Data Information Flow Project: addressing data barriers to effective natural capital assessment and decision-making

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NATURAL CAPITAL COALITION

PROJECT OVERVIEW

Why do we need the Data Information Flow project?

What is unique about the Data Information Flow project?

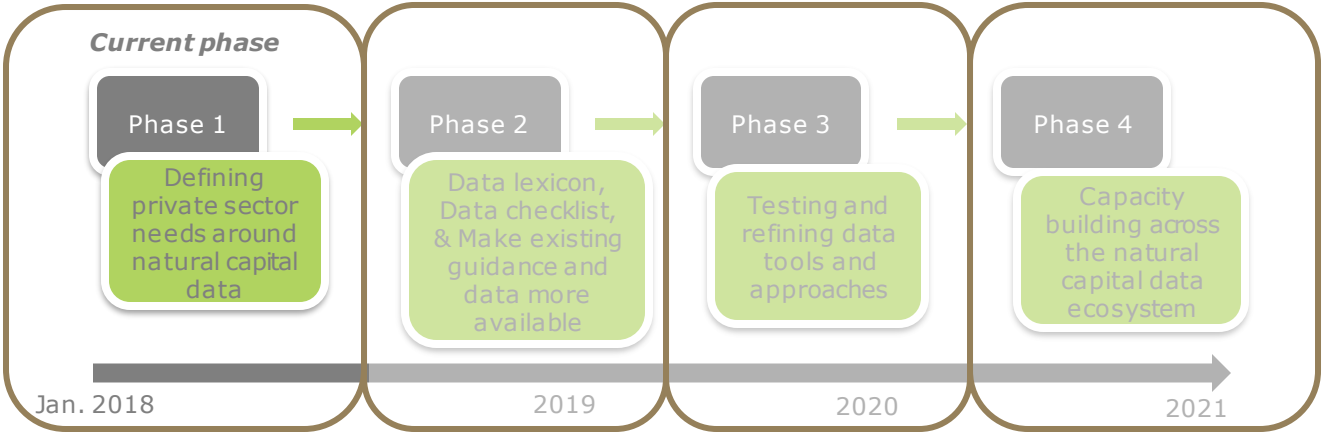
The challenge

- Too much data
- Not enough data
- The wrong sort of data
- Data behind paywalls
- Variation in interpretation

The objectives

Facilitate the use of better data to support natural capital assessments

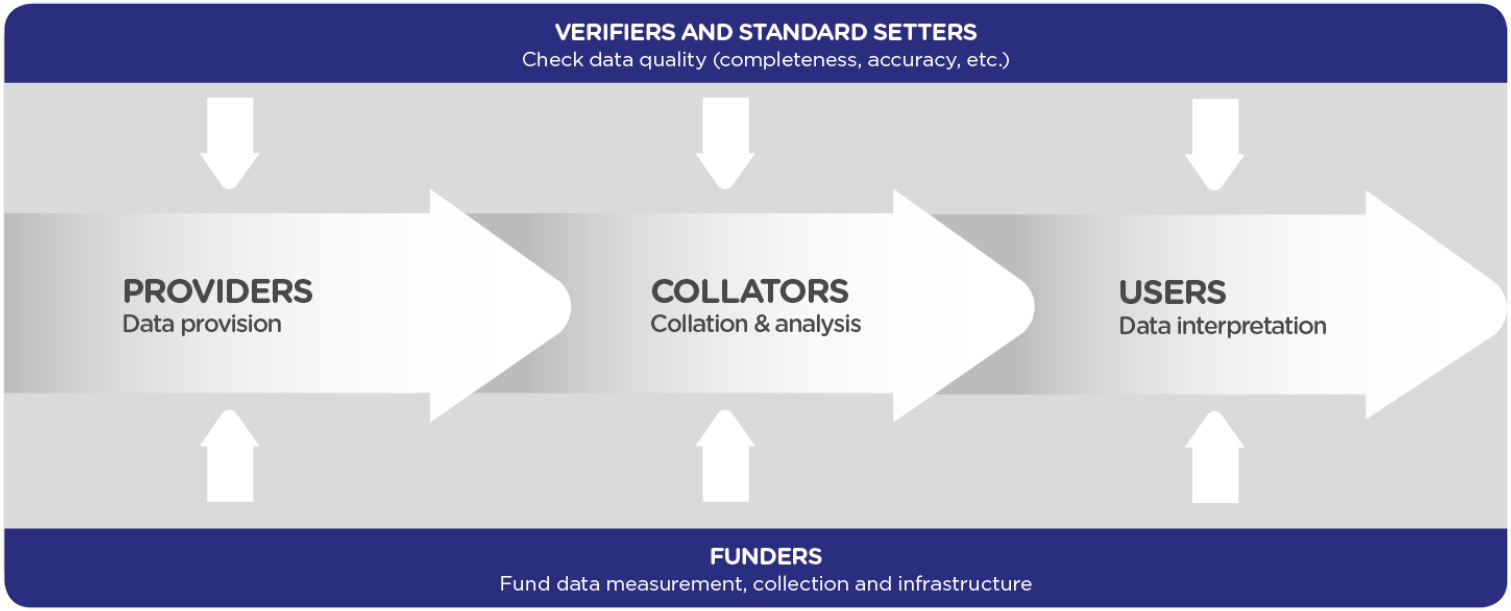
1. Define business needs
2. Determine the extent to which those needs are being met
3. Identify data gaps and barriers
4. Identify the actions required
5. Convening key data players to address data barriers



Phase 1 activities

KEY FINDINGS

The natural capital data ecosystem



Core elements

Accessibility

the ability of users to find and use data

Infrastructure

the data assets and the organizations that produce, supply, and manage them, and supporting guidance materials

Quality

the quality of data is essential in establishing its reliability for use and supporting decision-making processes

Capacity

the ability of stakeholders throughout the data ecosystem to be able to call upon and use data (including technical and financial capacity)

OUTPUTS

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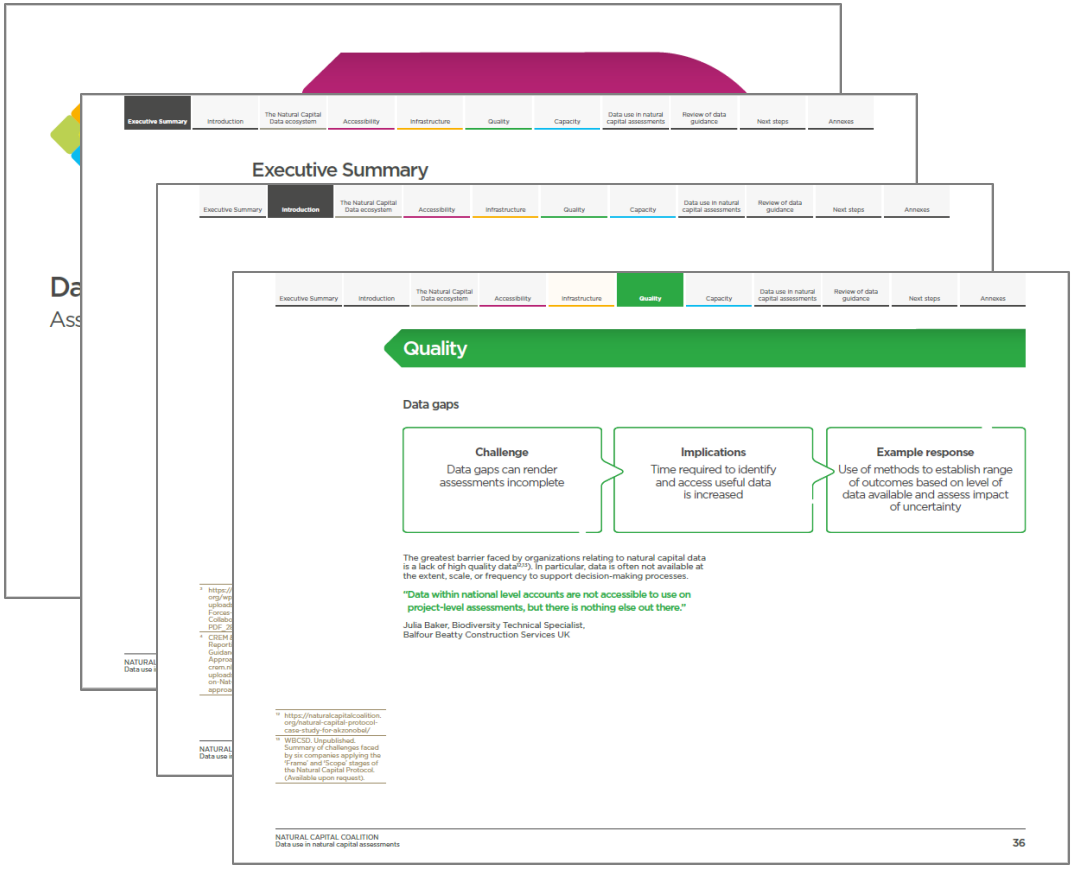
Project report



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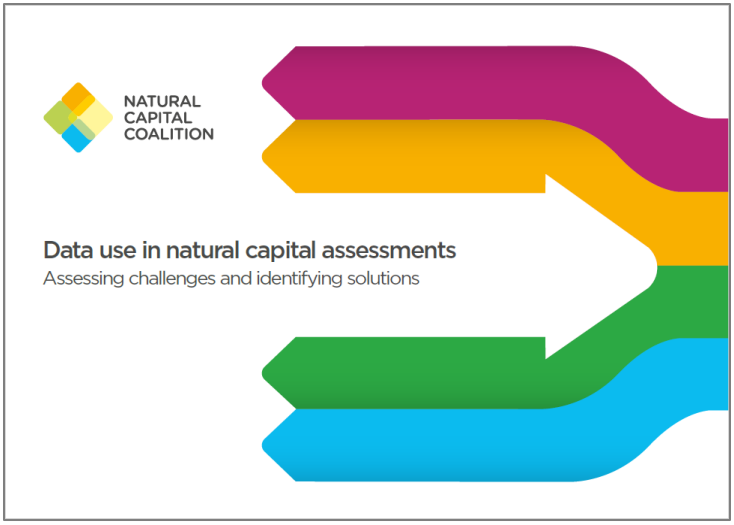
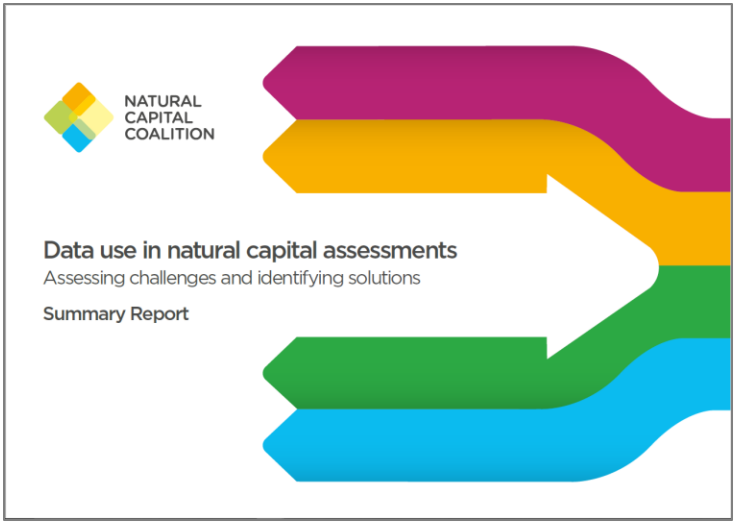


https://naturalcapitalcoalition.org/wp-content/uploads/2019/05/Final-Data-Full-Report.pdf



https://naturalcapitalcoalition.org/wp-content/uploads/2019/05/Final-Data-Summary-Report.pdf

Or just follow: ***https://wcmc.io/_DataInfoFlow*** *to read about the project and get to the download locations*

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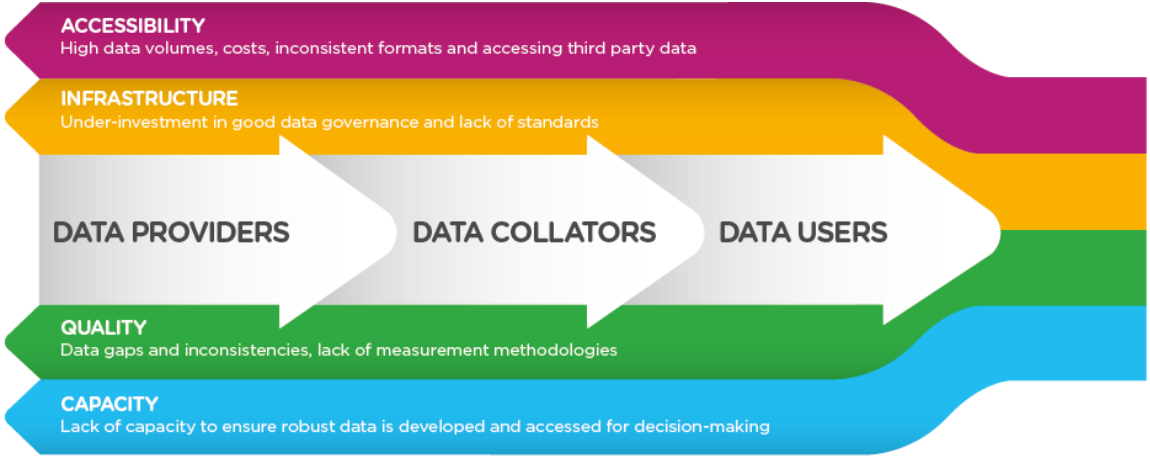
Infographic



Potential Solutions

	ACCESSIBILITY	INFRASTRUCTURE	QUALITY	CAPACITY
Process	• Plan for delays and costs relating to data access • Investigate pathways to robust open access data	• Use of new technologies/ software, and bespoke and automated systems • Investment in data governance (institutions, technologies, personnel)	• Use of internal and external assurance • Modeling and proxies • Use of established methods to determine impact of uncertainty • Invest in filling key data gaps	• Engagement of finance/audit professionals in assessments • Capacity building and training throughout the data ecosystem • Members of the data ecosystem linked to enable better understanding and response to needs • Integrate data considerations into all Natural Capital Coalition projects
Guidance	• Searchable data directory of key datasets • Reference lists of key data sources • Guidance on gap filling using technology	• Data lexicon/ontology with standard terms and definitions • Guidance on key data issues – addressing gaps, ethics, licensing, good data management practice	• Guidance on data quality and verification • Data measurement methodologies	• Case studies on data gathering, analysis and interpretation • Checklist of data characteristics for data filtering

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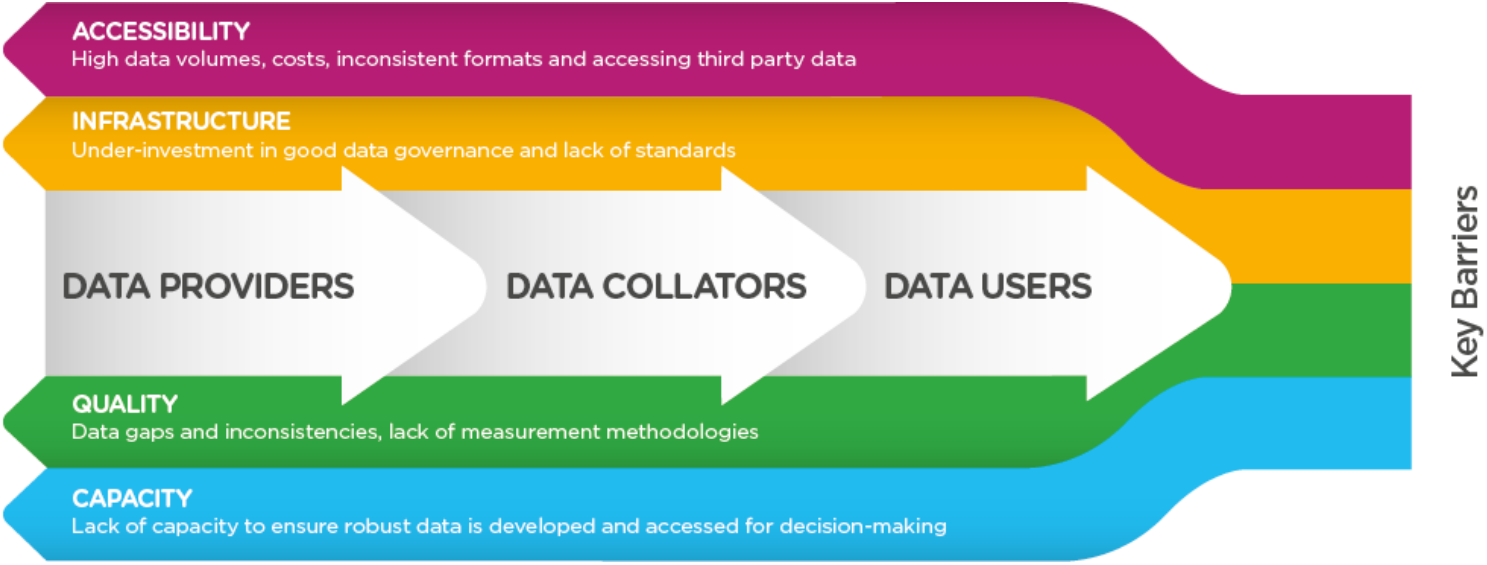
Key barriers



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Annex 3: Review of guidance on data standards, management and quality

This annex to the report 'Data use in natural capital assessments: assessing challenges and identifying solutions' forms part of phase 1 of the Data Information Flow project, delivered by the UN Environment World Conservation Monitoring Centre (UNEP-WCMC), on behalf of the Natural Capital Coalition. The table below provides a summary of sources of data-related guidance identified as a result of desk-based research, a stakeholder survey, and structured interviews with 10 organizations representing different aspects of the natural capital data ecosystem. This review seeks to assist companies in dealing with the data challenges they face when carrying out natural capital assessments.

	Name	Primary user	Description	Challenge addressed	Impact/ Dependency
	Generic guidance on data standards, management and quality				
1.1	DataONE Best Practices – **Data Observations Network of Earth**	Researchers	A searchable database on best practices in data management aimed at the research community. It is accompanied by a primer on data management which contains hyperlinks to best practices within the database. The best practices are often brief and are aimed at researchers rather than business, but provide a good introduction to a diverse range of concepts including developing a data management plan.	Accessibility Infrastructure Quality	Relevant for all issues
1.2	INSPIRE Data Standards – **European Commission**	Governments	An infrastructure for environmental spatial data developed for use in the European Union, but with broader applicability to companies wishing to adopt a pre-defined set of standards for managing data. Aims to enhance interoperability and optimize data-management processes. Companies adopting it will be able to draw on a large quantity of interoperable data from EU governments. May not always be useful to a non-specialist audience.	Quality Infrastructure	Relevant for all issues
1.3	Fundamental Principles of Official Statistics, 2014 – **United Nations Statistics Division**	Governments	10 Principles to guide official statistics organizations in the collection, review, storage and representation of relevant data. It addresses: methods of collecting data, transparency, dealing with errors in data, data sources, confidentiality, creating a strong data ecosystem.	Quality Infrastructure	Relevant for all issues
1.4	Guidelines for the Template for a General National Quality Assurance Framework, 2012 – **United Nations Stats**	Governments	A document to support the template for a National Quality Assurance Framework (NQAF). It outlines quality assurance procedures as well as ways in which quality can be assessed and reported on. It covers how accessibility, accuracy, reliability, security, and confidentiality of data should be managed. It also addresses how interactions between data providers, data users, and national statistical organizations should be conducted.	Quality	Relevant for all issues

Review of data sources (*for information only*)

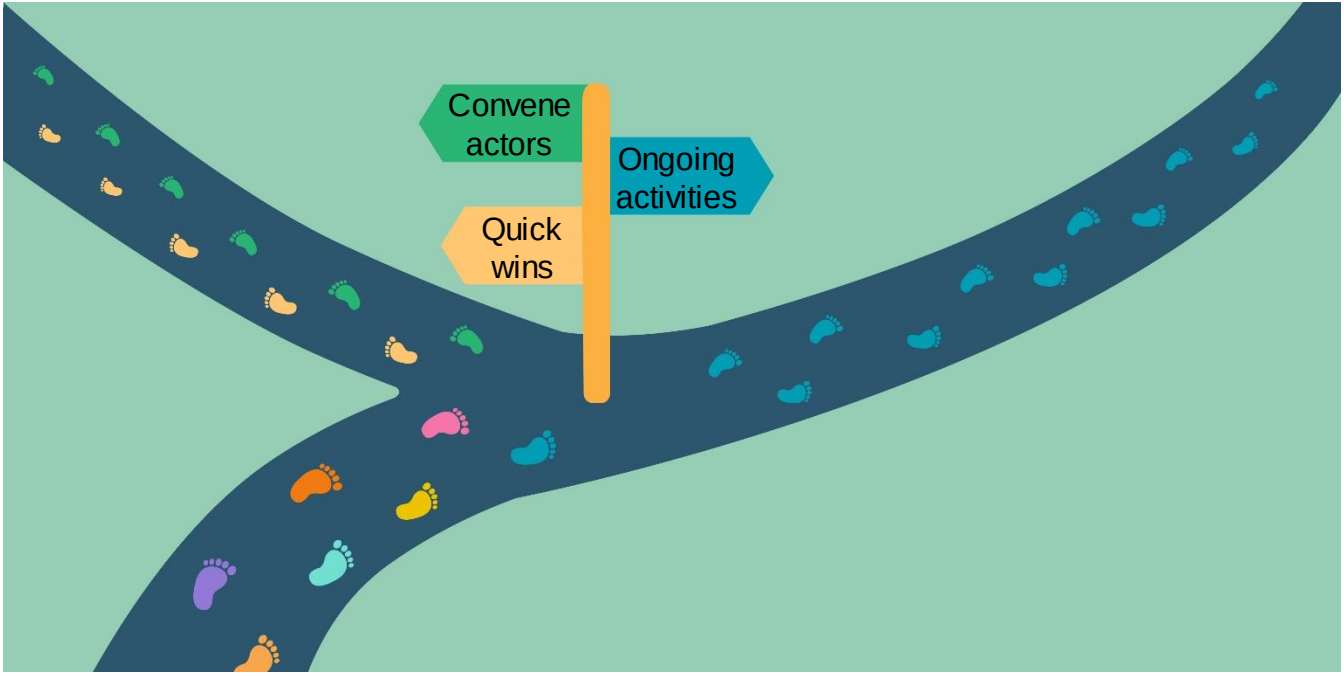
Annex 3: Data sources

The data sources below were identified by the stakeholders surveyed and interviewed for this report. There are many more datasets available, however, a comprehensive review of available datasets was beyond the scope of this report. This review makes no assessment of the robustness and utility of these data sources.

	Name	Primary user	Description	Challenge addressed	Impact/ Dependency	Natural Capital Protocol Toolkit
1.1	Environmental Valuation Reference Inventory – **Environment and Climate Change Canada**	Businesses Governments	An online searchable database for environmental valuation studies. It provides information regarding the methodology of the studies, as well as the estimated monetary values of environmental goods or services.	Accessibility	Valuation	Yes
1.2	GaBi – **Thinkstep**	Businesses	Software designed to conduct Life Cycle Assessments. It allows users to compare how different scenarios may effect natural capital. It also provides access to a database for financial and environmental impacts of business processes. Results can be compiled into a standardized report.	Accessibility Capacity	Relevant for all issues	No
1.3	Integrated Biodiversity Assessment Tool (IBAT) – **IBAT Alliance**	Businesses	Tool to identify priority biodiversity sites. Provides access to the three major biodiversity datasets (i.e. the World Database on Protected Areas, IUCN Red List (threatened species), and the World Database on Key Biodiversity Areas). It is the only place that these three datasets are available for commercial use.	Accessibility	Biodiversity	Yes
1.4	Water Risk Filter – **WWF, German Development Finance Institution**	Businesses	An online tool to assess water risk, providing information on where to access valuation methodologies. There is a range of datasets accessible at different scales, although currently limited geographically. The tool provides both assessment and mitigation recommendations as part of the outputs.	Accessibility Capacity	Water	Yes
1.5	WaterWorld – **King's College London, AmbioTEK**	Businesses	A hydrological model that can be applied to an area of interest. It draws on global datasets to generate both baselines and scenario outcomes in a range of industries, including agriculture and extractives.	Accessibility Capacity	Water	Yes

NEXT STEPS

Next steps



Source: https://famly.co/blog/management/6-ways-to-identify-next-steps-in-the-eyfs/

Thank you.

Project contacts: Annelisa.Grigg@unep-wcmc.org, Matthew.Ling@unep-wcmc.org, Siobhan.Stewart@naturalcapitalcoalition.org

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