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Title:

Following the money: climate adaptation finance in the Marshall Islands

Date:

2024

Citation:

Incerti, N. & Barnett, J. (2024). Following the money: climate adaptation finance in the Marshall Islands. *Environmental Research Letters*, 19 (5), pp.1-10. <https://doi.org/10.1088/1748-9326/ad383e>.

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To cite this article: Nina Incerti and Jon Barnett 2024 *Environ. Res. Lett.* **19** 054010

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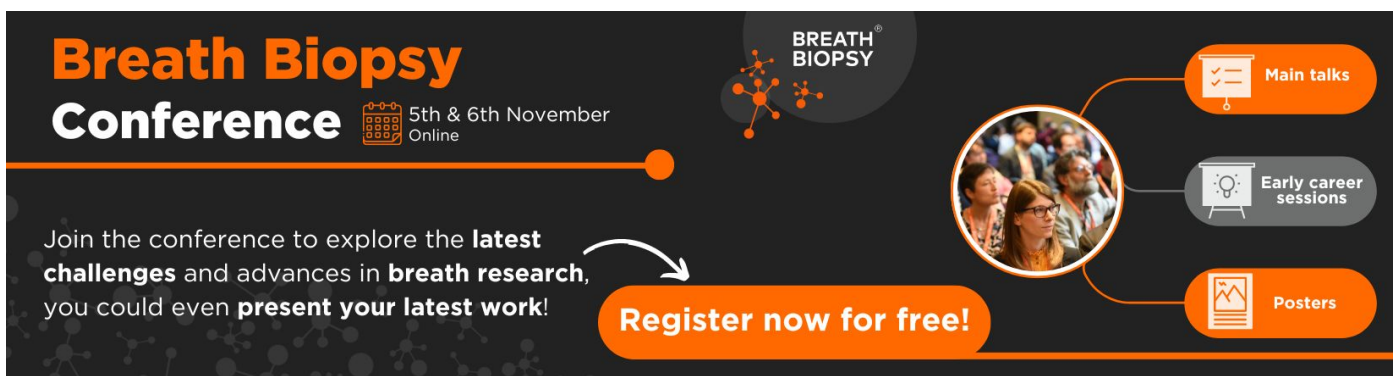
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RECEIVED
5 November 2023REVISED
20 February 2024ACCEPTED FOR PUBLICATION
27 March 2024PUBLISHED
12 April 2024

Following the money: climate adaptation finance in the Marshall Islands

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Keywords: aid, accounting, infrastructure, water, World Bank, Small Island States

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Abstract

The significant body of research on the distribution of international finance for climate change adaptation shows that it is not well correlated to the vulnerability of countries. Vulnerability differs greatly within countries as well, yet very few studies examine subnational flows of adaptation finance. Here, we present evidence of the subnational allocation of international adaptation finance within the Republic of the Marshall Islands (RMI). The RMI is a highly salient case as it is a small island developing state comprised solely of low-lying atolls that is both in need of and a recipient of adaptation finance. We describe patterns of adaptation finance in the RMI between 2015 and 2019 based on analysis of a comprehensive government database of bilateral and multilateral aid projects. We find that flows of adaptation finance were heavily skewed towards a small number of large-scale civil works projects in urban areas funded by multilateral institutions. Rural areas attracted smaller scale projects funded largely by bilateral donors. The overall distribution of adaptation finance across islands is highly sporadic, with hotspots of activity and areas of neglect. Our results suggest the allocation of adaptation finance to the RMI is insufficient relative to needs, poorly coordinated, and fails to reach places where it is most needed.

1. Introduction

Adapting to climate change almost always takes money, and the demand for money to pay for adaptation is outpacing supply (UNEP 2023). Due to asymmetries in responsibility for greenhouse gas emissions and the capacity to pay for adaptation, the supply of finance for adaptation from developed to developing countries is an increasingly contentious issue in the global climate regime¹. Of most concern thus far is the 'gap' between supply and need, with current flows estimated to be between 6% and 10% of that which is required (UNEP 2023). A second major concern relates to climate justice: adaptation finance is expected to be new and additional funding provided to address the added risks and burdens associated with

climate change to those most vulnerable (Roberts *et al* 2021)².

Research on the allocation of adaptation finance from developed to developing countries has mostly focussed on gross commitments from donors, and its distribution between countries and regions (Betzold and Weiler 2017, Weiler *et al* 2018, Islam 2022). Cross-national studies find adaptation finance is largely allocated through the same channels as Official Development Assistance (ODA), and is influenced by similar determinants (Barrett 2014). This results in three patterns in the global allocation of adaptation finance: countries with similar levels of climate vulnerability receive vastly different amounts of funds; a handful of countries receive the bulk of

¹ For this paper, adaptation finance refers to public and grants-based funding provided to reduce vulnerability to climate change in developing countries.

² Paragraph 4, Art. 9 of *The Paris Agreement* directs developed country Parties to provide *scaled-up financial resources* to assist 'developing country Parties that are *particularly vulnerable* to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States, considering the need for public and grant-based resources for adaptation.' (emphasis added, 2015 p 13)

adaptation finance; and countries with higher levels of adaptive capacity receive more funding (Donner *et al* 2016, Atteridge and Canales 2017, Betzold and Weiler 2017, Mori *et al* 2019, Islam 2022). There is also evidence that single, large-scale projects dominate the volume of expenditure (Atteridge and Canales 2017, Khan *et al* 2020).

Yet analysis of the distribution of adaptation finance between countries provides only one layer of knowledge necessary for understanding the adaptation side of climate justice (Barrett 2013). Vulnerability manifests locally and therefore knowledge about where adaptation finance is directed within countries is critically important for understanding climate justice, and for improving the coordination and effectiveness of adaptation efforts within jurisdictions (Barrett 2013). In the broader aid literature, subnational studies of aid allocation have helped overcome regional disparities and improved understanding of the cumulative and macro-level impacts of aid allocation (Dipendra 2020).

Despite this, research on the allocation of international adaptation finance within countries is rare, in part because the global climate regime is focussed on actions between countries much more than actions within them, and in part because tracking the allocation of adaptation finance within countries is not easy (Hall 2017). Understanding where adaptation finance actually goes within countries is constrained by a lack of subnational data, meaning existing studies rely on country-level aggregate flows, rather than project-level tracking (Donner *et al* 2016). This lack of data hampers efforts to evaluate progress on adaptation, including the global stocktake of adaptation under the Paris Agreement (Tompkins *et al* 2018, Canales *et al* 2023).

Existing research that does investigate the allocation of adaptation finance within countries is therefore mostly qualitative, focussing on the political economy of decision making, and rarely accounting for actual flows of money. Findings highlight the influence of donors, local political conflicts and priorities, and national governance structures on how and where international adaptation finance is allocated internally (Barrett 2015, Nightingale 2017, Rahman and Giessen 2017, Sancken 2020, Omukuti *et al* 2022).

Research that accounts for actual flows or allocation of adaptation finance within countries is extremely rare. The most well described example is of research of this kind is Barrett's (2015) study of the distribution of adaptation finance in Malawi, which found adaptation finance targeted wealthier districts due to their greater accessibility to donors—a problem common to ODA writ large (Lipton 2019). There are, to our knowledge, no other studies to date that quantify or analyse the distribution of adaptation finance *within* countries.

This study aims to describe the internal allocation of adaptation finance provided to the Republic of the Marshall Islands (RMI, also: Marshall Islands), a small island developing state in the northern Pacific Ocean. Specifically, we analysed a comprehensive project-level Government dataset to document sectoral, geographic, and subnational distributions of adaptation finance to identify patterns, disparities, and diversity in adaptation finance. In doing so, we add to the small body of evidence about where adaptation finance flows within countries and lands on the ground.

2. Study site

The Marshall Islands is an archipelago comprised of five coral islands and 29 atolls with a total land area of 181 km², spread over two million square kilometres of ocean in northern Pacific. The country consists of two parallel chains of atolls known as Ratak (Sunrise) in the east and Ralik in the west (Sunset).

Originally settled over 3000 years ago, the islands were later passed from Spanish to German to Japanese rule, until being seized by the United States in 1944 and administered as a Trust Territory of the United Nations. For the first 12 years of its administration of the Marshall Islands, the United States Government tested 67 nuclear weapons, leading to the forced evacuation of residents of Bikini and Enewetak Atolls (Watkins *et al* 2006, Barker *et al* 2013: 22). The Marshall Islands achieved political independence from the US in 1978, joining as a freely associated state with the US under a Compact of Free Association (COFA) (Department of State 2021). Under this agreement, the Marshall Islands receives subsidies, access to social services, and free movement to the US in exchange for military control and access, an arrangement which is under renewal at the time of writing.

Today, the Marshall Islands has a population of 41 499 people³ (Government of the RMI 2022), with a per capita Gross Domestic Product (GDP) of \$6000 (World Bank 2022). More than two-thirds of the population live in densely populated urban clusters in the capital Majuro, and the islet of Ebeye on Kwajalein atoll, which also hosts an American military base and active missile test range. In the urban centres, the economy is service orientated, with 30% of the population being employed by the government. The rural outer atolls have more traditional subsistence-based economies (van der Geest *et al* 2020).

³ Although, the effective population is likely up to 20% more given many Marshallese who were abroad at the time of border closures due to Covid-19 in 2020 had not been able to return by the recent census enumeration date. A churn of up to 20% of the population travelling away in a year is consistent with estimates from similar middle-income Pacific Small Island States that have ties to regional countries.

The Marshall Islands' small economy, isolation from major trade routes, reliance on the US dollar, and highly dispersed population mean that the costs of public administration are extremely high relative to national income. Accessing even basic commodities such as food and fuel are beyond the means of many Marshallese. Connectivity between islands is extremely limited, and this is a key constraint to adaptation beyond the capital island Majuro (IOM *et al* 2023). The country is highly reliant on ODA, including from direct budget and programmatic support from the COFA agreement, budget and project support from bilateral donors including Taiwan, Japan, the European Union, and Australia, and substantial ODA from multilateral development banks and international financial institutions (PIFS 2014). Since 2000, all public capital expenditure in the RMI has been financed by grants, with most of the domestic budget going towards government operational costs, such as administration, health, and education (UNDP 2019).

2.1. Climate adaptation in the Marshall Islands

The Marshall Islands is an ideal country for describing the internal distribution of adaptation finance for reasons of both salience and opportunity. The country is also both in critical need of, and an important recipient of adaptation finance (PIFS 2014). One of four atoll-island nations, the country is highly exposed and sensitive to sea-level rise, which threatens the long-term habitability of the islands. The Marshall Islands is already experiencing multiple compounding impacts of climate change, including coastal inundation and erosion, flooding, extreme heat, and drought (IOM 2023).

Adaptation is an essential priority for the Government of the Marshall Islands and its peoples, and a paramount domestic policy issue. Indeed, its recent National Adaptation Plan is called *the National Survival Plan* (Government of the RMI 2020, 2023). In addition to its large reliance on foreign aid, the Marshall Islands explicitly pursues international climate finance to achieve its adaptation goals (Government of the RMI 2014, Pacific Island Forum Secretariat (PIFS) 2014).

Finally, and somewhat uniquely, the Marshall Islands government maintains a registry of development activities detailed to the project-level, which formed the basis for the analysis in this study.

3. Methodology

3.1. Data

The data used in this study is a unique registry of development projects funded by international bilateral and multilateral donors in the Marshall Islands between 2015–2019. This data was collected by the

Marshallese Ministry of Finance and provided to the researchers in June 2019. The initial registry listed 218 projects, and included the following metadata: project title, descriptions including objectives and outcomes, development partners, local implementing agencies and ministries, sector locations, project start and end date, status, and project value. The data was initially screened and processed in four steps detailed in this section: (1) preliminary screening of the data, (2) classification of adaptation activities, (3) geographic coding, and (4) financial evaluation. The bulk of the analysis utilised descriptive statistics to present and evaluate the data, as detailed in the subsequent results section.

3.2. Screening and classification of adaptation activities

The original project database contained activities which were deemed not relevant to the present study, which were screened out prior to analysis. This included projects with commencement dates prior to 2015 as these years had insufficient data, as well as regional activities where the specific share of funding allocated to the RMI was unclear⁴. Following this screening process, a total of 161 activities worth a total value of \$436.3 million USD remained.

Projects in the registry were then screened for their relevance to adaptation. This is a challenging and contested process, as development, environment, and climate vulnerability are intrinsically linked. Challenges in classifying adaptation stem from both epistemic difficulties and political considerations, with different methodologies for classifying adaptation revealing vastly different measures of funds (Michaelowa and Michaelowa 2011, Hall 2017, Weikmans *et al* 2017). For the most part, the concern is that adaptation finance is significantly overstated by donors, who tend to count ODA in one sector (such as for disaster risk management, or water resource management) also as 'adaptation' in order to overstate their contributions (Roberts *et al* 2021). On the other hand, projects that directly reduce climate vulnerability are often not recognized as adaptation.

As we were relying on government-reported data rather than donor-classified data, for the purpose of this assessment we manually coded donor activities in the RMI to identify those that contributed to adaptation using a framework adapted from Bird *et al* (2012). This framework was selected for consistency and comparability, given it was also used in the previous RMI Climate Finance Assessment (Pacific Island Forum Secretariat (PIFS) 2014), and the region-wide Pacific Climate Change Finance Assessment Framework (PIFS 2013). This framework can be

⁴ Although it is noted that in Pacific Small Island States, a significant proportion of finance goes towards regional projects.

Table 1. Framework for screening adaptation activities, based on their relevance in reducing vulnerability in the Marshall Islands^a.

Relevance	Included in assessment	Rationale	Examples
High relevance	Included	Activities with a clear primary objective to reduce vulnerability to climate change.	<ul style="list-style-type: none"> • Disaster risk reduction and disaster management. • Upgrades to critical infrastructure networks in response to climate-related impacts. • Healthcare for climate-sensitive diseases. • Coastal restoration and protection. • Climate-related financial assistance to households and communities to undertake adaptation-related activities. • Knowledge generation, capacity building, planning, and policy support explicitly targeting climate change adaptation.
Medium relevance	Included	<p>Activities targeting other objectives that have a secondary benefit of reducing vulnerability to climate change.</p> <p>Or</p> <p>Activities with mixed programmatic support that include explicit elements to reduce climate vulnerability, but which are not easily separated.</p>	<ul style="list-style-type: none"> • Any response to recent drought, flooding, cyclones, • Water storage, water efficiency and irrigation that is primarily motivated by health or improved livelihoods as this will reduce vulnerability to drought. • Biodiversity, environmental protection and conservation, that is in part or not explicitly aimed at increasing resilience of ecosystems to climate change.
Low/Marginal relevance	Excluded	<p>Activities not targeting climate-related impacts</p> <p>Or</p> <p>Activities that have very indirect or theoretical links to adaptation.</p>	<ul style="list-style-type: none"> • Water quality or pollution unless the improvements in water quality aims to reduce problems from extreme rainfall events or improve water supply. • General planning capacity and technical advice not explicitly linked to climate change impacts or disaster risk. • General livelihood and social protection programs, motivated by poverty reduction that may build household reserves. • Education, healthcare, or social infrastructure that does not have an explicit climate risk or environment related element • Short-term programs including humanitarian relief and fuel provision. • Infrastructure upgrades and maintenance that do not include a climate-related component. • Generic budget or administrative support.

^a Adapted from Bird *et al* (2012).

applied on a country-wide scale, and can be based on recipient country data and so is not biased by political motivations of donors.

The Bird *et al* (2012) framework classifies activities based on their level of relevance to climate change adaptation—split into categories of high, medium, low, or marginal relevance. *Highly relevant* activities are those where adaptation was the explicit intent of the action. *Moderately relevant* activities are those undertaken for other reasons, such as food or water security, that have obvious secondary benefits in

reducing vulnerability to climate change. This category also includes activities that include explicit elements to reduce climate vulnerability but are not easily separated. Our modification of this framework was to use a binary classification whereby all activities that could be defined as *highly* or *moderately* relevant to climate adaptation are considered as adaptation, and those that are of low or marginal relevance to adaptation are excluded (see table 1). Mitigation activities were excluded unless there was an explicit adaptation benefit. While this approach is likely to result in

Table 2. Atolls and their settlement type classification.

Classification	Atoll	Characteristics
Urban	Majuro, Kwajalein	Cities with high population densities, mixed land use types and immigrant population and satellite cities with low-medium densities.
Outer/rural	Ailinglaplap, Ailuk, Arno, Aur, Bikini (Kili), Ebon, Enewetak, Jabat, Jaluit, Lae, Lib, Likiep, Maleoelap, Mili, Mejit, Namdrik, Namu, Rongelap (Mejatto), Ujae, Ujelang, Utirik, Wotho, Wotje ⁵	Low-medium settlement densities, largely traditional development patterns. Some atolls with very low populations and areas of nature conservancy.

an overestimate of adaptation finance, incorporating moderately related projects in this way allowed us to gain a more complete picture of the impacts of cumulative donor spending on adaptation efforts.

3.3. Geographic coding

To understand the spatial and geographic distribution of activities, each project was also geocoded to the first order administrative level (subnational government), in this case the municipality. In the RMI there are 24 municipalities, corresponding to each of the 24 occupied atolls. Each adaptation activity was geocoded using multiple available sources of information, including information within the registry (i.e. title, description, and objectives) and publicly available project datasheets, news articles, and other project documents. Activities where there were unknown locations or those not location specific such as country-wide or national-level interventions and initiatives were not geocoded, however were included in the overall and sectoral analysis.

To control and measure for potential geographic factors, we also distinguished between the two urban population centres and the rural outer atolls—a classification commonly used in Marshallese policy and planning (table 2). While exposure to climate hazards is relatively geographically homogenous across the country, urban and rural atolls have significantly different development trajectories and therefore adaptation priorities and costs. Adaptation in urban areas

⁵ Due to the legacy of nuclear testing Bikini is uninhabitable and many Bikinians now live in Kili, similarly Rongelap is uninhabited and many Rongelapese now live in Mejatto, which is an islet in Kwajalein atoll.

Table 3. Historic average exchange rate to USD for years 2015–2019, source: OECD.

Currency	Conversion rate applied	
United States Dollar	USD	1
Australian Dollar	AUD	0.7
Japanese Yen	JPY	0.009
European Euro	EUR	1.15
New Zealand Dollar	NZD	0.67

is costly due to the heavy reliance on capital works to support dense populations and the infrastructure (such as the airport, seaport and hospitals), adaptation in rural areas is expensive due to the cost of freight and lack of economies-of-scale (IOM *et al* 2023).

3.4. Accounting

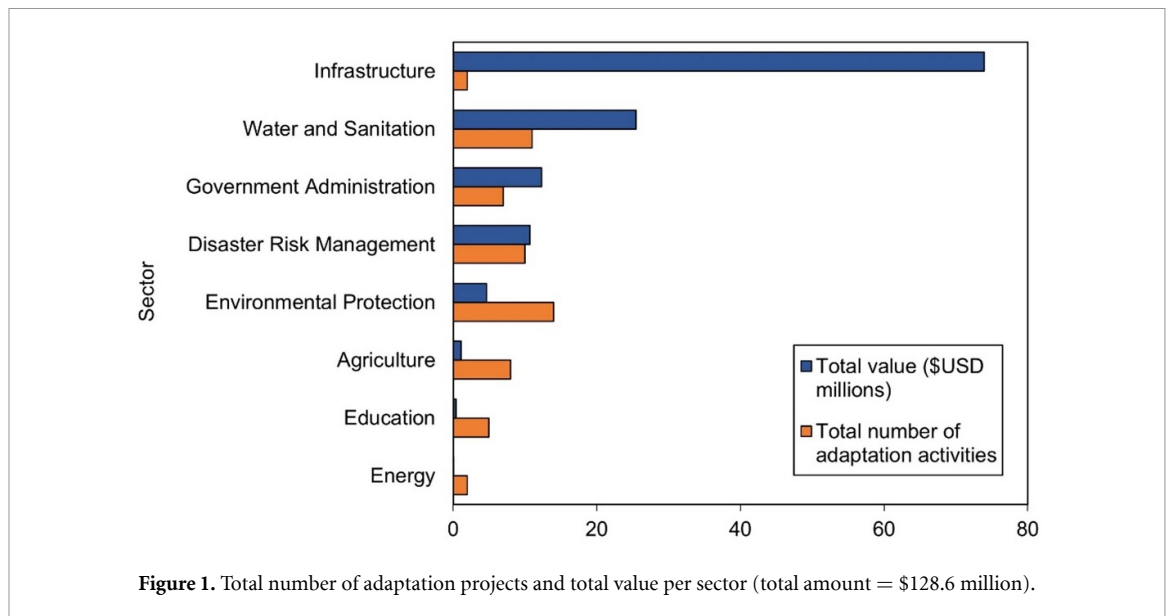
Financial values in the database were presented in the currencies of respective donors. Because the date for project disbursements was unknown, financial values were converted into USD using an average of the years 2015–2019 (table 3)⁶. For the purpose of accounting, activities that addressed multiple locations were each tagged with relevant municipalities and total funding was split equally between each.

It is noted that the database did not provide detailed financial information, such as the amount actually disbursed, and unlike some donor reporting, it does not ‘scale-down’ commitments based on the proportion of a project related to adaptation (Weikmans *et al* 2016). Therefore, figures presented in this paper do not align with international donor reporting and are likely to be an overestimate of actual funds received on the ground. Nevertheless, this approach provides both an indicative and consistent measure of the prevalence, scale, and distribution of adaptation finance in the RMI, and one which can be applied to other regions.

4. Results

Our analysis found donors collectively committed \$128.6 million to adaptation across 59 projects over the time from 2015 to 2019. Adaptation accounted for 36% of projects, and 30% of aid projects documented in that period. This sum is small relative to need, at least given the estimate that coastal protection alone might cost \$9.2 billion (net present value) (Deltares and Tonkin and Taylor 2021). This does mark an increase on climate finance to the RMI for the period between 2008–2014 as reported in an earlier climate finance assessment (Pacific Island Forum Secretariat (PIFS) 2014). Over this earlier period there were 40 climate change projects funded in the RMI, including those for mitigation, with a total value of USD\$34.1 million.

⁶ All values in this paper are hereafter US\$.



The 59 adaptation projects covered a diverse range of sectors, locations, forms, and scales—ranging from large civil works (e.g. water treatment and supply, coastal protection, transportation assets), smaller scale technologies (e.g. boats, water tanks), land management (e.g. coastal restoration, agricultural diversification) and policy and capacity building (e.g. strategic planning, policy, education programs) (figure 1). The scale of implementation varied from households and local projects, to national-level interventions.

By value, over three-quarters of adaptation finance (\$99.4 million) went towards projects in the Infrastructure and Water and Sanitation sectors, including marine transport, coastal protection and large-scale water infrastructure works. In comparison, the Education, Agriculture, and Environmental Protection sectors, whilst comprising nearly half of all projects, collectively attracted less than 5% of total adaptation funding (27 projects, \$6.2 million). However, these figures are skewed by a small number of large-scale projects. Over half of all adaptation funding went to two civil works projects, both implemented by the World Bank: one funded under the Pacific Regional Environmental Project Phase II, including coastal protection civil works (valued at \$44.63 million), and the other under the Marshall Islands Maritime Investment Program, a port investment and upgrades project (\$33.12 million).

Considering the source of funds, our analysis found there were 21 unique donors. Of these, 8 were from bilateral sources, and 13 were multilateral sources including international financial institutions and development banks. Most of the climate finance was solicited from international finance institutions and climate funds, skewed largely by the large-scale civil works projects. Only 13% of adaptation finance came from bilateral sources ($n = 27$, with a total

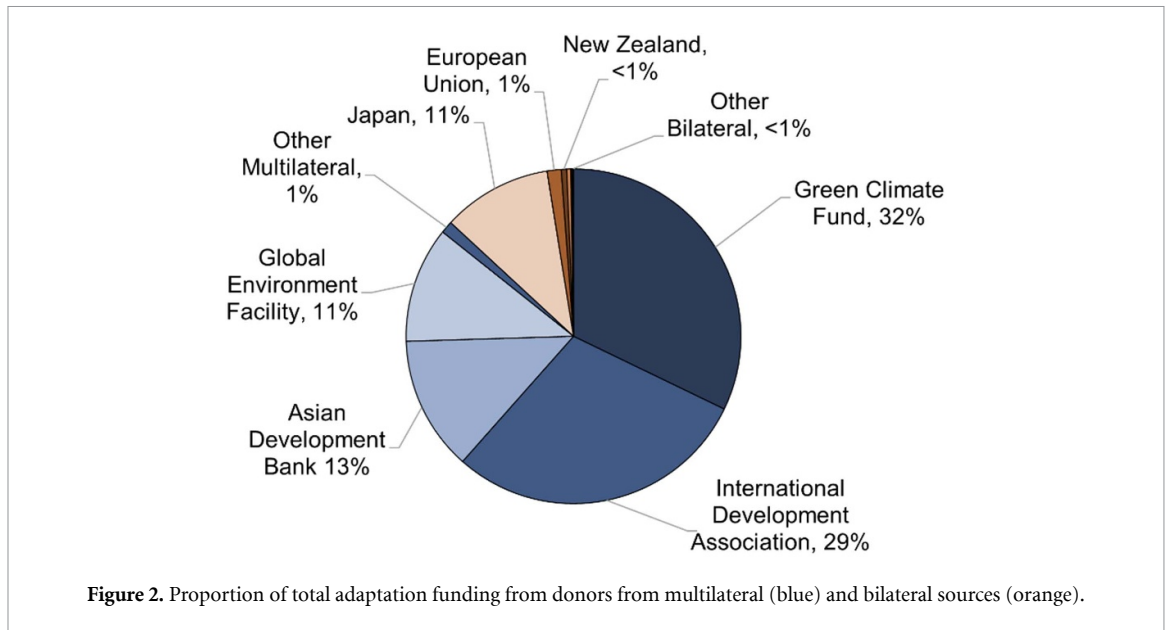
value of \$17.1 million). Amongst bilateral sources, the largest contributor in terms of number of activities and total finance was overwhelmingly Japan (8 adaptation activities with a total value \$13.6 million, which is 80% of bilateral climate adaptation funding for the period) (figure 2). Other prominent bilateral donors included the European Union, New Zealand, Germany, and Australia.

We are unable here to explain the motivations of these donors, though Australia, New Zealand and Japan have long been major donors to countries in the South Pacific, and Japan has a long history of cultural, military and political relations with the RMI (Purcell 1976). More broadly, in so far as adaptation flows mirror those of ODA (Barrett 2014), then then motivations for adaptation finance are likely very similar to existing development aid (see Dreher *et al* 2024).

4.1. Geographic distribution

Approximately two-thirds of adaptation projects ($n = 38$), accounting for \$108.8 million or 88% of all adaptation finance, could be tracked to the municipality (atoll) level. The remaining one-third of projects had a national or country-wide reach or were unable to be geocoded. These national-level projects comprised a far smaller proportion of total adaptation finance in total (20 projects, total value of \$16.3 million, 12% of all adaptation finance). These projects were largely related towards supporting policy and capacity building in the Government Administration ($n = 6$) and Disaster Risk Management ($n = 5$) sectors.

Observing distribution between municipalities, the number of funded adaptation projects appeared to associate with the population size of the atoll (figure 3(A)). While the national per capita allocation of adaptation finance was over \$2400 (equivalent to 75% of per capita GDP), the subnational distribution



was significantly varied, with over half of municipalities receiving less than \$400 per capita. Seven municipalities, representing 15% of the population received no adaptation finance, including Enewetak and Kili which are homes to nuclear-impacted populations (figure 3(A))⁷. However, *per capita* figures are easily skewed by both small population sizes and large-scale projects. For instance, Wotho, an outer atoll with a population of 100 people, received over \$8700 in adaptation finance per capita through just two projects (figure 3(A)).

The distribution of projects between the outer atolls in particular, varied greatly. One-third of municipalities (8 of 24, with a total population of 3420) did not receive any adaptation finance, while some atolls were hotspots of activity. For instance, the outer atoll of Mejit, with a population of 350 people, received 5 projects (total value of \$1.7 million or 2% of all adaptation funding) (figure 3(A)).

These hotspots of activity indicate failures in donor coordination, as well as the project-based form of adaptation finance. Donors have varying criteria for selecting project sites, and certain factors may predispose differing donors to fund activities in the same places. These factors include proximity or presence of donor offices, and existing relationships and preparedness by subnational and local actors to solicit funds. From our experience working in the RMI, we hypothesise that this variation is explained in part by the combination of political capital and agency of local political actors, including island mayors and senators, and in part by geographical proximity—as many of those rural islands that received little to

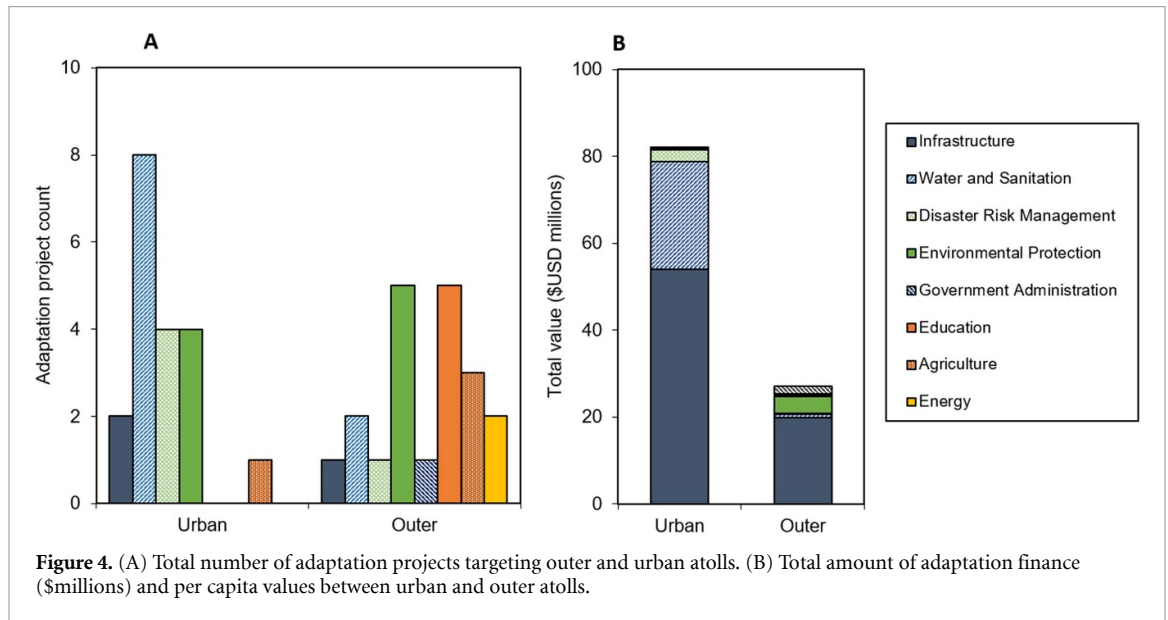
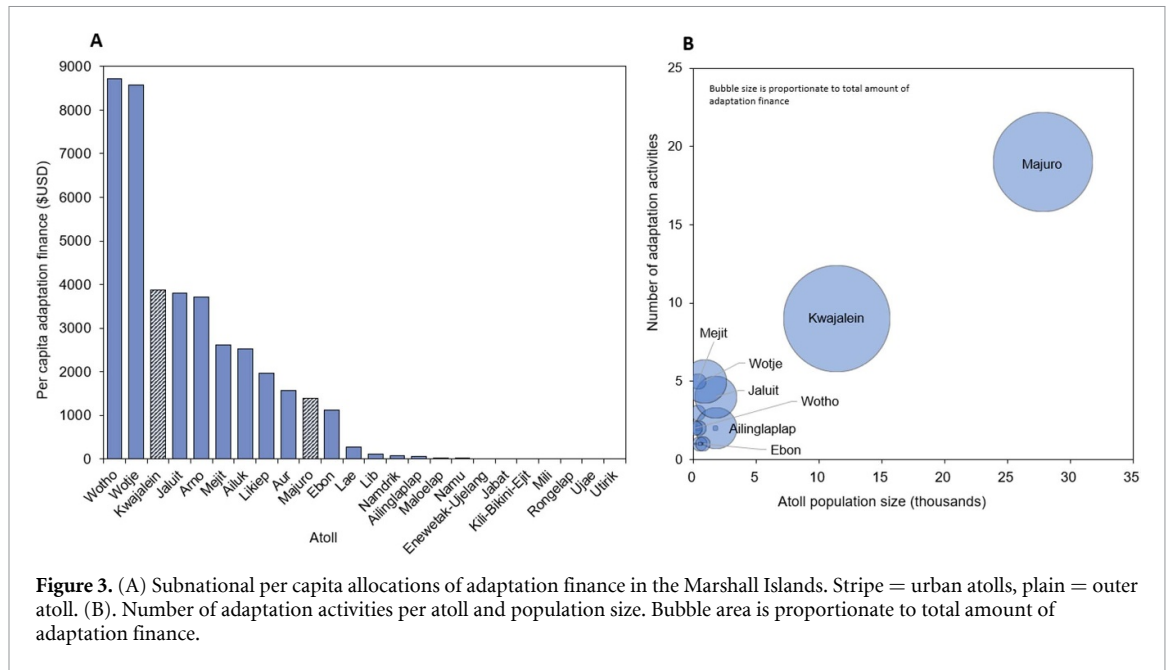
no projects are among the most remote (Jarillo and Barnett 2021, IOM *et al* 2023).

Considering patterns between urban and rural areas, a similar number of adaptation projects targeted both outer rural and urban atolls (20 and 19, respectively⁸). There was also a substantial difference in both the size and types of projects targeted towards outer and urban areas. Urban areas attracted larger investments in adaptation infrastructure and water and sanitation projects (figure 4(A)). Most of the funding (76% of location-specific finance) went towards the two urban centres of Majuro (total value of \$38.5 million) and Ebeye on Kwajalein atoll (total value of \$44.3 million).

While outer atolls solicited a proportionally comparable amount of funding to urban areas, three-quarters of this funding went towards a single major maritime infrastructure project (figure 4(B)). Outside of this project, all other rural projects were considerably smaller, with a project values of less than \$100 000, and a patchy distribution of these across a large diversity of sectors. In the rural atolls, most activities were concentrated in the Environmental Protection ($n = 5$), Agriculture ($n = 3$), and Education ($n = 5$) sectors (figure 4(A)). In comparison, urban areas attracted larger, mostly capital works projects, with 70% of urban projects valued over \$1 million. These findings reflect differences in development patterns between urban and rural atolls in the RMI, and provide support for an urban bias found in both adaptation finance and development finance more generally (Ayers 2009, Dreher *et al* 2024).

⁷ Data is not available for the third nuclear-affected population on Mejjatto, an islet within Kwajalein.

⁸ One infrastructure project had multiple locations across both urban and outer atolls, and therefore has been counted as both an urban and outer atoll project.



5. Conclusions

In light of the increasing importance of climate finance for climate justice, and the need to take stock of adaptation, we map international finance flows for the purposes of adaptation within the Marshall Islands. Our analysis reveals a patchy landscape of activity that mimics many of the imbalances in adaptation finance found at the international scale.

We find \$126.8 million was allocated by donors towards adaptation in the Marshall Islands over the 5 year time period, with funds dominated by a small number of large-scale, urban, capital works projects, implemented by multilateral development banks. Our analysis finds little evidence that benefits of adaptation finance were distributed equitably or well-coordinated within the Marshall Islands.

Projects were sporadically allocated between locations and sectors, with hotspots of activity and areas of neglect. Spending on adaptation by international donors in the Marshall Islands appears to reflect existing aid patterns and political motives to solicit international financing for capital expenditures, rather than meeting national or local adaptation priorities and policies (United Nations Development Programme (UNDP) 2019, Barnett 2022).

Our findings suggest the current ad hoc modalities of adaptation finance are failing to adequately support just or effective adaptation in the Marshall Islands. There is a need for funds to reflect comprehensive planning across sectors and jurisdictions, and to ensure donors are aligning efforts with national policies such as the 2020 Adaptation Communication and 2023 National Adaptation Plan. Greater attention

is needed from donors towards the many rural and remote communities who have received no or little adaptation funding. Of particular concern is the lack of funding to communities in Enewetak and Kili who must contend with both the severe legacies of nuclear testing as well the impacts of climate change (IOM 2023). The neglect of rural islands reflects existing patterns of development and public expenditure in the RMI, and may be due extreme connectivity challenges to outer islands—making investing in improved transport and communications a key priority to enable adaptation (IOM (International Organisation for Migration) 2023; Government of the RMI 2023). There is also an opportunity for greater diversification in adaptation spending in urban areas beyond capital works, to support community-based practices, livelihoods, wellbeing, and culture.

There is a clear need for greater coordination of climate finance to the Marshall Islands to ensure country priorities are met and local vulnerabilities are addressed. This will require greater control and coordination of adaptation finance within the RMI, which is arguably best done by centralising responsibility for climate finance within the Office of the President, as other countries (such as Kiribati and Tuvalu) have at times done. There are also opportunities for donors to support the RMI to build local capacity and develop institutional knowledge, as the current practices of project-based delivery continue to be dominated by short-term staff on expatriate salaries which increase inequality, limit consistency in delivery, and hinder long-term development (Pacific Island Forum Secretariat (PIFS) 2014, p 12). Importantly, effective delivery and coordination of adaptation finance will require donors to cooperate with each other and the RMI Government, including by disclosing their intentions and activities in a more transparent manner.

Understanding the role of climate finance in achieving climate justice will require a more granular approaches towards tracking adaptation finance. As utilised in this study, project-level reporting and geocoded data captured information often aggregated or absent in international reporting, such as small-scale and locally implemented projects, and regional coordination. However, our small sample size and single data source limits the generalisability of findings. Therefore, further monitoring into flows of adaptation finance within countries and across longer timeframes is needed to identify biases and trends in spending more broadly. To improve donor accountability and transparency there is a need for improved detailed adaptation finance reporting schemes and accounting methodologies such as a public geocoded database of projects. The alternative is continued reliance on simple measures of flows of adaptation finance that say very little about whether efforts are successful, effective or just.

Data availability statement

The data cannot be made publicly available upon publication because they are owned by a third party and the terms of use prevent public distribution. The data that support the findings of this study are available upon reasonable request from the authors.

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