

# Fauna & Flora

Saving Nature Together



# Communicating with StoryMaps

Showcasing conservation impact  
with interactive material

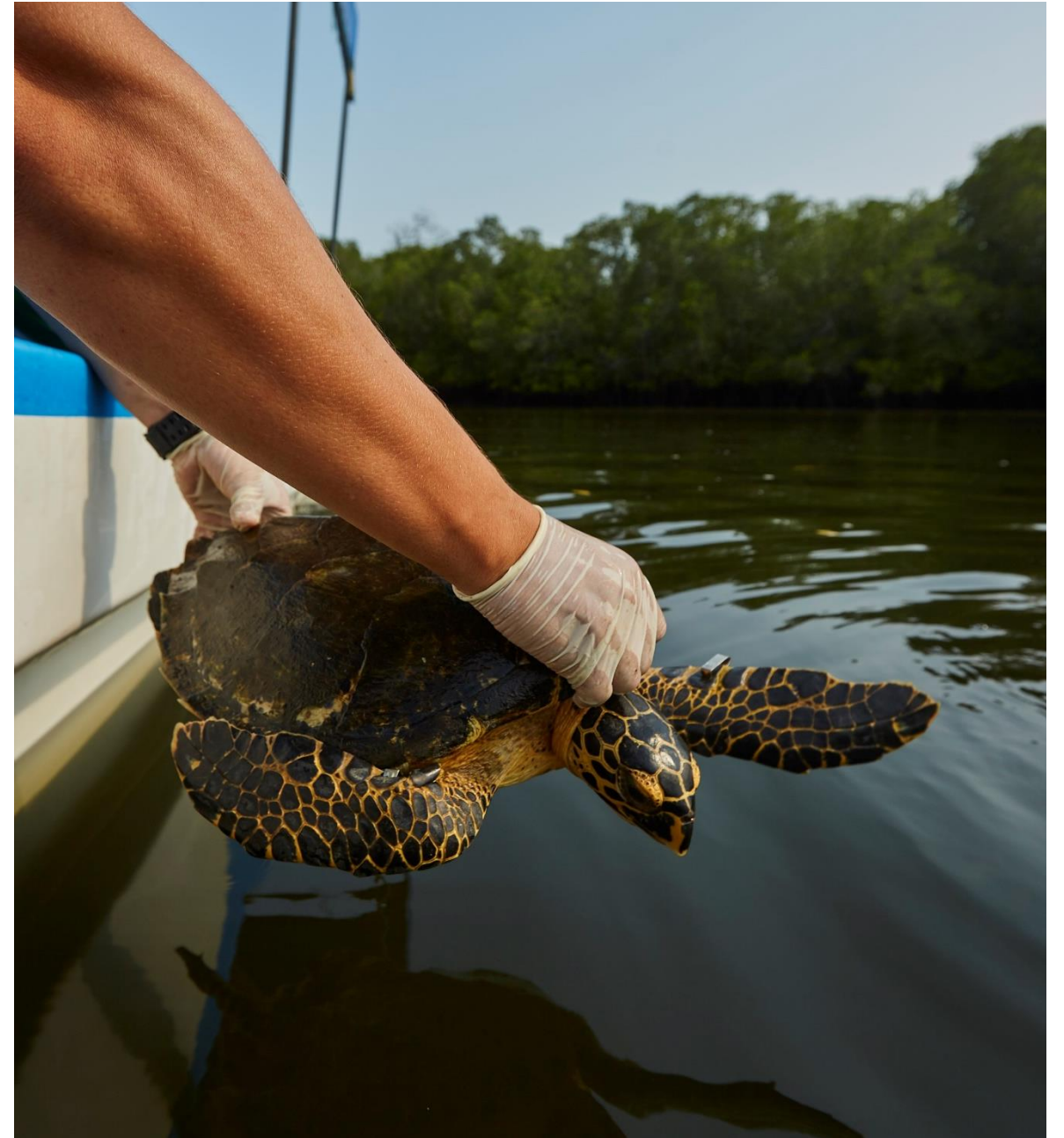
CHELSEA SMITH, FAUNA & FLORA

## Fauna & Flora

Fauna & Flora is a nature conservation charity protecting the diversity of life on Earth. For the survival of species and habitats, the **planet and people**.

Fauna & Flora **supports, sustains, and strengthens** local nature conservation action around the world.

We work closely with **local conservation** partners to protect habitats, revive the ocean, stop extinctions, stop illegal wildlife trade, combat climate change and more. We use our collective expertise to inspire positive change globally.



## How we work

We work alongside partners and local communities to develop conservation projects.

We have a lot of external communication needs, including reporting to donors, running community workshops etc.

We work globally with a wide range of people and skill-levels

Word, Slides, PDFs are the usual format but hard to make engaging.



# Conservation Technology at Fauna & Flora

**Conservation is inherently spatial.**

The conservation technology team support our in-country staff and partners to collect, analyse and communicate data.

**Visualising** our analysis is what makes it **impactful and accessible** to the people who need it.

**ArcGIS's powerful tools** allow us to produce high-quality publication-ready maps alongside engaging interactive online maps to **reach every audience we have**.



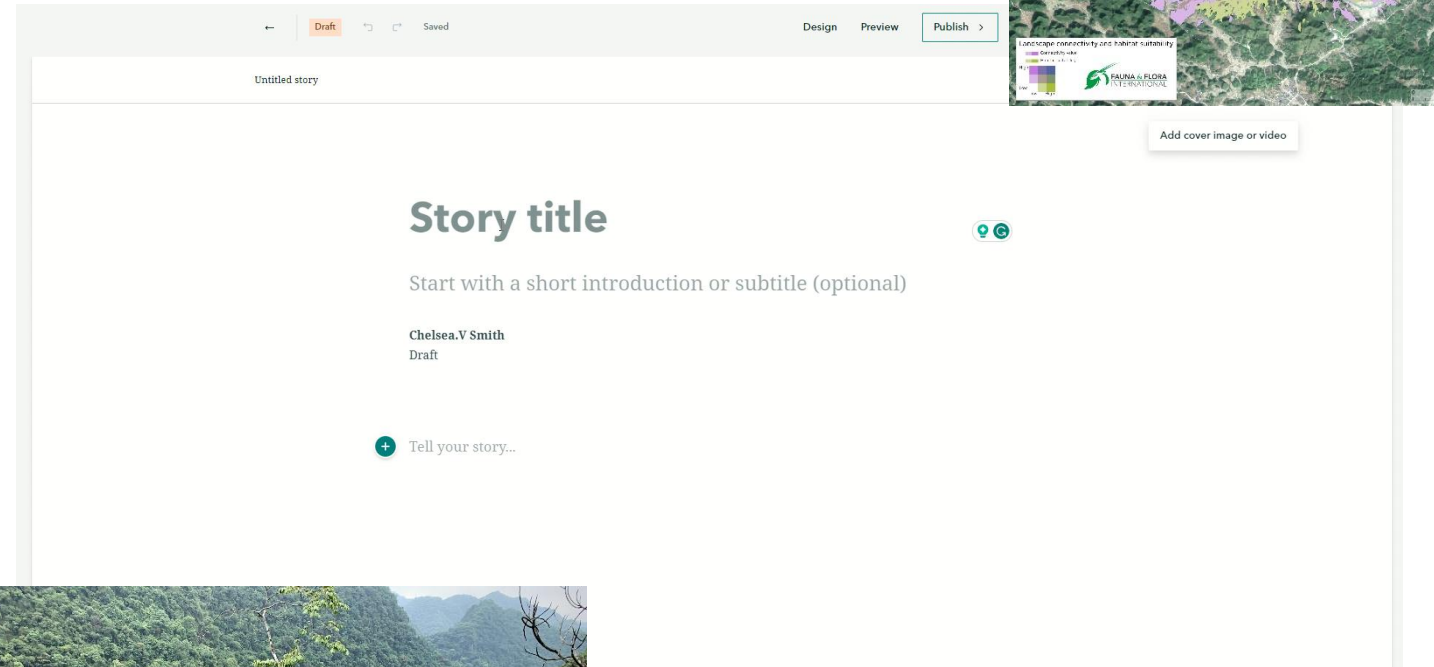
# ArcGIS StoryMaps

Communicating our work is fundamental to what we do

ArcGIS StoryMaps are a valuable communication tool

Easy to use drag & drop functionality promotes collaborative working

Immersive and dynamic mixed media helps break down the barriers to understanding our work



# The Guardians of Cao Vit Gibbons

Unveiling the Extraordinary Efforts to Safeguard one of the World's Rarest Primates

Fauna & Flora

October 26, 2023



“

We have been wrestling with **how to present all of this information so it is accessible to build on for practical conservation efforts** rather than languishing in dust-gathering reports.

Enters [ArcGIS' Storymap](#) which we have recently used to present crime script data and provide a very visual step by step account of commercial snaring and gun hunting in this area....

Field teams involved in patrols and government partners in Pu Mat seem to **engage more actively** with the crime scripting information when it is displayed on maps and not just presented as a narrative. I'm noticing that there are more questions and remarks following presentations or during workshops involving maps

Laure Joanny, Senior Technical Specialist, Wildlife Trade



# Community-led Conservation São Tomé & Príncipe

Discover São Tomé & Príncipe's inspiring conservation journey, where communities are protecting biodiversity for a sustainable future

Harriet Branson and Katy Walker

October 27, 2023



Story maps have helped engage local communities in our work and boost support of our projects

Story maps have helped us report to donors in new ways, which has been widely welcomed



Blue Action Fund

5,143 followers

2mo · 🌐

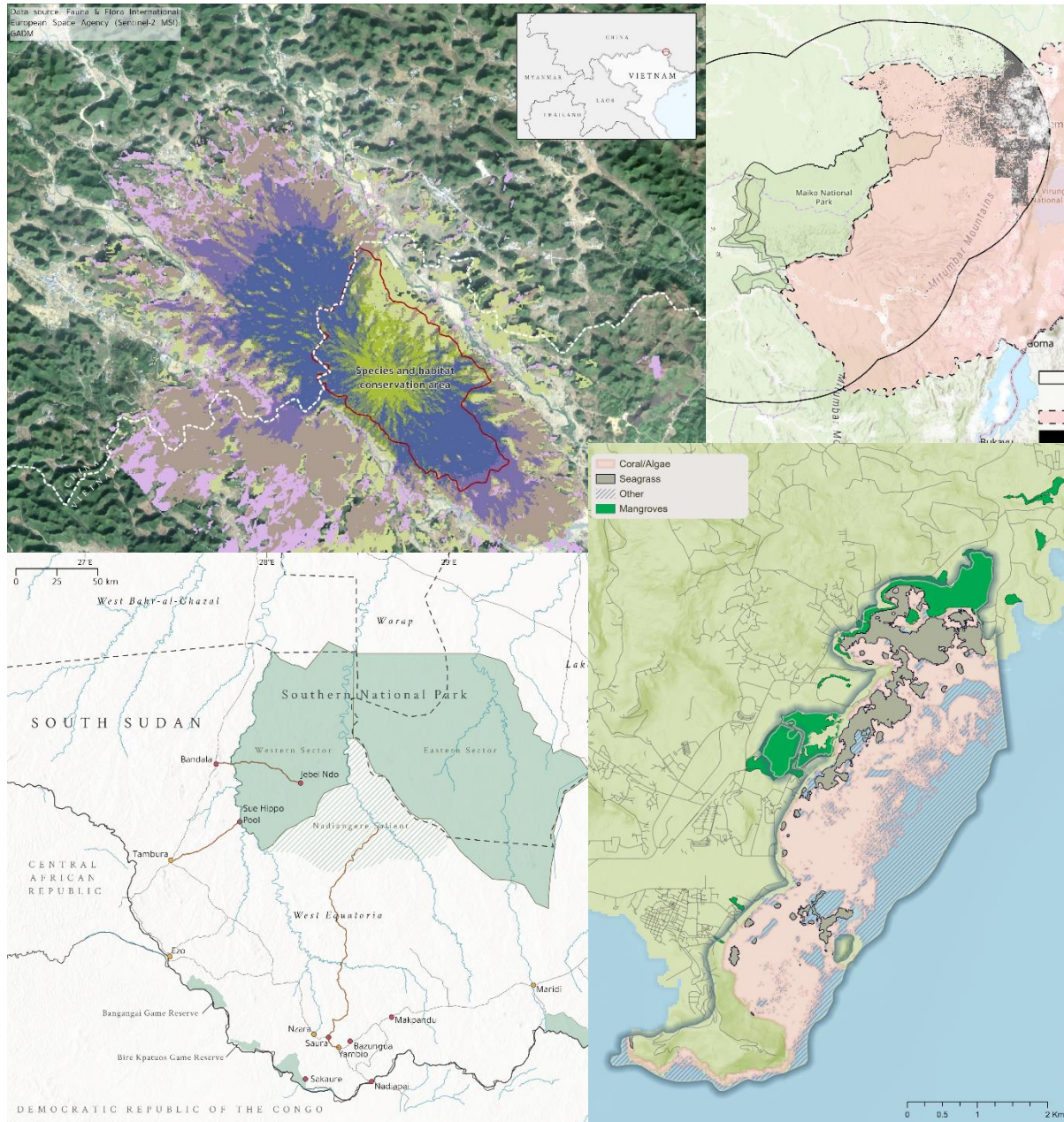
ArcGIS StoryMap about our investment in São Tomé & Príncipe. Great work by [Fauna & Flora](#), [Fundação Príncipe](#), [OIKOS](#) & [MARAPA](#).

[https://lnkd.in/eHMs\\_5bG](https://lnkd.in/eHMs_5bG)



Community-led Conservation São Tomé & Príncipe

storymaps.arcgis.com • 1 min read



## Conservation Technology at Fauna & Flora

Supporting designation and design of marine protected areas in Sao Tome & Principe and Saint Lucia



Identifying mining threats in Maiko National Park in DRC



Identifying suitable sites for restoration to increase the movement of Cao Vit Gibbons



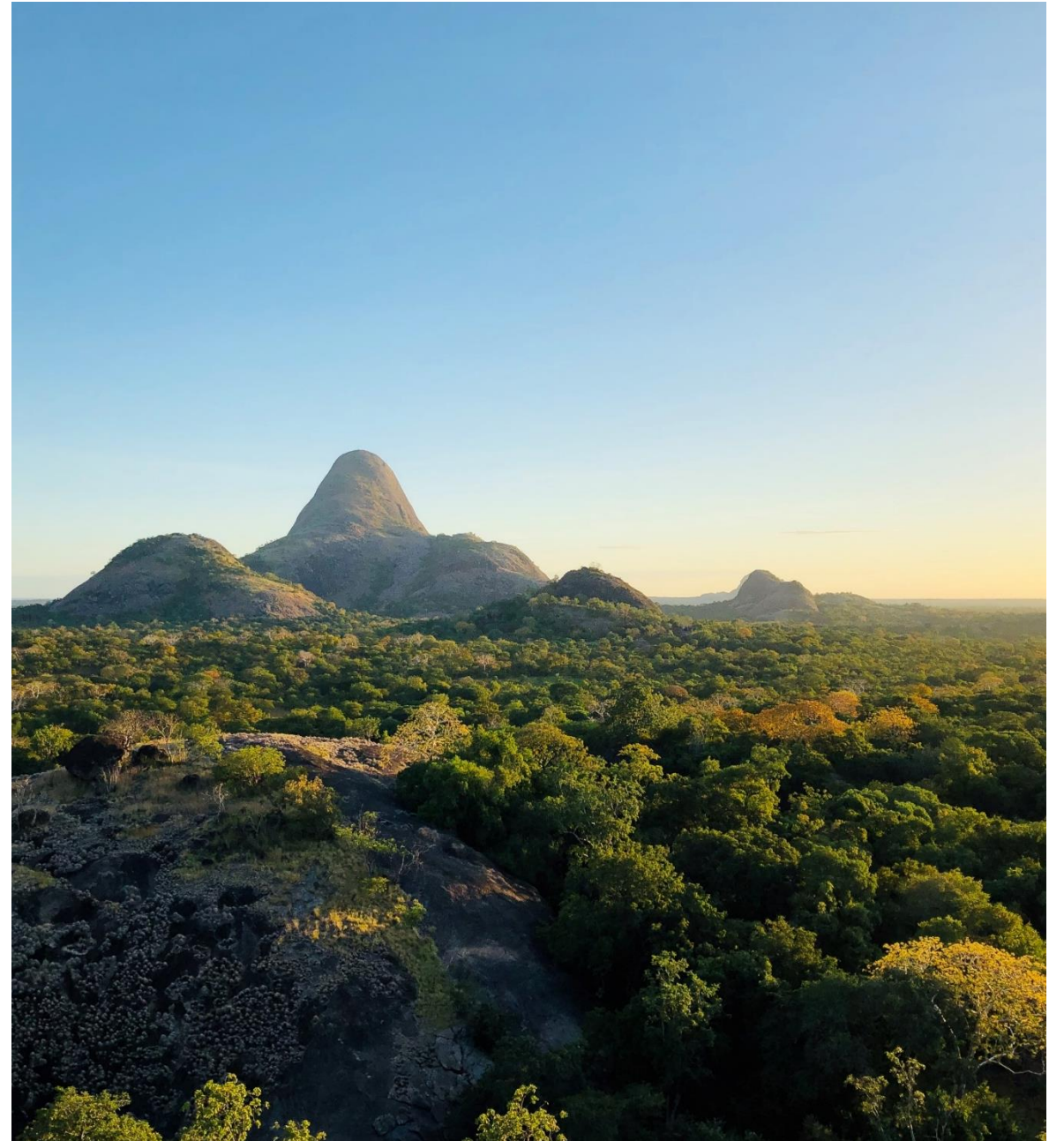
Modelling connectivity between game reserves in South Sudan

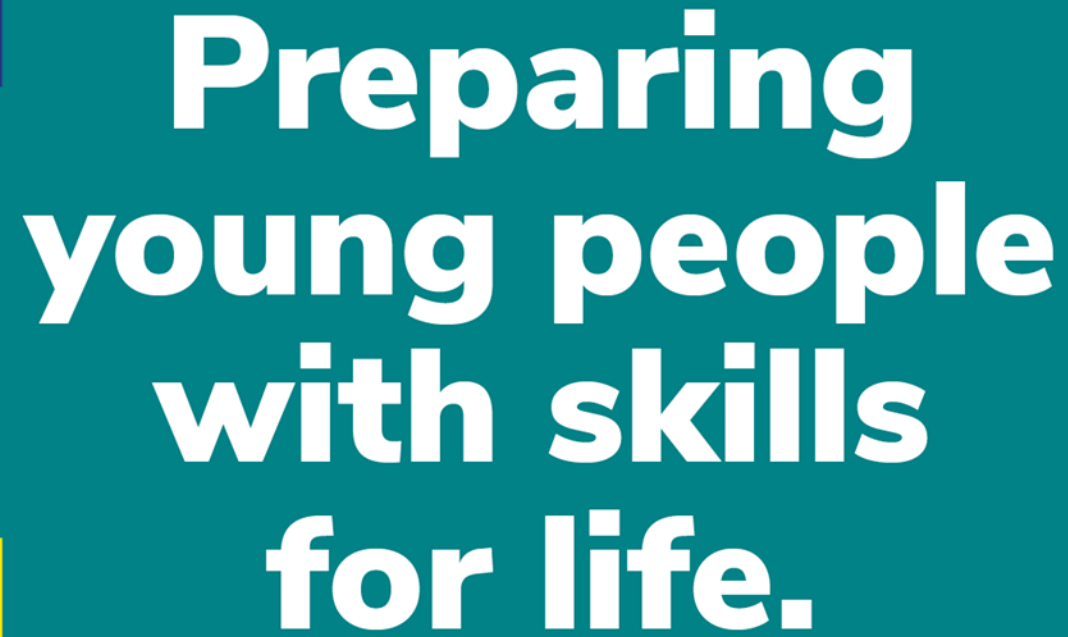


Internal and external capacity building, specific courses for GIS related to conservation

# Thank you!

CHELSEA.V.SMITH@FAUNA-FLORA.ORG



Four L-shaped corner brackets in dark blue and yellow surround the main text. The top-left and bottom-right are dark blue, while the top-right and bottom-left are yellow.

# Preparing young people with skills for life.

Oliver Eadsforth

Senior Data Manager

The Scout Association

Four parallel diagonal stripes in yellow, slanted upwards from left to right, located at the bottom of the page.



- Scouts is where young people make new friends, have amazing adventures and learn new skills.
- Every week we give almost half a million 4-25 year olds the skills they need for school, college, university, job interviews, giving presentations, overcoming challenges and achieving their dreams: the skills they need for life.
- Supported by over 150,000 dedicated volunteers, Scouts is currently undergoing its biggest digital transformation to date – enhancing the experience of our current volunteers and potential new recruits.

## Overview

- Part of the Data Team, formed in 2022. The Data and Insights Team was set up as part of our Digital Transformation Strategy
- A core element of Digital Transformation across Scouts is to make data more accessible and visible to our colleagues and volunteers – to use the power of our data
- With our new Volunteer Experience system – we aim to make it easier for new volunteers to sign up and to capture data throughout the volunteer journey



## Understanding our Inclusive Growth **Challenges - the story**

- COVID pandemic saw a significant drop in engagement – numbers of young people were down by more than 15% and adult volunteers dropped by 11%
- We launched a campaign to attract new volunteers to open and run sections for young people in Scouts
- Scouts' census data indicated that the demographic composition of our members' ethnicities was disproportionately low compared to representation in local populations across numerous areas of the UK
- As a first step, we launched Squirrels - new sections aimed at children aged 3-4 – enabling young children to join Scouts at earlier ages



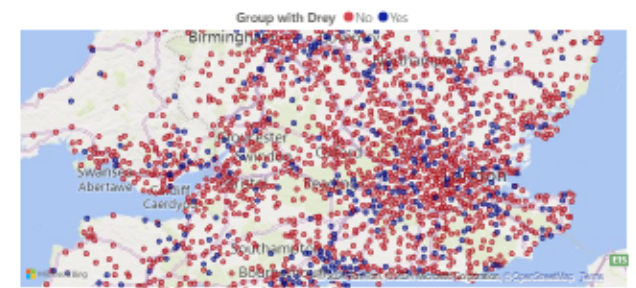
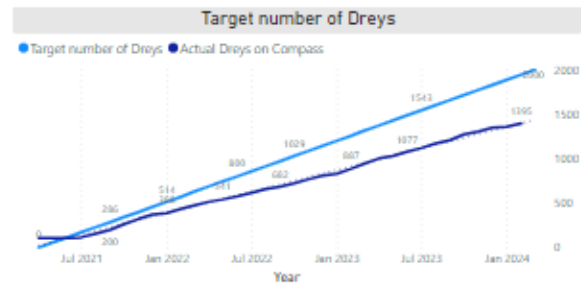
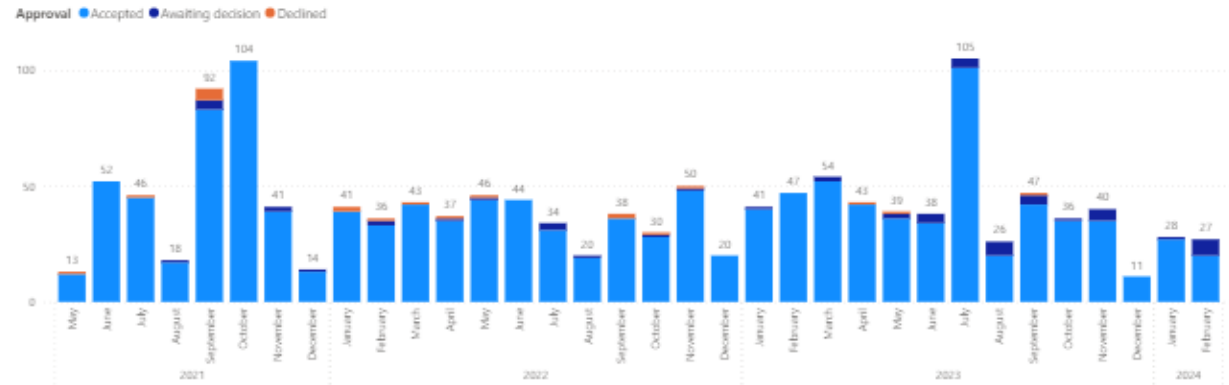
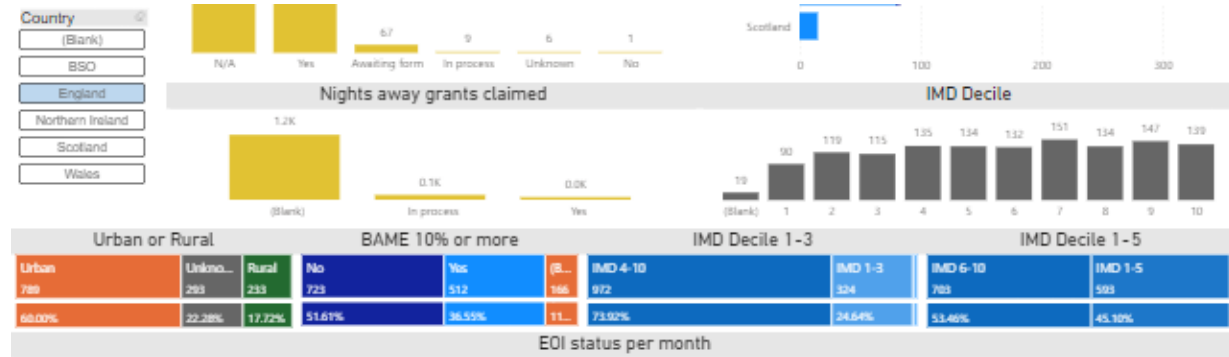
Understanding our Inclusive Growth  
**Understanding our data**



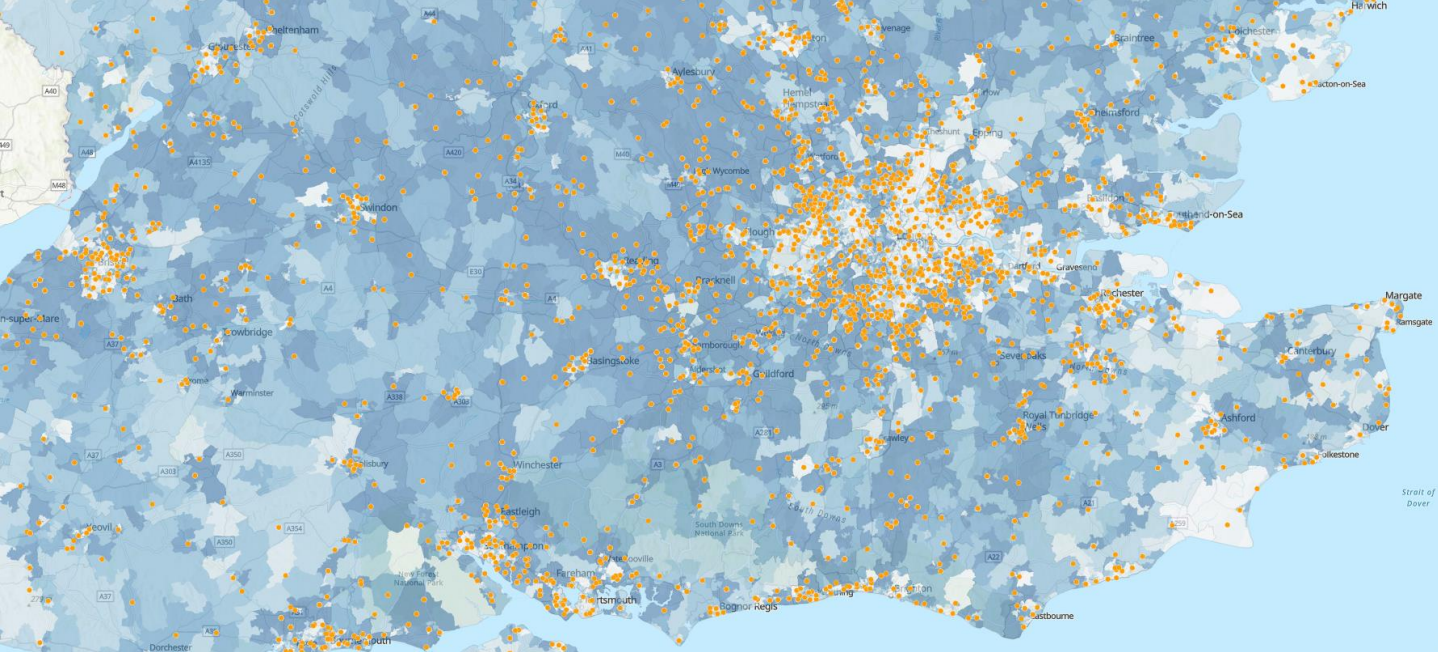
As early development, we started mapping out the data across our PowerBI suite – allowing us understand what our data is telling us.

We looked at:

- Demographics
- IMD (Index of Multiple Deprivation)
- Where we are opening sections
- Number of sections types within areas
- Sections which are missing Squirrels







County	Gt. London North East
District	Barking, Dagenham & Newham
District ID	10,001,013
IMD	4249
IMD Decile	2
Latitude	51.53

**Legend**

**Active Sections**

- Orange dot

**Indices of Multiple Deprivation (IMD) 2019**

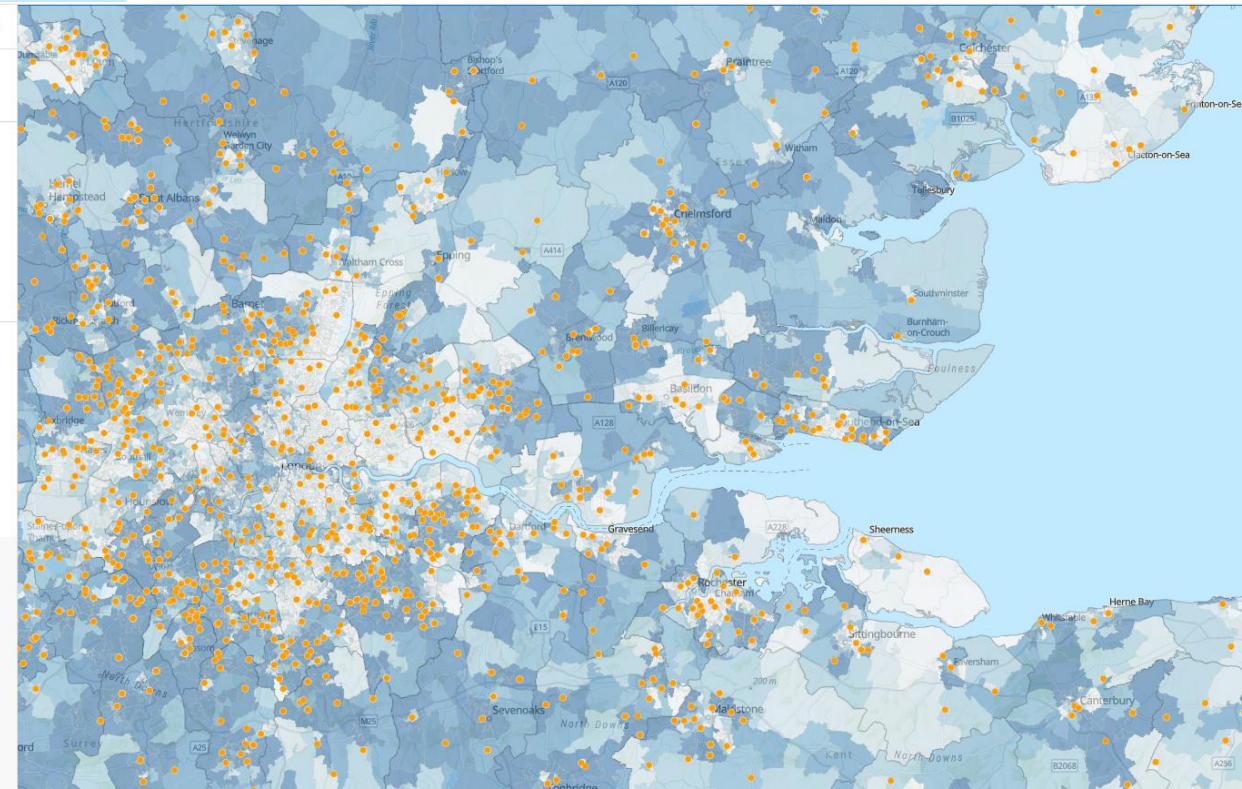
IMD\_Decile

- > 8.3
- 5.5
- < 2.7

**Local Authority Districts (December 2021) UK BGC - LAD DEC 2021 UK BGC**

BNG\_E divided by Shape\_\_Area

- > 0.015
- < 0.0001





Understanding our Inclusive Growth  
**The outcome**

Visualisation tool supporting our Growth & Communities team identifying potential areas for growth and opening new sections.

We are continuing evolving the map and customising the data needed to be visible for our stakeholders to enable them to prioritise potential growth opportunities across their area.

We have used ArcGIS here at Scouts for less than a year – we want to ascertain and evolve our ArcGIS Services to reach out wider audience across Scouts.

Build on tapping into external data – including and not limited to: education data, schools data and free school meals.

- The number of children joining Squirrels has increased by more than 150% since 2022
- We are reaching and attracting more diverse communities of young people to Scouts
- Our new tools use data to identify and target recruitment
- We equip our Growth and Communities team with data to target potential areas of growth



**Make  
all the  
difference.**

Help young people  
across UK step up  
and dream big.





**#Skills for Life – Opportunities for Young People**



# Using GIS to help eliminate eye diseases, Kenya

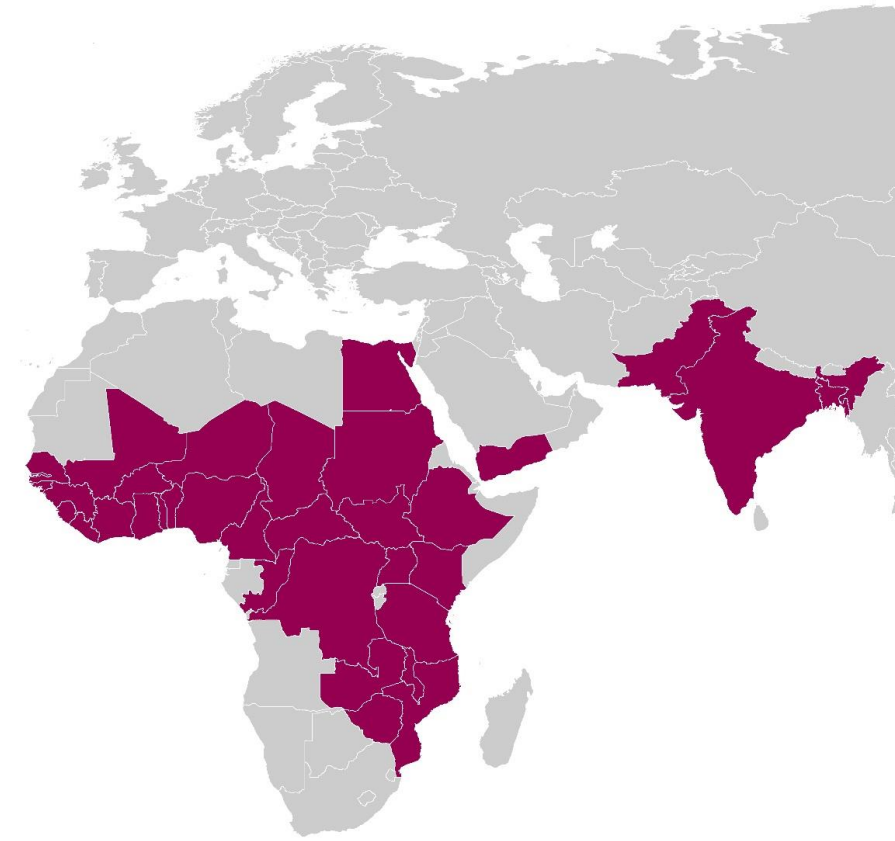
Alex Chailloux



Sightsavers

# Introduction to Sightsavers

- Founded in 1950, Sightsavers works in over 30 countries
- Our vision is of a world where no one is blind from avoidable causes, and where people with disabilities can participate equally in society



**Protecting sight**



**Fighting disease**



**Disability rights**



# Trachoma disease

- **Trachoma** caused by the bacteria chlamydia trachomatis, is spread by infected flies or contact with an infected person. Left untreated repeated infection causes scarring & inward growing eyelashes. With every blink the eyelashes scrape against the ball of the eye and can slowly and excruciatingly lead to blindness

More than 40  
countries count  
trachoma as a  
public health  
problem

125 Million  
people are at  
risk of going  
blind from  
trachoma

1.9 Million  
people are blind  
or visually  
impaired from  
trachoma

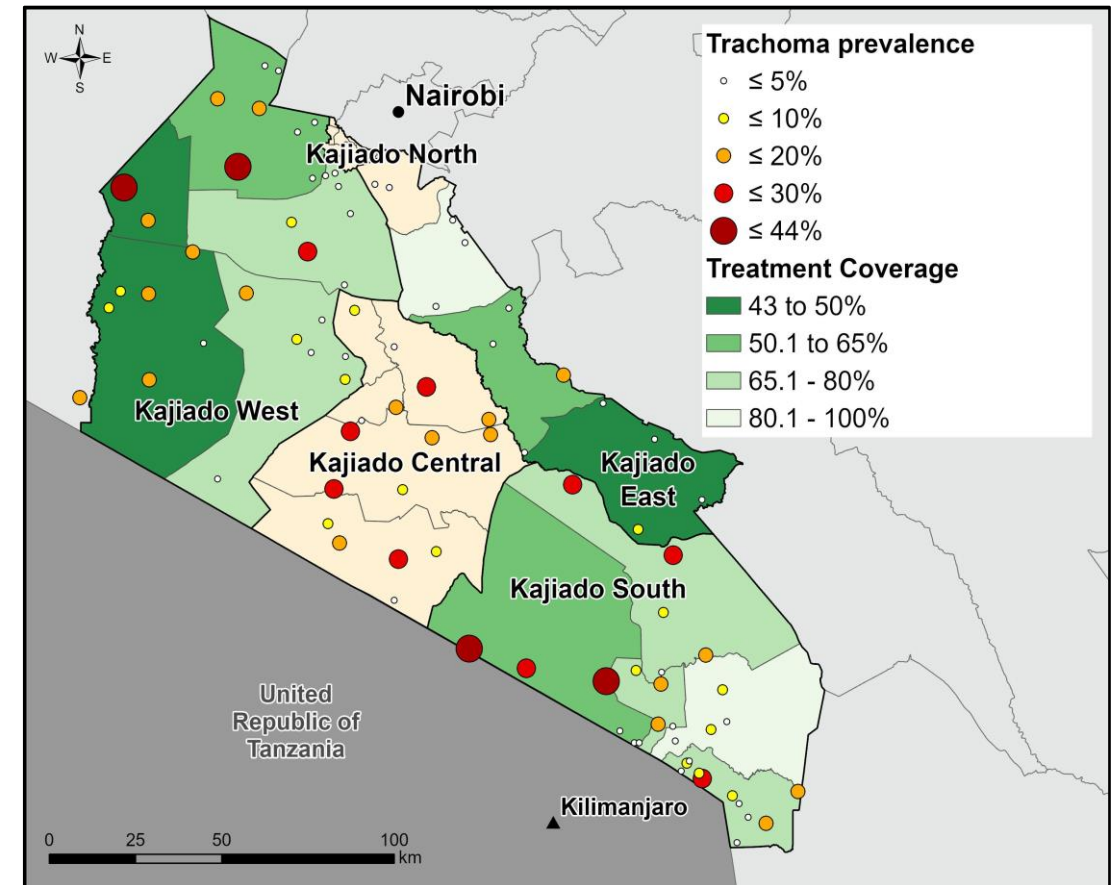


# Trachoma in Kajiado County- Kenya



## The challenge

- **Treatments** provided during annual **Mass Drug Administration** and executed by **Community Drug Distributors**
- Trachoma is **endemic** in Kajiado
- **Maasai** Community (**pastoralism**, semi-nomadic Tanzania and Kenya corridor, **Bomas**)
- Trend in Kajiado: **Population based prevalence surveys is high** in 2021 and the **coverage is poor** compared 80% recommended (WHO)





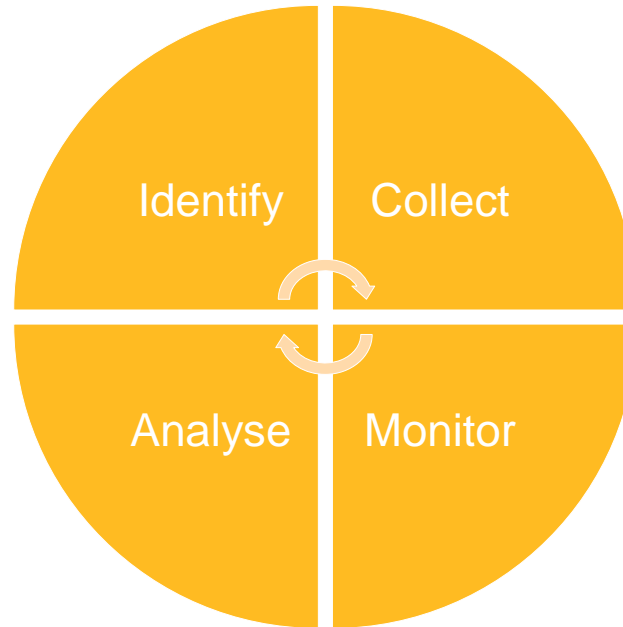
# GIS to monitor in real time the drug distribution

- **New in 2022: geographical analysis** to identify all potential inhabited areas on satellite imagery and collect GPS location of all the places visited by the drug distributors and monitor in real time the dispatching



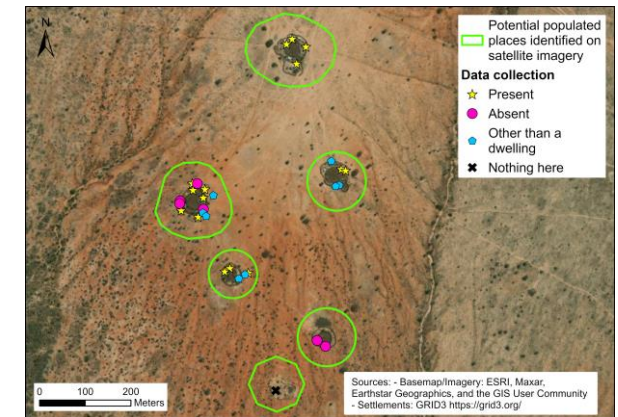
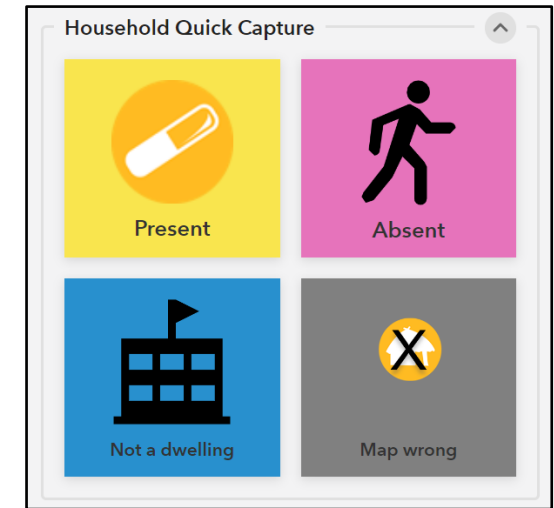
Satellite imagery

Mobile survey App



Dashboard

Map base App



# Measurables

Improvements in the data collection 2022 to 2023

GPS points collected	From 2022 to 2023
Dwelling visited	41.6%
Other building mapped	958%
Grand total	191%

Drug distribution Effectiveness : Coverage Evaluation Survey

Year	Reference	CES results
2021	No technology	60%
2022	Year 1: GIS use	90%
2023	Year 2: GIS use	93.9%

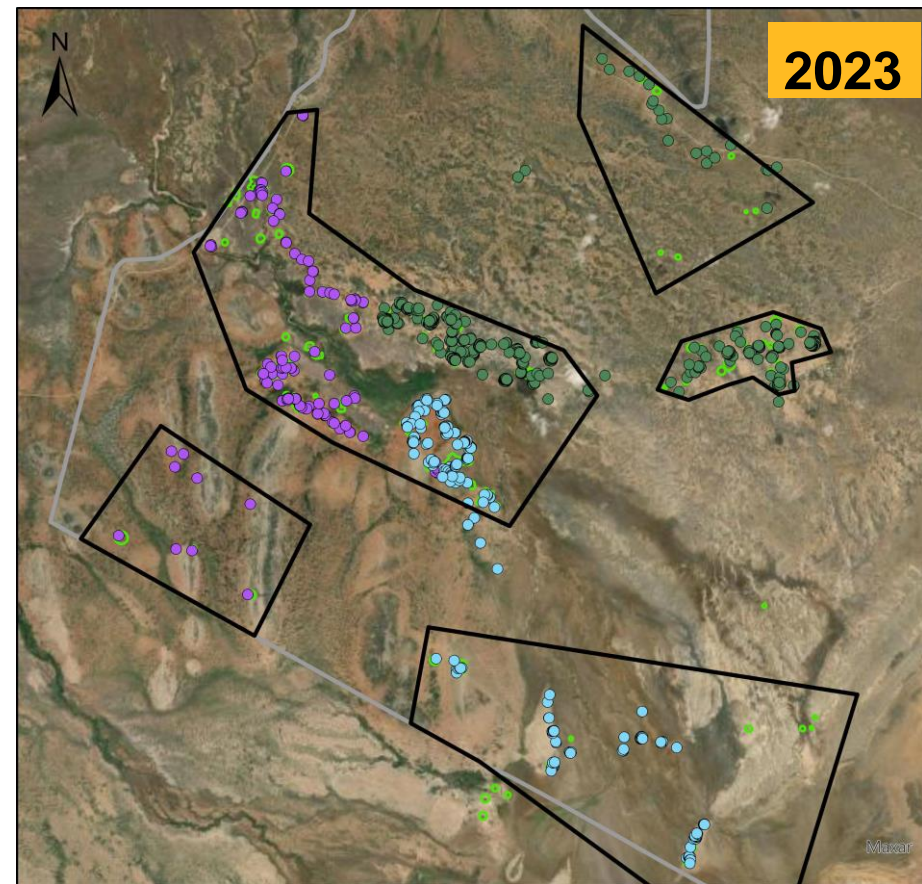
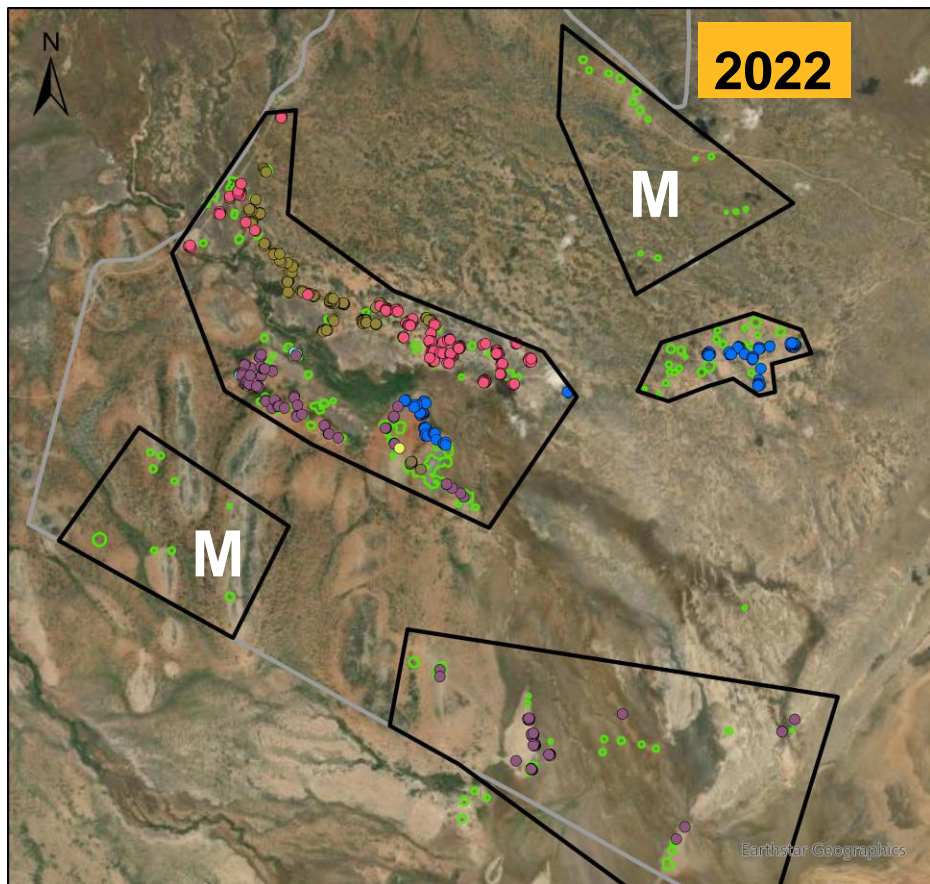
- Digital tools supporting enhanced supervision and accountability of supervisors & timely oversight of the campaign, resulting in improvements in decision-making and ultimately improved MDA coverage



© Sightsavers/Samuel Otieno

James and Elizabeth, Community Drug Distributor, are photographed preparing azithromycin drug activity

# Improve the efficiency in the field



# Benefits & Challenges



Investment in digital tools is worth it



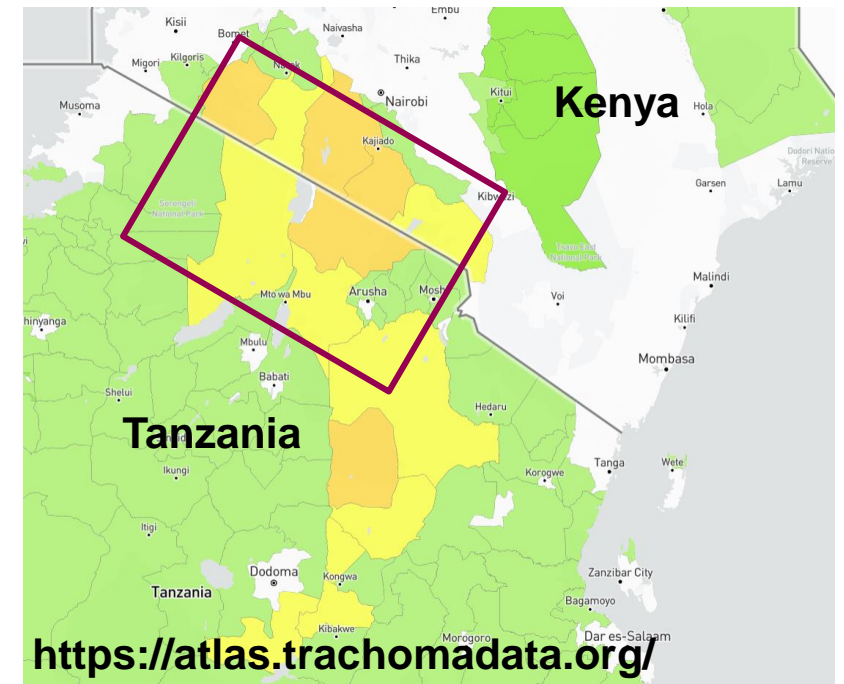
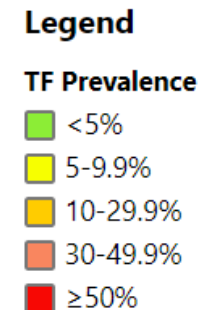
GIS increased drug distribution coverage



Accelerated disease elimination results in better life opportunities for those affected

# Next Steps: Cross border collaboration

- Ministry of Health drug distribution coordination across full Maasai territory (Tanzania / Kenya)
- Map the migratory patterns of the Maasai Communities to link with the epidemiology challenges and the annual distribution schedule
- Access to high resolution satellite imagery to extract and update new settlement locations



# Thankyou!

<https://www.sightsavers.org/>

[achailoux@sightsavers.org](mailto:achailoux@sightsavers.org)



**SightsaversUK**



**@Sightsavers**



**@sightsavers**



**SightsaversTV**

# Measuring your impact

Using Esri's digital mapping tools to collect citizen science data

Presented by: Anneka France, The Rivers Trust ([anneka.france@theriverstrust.org](mailto:anneka.france@theriverstrust.org))

Date: 29<sup>th</sup> February 2024

Who are The Rivers Trust?

**We are the  
umbrella body for  
65 local Trusts**



Each member Trust carries out fantastic work to help our rivers in their local area

In 2022-23, the Rivers Trust movement...

Completed  
**14**  
SUDS projects



Delivered  
**496**  
river cleans



Erased, passed,  
or removed  
**105**  
fish barriers



Worked with  
**4,478**  
farmers



Opened up  
**1,329**  
kilometres of river  
for fish passage



Planted  
**340,623**  
trees



Created or restored  
**619**  
hectares of wetlands



Inspired  
**26,326**  
school children



Installed  
**904**  
natural flood  
management measures



Engaged with  
**21,443**  
volunteers



# Our priorities



Mainstream nature-based solutions

## BRINGING LIFE BACK

into rivers and protecting communities from the impacts of climate change



Research and expose

## POLLUTION SOURCES

and use targeted, expert-led advice to enable change



Grow our monitoring programme and

## STANDARDISE DATA

on a national scale



Apply pressure and work with government and businesses to

## ACCELERATE ACTION


to improve rivers

## Plastic pollution in rivers – an evidence gap

As much as **80%** of marine plastics come from rivers

But over the past few decades data collection has typically been focused on beaches





Communities are more aware  
than ever about the issues with  
plastic pollution

and there are already lots of  
Rivers Trusts and community  
groups who are cleaning up their  
local rivers

Photo from Zena Holloway

For thriving rivers and communities

29/02/2024

# But the litter keeps flowing...



Bristol Avon Rivers Trust

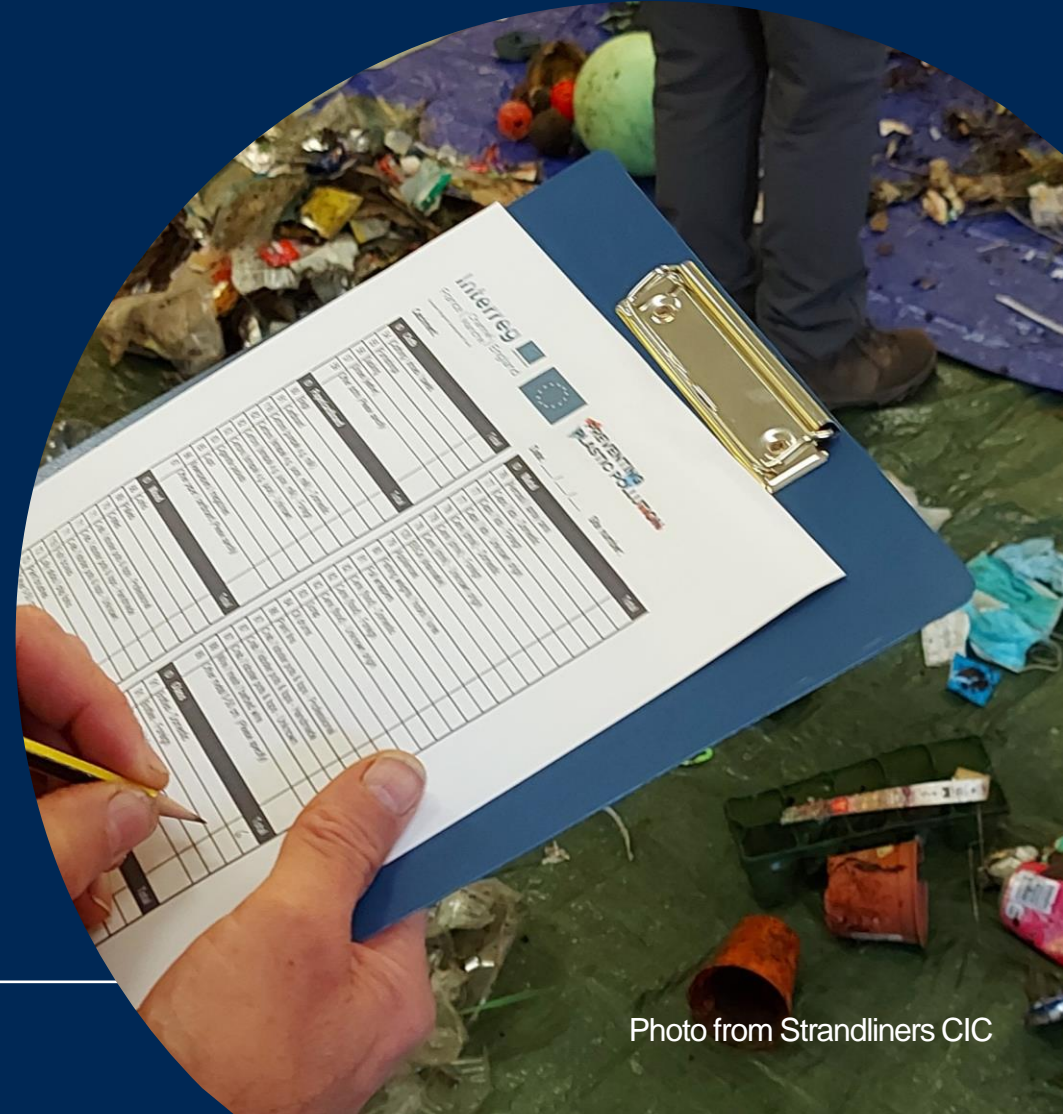


Jack Perks / Greenpeace

## The power of data

Data driven campaigns can help to change business practice and government policy at a national level.

We needed to bring communities together to adopt a standardised approach to recording and reporting litter in rivers.



## Why did we choose ArcGIS software?

- We needed a **collaborative** solution – our pilot project involved 18 organisations across 8 river catchments
- Being able to **map** the data and identify potential sources was important for advocacy and targeted action
- Working with large numbers of volunteers so we needed a **user-friendly** interface
- We wanted to **empower** our local communities and give them full access to their data





# Welcome to our citizen science hub

← Go back to our main website



We're calling on organisations and community groups to help us collect data using the power of **citizen science**. We believe that we can better identify the sources and trends in plastic pollution, as well as other types of litter, by adopting a common methodology and a shared database.



[data.preventingplasticpollution.com](https://data.preventingplasticpollution.com)



## Risk assessment

You must have an appropriate risk assessment for litter picking in place, as in normal circumstances. You can download an example risk assessment from The Rivers Trust, for your reference only.



### Example risk assessment

This is generic to cover riverside litter picking activities for community groups. Events will need a further risk assessment for activities on the water or requiring...

<https://preventingplasticpollution.com>

## Public liability insurance

Your group should have public liability insurance and it is your...



ArcGIS StoryMaps allowed us to share up to date **guidance and instructions** for volunteer coordinators

PREVENTING PLASTIC POLLUTION

About Surveys Communities Anchor sites Upload Results Download/API

Annika

## Clean up Communities

Rivers have always played an extremely important role within all communities. Bringing trade, as passageways for travel, for watering crops. As places to play, fish and swim, rivers have looked after us as we must look after our rivers. Our clean up communities are made up of organisations, community groups, campaign groups, projects, and more; all fighting to tackle plastic pollution in their local area.

### Find a community near you

There *will* be a river near you, just as there will be a group of like-minded people who wish to look after that river. Make friends, enjoy the outdoors, and help protect the natural environment by finding YOUR river community!

The screenshot shows a web browser window with the 'Clean up Communities' website. The page has a navigation bar with the 'PREVENTING PLASTIC POLLUTION' logo and links for 'About', 'Surveys', 'Communities', 'Anchor sites', 'Upload', 'Results', and 'Download/API'. There are also social media icons for YouTube, Instagram, Twitter, and Facebook. The main content area features a heading 'Clean up Communities' followed by a paragraph explaining the importance of rivers and the role of clean up communities. Below this is a section titled 'Find a community near you' with a sub-paragraph encouraging users to find local river communities. A map of the United Kingdom and Ireland is displayed, with a search results panel on the left. The search results show 'The Rivers Trust' as the top result, with its logo, unique ID (UK00574NGO), website URL (https://theriverstrust.org/), and a brief description of the organization's mission. A green hexagonal icon with a white arrow is overlaid on the right side of the map area.

We used ArcGIS Instant Apps to **connect** individuals with an organisation or community group litter picking in their local area

PREVENTING PLASTIC POLLUTION

Collection method

Kayak/canoe

Site details

Site

Start typing the site name or unique ID to search

UK21758BEA - East Head, West Witteri

Type\*

Beach

Locate on the map\*

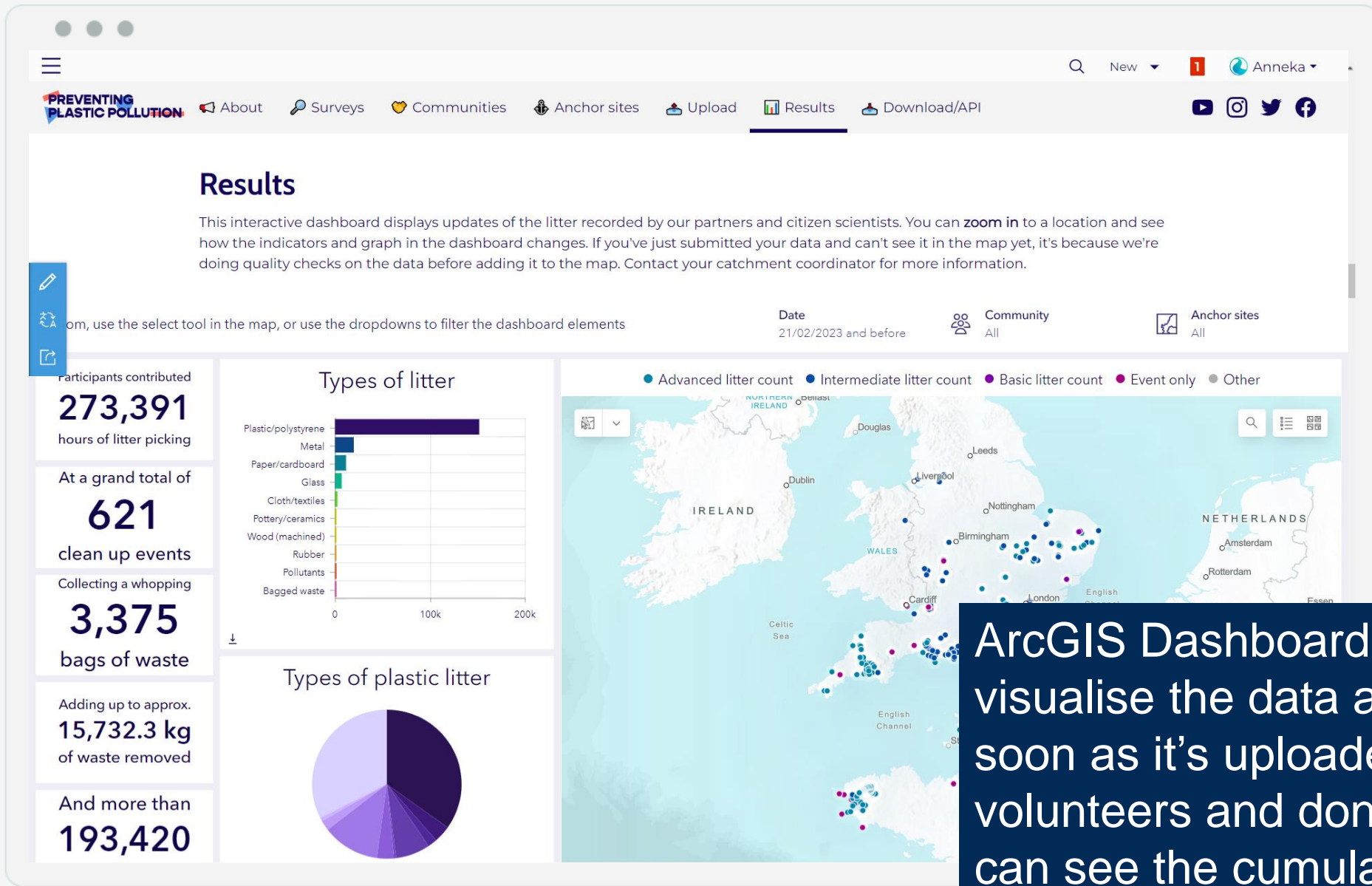
Find address or place

Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri... Powered by

Lat: 50.782510 Lon: -0.915232



We used the smart survey form functionality of ArcGIS Survey123 to allow volunteers to upload their own data – reducing our admin burden and producing better quality data



ArcGIS Dashboard to visualise the data as soon as it's uploaded – volunteers and donors can see the cumulative impact

**PREVENTING PLASTIC POLLUTION** About Surveys Communities Anchor sites Upload Results Download/API

**Advanced survey**

## Clean Up - Advanced Litter Count - Results

Anneka France  
The Rivers Trust

View Map Download More

Summary

Results of the Preventing Plastic Pollution advanced litter count survey.

Survey data collected by citizen scientists using the Preventing Plastic Pollution methodology for assessing litter. This is based on the [OSPAR Commission's methodology for monitoring marine litter on beaches](#). By adopting these pre-defined categories, the data collected by volunteers within the river catchment will be directly comparable to the data that is already being collected on beaches. This uniform way of monitoring will allow us to analyse the data and identify potential sources and pathways from land to sea. We can use this information to focus on developing and delivering effective mitigation measures, as well as assessing the effectiveness of existing legislation and regulations.

The Preventing Plastic Pollution initiative is supported by the [Interreg France \(Channel\) England](#) programme, funded by the [European Regional Development Fund](#).

Interreg France (Channel) England | PREVENTING PLASTIC POLLUTION

December Info Update  
February Data Update  
December Published  
485 Records View data  
Public Anyone can view  
CC BY-SA View license  
Relevant



ArcGIS Hub allows researchers and other data users to access the data for their own purposes – maximising it's reach and potential impact

More than

**1,100**

clean up events

A total of

**380k**

items categorised

A whopping

**41,000 kg**

of litter removed

## What's next?

- Continue to grow our database - our pilot project has now come to an end, but many organisations and community groups are still uploading to our ArcGIS Hub site, and we're rolling out across more river catchments.
- Seeking funding to continue supporting the platform and collaborating with other organisations.
- We have a wider programme working on developing a standardised framework for freshwater Citizen Science and will be exploring how to maximise the impact of the data.

# Thank you.

Find out more at [theriverstrust.org](https://theriverstrust.org)



**No single** stretch of river in  
England or Northern Ireland  
is in good overall health

Toxic chemicals pollute  
**every stretch** of English  
rivers

Read the report and demand your elected  
representative stands up for river health

**#StateOfOurRivers**