Institution: University College London		
Unit of Assessment: 14 – Geography and Environmental Studies		
Title of case study: Shaping UN and national guidance on policies and practices to protect oceans and coastal ecosystems through marine protected areas (MPAs)		
Period when the underpinning research was undertaken: 2009-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	**Role(s) (e.g. job title):**	**Period(s) employed by submitting HEI:**
Dr Peter JS Jones	Reader in Environmental Governance	1997-present
Period when the claimed impact occurred: 2015-2020		
Is this case study continued from a case study submitted in 2014? No		

1. Summary of the impact (indicative maximum 100 words)

Jones' Marine Protected Area Governance (MPAG) research framework has been applied to 51 marine protected area (MPA) case studies in 24 countries on six continents. It has supported initiatives to achieve an international legal target for 10% of the global ocean area to be designated as MPAs that are effective and equitable. Since 2015, this research has shaped policies and practices to help achieve this target at international, national and local levels. Jones has authored guidance for UNEP (UN Environment Programme), contributing to the development of policies to achieve one of the Sustainable Development Goals, helped build capacity in the Sainte Luce MPA in Madagascar, and influenced the official evaluation of the Ningaloo Marine World Heritage site and the management of regional MPAs off the coast of Sussex. His evidence to the Commons Environmental Audit Committee Inquiry on MPAs and advice on related UK policies influenced recommendations made by UK government in the Department for Environment, Food and Rural Affairs *25 Year Plan*.

2. Underpinning research (indicative maximum 500 words)

Jones specialises in research on environmental governance, taking an interdisciplinary approach that combines ecological and social science. Since 2009 his research has focused on case studies of marine protected areas (MPAs), investigating how different governance approaches can be combined to promote effectiveness in achieving conservation objectives and equity in fairly sharing the costs and benefits of such protection. In 2009 UNEP funded an international workshop for MPA researchers and policy practitioners in Croatia (GBP75,000, [i]), based on the initial 20 MPAG case studies published in a special issue of *Marine Policy,* co-edited by Jones and of which he co-authored the introduction **[R2]** and three other articles **[R3]**.

Jones used ethnographic methods, such as in-depth interviews with stakeholders and observations of meetings, analyses of relevant policies and related documents, and analyses of scientific assessments of the status of marine species, fisheries and habitats to gain an understanding of different perspectives on governance and related issues. These social and ecological elements were integrated and analysed through the Marine Protected Area Governance (MPAG) research framework, designed by Jones and described in **[R1/R2]** and **[R4]**, to assess the degree to which particular combinations of governance approaches provide for both effectiveness and equity. A key rationale of Jones' research **[R1]** is that, in the same way that a diversity of interacting species from different functional groups tends to confer resilience on ecosystems, a diversity of functionally integrated incentives representing different governance approaches helps build the resilience of MPA governance frameworks to development pressures and climate change.

The MPAG research findings **[R1-R6]** identified different ways of combining governance approaches (i.e. legal, participative and economic approaches), based on an empirically-derived taxonomy of 36 governance incentives. Such incentives are used to address conflicts between use and conservation in MPAs and Jones' research investigated to what extent different combinations of incentives were effective in achieving conservation objectives and equitable in fairly sharing the costs and benefits of protection. These included incentives to promote sustainable whale shark watching in Ningaloo Marine Park, Western Australia **[R4/R5]** and to promote sustainable lobster fishing in Sainte Luce, Madagascar **[R6]**. Such combinations formed

the basis of "good practice" research-based advice on the importance of combining governance approaches through a diversity of functionally integrated incentives, including the particular importance of legal incentives and the related role of the state **[R3/R4]**. As well as leading to such practical evidence-based research outputs, this research challenged accepted wisdom that participative and market incentives should be the focus of governance, without state intervention **[R1/R3/R4]**.

Since 2009, Jones' research framework has been applied by over 100 researchers and policy practitioners to 51 MPAs in 24 countries on six continents, under the guidance and coordination of Jones, producing 17 papers on 20 case studies in **[R1-R3]** and 20 papers on 28 case studies in **[R4]**. The findings of the research on all these case studies supports the social-ecological systems hypothesis that "diversity is the key to resilience, both of species in ecosystems and incentives in governance systems" **[R1/R4]**.

In 2018 Jones was funded by the Darwin Initiative in collaboration with the NGO SEED for a project to promote the sustainable governance of the Sainte Luce MPA in south-east Madagascar (GBP17,350 to UCL of total grant of GBP230,000, [iii]). This research involved an MPAG analysis, including field interviews with various local stakeholders in Madagascar, to assess their views on the governance of this MPA **[R6]**. It **[R6]** found that stakeholders wanted improvement of governance structures, particularly regarding transparency, supplementary livelihoods, enforcement and appeals. It recommended improved compliance with national legislation and the local law (dina). This illustrates how the theoretical sophistication of these MPAG research analyses yields conceptually robust recommendations that can be practically applied to specific local contexts to improve the effectiveness and equity of governance.

3. References to the research (indicative maximum of six references)

R1. Jones, P. (2014). *Governing Marine Protected Areas: resilience through diversity*. Earthscan/Routledge, Oxon. doi:10.4324/9780203126295. Positively reviewed in *Nature.*

R2. Jones, P. et al. (2013). Introduction: an empirical framework for deconstructing the realities of governing marine protected areas. Marine Policy 41, 1-4. doi:10.1016/j.marpol.2012.12.025

R3. Jones, P. et al. (2013). Governing Marine Protected Areas: social-ecological resilience through institutional diversity. *Marine Policy* 41, 5-13. doi:10.1016/j.marpol.2012.12.026.

R4. Jones, P. (in press). Analysis and discussion of 28 recent marine protected area governance (MPAG) case studies: challenges of decentralisation in the shadow of hierarchy. *Marine Policy* 104362. doi:10.1016/j.marpol.2020.104362. Introduction and discussion paper for special section (see contents list) based on 28 case studies from 15 countries. Draws on 19 case study papers of which Jones is the lead editor, including 11 papers featuring Jones as an author, e.g. **[R5/R6]**

R5. Jones, P. (in press). A governance analysis of Ningaloo and Shark Bay Marine Parks, Western Australia: putting the 'eco' in tourism to build resilience but threatened in long-term by climate change? *Marine Policy*, 103636. doi:10.1016/j.marpol.2019.103636

R6. Long, S., Thurlow, G., **Jones, P.** et al. (in press). Critical analysis of the governance of the Sainte Luce Locally Managed Marine Area (LMMA), southeast Madagascar. *Marine Policy* 103691. doi: 10.1016/j.marpol.2019.103691

All outputs were peer reviewed.

Funding

i. UNEP GBP75,000: for international workshop on 20 MPAG case studies (Oct-Dec 2009)
ii. UNEP GBP57,000: to develop International MPA Governance Guidance (Feb-Nov 2016)
iii. Darwin Initiative GBP17,350 of total grant of GBP230,000: Promoting community-based management for secure fisheries, biodiversity and livelihoods (July 2018-March 2021)

4. Details of the impact (indicative maximum 750 words)

Human life depends on the benefits that oceans provide for health, well-being and economic growth. But there is a widening gap between the declining health of our oceans and the growing demand for its resources and benefits. MPAs offer one of the best options for maintaining or restoring the health of ocean and coastal ecosystems: target 11 under the UN Convention on Biological Diversity states that "By 2020, at least…10 per cent of coastal and marine areas… are conserved through effectively and equitably managed... systems of protected areas." This target has also been incorporated into the UN's Sustainable Development Goals (SDG Target 14.5). Jones' research-based MPAG framework assesses the degree to which different governance approaches are effective in achieving conservation objectives, as well as how fairly they distribute the costs and benefits of MPAs amongst various users. Since 2015, his research has helped shape international (UN) and national policies (Madagascar and UK) designed to achieve these targets through more effective and equitable MPA governance approaches.

At an **international level**, Jones' research has shaped UN recommendations on MPAs and influenced a financing commitment from the Italian government to UN Environment Programme (UNEP). In 2016, Jones contributed to the Rome MPA Conference, organised by UNEP and the Italian government, which aimed to provide a roadmap for achieving the 10% marine protection targets. The resulting outputs, *UN Call to Action* and *Scientists' Consensus Statement* **[A]**, include detailed recommendations based on the MPAG research findings, particularly calls 5-7 & 13(d) of *Call to Action* and points 13-24 in *Scientists' Consensus Statement*. **[R1]** is cited in the *Scientists' Consensus Statement*: "Recognize that "diversity is the key to resilience, both of species in ecosystems and incentives in governance systems", i.e. a combination of incentives is crucial for effective and equitable governance" **[A]**. Both documents were approved unanimously by 33 diplomats at a special UN session that concluded the Rome Conference. One outcome was "a financing commitment from the government of Italy to UNEP for development of a global MPA tools and learning platform" (GBP1,000,000) that will draw on Jones' MPAG research findings **[B]**.

Jones' MPAG research is shaping the development of UNEP policies to support the achievement of the international targets to promote effective and equitable MPAs to help restore the biodiversity and health of ocean ecosystems. In 2016 UNEP's Chief Scientist invited Jones to contribute to the report *UN Environment Frontiers 2017: Emerging Issues of Environmental Concern* **[C1]** "based on the outstanding work undertaken by Dr Peter Jones and in particular **[R1]**" **[B]**. MPAs were one of six highlights featured in the report and Jones was lead author of the section *Marine Protected Areas: Securing Benefits for Sustainable Development* **[C1]**, which drew on his book **[R1]** and related MPAG research to show that "focusing on a single governance approach creates weaknesses that can compromise conservation intentions. Instead, there should be an integrated approach that combines the roles of national governments, local communities, and market schemes" **[C1, p.39]**. The report was launched at the Third UN Environment Assembly in Nairobi in December 2017 and has helped shape international policies: UNEP's former Chief Scientist and Director of Science confirms that this report was used by UNEP to develop policies to achieve SDG 14.2: (By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans), which includes strengthening resilience: "The chapter authored by Dr Jones, together with the underlying publications relating to his research, was used in the decision-making for the SDG 14.2 Target" **[B]**. UNEP's former Chief Scientist and Director of Science notes: "his track record in analysing local case studies demonstrates this his research can be applied at a local MPA level to inform important revisions to governance incentives to improve both the effectiveness and equity of governance […] Dr Jones' research on MPA governance is having very significant impacts on these important international policy initiatives to protect and restore marine ecosystems" **[B]**.

In 2016, Jones was invited to be lead-author of UNEP's guidance on how to combine governance approaches for MPAs through a diversity of incentives to promote effective conservation and the fair sharing of related costs and benefits. *Enabling Effective and Equitable Marine Protected Areas: guidance on combining governance approaches* **[C2]** was published in 2019. Drawing on **[R1]**, the guidance argues that "there is a need for an integrated approach [to MPA governance] […] to generate the most effective and equitable form of governance" (p.15). The guidance

includes detailed descriptions of the 36 incentives adapted from **[R1]** (p.40) and provides evidence-based advice drawing on 34 case studies from 19 countries, all of which were coordinated by Jones. This guidance has been downloaded over 3,000 times and is cited in a UN preparatory document for the *United Nations Conference to Support the Implementation of Sustainable Development Goal 14* **[C3]**. This citation has, as a co-author of UNEP put it, "implications for emerging UN policies and decisions" and they see the conference itself as "a very high level opportunity to promote the guidance and its uptake" **[B]**. The co-author explains that "MPA governance is considered a central element of UNEP's ongoing work to develop guidance and decision support to countries on sustainable […] transition pathways, drawing inter alia on the rationale and findings of this MPA governance research" **[B]**. Their collaboration with Jones and its "strategic focus on management effectiveness and equity **[R1]** has significantly influenced the global discourse and generated enhanced attention to MPA performance" **[B]**.

Jones' research has reached a wide audience of practitioners. The International Union for Conservation of Nature (IUCN) is a membership union of government and civil society organisations working to safeguard the natural world. Its interest in Jones' MPAG rationale and recommendations led to an invitation to contribute to a chapter in the legacy document for practitioners from the World Parks Congress **[D]**, which has been downloaded over 2,500 times **[E]**. In December 2020, UNESCO published their Outlook 2020 Report on the Ningaloo Coast World Heritage Site (Australia). Jones' research **[R5]** was drawn on and cited eight times in support of the 'Good with some concerns' assessment of the site as being very well protected against local impacts but vulnerable to the emerging impacts of climate change **[F]**. In 2020 Jones was invited by the Arksen Foundation to be an advisor to their fund-raising campaign, '10% for the Oceans', based on recognition of his MPAG research **[G]**. Jones' "insight and expertise" will inform Arksen's distribution of donations and grant moneys "to build capacity for the effective and equitable governance of the world's MPAs" **[G]**.

At a **national level** in the **UK**, Jones' expertise on MPA governance has shaped Department for Environment, Food and Rural Affairs (DEFRA) policies. In 2016, he was invited to provide oral evidence to the Commons Environmental Audit Committee Inquiry - *Marine Protected Areas Revisited* (2016). Jones recommended, *inter alia*, more ambition through increasing the number and coverage of no-take Reference Areas, and giving them a more inspiring title, such as "restoration areas" or "recovery areas", and this new definition was quoted in the Committee's report **[H]**. DEFRA subsequently announced (2019) that a "review will recommend whether and how Highly Protected Marine Areas (HPMAs) could be introduced in England" and this is consistent with Jones' evidence recommendation for more ambition on "no-take" MPA designations. The DEFRA 25 Year Plan includes the commitment for MPAs to "move to a whole-site approach to protect sites of greatest biodiversity interest" **[H]**, a recommendation Jones also made in his evidence (Q37) **[H]**. As the Head of the related HPMAs initiative at DEFRA confirms: "Dr Jones' work has been of great interest and value to MPA policy and delivery in England…his work on local and national governance of MPAs has been of importance and interest to DEFRA and its statutory nature conservation bodies during the expansion of the MPA network" **[H]**. Jones has since been invited by DEFRA to be a member of the Advisory Group on HPMAs to draw on his MPAG expertise.

Jones is also a government appointee to the Committee of the Sussex Inshore Fisheries & Conservation Authority (SxIFCA), where his expertise has been applied to decisions and actions concerning the governance of 10 MPAs within the seas off Sussex **[I]**. SxIFCA's Chief Fisheries and Conservation Officer confirms: "Throughout his tenure Dr Jones has strongly supported and helped define… MPA priorities, in turn defining the MPA workstreams within 4 year and annual plans, again drawing on the expertise and experience gained through his applied research in MPA governance." For example, in 2016 Jones recommended adopting a matrix approach to detailing restrictions on different fishing activities in different zones of an MPA at different times of the year, which was adopted in the MPA byelaw. Making such details clear has helped fishers understand and cooperate with these restrictions. As the Chief Fishery Officer at SxIFCA explains: "Peter's input to employ a matrix to make these zonal restrictions clear to users has particularly helped promote understanding and cooperation, and this matrix approach has been recognised as national good practice" **[I]**.

In **Madagascar** the findings of an MPAG analysis **[R6]** have helped build capacity for the Sainte Luce MPA facilitated by the NGO SEED [iii], who support sustainable development and conversation projects in Madagascar, funded by the Darwin Initiative. The findings on transparency, compliance and governance have led to changes in local practice and policy. Jacobs et al. of SEED **[J]** explain that "the new Committee and the… village head [of the Fisheries Management Committee] have received training, for example, on transparency and the management of fines". **[R6]** prompted the ratification of local law: "The MPAG study also recommended that the dina (local fisheries law) be formally ratified and that the judicial capacity for appeals be increased. The Sainte Luce dina has now been ratified into law, empowering the community to enforce fisheries management measures with full support from state actors" **[J]**. Jacobs et al. note that these recommendations "have had many tangible positive impacts on the building of capacity within Sainte Luce LMMA [Locally Managed Marine Area]. This strengthens the vital livelihoods from this lobster fishery, making it more profitable to some of the most economically deprived communities in the world, as well as more sustainable" **[J]**.

Jones' research-based MPAG framework has shaped international, national, and regional policies and practices to protect the world's oceans through more effective and equitable MPA governance approaches. It contributed to the development of UNEP policies to achieve SDG 14.2, helped build capacity in the Sainte Luce MPA in Madagascar, and influenced the management of regional MPAs off the coast of Sussex. His evidence to the Commons Environmental Audit Committee Inquiry on MPAs and advice on related UK policies influenced recommendations made by UK government in DEFRA's *25 Year Plan*.

5. Sources to corroborate the impact (indicative maximum of 10 references)

A. **(1)** UNEP and Italian Ministry of Foreign Affairs and International Cooperation (2016) Rome Call to Action*, Conference on Marine Protected Areas: An Urgent Imperative – A Dialogue Between Scientists and Policymakers*; **(2)** Scientists' Consensus Statement

B. UN Evidence: Testimonial statement from UNEP programme officer; Testimonial statement from former UN Chief Scientist

C. UN reports: **(1)** UNEP (2017) *Marine Protected Areas: Securing Benefits for Sustainable Development*, pp.36-45 in UN Environment Frontiers 2017: Emerging Issues of Environmental Concern. Jones PJS, Murray RH. Vestergaard O. ISBN: 978-92-807-3664-9; **(2)** UNEP (2019) *Enabling Effective and Equitable Marine Protected Areas: guidance on combining governance approaches*. Jones PJS, Murray R and Vestergaard O. United Nations Environment Programme, Nairobi. ISBN 978-92-807-3697-7.
(3)UN (2019) Preparatory process of the 2020 United Nations Conference to Support the Implementation of Sustainable Development Goal 14 - Note by the Secretary-General. Para 38, Footnote 14

D. Day J.C., Laffoley D., Zischka K., Gilliland P., Gjerde K., Jones P.J.S., et al. (2015) *Marine Protected Area Management*, Chapter 20, pp.609-650 in Worboys et al. (Eds) *Protected Area Governance and Management*, Australian National University Press https://bit.ly/3oJk0pW

E. Statement from lead author of MPA Management Chapter

F. Ningaloo Coast 2020 Conservation Outlook Assessment https://bit.ly/3pLHTOX

G. Testimonial statement from Executive Director of the Arksen Foundation

H. Commons Environmental Audit Committee inquiry *MPAs Revisited* evidence session (Q37 & 54) https://bit.ly/3cCTFr6 and resulting Report (recommendation 31) https://bit.ly/3riz1AR. DEFRA 25 Year Plan (p.108); Testimonial statement from Head of Highly Protected Marine Areas team, Marine and Fisheries, Department of Environment, Food & Rural Affairs

I. Testimonial statement from Chief Fishery Officer, Sussex Inshore Fisheries and Conservation Authority

J. Testimonial statement from SEED Madagascar