Regional Environmental Change (2024) 24:170
https://doi.org/10.1007/s10113-024-02336-y

ORIGINAL ARTICLE

Journeys of change towards the blue economy: evaluating process in transformational change

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Received: 5 April 2024 / Accepted: 5 November 2024 / Published online: 26 November 2024
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Abstract

Transformation is idealised as a solution to multiple ocean crises, and the blue economy has emerged as a paradigm to facilitate transformation towards a sustainable ocean future. Conceptualisations of transformation differ and processes of change to achieve transformation remain under-explored in literature, representing a significant gap in understanding how transformation is achieved. By exploring the process of blue economy governance transformations in Seychelles and Bangladesh, key attributes of transformation as a process are identified and contextualised. Connectivity of events and actions that addressed a range of different depths and parts of the governance system were identified as enablers of progress towards the blue economy. Strong, centralised leadership was identified as important at an early stage of change, but this must evolve to a distributed form of leadership to continue direction and flexibility. The role and importance of external agencies in creating and catalysing change is complex, presenting challenges to sovereignty but also acts as an independent driver of movement. From a national government perspective, the need to be 'constantly seen as doing something' hinders deeper changes and interventions, and instead promotes more superficial outcomes. These results demonstrate the challenges in creating transformative change, and suggest a need to explore evolutionary processes of change over time.

Keywords Transformation · Blue economy · Governance · Continuous change · Leadership

Introduction

Transformation is a buzzword in global policy, invoked as a solution to diverse crises such as biodiversity loss, increasing pollution and climate change (Hölscher et al. 2018; Bolton 2022; Vogel and O'Brien 2022; IPCC 2023). In ocean governance, the UN Decade of Ocean Science embodies this turn to transformation at a global level (Hills and Maharaj 2023). The concept of transformation is open to varying interpretations and is dependent on personal and institutional values and experiences, and theoretical and systemic positioning (Evans et al. 2023, 2024). A growing and robust body of literature on the meaning of transformation has facilitated a common understanding that generally agrees on 'fundamental' change, yet the process and characteristics of change processes to achieve such change are often generic and under-explored (Blythe et al. 2021; Evans et al. 2023; Feola 2015).

Transformative change is a rapidly emerging and evolving area of inquiry, characterised by diverse interpretations and a lack of consensus. Well-established classifications of transformation exist in literature, including from a socio-ecological, socio-technical and general systems change perspective (Evans et al. 2023; Feola 2015; Nalau and Handmer 2015). Practically, however, diverse interpretations of transformation exist on the ground, resulting in confusion and a lack of trust (Evans et al. 2024). Generally, transformation is defined as 'change that addresses the roots of persistent problems and results in a fundamentally different system' (Evans et al. 2023, p.7; Blythe et al. 2023), although there are multiple definitions that can be used. Table 1 outlines the three key characteristics of transformation as informed by Fazey et al.

Communicated by Feisal Rahman

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Table 1 Definitions of evaluative criteria of interventions applied to the synthesised findings of the data collection and analysis process identified in the 'Methods' section. Depth, pace and breadth are characteristics defined by Fazey et al. (2018) with connectivity identified by Evans et al. (2023)

Characteristic of change	Definition
Connectivity	Connectivity is defined as how events, actions and interventions connected, facilitated or enabled one another. Actions could directly enable other actions as part of a long-term vision (e.g. financial innovation directly enabling and supporting a marine spatial planning process), tangentially enable activity through changing a context (e.g. broader economic reform leading to new policy visions and goals) or be completely separate
Pace	Pace is the timeframe in which change occurs, and was gauged by the relative number of interventions or events per year. How interviewees perceived change efforts (i.e. fast, slow, interrupted) was also used as an indicator of pace
Depth	Depth is defined as intensity of change, ranging from shallow to deep. Shallow changes are recognised as surface reorganisation whereas deeper changes are values driven. Abson et al.'s (2017) grouping of leverage points loosely informs this definition as an indicator of depth of impact of events and actions taken
Breadth	Breadth is defined as distribution of change, and where interventions were targeted. For example, identifying whether actions were focused on just institutional change or a wider portfolio of interventions

(2018). These include depth, pace, breadth and connectivity of change. In this research, a 'deliberate' conceptualisation of transformation is used, whereby change is actively sought through different interventions applied at different scales (Linnér and Wibeck 2021).

Given the gaps in transformative literature identified above, this research explores the process of transformative change in a national government context to explore barriers and constraints to change in motion. In pursuit of a sustainable ocean future, the blue economy is often used as a concept for change. A plural and fluid concept, the blue economy generally advocates for sustainable economic growth of ocean, marine, coastal, freshwater and aquatic resources depending on the context, although interpretations of the concept vary drastically depending on the overarching development paradigm it is employed within (Silver et al. 2015; Voyer et al. 2018; Bennett 2019). Influential in global policy circles, the concept has inspired a series of national governmental changes to implement and progress towards a blue economy approach (Schutter et al. 2021; Voyer et al. 2022).

The blue economy represents a transformative change in ocean governance by integrating economic growth, environmental protection and social equity in pursuit of development (Cisneros-Montemayor et al. 2021; High Level Ocean Panel 2020). Specifically, the diversification of economic sectors and shifting emphasis onto 'blue' sectors is regarded as transformative (Cisneros-Montemayor et al. 2019). However, it should be made clear that this research adopts a neutral stance regarding whether the blue economy is an appropriate goal to be transforming towards. There is a growing voice within academic literature that opposes growing support for the BE, and questions whether it effectively realises issues of justice, equity and inclusivity. Schutter et al. (2021) argue that the blue economy is a way to further preserve power structures and capitalist ideologies in a way that seems 'common sense' and palatable. This logic to some precludes the blue economy from being a fully transformative paradigm. However, the concept has begun to be translated into international practice, to facilitate 'transformation' at national government levels. Voyer et al. (2022) explore the institutionalisation of the blue economy across Commonwealth states, identifying 33 countries actively engaging with the concept highlighting a global recognition of its importance and influence. Thus, given this wide traction, this research aims to explore how nations have begun to transform towards the concept to identify lessons learned for transformative change in general.

This research explores the 'how' of transformation within the context of the blue economy, specifically analysing the role of governments in facilitating transformation to a sustainable ocean future. By focusing specifically on the process (or journey) of transformation, this paper takes a different approach to the growing body of transformations literature which advocates for root-level or bottom-up transformation (Burch et al. 2017; Blythe et al. 2018b; Davelaar 2021; Blythe et al. 2023). When faced with the practical reality of undertaking transformation, the role of governments is ambiguous; equally an enabler and frontier that must be contended with in pursuit of transformative change at any level (Evans et al. 2024). By exploring journeys of transformation towards a blue economy in Seychelles and Bangladesh, journeys of change are evaluated, and underlying influences that shaped change are explored.

Seychelles and Bangladesh were identified as provisional case studies through interviews with experts in ocean governance (Evans et al. 2024), and verified for fit through existing literature (Purvis 2015; Rahman 2017). Both countries have different economic, social and developmental contexts, and different conceptualisations of the blue economy. Thus, comparison of journeys of transformation is through analysis of themes and patterns rather than direct comparisons of different approaches. A comparative case study research method was therefore adopted. The purpose of this research

is not to critique these conceptualisations but to explore the process by which change has occurred and the underlying factors enabling this process. This emphasis on process is further supported by the inclusion of a key actor within both the Seychelles and Bangladesh journey of transformation on the authorship of this paper. Prof. Pierre Failler contributed to both the Seychelles Blue Economy Action Plan, and was a consultant within the two year consultancy between the European Union and Government of Bangladesh.

By evaluating and presenting Seychelles and Bangladesh as independent examples of transformation, the process of transformation and possible underlying factors can be explored from different contextual conditions. From this exploration, a deeper understanding of transformation can be achieved and recommendations for creating and navigating transformative journeys can be identified. It is recognised that while these recommendations are primarily targeted at governments seeking transformation, the wider implications and findings are relevant to transformative theory and practice in general. In summary, through using the narrative of journeys of transformation towards the blue economy ('Journeys of change' section), reflections for transformative change as a process can be gleaned as well as an exploration of the key underlying themes identified for transformative change ('Synthesis and key themes' section).

Methods

This research adopted a multi-case study approach, using data triangulation as a method of validation (Yin 2018). Data triangulation is the process of using multiple sources of evidence to draw conclusions based on convergent findings and ensures the validity of conclusions drawn (Yin 2018). Data collection involved desk-based literature reviews, informal conversations and formal interviews with practitioners, and in-field observations through fieldwork. A summary of the data collected is presented in Table 2. All methods were ethically approved by the researcher's host institution.

The objectives of the documentary analysis were to define key events since public commitment to the blue economy begin to map out impacts of these events and actions, and identify underpinning and supporting influences surrounding the event or action. These were then later validated and explored in informal conversations and formal interviews with practitioners involved with the blue economy from academic, governmental and stakeholder perspectives. In Bangladesh, attendance at the Ninth Intergovernmental Session of the Intergovernmental Oceanographic Commission Regional Committee (IOC-INDIO 9) for the Central Indian Ocean also provided observational data regarding Bangladesh's progress towards the blue economy. The documentary analysis began with initial generic searches using the search term 'blue economy' AND '[specific country]'. It was then expanded following the initial sample of documents using a snowball technique. Documents included policies, academic articles, independent and NGO reports, and newspaper articles where appropriate. The possibility of documentation only being available in Creole, French or Bengali was also explored, and informal conversations negated this risk in Seychelles. Documents identified included reports, academic articles, government documents, news articles, speeches and press-releases.

Table 2 Overview of methods employed in the research, including documents reviewed, number of formal and informal interviews and conversations

	Documents reviewed	Formal interviews	Informal conversations
Seychelles	54	3	8
Bangladesh	71	4	7

There are relatively few actors engaging with the blue economy in both Seychelles and Bangladesh who would be able to give a long-term and holistic perspective of the journey of change experienced in each country resulting in a relatively small but knowledgeable and effective sample of interviewees. This small number of formal interviews was supplemented by informal conversations with actors not directly engaged from a government perspective, e.g. from arms length bodies or institutions. Given this small sample of interviewees, strict anonymity was therefore agreed to with all informal and formal interviewees. Given that the pool of possible interviewees is also small, it is also not possible to share background details of the interviewees due to a potential of being identifiable. Interview participants were identified through the documentary analysis and through recommendations of colleagues who had worked with Seychelles previously.

Informal conversations are natural and spontaneous interactions between the researcher and interviewee (Swain and King 2022). These were held primarily as scoping conversations prior to fieldwork in Seychelles and throughout IOC-INDIO 9 in response to emerging discussions in Bangladesh. The conversations varied thematically and were not recorded or transcribed to allow for authentic engagement and to encourage participants to voice their unfiltered opinions (Swain and King 2022). In contrast, formal interviews were semi-structured and prearranged. Formal interviews also lasted longer than informal interviews (on average an hour) and allowed for deeper discussion. Interviewees were identified from early scoping conversations and from documentary analysis. Key topics discussed included opinions of respective countries transformations towards the blue economy and possible barriers and enablers of change. All

interviews (formal and informal) had strict anonymisation agreements, meaning that interviews were not recorded with notes taken during the interview. Both formal and informal interviews were asked to reflect on how the blue economy transformation is being achieved, what the key moments of change were and how they supported further change, and what the barriers and opportunities were to transformation. The formal interviews and informal conversations were semi-structured, allowing for the flexibility to be retained to discuss areas of interest to the interviewee (Yin 2018).

Notes from interviews, informal conversations and documentary analysis were analysed through four strategies of case study analysis, detailed by Yin (2018). These include analysing data through theoretical propositions, developing a descriptive framework of the transformative journey experienced by both cases, inductive reasoning and examining rival explanations for findings. Foundational analytical techniques of grounded theory, including memoing throughout data collection and analysis, mind mapping and constructing exploratory concept maps, were used throughout analysis (Yin 2018; Birks and Mills 2015).

Several difficulties with the formal interview approach were encountered in both Seychelles and Bangladesh. Firstly, it was difficult to obtain pre-fieldwork scoping conversations in Bangladesh, with interviewees preferring a formal interview approach. The opposite was observed in Seychelles, where interviewees were more inclined to have an informal conversation than a formal interview. No NGO aligned with the blue economy could be identified in Bangladesh resulting in a critical loss of 'outsider' or independent perspectives regarding the blue economy. In contrast, no government officials in Seychelles accepted a formal interview invitation.

Synthesising and refining findings from across data sources were achieved by using grounded theory methods. These included constant memoing, mind mapping and constructing exploratory diagrams such as concept maps throughout fieldwork, analysis and synthesis (Simons 2009; Yin 2018). Such analytical techniques allowed for different themes, patterns and thoughts to emerge from the different data sources and be evidenced across multiple strands of evidence (Charmaz 2014).

To assist in narrative structure, journeys were explored through defining characteristics of transformation: depth, breadth, connectivity and pace (Fazey et al. 2018; Evans et al. 2023). To support narrative flow, depth and breadth are presented in the same section. A summary of these criteria and how they have been interpreted in the context of government-led change is presented in Table 1 in the introduction. Connectivity of interventions was also identified as an additional characteristic of transformative interventions. Where relevant, reflections on leverage points as part of a systems change approach have also been included, with the understanding that leverage points are places to intervene in a system where impact is disproportionate to effort (Abson et al. 2017). This research also begins to consider what is missing from these transformative journeys, outlined in the 'Blue justice as an evidence gap' section.

Part of the challenge of sharing the results of case study–based research is clearly describing where interviewee perspectives, findings from documentary analysis and observational data coalesce or diverge free from researcher bias. Therefore, this article uses 'Thick Description' as a technique to describe events and experiences alongside broader contextual factors (Yin 2018). While much of these findings have come from experiences of those 'on-the-ground', it is important to further embed this analysis in practitioner experiences. It is easy to theoretically highlight how neat the connectivity and pace of change looks from an outsider perspective, and how it was experienced by those directly involved in the journey of change. It is easy to visualise and map the logic and interacting nature of change when evaluating pathways of change, but one interviewee who worked closely with the government throughout this time felt that there were long periods of inactivity. They felt that there was an often interrupted pace of government-driven change towards the BE, which resulted in people becoming disengaged with the wider blue economy direction, making it difficult to re-energise, create or re-introduce interventions. They attributed periods of inaction to capacity issues, such as staff availability. This is an important difference between the academic analysis of these journeys of transformation, versus the lived-on the ground experiences of those experiencing and creating transformative change, which must be continuously re-examined.

Journeys of change

This section describes the journey of transformation of government-led progress towards the blue economy in Seychelles and Bangladesh. The section begins by outlining the general characteristics of the blue economy followed by an analysis of the journey of change through the framework outlined in Table 2.

Seychelles

General characteristics and overview of blue economy

Seychelles is a small-island large ocean state in the Western Indian Ocean, with a total offshore area equal to around 3000 times its landmass (World Bank 2017; Silver and Campbell 2018). The ocean is an important element of Seychellois culture, heritage and economy (Laing 2021). Seychelles is widely regarded as a pioneer of the blue economy and a

breadth of literature exists evaluating and learning from the Seychellois experience such as Benzaken et al. (2022) which evaluates the Seychellois governance transformation through the conceptual framework of good governance (Pouponneau 2023; Schutter and Hicks 2019).

Seychelles has been at the forefront of the blue economy since its conceptualisation in 2012, and national policy commitments to the blue economy were made as early as 2012 (Benzaken et al. 2022). The blue economy as a policy vision was adopted within an overarching narrative of economic reform which began in the late 2000s coupled with a growing international recognition and redefining of the role of 'blue' economies as part of the Rio + 20 Conference (Silver and Campbell 2018; Benzaken and Hoareau 2021). Until mid-2023, Seychelles was the only country in Africa to have a national policy document related to the blue economy (Namibia being the only other country since), where the other blue economy documents in the continent remain as strategies or action plans (March et al. 2024).

Since early policy commitments to the blue economy, the resulting interventions have been diverse and extend across different sectors and scales of the blue economy system. Deliberate interventions such as creating policies, financial innovation, fostering international collaboration and internal governance change have been implemented to facilitate progress. The energy driving the system oscillates between traditional leadership, the geopolitical importance of the 'brand' of the BE and the engagement of influential external influencers such as The Nature Conservancy, the World Bank Group and the Commonwealth Secretariat. Important 'levers' which catalysed change included innovative and pioneering financial processes; however, these were designed to include long-term management and capacity-generating initiatives such as marine spatial planning rather than singular point-in-time interventions, as is typically envisioned or interpreted with leverage points (Evans et al. 2024).

Connectivity of actions

Connectivity was a defining element of change identified in the Seychellois experience, whereby interventions existed as part of a suite of activity that formed part of a long-term vision or a predefined pattern of change. An example of an event which has led to a 'cascade' of change is the Debt for Nature Swap which supports an marine spatial planning (MSP) process which has led to 30% MPA coverage (State House 2020), as indicated by the documentary analysis and interviewee responses. External support from The Nature Conservancy (TNC) in particular played a significant role in conceiving, negotiating and procuring the capital for the swap (Silver and Campbell 2018). The MSP process is ongoing, and includes stakeholder consultations, co-creative zoning exercises and mapping of marine areas (SeyMSP 2022).

This connectivity and relatively long-term perspective of interventions is directly enabled by two factors. Firstly, a supportive enabling environment was created through high level political leadership (explored further in the 'Leadership' section) and an existing context of 'aggressive' economic reform already in motion in Seychelles (Silver and Campbell 2018, p. 248). Secondly, deep support from external agencies such as TNC (who provide ongoing financial and technical support for the MSP initiative) and the World Bank (who supported the establishment of the Blue Bonds Scheme (Baker et al. 2023)) has sustained interventions across periods of political change. In short, the 'leverage point' of finance was activated by external stakeholders in partnership with the government but was sustained through a rich enabling context that includes Seychelles' long-term commitment to financial restructuring and strong support from international agencies, as noted by interviewees. Further reflection on the role of international support will be explored in the 'International support' section.

Pace

The results of the documentary analysis made it clear that change has occurred in two phases in Seychelles. Between 2012 and 2020, interventions happened fairly continuously, comprising a mix of activities across different areas of governance. These included early ambitious conservation targets, stakeholder consultations, consistent refinement of institutional arrangements and innovative financing mechanisms for local-level change through the creation of the Seychelles Conservation and Climate Adaptation Trust (SeyCCAT). The pace of change has varied over time, with early years characterised by a flurry of government-led interventions, innovation and international leadership followed by slower change as underlying politics changed.

The timeline presented in Fig. 1 shows a near-constant state of creation, experimentation and refinement in Seychelles with the exception of 2016 when the opposition party won a majority for the first time since 1979. This set in motion a wave of political change, including former President James A. Michel stepping down later in 2016 after 12 years of presidency. All interviewees identified that President Michel was pivotal in advocating for the blue economy on a national and international scale and was ultimately succeeded by President Danny Faure until 2020, and was then succeeded by opposition President Wavel Ramkalawan. The blue economy was a hallmark of President Michels's tenure, and it is not clear to what extent the blue economy is a priority for the current party. Benzaken et al. (2022) suggest that a decline in support for the blue economy is related to changes in political leadership which has weakened the blue economy as a national priority. In 2020, the Department of Blue Economy was moved to the Ministry of Fisheries and

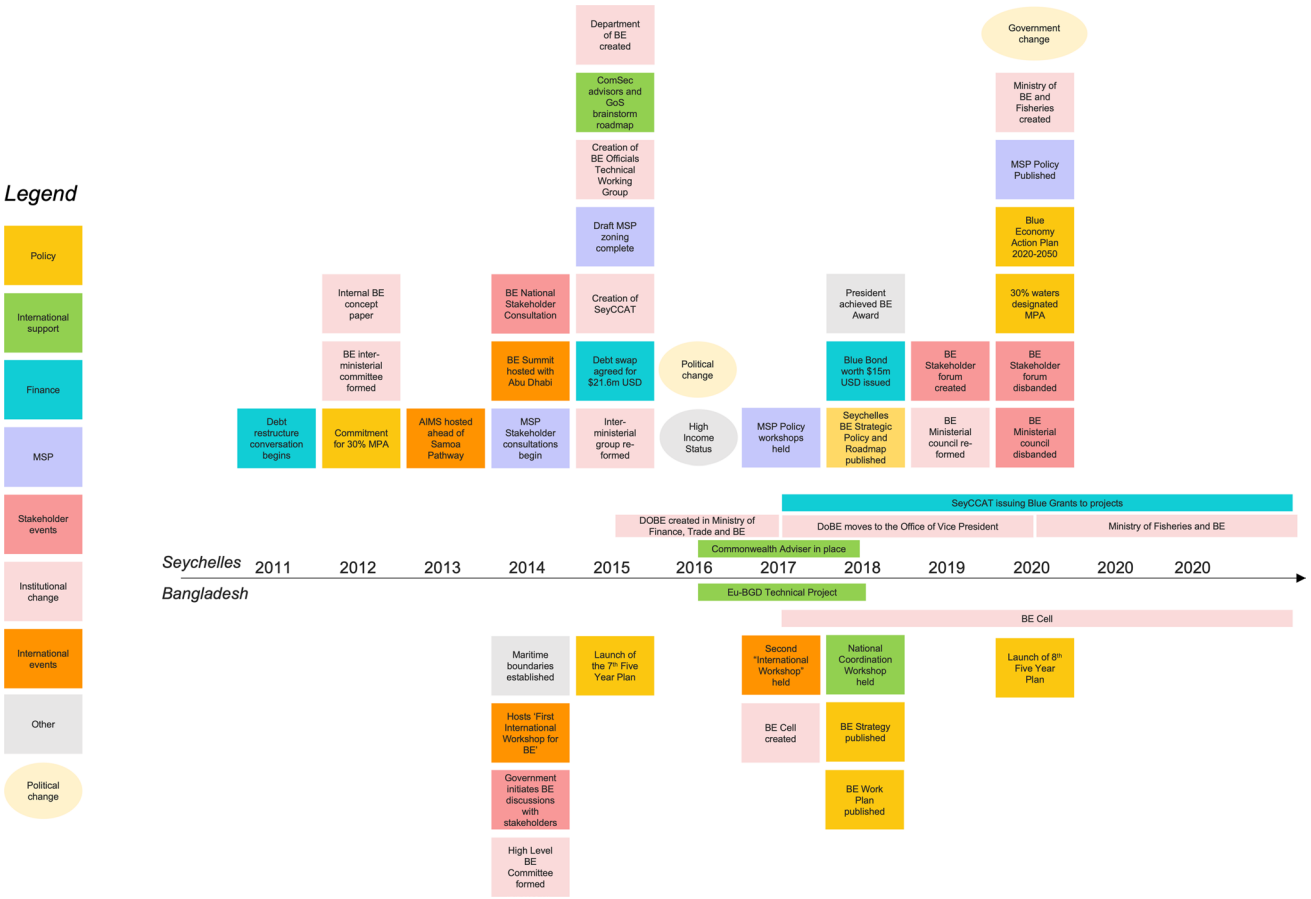


Fig. 1 Timeline of change in Seychelles and Bangladesh, highlighting institutional, policy and financial changes. Also highlighted are leading roles in international events, progression of marine spatial planning initiatives and stakeholder events. Where relevant, wider contextual factors such as elections have been included. A more detailed and referenced table can be found in the supplementary information

Blue Economy from its position of political power in the Vice President's Office, leading to concern by some interviewees regarding a loss of influence and political power.

Additionally, two interviewees (both formal and informal) attributed Seychelles being an international pioneer as being key in driving action nationally. All interviewees highlighted the role of the blue economy in foreign policy, which has influenced national-level decision-making as noted by Schutter and Hicks (2019). This aligns with Benzaken et al. (2022, p.17)'s perspective that the blue economy in Seychelles is 'serving an international agenda'. International recognition has unlocked resources and opportunities at an early stage in the blue economy journey, such as the Debt for Nature Swap and ongoing support of TNC (Schutter et al. 2021). This was achieved by strong political leadership by President Michel, which was identified by two formal interviewees as being integral at an early stage to begin to inspire and build momentum (Benzaken et al. 2022). With the political change in 2020, however, it is unclear how or if this momentum will be sustained.

Pace was also perceived to have been driven in part by 'the need to be constantly doing something' as noted by a formal interviewee. This perception stems from both the government-driven nature of change and the weight and attention gained from the status as an international pioneer. There are challenges and tensions noted with the recognition of international leadership, including competition between states, and the pressure of maintaining hegemony in securing resources (Schutter et al. 2021). One interviewee reflected on the pressure felt and noted that the need to be constantly at the forefront of innovation for the BE, or constantly needing to be moving forward, could in fact be a barrier or detriment to meaningful change on the ground. This was portrayed by the interviewee as being a 'tightrope' of government responsibilities: the need to create deep and meaningful change, yet also be seen as constantly 'doing'. This raises issues for theoretical interpretations of transformation which differ with respect to the sharp delineation between incremental (slow, stepwise) and radical (fast, nonlinear) change (Evans et al.

2023, 2024). This also represents an operational context that must be considered when evaluating government-led interventions.

Depth and breadth

For change to be considered 'deep', it is proposed that it must change values that underpin the system which allow the system to operate as it currently does (Abson et al. 2017; Davelaar 2021). Change has been predominantly top-down and driven largely by the government, but the creation of SeyCCAT has significant potential to create niche-level and bottom-up change in the long term. The Blue Grants Fund, which is part of the Debt for Nature Swap, is available in three tiers, small (up to SCR 100,000), medium (up to 1 million SCR) and large projects (up to 2 million SCR), effectively fostering local action at a range of different scales. Completed projects vary in scope, such as capacity-generating initiatives, coastal mapping projects and documentary films (SeyCCAT, n.d.). Over time, these projects will facilitate a pipeline of creativity, knowledge and capacity in blue futures. It was noted by interviewees that SeyCCAT plays an increasingly important role in engagement and awareness raising of the blue economy with wider society and key sectors, and is noted as a de-facto leader by Benzaken et al. (2022). The independent role of the Trust fosters confidence due to the requirement for transparency and accountability as part of the Debt for Nature Swap (Benzaken et al. 2022).

One interviewee stressed that the true transformation in Seychelles concerns the way in which people interact and work with each other within the government. Specifically, this was attributed to changing visions and priorities of internal government information flows as part of a wider visioning process to generate the Blue Economy Strategy (2015). This idea of transformation as being fundamentally people and process driven is unique, and contrasts with established ideas of leverage points or deep change but aligns with ideas presented by interviewees in Evans et al. (2024). As discussed in Evans et al. (2024), ideas of what constitutes a transformation are person dependent, diverse and need to exist in a puzzle of multiple interventions to create change.

In summary, these different ideas of depth represent a major challenge to accountability and a tension with the identified need to be 'seen doing something' as a government. While this internal and organisational transformation contributes to the transformational objective of integrative governance, to external actors interviewed, this activity is regarded as being slow. Pursuing this disconnect between internal organisation and wider governance transformation would be a promising area of further research, especially within the context of government intervention.

Bangladesh

General characteristics

Following the delimitation of maritime boundaries in 2014, ocean, marine and coastal economic opportunities have come to the forefront of Bangladesh's policy and economic development agenda (Failler et al. 2019). Bangladesh is a part of the Bay of Bengal, an area of complex geopolitical challenges, characterised by Alam (2021, p. 78) as 'an area of mistrust and tensions' with maritime order described as 'calm but fragile'. Within the Bay of Bengal, Bangladesh's maritime zone extends 118,813 km^2, resulting in an area that is almost the size of Bangladesh itself (Islam and Mostaque 2019). Its coastal zone accounts for 32% of the country's landmass (Shuva and Uddin 2021). Its geographic context makes the low-lying deltic country extremely vulnerable to natural hazards such as coastal inundation and flooding exacerbated by climate change (Iqbal and Kutubuddin 2021). The blue economy is regarded as an economic development paradigm and has been identified as a priority in pursuit of achieving middle-income status both by 2021 and 2030 (Government of Bangladesh 2015, 2020; Islam and Shamsuddoha 2018).

Connectivity

Interventions had limited connectivity in Bangladesh, as identified by interviewees and documentary analysis. Generally, an intervention or event was undertaken at a point in time, and not subsequently continued or followed up on, as described by one formal interviewee. This is further corroborated by the statement of actions outlined in the Seventh Five Year Plan (2015), which were then re-stated in the Eighth Five Year Plan (2020), with limited evidence as to what progress was made. This can be attributed to a lack of transparency, as it was often difficult to identify the progress or activities of the High Level Blue Economy Committee or the Blue Economy Cell from published outputs. Government interviewees generally commented on activities of the Blue Economy Cell which could not be independently verified in any publicly available document or by any interviewees outside the government. This contributes to a general perception of 'nothing really happening' held by several interviewees both within and outside of the government. This lack of progress was attributed by interviewees to a diversity of factors, including strong leadership, a lack of technical capacity and knowledge, and lack of clarity regarding the direction of travel.

A notable exception was the European Union-Government of Bangladesh (EU-BGD) Joint Collaboration on Blue Economy (2018) project. The project delivered in collaboration with the Government of Bangladesh and an external consultant (a named co-author of the paper, as outlined in the methods), a series of workshops, seminars and capacity building initiatives such as training and knowledge exchange programmes to develop the Bangladesh Blue Economy Strategy (2018). This is supported by a Blue Economy Work Plan, which is not available in English. Between 2016 and 2018, a diverse set of activities were held (Failler et al. 2018) with a high degree of interconnectedness between them. However, since the end of the project, limited further action has been undertaken as described by interviewees.

Pace

The main driver for the blue economy identified by interviewees was the new economic opportunities of ocean spaces following the delineation of maritime zones within the Bay of Bengal coupled with a strong national desire for economic development. In 2014, the Government of Bangladesh undertook a series of interventions which included formulating a High Level Blue Economy Committee and convening an international workshop (Bari 2017; Alam 2021). However, as identified in the 'General characteristics' section, it is difficult to identify how these actions facilitated or enabled further actions through interviews or documentary analysis.

A period of intense activity as part of the EU-BGD project was experienced between 2016 and 2018, followed by a re-emphasis of the blue economy in the Eighth Five Year Plan in 2020. Several interviewees felt that activity had stalled since the EU-BGD project, and those outside of the government felt that progress had stopped completely. Those inside the government, however, emphasised the importance of internal technical and capacity building work being undertaken but this could not be verified by external literature. Similar to Seychelles, this echoes the tension between the need to be seen to be constantly doing something versus creating deep change, and maintaining a sustained pace of change. An interpretation of this perceived lack of action would be to attribute this to the unglamorous and often not publicised work of building internal capacity and coordination, similar to the work described in Seychelles as being people focused. However, this experience closely mirrors the early Coastal Zone Policy of Bangladesh, released in 2006, which faced a similar deterioration of interest and momentum (Ahmad 2019).

Depth and breadth

It is clear from the documentary analysis and interviews that a traditional approach to transformation has been adopted: top-down government-led change, which has focused on creation of policy and internal structural and departmental change rather than diffusing change across multiple scales. This is in contrast to the definition of structural transformation defined by Scoones et al. (2020) whereby structural change refers to changes to facilitate changing 'ideological underpinnings of social systems' (Scoones et al. 2020, p. 66). Thus, in Bangladesh, interventions can be characterised as shallow as they do not engage with this depth of action but rather focus on reorganisation.

Since early adoption of the blue economy in policy, interventions have tended to be institutional in scope. It is not clear to what extent the generation of new governance structures (the High Level Blue Economy Committee; Blue Economy Cell) is reconfigurations of the existing institutional structures, or whether fundamentally change the process of decision-making across the government, and interviewees were unsure. A key structural change was the establishment of a Blue Economy Cell in 2017 with the mandate of coordinating blue economy initiatives across sectoral ministries (Islam and Mostaque 2019). Additional responsibilities include the requirement to 'better chart a path toward sustainable development of the ocean area, and to answer key questions about implementation of the five-year development plan' (Patil et al. 2019). In total, around 17 departments and bodies fall under the mandate of the Blue Economy Cell's mandate (Haque 2021). Interviewees also noted that coordination of actors within the blue economy was a key activity of the Cell.

Since the creation of these internal coordination mechanisms, governance of coastal and ocean environments in Bangladesh is still fragmented with resources in ocean and coastal spaces managed by around 20 ministries (General Economics Division 2021). Governance recommendations from the EU-BGD project, World Bank, and an ongoing (2020–2023) UNDP project emphasise the need for cross-government coordination and collaboration processes to be established in addition to the creation of the Blue Economy Cell (Hussain et al. 2018; Patil et al. 2018; General Economics Division 2021). Thus, while a clear imperative and deeper need for restructuring is identified, it is not clear to interviewees and as a result of this analysis, whether these interventions have actually had deep impact and changed the root causes of siloed decision-making.

Change was also largely focused internally within the government rather than across multiple scales, as evidenced through the interviews. It was also difficult to identify stakeholder or actors 'on the ground' to include in this analysis, which may result in a risk of critical or supportive opinion of the process of transformation surrounding how those affected by the transformation envisioned by the government perceive it. This is a significant risk to transformation and there seems to be no organised or concerted effort to

engage stakeholders beyond academia, government personnel, naval and port authorities in either visualising or creating change, raising serious concerns for equity (Blythe et al. 2018b).

Synthesis and key themes

Reflections on journeys of change

In Seychelles, a rich combination of manufactured and emergent contextual and external factors intersected to support government-led change in pursuit of the blue economy. However, concerns remain surrounding future trajectories due to political change. Seychelles is therefore existing in a state of continuous transformation, whereby interventions evolve over time building on previous actions. The multi-intervention approach has parallels to theories of continuous change and 'small wins' in organisational change management literature (Plowman et al. 2007; Termeer and Metze 2019; Schagen et al. 2022). A defining characteristic of this approach is continuous learning and multiple, deep 'small wins' across the system (Schagen et al. 2022). As identified above, however, it is not clear to what extent the interventions led by the Government of Seychelles can be considered deep if they are not targeting underlying power dynamics or values guiding ocean governance (Abson et al. 2017; Blythe et al. 2023).

This process of continuous change, while advocated for in ocean governance transformations (Evans et al. 2024), has similarities to an existing model of transformation in socio-ecological systems which conceptualises transformation as occurring in three phases, which may occur simultaneously. Olsson et al.'s (2004) model separates transformative processes into a preparatory phase, which is then catalysed by windows of opportunities, before moving into a final phase of building resilience in the new state. While it is recognised that there is fluidity and flexibility in these phases, it does not reflect the slower, evolutionary process of change undertaken in Seychelles currently. Furthermore, identifying a 'window of opportunity' or catalyst for transformation is difficult and contested as an approach (Moore et al. 2014; Moore et al. 2023; Blythe et al. 2018a). From a Seychellois experience, opportunity for change was created through a context of ongoing economic reform, leadership, and willingness to innovate.

In Bangladesh, momentum and progress towards the blue economy has stalled, with the range of opportunity and risk regarded as 'daunting in its complexity' (Patil et al. 2018, p. 15). Despite significant energy, time and a range of interventions, policy objectives relating to the blue economy have not changed dramatically between the 7th and 8th Five Year Plans (2015, 2020). Independent reports by the World Bank (Patil et al. 2018) and a recent UNDP Blue Bonds scoping paper do not differ in their recommendations either, suggesting that despite an emphasis on internal restructuring, the efficacy of efforts to date have been limited. It could be that Bangladesh is operating on a short term horizon in which 'resource management tasks seem to be over once a new policy is approved' rather than a concerted effort to implement the new direction (Gelcich et al. 2019, p.8).

Bangladesh's experiences draw parallels to the Brazilian experience of transitioning to a blue economy approach, where an inactive or dormant period was experienced between 2017 and 2018 (Gerhardinger et al. 2020). This phase was the result of a lack of clarity by government officials as to 'how to get there' to achieve a policy vision, along with an unclear visualisation over specific outcomes of the blue economy journey (Gerhardinger et al. 2020, p. 7). This lack of clarity surrounding future direction was echoed by interviewees in Bangladesh, despite the formulation and publication of a blue economy strategy in 2018. It is unclear what interventions Bangladesh will undertake next to achieve the blue economy.

Just as context was a major enabler for the Seychellois journey towards the blue economy, context is a major consideration when evaluating the Bangladesh journey of change. Significant governance challenges were identified including a persistent fragmented governance system of the marine environment, corruption, complex geopolitics within the Bay of Bengal requiring significant resources and a lack of technical and financial capacity (Failler et al. 2018; Hussain et al. 2018; Mahmood and Rashid 2018; Hassan and Ashraf 2019; Alam 2021). There is scope for a more radical approach for blue economy transformations in Bangladesh. This could include a profound reimagining and re-conceptualisation of governance practices, rather than the largely structural change that has been employed to date.

In summary, Seychelles is continually transforming whereas progress in Bangladesh is more episodic. The two processes of change both highlight unique challenges and opportunities shaped by the respective contexts. Change that exists continuously can appear to be slow moving, but could also facilitate the deeper change occurring 'behind the scenes'. The multiple interventions deployed across the system at different times have allowed change to occur at different scales and in different sectors. In contrast, the punctuated process of change occurring in Bangladesh, where concerted effort is made in one area of the governance system, resulted in change that could not be sustained over time. It is recognised that these findings are preliminary, and based on a snapshot analysis of ongoing blue economy transformations. To fully understand and explore the depth of change, a more detailed analysis within the governance system would need to be conducted.

Exploring underlying influences

As part of the analysis of journeys of change, several underlying influences that facilitated or blocked interventions were identified. While the list of underlying influences is extensive and context specific, it was identified that the role of international agencies and leadership was present across both case studies in different ways. Separating these influences is difficult, as they represent interconnected deliberate and emergent influences on change. What is presented below are intangible influencing factors that acted across the system, with different impacts depending on the country. This is in contrast to a growing emphasis on evaluating specific leverage points of transformation, such as finance (Jouffray et al. 2019), social networks (Lam et al. 2021), values (Horcea-Milcu 2022) and internal information flows (Farhad et al. 2023).

International support

Although the focus of this research has been primarily directed at government-led intervention, in the background of many of the changes and events in both Seychelles and Bangladesh is support from international agencies, actors and NGOs. This support ranges from long-term technical projects to facilitatory roles. Without extensive engagement with both national and international actors throughout the research, opinions here can only be a snapshot of what could be a much larger conversation regarding the balance between international agencies and sovereign interests of the facilitating country. International support is regarded as both an enabler and a force against transformation in both contexts simultaneously.

Published literature suggests that there is a balance to be achieved between the influence of international agencies and sovereignty and choice in the intervening country. For example, Silver and Campbell (2018) question the impact of the Conservation and Climate Adaptation Trust of Seychelles Act (2015). The Act mandates one of the co-directors of SeyCCAT to be from The Nature Conservancy, resulting in restricting 'the potential for action or activity to be unilaterally led or sanctioned by the government alone' (Silver and Campbell 2018, p. 251). Additionally, a noteworthy comment by an interviewee published by Schutter and Hicks (2019, p. 444) lamented the fact that the Commonwealth was needed to clarify and define the blue economy, when Seychellois were those pioneering it. This concern aligns with an exchange with an interviewee in this research regarding the risk of using an incompatible vision or interpretation of the blue economy that fits with an external funder or facilitator, rather than generating a unique vision. Thus, this represents a significant risk for those who implement or are affected by shifting transformative vision by limiting procedural justice. Baker et al. (2023) identify tensions within the marine spatial planning processes facilitated by The Nature Conservancy as part of wider blue economy conservation initiatives, and communities using local marine resources.

International support in Bangladesh was primarily through the EU-BGD project in the form of external in-country consultants, funding and events. Several interviewees noted that they were not sure what to do next, or which direction the blue economy was heading in. This mirrors experiences in Vietnam, where donor-funded interventions 'catalysed' a stakeholder network, facilitating stakeholder communication which stalled after the funding and subsequent activity stopped (Armitage et al. 2011, p. 710). It is well established that external engagement can lead to a reliance on external expertise, 'reinforcing leadership, capacity and resourcing elsewhere' (Harvey et al. 2022, p. 2). This was directly observed via informal interviews at INDIO-IOC 9 where conversations surrounding where to go next centred around identifying external funding opportunities to support a consultant to support a creation of a marine spatial planning process.

The role of international support, engagement and financing is therefore a double-edged sword in both contexts, remaining both a major enabler of sustaining change and also preventing local capacity from growing sufficiently to continue change trajectories. It is suggested that this is a significant area of further research, particularly surrounding the negotiations to generate proposed outcomes of engagement and the types of capacity building initiatives that occur. Finally, it is important to consider the length of engagement. Ongoing, long-term and in-country support in Seychelles has enabled a more emergent and locally sensitive process to grow. This is in contrast to the relatively brief, constructive technical project in Bangladesh whereby a lot was achieved, but activity was not sustained beyond the end of the project.

Leadership

When interviewees (formal and informal) were asked specifically to identify the major enablers and constraints of success for transformation, a recurring theme throughout both Seychelles and Bangladesh was the role and importance of leadership. Leadership was discussed in two ways: reflections on the importance of high level political leadership in creating internal momentum and fostering international support (Benzaken et al. 2022), and the leadership of individuals within the governance system to drive change. The importance of leadership in transformation is well identified and has been discussed in the context of socio-ecological systems (SES) transformations since 2004 (Olsson et al. 2004). It can also be considered a 'core factor'

in environmental governance transformation (Westley et al. 2013; Evans et al. 2017). Beyond SES, leadership and its various connotations, interpretations, ideologies and theories represent a rich literature base most notably in organisational change management, environmental governance and recently in climate literature (Battilana and Casciaro 2012; Case et al. 2015; Errida and Lotfi 2021; Harvey et al. 2022).

Interviewees and informal conversations often noted the role and importance of specific leaders within current and past governance arrangements in Seychelles and Bangladesh. To preserve the strict anonymity promised to interviewees, the examples of leadership here are presented generally to avoid identification. Specific individuals (often in traditional positions of power) were identified within ministries and committees, with strong reflection on the capacity of individuals to put others into 'driving mode', or the ability to catalyse action. These individuals were often credited with progress through their ability to inspire or use 'soft' influence to achieve incremental wins, such as establishing informal communication processes, or slowly changing minds and priorities. However, it was noted that once these individuals were moved from their position, this momentum ceased, leading to stagnation. This was also observed by Benzaken et al. (2022). This narrative by interviewees fits into a 'heroic' style of individual leadership which is 'overemphasised' in environmental governance literature (Case, 2013 in Evans et al. 2017, 2015), and regards leadership as an innate quality that individuals possess rather than something that emerges from institutional context.

Both Seychelles and Bangladesh had strong individual leaders within the blue economy at a high political level, which was identified by interviewees as important in gaining support for the blue economy as a policy direction. In Seychelles, this leadership was recognised internationally through its success in generating innovative financial mechanisms (Benzaken et al. 2022), and Bangladesh is regarded as a regional leader within the Indian Ocean. In Seychelles, political change as explored above led to a slower pace of transformation following loss of influence of this key leader. However, over time, leadership has been decentralised to an extent, with independent bodies such as SeyCCAT who have been identified as leaders and an important independent delivery model. Marine spatial planning processes have also begun to formulate a network of stakeholders in the blue economy, which has potential to form a possible avenue for further leadership to emerge.

In Bangladesh, there seems to be no space for leaders or voices opposing the blue economy to emerge beyond the government, attributed by some interviewees to a strict hierarchical culture and approach to governance. Creating new spaces for actors to be involved in the blue economy would provide an opportunity for new ideas, or the reintroduction of old ideas with new enthusiasm (Westley et al. 2013; Termeer et al. 2017). A possible method of achieving this could mirror the Seychellois experience of creating an independent organisation that fosters accountability; however, this idea was not explored with interviewees. Significant potential exists to explore how leadership can emerge in contexts where there is a traditional top-down governance approach, especially when idealising and navigating towards transformative change.

In Bangladesh, a sole political leader was often identified by interviewees and was regarded as pivotal in gaining national support for the blue economy, and formulating early partnerships and structures to begin work towards the blue economy. Government employees tended to be less critical of leadership, instead identifying the strong political will and activities of the Ministry of Foreign Affairs in establishing direction towards the blue economy. In contrast, interviewees from outside government noted the need for new leadership and fresh ideas in pursuit of the blue economy. According to these interviewees, over time the once strong leadership that catalysed change can now be perceived as actively blocking it. This was also confirmed through informal interviews and observational analysis of the INDIO-IOC 9. Conversations or ideas which challenged the pathway of change envisioned by the government were ultimately refuted and not listened to. This has been observed previously in environmental governance by Westley et al. (2013), and represents a significant barrier to change (Moore et al. 2014). This is also a strong example of an envisioned transformational paradigm failing to disrupt the status quo, vested interests and existing power structures (Bentz et al. 2022).

The format of leadership identified in Bangladesh correlates with the finding of Pahl-Wostl et al. (2007), who establish that a strong, centralised leadership style may be useful at strategic points such as the start of a journey, but creates tension over the long term in a complex decision-making space (Evans et al. 2015). Thus, early strategic leadership at a high political scale exhibited by actors in Seychelles and Bangladesh was critical in establishing momentum and energy for change. What is less understood from a theoretical and empirical perspective is how leadership styles change over time and how these can shape—or be leveraged to shape—transformational processes. A lack of understanding also exists regarding how leadership can emerge from different parts of a governance system, and how these can be nurtured.

Reflecting on the heuristic typology of leaders created by Evans et al. (2015), it is proposed that the styles and roles of leaders must change over time, possibly in sequence to achieve transformative change. Additionally, a distributed model of leadership should be pursued. Newer theories of environmental leadership move away from the traditional typology of a charismatic individual, and instead highlights the role of distributed leadership across the system in a

network-style (Evans et al. 2017). Distributed leadership styles are particularly relevant in contexts of complex policy spaces with diverse actors, perspectives and conflicts, such as within the blue economy (Oborn et al. 2013). Emphasis on individual leaders promotes a system vulnerability, whereby the loss of this individual can lead to loss of knowledge, trust and influence. Evans et al. (2017, p. 364) instead suggest 'investment in a web of reinforcing [actors] that, in combination, constitute 'leadership' and both facilitate and direct collective action'. This links strongly with an increasing emphasis on meaningful stakeholder inclusion and equity, explored in the 'Blue justice as an evidence gap' section, as often members or actors in a system need to feel comfortable in challenging or advocating for different goals, which can come into conflict with a strong centralised leadership structure (Bolton 2022).

Blue justice as an evidence gap

While this research specifically explores government-led transformations to a BE, it is worth exploring further the gaps in this research with the emerging concept of blue justice. A growing body of research surrounds blue justice, which is often positioned as a counter-narrative to the blue economy (Schutter et al. 2021; Blythe et al. 2023). In this framing, the economically driven concept of the blue economy, which is adopted by Bangladesh and Seychelles, is in contrast to the emphasis on social justice proposed as part of a blue justice framing. A working definition of blue justice proposed by Blythe et al. (2023, p. 3) include 'meaningful involvement' with regard to the use, access, management and enjoyment of ocean and coastal resources. Specifically, this analysis most aligns with the concept of procedural justice, in which 'people have an opportunity to meaningfully participate in and influence decisions about activities that may affect their coastal and marine environment' (Bennett 2022; Bentz et al. 2022; Blythe et al. 2023, p. 3). Procedural justice can be realised through effective participation in decision-making, and align with good governance processes (Bennett et al. 2021).

At present, there was limited evidence of procedural justice within government-led transformations in Seychelles and Bangladesh. A notable exception is the MSP process in Seychelles, which uses stakeholder consultation (Benzaken et al. 2022), but Schutter et al. note that there is tension between local interests and the blue economy which are 'obscured' in an international setting (Schutter et al. 2021, p. 6). This leads to a well-founded concern with a blue economy approach which further entrenches power in an existing hierarchy of power leaving local interests marginalised (Bennett et al. 2021; Blythe et al. 2023). Stakeholder participation was not observed in Bangladesh, with systematic stakeholder engagement 'hardly practised' (Chan et al. 2016). This gap in evidence represents a significant need to fully incorporate justice and equity within government-led transformations. A reframing of transformation beyond the 'depth, breadth, connectivity and pace' used in this research to explicitly include depth in relation to power and politics would begin to address this more explicitly.

Conclusions

The blue economy is a paradigm that has transformative potential to spark a re-conceptualisation of current methods of governing ocean spaces in national jurisdictions. A lack of detailed analysis of transformations 'on the ground' hinders the tangible lessons that can be identified for future transformations. This research has explored two different journeys of change towards the blue economy from a national government perspective, and identified reflections on the process of change, and explored the underlying influences of international support, leadership and blue justice. The journeys of change examined were strongly shaped by contextual conditions, suggesting a need to explore contextually relevant enabling conditions and constraints to the blue economy to ensure that interventions target underlying barriers to change.

A complex web of factors supported and blocked change processes in a national government context, with significant challenges associated with maintaining momentum throughout transformative journeys. The unique contexts that national governments operate within are restricted and limited by the constant pressure to be seen as 'doing something' which is necessary for maintaining momentum and buy-in. However, this can lead to shallow interventions that do not lead to deep and sustained change. The longevity and endurance of transformative interventions were inevitably shaped by contextual conditions, suggesting that such processes are an invitation to embark on wider, deeper transformation.

When reflecting on the confluence of connectivity, pace and depth of interventions, it is clear that a series of smaller interventions worked better than singular efforts to change. For example, creating a long-term financial mechanism in Seychelles that also included support for MSP and decentralised leadership models was largely successful because it targeted multiple different depths and elements of the systems. However, these need to be supported by strong leadership and clear vision to ensure momentum and energy. The theory of small wins and incremental change has significant parallels to experiences in Seychelles, but significant work remains to ensure that progress continues despite a perceived change in national priority. While this research clearly evidences the imperative for a long-term perspective in the evaluation of transformative processes, envisioning

actions to create transformation as being both incremental and radical are early steps to achieving transformation. Thus, creating a connected and long-term journey of interventions across multiple sectors or places in an ocean governance system can facilitate change. At present, identifying how leadership could be fostered across sectors or governance silos is a gap in the existing knowledge and practice.

An exploration of two key underlying influences of transformative change (international support and leadership) evidenced the diversity of circumstance and context that shapes transformative journeys. International support, while integral to the development and progress of both pathways of change, also prevented depth of change in some cases. It is recommended that the role of international support in shaping transformational change be explored in more detail, especially in conjunction with a more robust analysis of blue justice.

Acknowledgements The authors would like to thank the interviewees for their time and invaluable insights.

Data Availability The participants of this study did not give written consent for their data to be shared publicly, so due to the sensitive nature of the research supporting data is not available.

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