# 科学研究費助成事業 研究成果報告書

令和 6 年 6 月 2 5 日現在

機関番号: 14301

研究種目: 基盤研究(C)(一般)

研究期間: 2020~2023

課題番号: 20K12319

研究課題名(和文) Re-conceptualizing Rivers in South Asia as Histories of the Biological Pulse

研究課題名(英文)Re-conceptualizing Rivers in South Asia as Histories of the Biological Pulse

### 研究代表者

デスーザ ローハン (D'Souza, Rohan)

京都大学・アジア・アフリカ地域研究研究科・教授

研究者番号:60767903

交付決定額(研究期間全体):(直接経費) 3,100,000円

研究成果の概要(和文):主な業績を3つ挙げたい。一つは植民地時代の英領インド東部デルタ地帯における漁業問題を扱った史料を発見できたことである。マドラスとベンガルの両州公文書館からも史料を収集し、発表する研究論文に役立てようとしている。2つ目は、この資料のおかげで、国際会議やワークショップでの論文発表が実現したことである。特に、2023年4月にアメリカのデューク大学で開催されたワークショップでは、私は説得力のある議論を発表することができた。3つ目は、私の論文が、近刊予定の書籍に掲載されることが決まったことである。これらはすべて、本科研費による研究成果とリソースに基づいている。

# 研究成果の学術的意義や社会的意義

I helped uncover unseen and neglected primary sources on fisheries in Eastern India during the British colonial period. I am also the first to have effectively argued that the study of rivers in South Asia has been overwhelmingly treated as an economic resource rather than a biological pulse.

研究成果の概要(英文): I would list three major achievements. The first is that I have successfully uncovered hitherto unseen archival sources which deal with the issue of fisheries in the Eastern deltas of colonial British India. I have also collected archival materials from the Madras and the Bengal state archives, which I am working for forthcoming research papers. The Second is that these sources have enabled me to make paper presentations in international conferences, workshops. In particular, the workshop in April 2023 at Duke University, USA. I was able to present compelling arguments based on my primary source material for a claim to understand India's Eastern rivers as 'biological pulses' rather than as resource endowments. The Third is that my paper titled 'Fins In the inland Ocean and the River as Pulse in Monsoon Asia'has been accepted for publication in a forthcoming book. The paper is entirely based on the research work and resources afforded by this Kaken.

研究分野: Environmental History

キーワード: River Fish Natural resource Biological pulse Large dams Navigation Environmental histor

科研費による研究は、研究者の自覚と責任において実施するものです。そのため、研究の実施や研究成果の公表等に ついては、国の要請等に基づくものではなく、その研究成果に関する見解や責任は、研究者個人に帰属します。

### 1.研究開始当初の背景

Rivers of South Asia have received considerable attention from environmental historians, especially in recent decades. Several competent histories have been published on perennial canal irrigation, large dams, navigation and flood control. In this historiography, however, rivers are discussed entirely within a 'resource framework' — as flows harnessed either for irrigation (cusecs) or tapped for hydroelectricity (megawatts). Such reductionism which privilege economic calculation and engineering design, however, fail to grasp rivers as ecological processes. My research project will use the historians lens to argue for a conceptual corrective in which South Asia's rivers are revealed as vibrant biological pulses and as interrelated ecological relationships. In doing so, I argue that a more meaningful ecological critique can be assembled against modern river resource management and large dams.

### 2.研究の目的

I will argue for a radical re-orientation within how histories on rivers have been perceived and discussed in South Asia. Instead of the emphasis on understanding rivers through an economic-resource model, I intend to use historical analysis to instead elaborate upon how flows can principally be grasped as biological pulses. And critical to elaborating upon this perceptual shift will be my efforts to resituate the significance of studies on fish population dynamics in the sub-continent. Understanding fisheries, especially within the inland riverine zones, I will argue, will be crucially linked to challenging the several ways in which the legacies of British colonial rule (1757-1947) in India continues to shape and influence river management in South Asia.

## 3.研究の方法

My primary research methods involved a mix of archival research and field studies. However, due to Covid restrictions and travel difficulties between 2021-22, I had to hire several India based researchers to carry out my archival work. The Archival access too was often limited as there often were frequent shut downs or the slow meeting of processing requests. Nonetheless, despite the many challenges I was lucky enough to use the services of two very bright and enthusiastic researchers (Rohit Jha and Muthuvel Devendran). Rohit Jha completed several rounds of archival searches for me in The National Archives (Delhi), The Bihar State Archives (Patna) and The West Bengal State Archives (Kolkata). The protocol I followed was to check the online catalogue here at my Kyoto Office and then Rohit would call up the identified files at the Archive and get the relevant material scanned and sent to me. On several occasions he was also able to find material that was not listed in the online catalogue. I, in fact, am currently in the possession of several unique and important primary documents that are related to fisheries. Same was the case with Muthuvel, who helped organize both my searches and the scanning of the relevant material from the Madras state archives.

I had also carried out online searches of the existing documentation in the British Library and have secured several of the files and primary documents.

In all, despite the challenges and difficulties of Covid, I was able to meet at least 70 to 75% of my expected searches. My field work, however, proved to be very short and limited as uncertainties created by Covid restrictions prevented me from carrying out elaborate plans. However, I am still continuing to address some of those gaps in my post Kaken Grant travels to India and will also hope to arrange for a visit to Bangladesh in the near future. In sum, my research methods of exploring archival holdings has mostly been achieved with some gaps because of the Covid restrictions.

### 4.研究成果

I would list three major achievements.

a) The first is that I have successfully uncovered hitherto unseen archival sources which deal with the issue of fisheries in the Eastern deltas of colonial British India. Notably, the reports, correspondence and papers of Surgeon-Major Francis Day (1829–1889), then inspector general

- of fisheries, who was tasked to examine the impact of irrigation on fisheries in the Madras Presidency, Orissa and Lower Bengal, British Burma, and at the end of 1869 the brief was even extended to the distant Andaman islands. I have also collected several types of archival materials from the Madras archives and the Bengal state archives, which I am in the process of sorting out for forthcoming research papers.
- b) The Second is that these sources have enabled me to make paper presentations in several international conferences, workshops and zoom seminars. In particular, I am keen to flag the Duke University workshop titled "Histories and Society in the Hydrosphere", April 28-30, 2023. Duke University. USA. It was at the Duke University Workshop that I was able to present compelling arguments based on my primary source material for a claim to understand India's Eastern rivers as 'biological pulses' rather than as resource endowments.
- c) The Third is that my paper titled 'Fins In the inland Ocean and the River as Pulse in Monsoon

  Asia' has been accepted for publication in a forthcoming book titled *History and Society in the Hydrosphere of Monsoon Asia* that is being jointly edited by Prasenjit Duara and James L.

  Westcoat. In this paper I fully elaborate and outline the idea of the biological river as pulse. The paper is entirely based on the research work and resources afforded by my Kaken C Grant 2023.

# 5 . 主な発表論文等

〔雑誌論文〕 計9件(うち査読付論文 0件/うち国際共著 0件/うちオープンアクセス 4件)

1.著者名	4.巻
Rohan D'Souza	32
2.論文標題	5.発行年
'Nostalgia to Melancholy: Towards a History of the Environmental History of South Asia in the	2022年
Anthropocene'	2022-
	6 見知に見後の百
3.雑誌名	6.最初と最後の頁
Comparativ	691-703
掲載論文のDOI(デジタルオブジェクト識別子)	査読の有無
10.26014/j.comp.2022.06.02	無
オープンアクセス	国際共著
オープンアクセスとしている(また、その予定である)	_
is provided that the control of the	
1.著者名	4 . 巻
—	
Rohan D'Souza	27-4
2.論文標題	5 . 発行年
'Environmental History of South Asia in the time of Hindutva'	2022年
3.雑誌名	6.最初と最後の頁
Environmental History	625-633
LIN TO MISSING MISSORY	020 000
掲載論文のDOI(デジタルオブジェクト識別子)	査読の有無
なし	無
オープンアクセス	国際共著
オープンアクセスとしている(また、その予定である)	-
1 . 著者名	4 . 巻
Rohan D' Souza	-
Notical D Godza	
2.論文標題	5 . 発行年
Book Review: Erica Gies, Water Always Wins: Thriving in an age of Drought and Deluge,	2022年
University of Chicago Press	
3.雑誌名	6.最初と最後の頁
American Scientist	376-378
掲載論文のDOI(デジタルオブジェクト識別子)	査読の有無
なし	無
	<b>XXX</b>
オープンアクセス	国際共著
オープンアクセスではない、又はオープンアクセスが困難	自然八百
カープンテアと人とはない。人はカープンテアと人が四年	
. ***	4 <del>11</del>
1 . 著者名	4 . 巻
Rohan D'Souza	1
2.論文標題	F 361-1-
Hindukus and the Delikinel Cikines, Hameline Highes Education in Medi / a ladis /	5 . 発行年
Hindutva and the Political Citizen: Unmaking Higher Education in Modi 's India	5 . 発行年 2021年
Hindutva and the Political Citizen: Unmaking Higher Education in Modi's India'	
	2021年
3 . 雑誌名	2021年 6 . 最初と最後の頁
	2021年
3 . 雑誌名	2021年 6 . 最初と最後の頁
3.雑誌名 Imtiaz Ahmed and Liyan Zhang (ed.)	2021年 6 . 最初と最後の頁 23-52
3.雑誌名 Imtiaz Ahmed and Liyan Zhang (ed.) 掲載論文のDOI(デジタルオブジェクト識別子)	2021年 6.最初と最後の頁 23-52 査読の有無
3.雑誌名 Imtiaz Ahmed and Liyan Zhang (ed.)	2021年 6 . 最初と最後の頁 23-52
3.雑誌名 Imtiaz Ahmed and Liyan Zhang (ed.) 掲載論文のDOI(デジタルオブジェクト識別子) なし	2021年 6.最初と最後の頁 23-52 査読の有無 無
3.雑誌名 Imtiaz Ahmed and Liyan Zhang (ed.) 掲載論文のDOI(デジタルオブジェクト識別子)	2021年 6.最初と最後の頁 23-52 査読の有無

1. 著者名	4 . 巻
Rohan D ' Souza	1
2 △ 全分 按 四 百	5.発行年
2.論文標題	
Uncertainty and Environmental Change: Kutch and the Sundarbans as environmental histories of	2021年
climate change	
3.雑誌名	6.最初と最後の頁
The Politics of Climate Change and Uncertainty in India, Routledge	55-82
掲載論文のDOI(デジタルオプジェクト識別子)	<u>│</u> │ 査読の有無
なし	無 無
<i>'</i> & <i>U</i>	***
オープンアクセス	国際共著
オープンアクセスではない、又はオープンアクセスが困難	-
1.著者名	4 . 巻
ROHAN D'SOUZA	4
2. 論文標題	5.発行年
Citizen, Consumer, User: Covid-19 and the Higher Education Churn in India	2020年
OTTIZEN, CONSUMEN, USEN. COVID-19 AND THE HIGHEN EQUICATION CHUNN IN MUNICIPALITY	2020-
3.雑誌名	6.最初と最後の頁
The JMC Review	25-55
THE SHIP REVIEW	20 00
掲載論文のDOI(デジタルオブジェクト識別子)	査読の有無
なし	無
オープンアクセス	国際共著
オープンアクセスとしている(また、その予定である)	
1.著者名	4 . 巻
D'Souza Rohan	26
2.論文標題	5.発行年
Event, Process and Pulse: Resituating Floods in Environmental Histories of South Asia	2020年
213.11, 1.13333 and Farot. Roottaating Froda in Environmental Installation of South Asia	
3.雑誌名	6.最初と最後の頁
Environment and History	31~49
LITTI OFFICIAL AND THE COLY	51 75
掲載論文のDOI(デジタルオブジェクト識別子)	査読の有無
10.3197/096734019x15755402985541	無
オープンアクセス	国際共著
オープンアクセスとしている(また、その予定である)	-
1 . 著者名	4 . 巻
—	4.巻   1
1 . 著者名 Rohan D'Souza (translated by Masahiro Terada)	_
Rohan D'Souza (translated by Masahiro Terada)	1
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題	5 . 発行年
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical	1
Rohan D'Souza (translated by Masahiro Terada)  2 .論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia	5.発行年 2021年
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia  3 . 雑誌名	5 . 発行年 2021年 6 . 最初と最後の頁
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia  3 . 雑誌名 Asian Perspectives, Earth Research Institute Academic Series "Environmental Humanities and	5.発行年 2021年
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia  3 . 雑誌名	5 . 発行年 2021年 6 . 最初と最後の頁
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia  3 . 雑誌名 Asian Perspectives, Earth Research Institute Academic Series "Environmental Humanities and Regions"	5 . 発行年 2021年 6 . 最初と最後の頁 309-339
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia  3 . 雑誌名 Asian Perspectives, Earth Research Institute Academic Series "Environmental Humanities and Regions"	1 5 . 発行年 2021年 6 . 最初と最後の頁 309-339 査読の有無
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia  3 . 雑誌名 Asian Perspectives, Earth Research Institute Academic Series "Environmental Humanities and Regions"	5 . 発行年 2021年 6 . 最初と最後の頁 309-339
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia  3 . 雑誌名 Asian Perspectives, Earth Research Institute Academic Series "Environmental Humanities and Regions"  掲載論文のDOI(デジタルオブジェクト識別子) なし	1 5 . 発行年 2021年 6 . 最初と最後の頁 309-339 査読の有無
Rohan D'Souza (translated by Masahiro Terada)  2 . 論文標題 Carbon Forest and the River of Conflict: The Anthropocene as Seen from the Historical Narratives of South Asia  3 . 雑誌名 Asian Perspectives, Earth Research Institute Academic Series "Environmental Humanities and Regions"	1 5 . 発行年 2021年 6 . 最初と最後の頁 309-339 査読の有無

1 . 著者名	4 . 巻
Rohan D'Souza	1
2.論文標題	5 . 発行年
Covid-19: the other side of living through a pandemic	2021年
3.雑誌名	6.最初と最後の頁
Covid-19 Imaginings and the Zoom to a University Platform	135-148
掲載論文のDOI(デジタルオブジェクト識別子)	査読の有無
なし	無
オープンアクセス	国際共著
オープンアクセスではない、又はオープンアクセスが困難	-

# 〔学会発表〕 計10件(うち招待講演 5件/うち国際学会 1件)

## 1.発表者名

Rohan D'Souza

# 2 . 発表標題

'Who really understands rivers? Engineers, Environmental historians and flooding in South Asia'

### 3 . 学会等名

Environmental Humanism: Recent Trends and Future Dimensions , Rabindra Bharati University (招待講演) (国際学会)

4 . 発表年 2023年

#### 1.発表者名

Rohan D'Souza

## 2 . 発表標題

'Nehru and the 'Anti-Heroes' of Science in Decolonizing India'

# 3 . 学会等名

Science Humanism and the Making of Modern India (招待講演)

4.発表年

2023年

# 1.発表者名

Rohan D'Souza

## 2 . 発表標題

'Is it better to trust the environmental historian with her 'facts' than the Engineer with his 'politics' when dealing with floods in South Asia?'

### 3 . 学会等名

Department of History, Seminar, Manchester University (招待講演)

## 4 . 発表年

2022年

1.発表者名 Rohan D'Souza
2. 発表標題 'Future Natures: The New Environmentalism in Anthropocene South Asia'
3 . 学会等名 Centre for World Environmental History, University of Sussex(招待講演)
4 . 発表年 2022年
1.発表者名 Rohan D'Souza
2. 発表標題 'Limits to Boundaries: Environmental Histories of South Asia and Sustainability in the Anthropocene'
3.学会等名 Nature, Resources, and Development: Historical Perspectives on the Global Environment (招待講演)
4.発表年 2022年
1.発表者名 Rohan D'Souza
2 . 発表標題 Coasts, Estuaries, the Monsoon and 'discovering' the River's pulse in South Asia
3 . 学会等名 Rivers, Land and Seas in The Hydrologic Cycle and Historical Societies Workshop
4 . 発表年 2022年
1.発表者名 Rohan D'Souza
2 . 発表標題 Hello Anthropocene ! Goodbye Environmental History?
3.学会等名 PLURALIZING THE ANTHROPOCENE: Re-envisioning the future of the Planet in the 21st Century
4 . 発表年 2021年

1.発表者名 Rohan D'Souza	
2 . 発表標題 Anthropocene Rain and Soaked Concrete: Can Policy-Making Rescue the "Flooded Asian City"?	
3.学会等名 The Re-Making of Post-Conflict/Disaster Worlds in South Asia, 49th Annual Conference on South A	sia
4 . 発表年 2021年	
1.発表者名 Rohan D'Souza	
2 . 発表標題 Perennial versus Inundation Colonial Engineering and the Crisis of River Control in South Asia	
3 . 学会等名 Perceptions of Environment -Climate Change and Rivers in India: Oslo Metropolitan South Asia L	ecture Series
4 . 発表年 2021年	
1 . 発表者名 Rohan D ' Souza	
2 . 発表標題 Rain and Concrete: Can we change the "Flooding Cities" narrative in Anthropocene South Asia	
3 . 学会等名 The City and Environmental History in Colonial and Post-Colonial South Asia	
4 . 発表年 2021年	
〔図書〕 計3件	
1.著者名 Rohan D'Souza	4 . 発行年 2022年
2.出版社 Rout ledge	5.総ページ数 -
3 . 書名	
'Source to Mouth: Engineers, Rivers, Coast and the Bengal Delta (1750-1918)' in May Joseph and Sudipta Sen (ed.)	

1.著者名 Rohan D'Souza		4 . 発行年 2022年
2.出版社 Perspectives on the History of Glo	5.総ページ数 -	
3.書名 'Was the large dam a "Modern Te Nangal' in Corinna R. Unger, I	mple"?: Taking Stock of India's tryst with th Nicholas Ferns, Jack Loveridge and Iris Borowy	e Bhakra- , (eds)
1.著者名		4.発行年
Vinita Damodaran and Rohan D'Sou:	za, (eds.)	2020年
2.出版社		5.総ページ数
Primus Books		618
3.書名 Commonwealth Forestry and Environ Africa, the Caribbean, South Asia	mental History: Empire Forests and Colonial Env and New Zealand	ironments in
〔産業財産権〕		
[その他]		
_		
6.研究組織		
氏名 (ローマ字氏名) (研究者番号)	所属研究機関・部局・職 (機関番号)	備考
7 . 科研費を使用して開催した国際研究	集会	

相手方研究機関

〔国際研究集会〕 計0件

共同研究相手国

8. 本研究に関連して実施した国際共同研究の実施状況