shutdowns meant that several Fellows were unable to complete their lab analyses or return to their host institutions to present the results of their research.

Due to widespread event cancellations and government restrictions, some Fellows were unable to complete their planned knowledge exchange activities or educational field trips in their host countries.

#### Light impact

3 Fellows reported experiencing little to no impact, as they were nearing the end of their Fellowships at the time of the outbreak. Those who were in the data analysis and writing phases of their projects were similarly able to shift to remote working with relative ease.

In the face of unprecedented challenges, all 10 Fellows demonstrated a high degree of resilience and innovation, adapting to new restrictions and remote working to successfully complete the programme.



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The blue charter Fellowship has significantly influenced my career and professional life as a researcher and teaching faculty in my home institution. I am so grateful for the opportunity and the wonderful support from my host. Moving forward, I would like to learn more on conducting research with impact and research uptake to ensure knowledge exchange."

> DR OLUWAROTIMI OLOFINNADE BLUE CHARTER ALUMNUS 2019-20

# ALUMNI 2019/20

There was ample learning support and I think the Blue Charter programme, and learning more about knowledge exchange, was hugely beneficial."

MS FREYA CROFT BLUE CHARTER ALUMNA 2019-20

Blue Charter Programme



### DR SALOM VINCENT

#### Research: Analysing microplastic types and prevalence along the coasts of Kerala Home: University of Kerala, India Host: University of Newcastle, Australia

Salom analysed beach samples along the coasts of Kerala, covering an impressive distance of 70 kilometres. Based on these samples, she established baseline data on the major types of microplastics polluting India's southwest coast and completed one of the first studies of its kind in the region. Salom's data have been published in renowned journals, and she hopes to contribute to India's national database on marine pollution and inform national-level mitigation strategies.



### DR OLUWAROTIMI OLOFINNADE

### Research: An innovation reusing plastic waste to create green pavers for construction

#### Host: SRM Institute of Science and Engineering, India Home: Covenant University, Nigeria

Oluwarotimi wanted to provide a workable solution to a complex question: how can we prevent plastics pollution at the source? His answer is simple and innovative waste plastics can be shredded and reused to make other materials. Drawing from his background in civil engineering, Oluwarotimi conducted laboratory analyses to determine how shredded plastics can be applied as a constituent material for interlocking concrete pavers. The cost-effective pavers he developed have the potential to be deployed for use in applications such as walkways, light traffic streetways and landscaping construction in the future.



### DR TIMOTHY BISWICK

Research: Malawi's first study on microplastics prevalence, types and routes in Lake Malawi Host: University of Leicester, UK Home: University of Malawi

Timothy successfully isolate microplastics samples he collected from Lake Malawi to conduct the country's first study of microplastics prevalence, types, and routes. He is currently processing the results for publication, and cites the close guidance and training he received from his host supervisor as one of the key benefits of his Fellowship experience. The new skills and knowledge he acquired inspired him to continue undertaking similar research projects in other regions of Malawi.



### MS FREYA CROFT

### Research: Reducing plastics along commercial fishing industry supply chains

Host: Massey University, New Zealand Home: University of Wollongong, Australia

Freya designed her Fellowship research project to respond to changes faced by the commercial fishing industry in relation to the management of plastics throughout their supply chains. She examined how plastics are being used throughout the supply chain of a commercial fishing company, Moana New Zealand, and identified where plastics can be reduced to prevent further leakage into marine environments. Her research sought to enter current policy discussions on marine pollution mitigation by providing viable tools for companies to reduce plastics usage.Her biggest success was to have shed light on how industry-based partners can transition towards a more ecologically-friendly trajectory.



### DR UDIBA UDIBA

#### Research: The potential of estuaries as natural filters for marine plastics Host: University of Southampton, UK Home: University of Calabar, Nigeria

Udiba drew upon his background in environmental biology to conduct a Fellowship research project investigating the potential of estuaries to naturally filter microplastics. His preliminary results indicate that estuarine filters have significant potential to moderate the flow of plastics to the ocean and act as a cost-effective clean-up mechanism for the oceans. Presently, Udiba's most immediate audience are other researchers and his achievements have been very well received. Going forward, Udiba hopes to engage the public and policymakers at both national and international levels with these insightful research outcomes.

### DR TAKUNDA CHITAKA

Research: Understanding how practices in waste-exporting countries leak plastics into the ocean Home: University of the Western Cape, South Africa Host: Massey University, New Zealand

Takunda analysed waste management practices and identified the types of products most prone to leakage. She identified the practice of exporting plastics from New Zealand to Southeast Asia as potentially one of the most significant drivers of plastic leakage into the ocean. Her research outcomes enable a comparison of factors influencing plastic waste flows in developing countries compared to developed ones. Going forward, Takunda hopes to facilitate the development of targeted plastic flow reduction policies tailored to different country contexts.



### DR SHANTANU SAHA

Research: Developing sustainable crockery using agricultural waste Host: Keele University, UK

Home: University of Liberal Arts Bangladesh (ULAB)

Shantanu's research outlined viable solutions to replace single-use plastics with disposable, bio-degradable materials using abundant and locally-sourced agricultural wastes. Shantanu will continue working to engage private and publicsector stakeholders with these research outcomes, influence behavioural changes for both producers and consumers, and provide a useful roadmap for other countries to shift purchasing decisions.



### DR TAIWO HAMMED

Research: Reducing, reusing, recycling and rethinking plastics in coastal urban communities in Nigeria Host: University of Plymouth, UK Home: University of Ibadan, Nigeria

Through his research, Taiwo quantified plastic wastes entering the ocean through various terrestrial routes, identified the most common types of contaminants, and sensitised community members on more environmentally-friendly approaches to plastics use and management. He reports that the residents of the targeted communities in Lagos have already acquired a good level of knowledge on the practices of sustainable waste management through his work, and this will ultimately lead to reduced levels of plastic pollution on the coasts of the city.



### DR NDUBUISI NWAFOR

Research: Strengthening national-level governance of plastic waste in Nigeria

Host: Dalhousie University, Canada Home: University of Nigeria Nsukka

Ndubuisi's research examined best practices in plastics governance across sub-Saharan Africa, and yielded recommendations to redraft the Nigerian Plastics Prohibition Bill of 2019 to ensure greater longevity and more effective community uptake. Since completing his Fellowship, Ndubuisi has played a key role connecting the academic community with national-level policymakers and lawmakers in Nigeria, and his research serves as an important addition to the global quest to provide solid governance for plastics.



### DR ROBYN WRIGHT

Research: Investigating the potential of marine micro-organisms to bio-degrade plastics in the ocean Host: Dalhousie University, Canada

Home: Dalhousie University, Canada (previously University of Warwick, UK)

Robyn successfully completed a meta-analysis of three dozen Plastisphere studies and stored the results of her work in a publicly accessible data repository for other researchers to build upon. "Often in academia, it is difficult to obtain funding for projects that use existing data rather than obtaining original data," Robyn explains. She was able to create resources that will allow future researchers to easily build upon existing knowledge and identify data gaps that most urgently need to be filled. In collaboration with her host supervisor, Robyn completed a manuscript summarizing her research which has recently been submitted for publication.





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