

Nostalgia to Melancholy: Towards a History of the Environmental History of South Asia in the Anthropocene

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ABSTRACTS

The notion of the Anthropocene – a human-determined geological epoch – has attracted considerable attention in recent years, especially within academia. At its core lies the claim that we may be amidst the terminal crisis of the Holocene epoch – the relative climate stability of the last 11,700 years that supported human flourishing. If so, existing academic disciplines focusing on the Nature/Culture spectrum will be compelled to question many of their previous certitudes. In tune with such calls for a conceptual rethink, this essay discusses whether environmental histories of South Asia should abandon their nostalgic yearnings for a return to lost environmental pasts. While stoically accepting a melancholic sense of loss, environmental histories could more productively speak to the emerging challenge for assembling and managing novel and no-analogue ecological communities in a climate-changed world.

Der Begriff des Anthropozäns – eine vom Menschen dominierte geologische Epoche – hat in den letzten Jahren beachtliche Aufmerksamkeit erhalten, vor allem in der Wissenschaft. Im Mittelpunkt steht dabei die These, dass wir uns womöglich in der endgültigen Krise der Epoche des Holozäns befinden, also der Epoche der relativen klimatischen Stabilität der letzten 11.700 Jahre, die eine Blütezeit der menschlichen Entwicklung ermöglichte. In diesem Fall wären die etablierten wissenschaftlichen Disziplinen, die sich eingehend mit dem Natur-Kultur-Kontinuum beschäftigen, dazu gezwungen, viele ihrer bisherigen Gewissheiten zu hinterfragen. Im Einklang mit solchen Forderungen nach einem konzeptuellen Umdenken diskutiert dieser Essay, ob die Umweltgeschichte Südasiens ihre nostalgische Sehnsucht nach einer Rückkehr zu verlorenen ökologischen Vergangenheiten aufgeben sollte. Unter stoischer Anerkennung eines melancholischen Verlustgefühls könnte die Umweltgeschichte produktiver auf die nahende Herausforderung reagieren, neue, nicht-analoge ökologische Gemeinschaften in einer vom Klimawandel veränderten Welt aufzubauen und zu organisieren.

1. Introduction

In the summer of 2022, an unprecedented drought dried up, literally to the bone, several major river systems in China and Europe. Along the Pacific coast, intense wildfires erupted across the state of California and set ablaze thousands of acres, while in the adjoining American Midwest powerful storms and rains were doing the reverse, triggering massive flooding. Later, sometime in September, a super typhoon *Noru* (Korean for a roe deer) barrelled through and savaged swathes of densely populated habitations in the Philippines, Vietnam, and Thailand. The frequency and intensity of such extreme weather events, however, do not account for all of our current pile of alarms. Other kinds of climate change impacts continue to ominously make their presence felt: cracked ice sheets in a warming Arctic; mass coral bleaching (some irreversible); rising sea tides submerging islands and gobbling up shorelines; rapidly melting mountain glaciers and incontrovertible evidence that a number of animal, bird, and insect species are abandoning their existing habitats to journey towards higher altitudes.

For earth system scientists, this shape shifting evidence points to an “Altered Earth” or, put differently, we may be witness to the end of the Holocene epoch – the last 11,700 years of relative climate stability that supported human flourishing.¹ The earth system, it should be noted, is made up of two entangled components: the “ecosphere” (comprising the atmosphere, biosphere, and cryosphere) and the “Anthroposphere” that takes into account all human activity. And if the earth system has indeed shifted, it is only appropriate to wonder, rather loudly, whether our Holocene determined material and ideological assumptions remain sustainable? In other words, a range of existing disciplines and fields that have been focused on the nature/culture spectrum are now called upon to think afresh and question previous certitudes and beliefs.

A prime candidate for such a conceptual overhaul could undoubtedly be the burgeoning field of environmental history, whose *raison d'être* since its inception has focused on ecological change and the relationships between nature and culture. And if everything has indeed changed in the Anthropocene, we are equally compelled to ask whether familiar narratives on environmental degradation, pollution, or the loss of ecosystem integrity can continue to provide insights and explanations in a radically transformed future that, worryingly enough, might have already arrived? A future that can only be meaningfully reckoned with, in the words of Jeremy Davies, either as the “terminal crisis of the Holocene” or as the “birth pangs of the Anthropocene”.²

On the other hand, to place the vast canvas of environmental history and the maturing discourse on the Anthropocene within a single frame of analysis might make this essay too unwieldy. Consequently, I attempt a limited focus by discussing the environmental histories of South Asia (EHSA) – a significant strand within the larger whole of environ-

1 J. Zalasiewicz, Science: Old and New Patterns of the Anthropocene, in: J. Adeney Thomas (ed.), *Altered Earth: Getting the Anthropocene Right*, Cambridge 2022, pp. 21–50.

2 J. Davies, *The Birth of the Anthropocene*, Oakland, 2016, p. 5.

mental history.³ That is, by refracting some of the defining debates and discussions on the EHSA through the lens of the Anthropocene, this essay will urge for a step change in mood: abandon nostalgia and adopt melancholia instead. That is, writings on environmental histories can no longer argue for a return to a nostalgic idealized past nor take the natural world of the present as an enduring reality. Rather, our best bet may be to stoically engage with current earth system challenges by adopting a melancholic mood – striving for solutions that are informed by a strong sense of loss. Put differently, now that a much altered earth makes any return to an idealized Holocene impossible, it is how we come to terms with and grapple with the loss of the previous epoch of relative climatic stability that might determine possibilities for human flourishing in the Anthropocene.⁴

2. Welcome to the Anthropocene

In a popular retelling, Paul Crutzen, a Noble prize winning chemist, at a conference on the earth sciences just outside of Mexico City in 2000, impetuously declared in an exchange with fellow panellists that the planet was no longer within the climatic bounds of the Holocene. And then, almost as an afterthought, went on to assert that the Anthropocene characterized the new geological epoch as it was the term that could most appropriately acknowledge, above all else, the overwhelming impact of the human. Though the Anthropocene had been in usage as early as the 1980s by the limnologist Eugene F. Stoermer, the term gained sudden and rapid traction following Crutzen's outburst and by 2009 an Anthropocene Working Group (AWG) was set up to investigate and assess the case for the shift in the earth system. After a decade of evidence gathering, debate and discussion the AWG in 2019 confirmed by a majority consensus that the earth had indeed entered a new phase that could be marked as being a distinct geological unit that should be located within the broad sweep of the Geological Time Scale (GST). Geological committees higher up the institutional pyramid will, however, add to the scrutiny and have their say before deciding on whether the AWG's majority view can finally be accepted, in the years to come.

There is, nonetheless, already an embrace of the Anthropocene notion by a range of international organizations and by numerous academic departments.⁵ In recent years,

3 For the most current reviews and discussions on the burgeoning field of Environmental Histories of South Asia, see M. Mann, *Environmental History and Historiography on South Asia: Context and Some Recent Publications*, in: *South Asia Chronicle* 3 (2013), pp. 324–357; S. R. Rajan/R. D'Souza, *Indian Environmental History: A Historiographical Review*, in: S. R. Rajan/L. Sedrez (eds.), *The Great Convergence: Environmental Histories of BRICS*, New Delhi 2018, pp. 274–295.

4 On thinking through the notion of melancholia as a sense of loss in contrast to nostalgia as a longing for a return, I am indebted to an essay by the literary theorist and poet Margaret Ronda (M. Ronda, *Mourning and Melancholia in the Anthropocene*, in: *Post 45* (2013) 6, <https://post45.org/2013/06/mourning-and-melancholia-in-the-anthropocene> [accessed 17 October 2022]).

5 For a crisp short review of the embrace of the Anthropocene concept by international organizations such as the United Nations Intergovernmental Panel on Climate Change and in various academic disciplines, see J. Adeney Thomas (ed.), *Altered Earth: Getting the Anthropocene Right*, Cambridge 2022, pp. 7–10.

a noisy commotion of sorts has broken out in the humanities and the social sciences and has led to several debates about the conceptual appropriateness and relevance of the Anthropocene.⁶ In particular over whether our dire contemporary environmental challenges can be meaningfully framed and explained within a geological orientation. Three elements or aspects emerging from within the Anthropocene discourse have increasingly become contentious, especially when discussing planetary survival and human flourishing: a) humans as geological agents, b) the Earth System, and c) Planetary boundaries. In a seminal intervention in a 2009 essay titled “The Climate of History: Four Theses”, the post-colonial theorist and historian Dipesh Chakrabarty unequivocally declared in his first thesis that the humanist distinction between natural history and human history had collapsed in the Anthropocene.⁷ And at the heart of his striking claim was the announcement of a rupture – that humans are no longer biological agents. That is, the biological-cultural human – the central character of environmental histories since the 1970s who caused deforestation, pollution, environmental degradation, resource depletion or made efforts for conservation and preservation – had been transformed in the Anthropocene epoch into a geological agent, possessing now the capacities of a natural force. Which is to imply, in Chakrabarty’s understanding, that the human geological agent now possessed the power to potentially bring about the sixth mass extinction. That is, a human induced planetary level mass extinction event, which would be equivalent or akin to the devastating impacts of an enormous meteorite strike or the prolonged eruptions of super volcanoes or the shattering of the earth’s crust by massive tectonic activity. The human, thus, by having pumped close to a trillion metric tons of human-produced carbon dioxide into the earth’s atmosphere was not only profoundly altering the chemical composition of the latter but in doing so had become in recent times the single most defining and critical influence in shifting the Earth system.

The idea of the Earth system, it must be noted, is a product of the emergence of the Earth Systems Sciences (ESS) in the 1980s and was greatly spurred onwards as a Cold War science in which military advantages were sought to be gained with the then global powers furiously caught up in an expensive race to build planetary level surveillance capacities through space research.⁸ The ESS, consequently, was evolved as a view from space that dropped its gaze onto planet earth through satellites, remote sensing technologies, computer models and data bases. The ESS as a super discipline was designed to be holistic with a big picture approach to map, monitor, and study the planet as a “coupled

6 Julia Adeney Thomas has rehearsed and reviewed the considerable discussion on the Anthropocene and placed the different narratives into three types of storytelling: first, anything goes; second, the singular story, and third democracy of voices. Arguing, in essence, that despite the different emphasis and the many nuances, there could be more than one possible true story or an emancipatory project in navigating the Anthropocene, see J. Adeney Thomas, *Humanities and Social Sciences: Human Stories and the Anthropocene Earth System*, in: idem (ed.), *Altered Earth*, pp. 51–82.

7 D. Chakrabarty, *The Climate of History: Four Theses*, in: *Critical Inquiry* 35 (2009) 2, pp. 197–222.

8 J. D. Hamblin, *Arming Mother Nature: The Birth of Catastrophic Environmentalism*, Oxford 2013.

human and ecological system”.⁹ The ESS, however, is not coterminous with the term environment and is markedly in contrast to affirming the nature and culture distinction. Christophe Bonneuil and Jean-Baptiste Fressoz in their very considered *Shock of the Anthropocene* explain:

*A few decades ago, the “environment” was still understood as that which surrounds us, the place where humans went to extract resources, deposit waste, or even that in certain places was to be left virgin [...]. The concept of the Anthropocene challenges this separation and [...] [in] place of the “environment” there is now the Earth system [...] Instead of “master and possessors of nature”, we find ourselves each day a bit more entangled in the immense feedback loops of the Earth system.*¹⁰

In effect, while the biological-cultural agent modifies an ecosystem or could irreversibly degrade a web of environments, the geological agent in the Anthropocene drives impacts at the scale of the planet and is therefore possessed of the capacity to bring about a mass extinction event. A shift in the Earth system consequently could be abruptly brought about in the Anthropocene. The huge build-up of Greenhouse Gases (GHG) in the atmosphere, for example, could collapse the immense feedback loops that regulate and enable planetary life by pushing against a tipping point or getting a threshold crossed or by setting off a cascading negative loop through an unexpected ecological surprise. Consequently, for Bonneuil and Fressoz the Anthropocene “cancels the peaceful and reassuring project of sustainable development”. Or put differently, the simple belief that there could be a mutually negotiated settlement between the realms of the economic, the social, and the environmental is now no longer possible.¹¹ That is to say, living in the Anthropocene requires us to grapple with a highly unpredictable Earth system that profoundly breaks with previous ideas about controlling and dominating nature. No longer, as Bonneuil and Fressoz bluntly conclude, can we talk about attempting a “compromise between human exploitation and nature conservation”.¹² That is, sustainable development has been made irrelevant in the Anthropocene.

It is amidst this realization that an overall loss of predictability will characterize our Anthropocene futures that the third conceptual element as a problem of scale for intervention emerges: the notion of planetary boundaries. In what proved to be one of the most cited papers in recent years, an interdisciplinary group of scientists published their findings in 2009 in the highly regarded scientific journal *Nature* by arguing for “planetary boundaries”. Nine planetary boundaries were identified in the first iteration of the exercise, with each boundary serving as a sort of “guardrail” that could raise red flags and warn us if a vital biophysical process that was critical to the functioning of life

9 E. Lovbrand/J. Striiple/B. Wiman, Earth System Governmentality Reflections on Science in the Anthropocene, in: *Global Environmental Change* 19 (2009), pp. 7–13.

10 C. Bonneuil/J.-B. Fressoz, *The Shock of the Anthropocene: The Earth, History and Us*, D. Fernbach (trans.), London 2016, p. 20.

11 Ibid., p. 22.

12 Ibid., p. 24.

on Earth had been transgressed because of human activity. Through this unique means of the quantification of critical processes, a Safe Operating Space (SOS), according to these scientists, could thus be identified. Consequently, as long as pursuits for economic growth and development initiatives did not transgress any of the planetary boundaries and stayed within the SOS, the Earth system could be kept resilient and relatively stable for the flourishing of planetary life.¹³ The planetary boundaries framework, hence, not only seems to have revived the spaceship earth metaphor but has unapologetically put the Earth System Sciences in the cockpit, while giving the steering wheel and control levers to humans. In effect, with the Holocene as its reference point in the rear view mirror, human stewardship now becomes critical to assembling a Safe Operating Space. Clearly, the Anthropocene forces a drastic conceptual reorientation – a) geological agent, b) Earth System Science, and c) Planetary Boundaries – that, in turn, requires us to adopt an altogether different mood when taking on our contemporary environmental challenges. A step change, as previously suggested, that requires us to entirely abandon a return to an idealised environmental past of the Holocene, to one, that instead, aims for human flourishing by fabricating possibilities for planetary survival.

Can the EHSA survive such an imperative? While this essay will argue that the EHSA is uniquely positioned to effect such a mood change, it will first require us to rehearse and evaluate the three broad frameworks that have thus far defined the field: a) the colonial watershed thesis, b) continuities with change, and c) the globalists. The claim, in essence, being that these three contending frameworks point to possibilities for evolving both a planetary-level understanding of our current environmental predicament and the strong belief in the ability of human stewardship to intervene and shape sustainability for planetary life.

3. “Colonial Watershed” and the Developmental State

Environmental history of South Asia as a self-conscious field is widely credited to have come into its own following the publication of Ramachandra Guha's *The Unquiet Woods* (1989). Central to the plot, in this now much celebrated monograph, was the fate of the oak, conifer and other broadleaved forests in the lower Himalaya region, which were systematically felled by British colonial authorities from the mid half of the nineteenth century.¹⁴ The huge demand for these Himalayan forests was, in the main, driven by the requirements of the then fledgling colonial railways for “sleepers” – the wooden cross-ties that are laid between two tracks. This overriding need to secure access to the dense forests in the Himalayas caused the colonial government, Guha argues, to establish a forest de-

13 J. Rockstrom/M. Klum, *Big World, Small Planet: Abundance Within Planetary Boundaries*, New Haven 2015, pp. 59–80.

14 R. Guha, *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalayas*, New Delhi 1989. Also see the twentieth anniversary edition of *The Unquiet Woods* brought out by Permanent Black (2010), with review essays by Amita Baviskar, Joan Martinez Alier, and Paul Sutter.

partment that maintained its essentially extractive agendas through the notion of “scientific forestry”. Critically as well, as the forest department began to expand its bureaucratic control over the region’s forests, local communities steadily lost their customary access to village woodlands and forests.

Unquiet Woods essentially rested on two striking claims. First, that colonial forest policies inaugurated a decisive and unprecedented ecological rupture with the introduction of the systematic harvesting, management, and control of timber in the Himalayan region. The second, that pre-colonial societies – comprising subsistence peasants’ communities – coexisted in relative ecological harmony or equilibrium with their surrounding environments. In effect, for Guha, the “colonial watershed moment” described and explained how South Asia’s harmonious environmental pasts were substantially undermined by the British colonial regime of resource extraction and exploitation.

In a subsequent 1992 publication titled *This Fissured Land* and co-authored with the ecologist Madhav Gadgil, the equilibrium/rupture model was further elaborated. Accordingly, the pre-colonial world in the Indian sub-continent or South Asia (much of which was equivalent to the territorial extent of British India) was described as being wholly marked by a “considerable degree” of social coherence and ecological stability. And it is only upon the forced march of British colonialism, industrialism, and consumerism in the sub-continent that the innumerable self-sufficient communities living in ecological equilibrium were irreversibly wrecked. These new forces of modernity that emerged from the womb of nineteenth century Europe, moreover, were so forceful and seductive that in Guha and Gadgil’s reckoning “the process of ecological change they initiated would continue, and indeed intensify, after they [the British colonialists] left Indian shores.”¹⁵

Guha and Gadgil’s colonial-watershed thesis was, interestingly enough, peculiarly attentive to the larger politics in a rapidly decolonizing India. From the 1960s and well into the 1980s, as Radhika Krishnan points out, the Nehruvian nation building and the status of science and technology increasingly came under scrutiny by a range of political activists, thinkers, and popular movements. At heart was the belief that the pursuit of development was turning out to be a zero-sum game, in which the benefits tended to fatten the privileged few whilst huge costs were being borne and suffered by the already disempowered and marginal.¹⁶

Earlier in 1982, The Centre for Science and Environment (CSE), an Indian non-governmental organization, published a comprehensive report on what they termed as the state of the environment in India. Titled as *The First Citizens Report*, the editors passionately argued that “conflicts in the developmental process”, such as pollution, displacement, and environmental degradation were essentially “conflicts over [natural] resources”. In effect, the CSE report of 1982 was amongst the first to attempt an evidence-based effort

15 M. Gadgil/R. Guha, *This Fissured Land: An Ecological History of India*, New Delhi 1992, p. 118.

16 R. Krishnan, *The Environment and Civil Society in India*, in: Rajan/Sedrez (eds.), *The Great Convergence*, pp. 159–180.

to argue that many development initiatives were creating grounds for an environmental crisis.¹⁷

Guha and Gadgil's writings, unsurprisingly perhaps, not only found much resonance with the CSE's assessment but their colonial-watershed thesis provided environmentalism in South Asia with a type of neo-traditional narrative, whereby local ecologically harmonious communities were seen to be taking on the predatory Indian developmental state.¹⁸ An Indian state that, moreover, could only be meaningfully resisted by a recovery of tradition through a detour into the past.¹⁹

4. Continuity with Change

Following India's balance of payment crisis of 1991, the country's economic architecture was dramatically reorganized. From being a "statist, import substitution model of development with a socialist flourish", the Indian economy was profoundly transformed through a liberalized regime for trade, tariffs, and exchange rate policies.²⁰ According to the astute political scientist Atul Kohli this period of intense economic transformation in India proved to be a pro-business turn rather than a pro-market growth strategy. Put differently, the seeding of the perceptible structural shift for Kohli essentially began not from the 1990s but from the 1980s onwards with the Indian government's willful and steady decision to "embrace Indian capital as the main ruling ally".²¹

In seeming step with this drastic economic reorientation, several environmental historians began to reconsider the environmental pasts of South Asia under a fresh framework, which began to be popularized as the "continuity-with-change" approach. The 1996 monograph by Mahesh Rangarajan was perhaps amongst the first to trouble the equilibrium/rupture model.²² While his monograph *Fencing the Forest* took the familiar route of arguing that imperial forestry led to radical changes in the social and ecological fabric of the Central Provinces in British India, the case for a "steady-state ecological harmony of a pre-colonial community" did not automatically follow. If anything, according to

17 Centre for Science and Environment, *The First Citizen's Report, State of India's Environment 1*, New Delhi 1982.

18 The interpretation of Gandhi as an environmental thinker and the significance of his ideas for environmental politics in contemporary India is apparent in many of Guha's writings through the 1990s. See, for example, M. Gadgil/R. Guha, *Ecological Conflicts and the Environmental Movement in India*, in: *Development and Change* 25 (1994), pp. 101–136.

19 S. Sinha/S. Gururani/B. Greenberg, *The "New Traditionalist" Discourse of Indian Environmentalism*, in: *Journal of Peasant Studies* 24 (1997) 3, pp. 65–99. Also see M. Sharma, *Green and Saffron: Hindu Nationalism and Indian Environmental Politics*, Ranikhet 2012.

20 For a lucid and accessible introduction to what constituted liberalization in India, see A. Bhaduri/D. Nayyar, *The Intelligent Person's Guide to Liberalization*, New Delhi 1996. Also see the fiercely critical set of essays against financial liberalization, neo-liberalism and corporate globalization in India by A. Bhaduri, *The Face You Were Afraid to See: Essays on The Indian Economy*, New Delhi 2009.

21 A. Kohli, *Politics of Economic Growth in India 1980–2005 (I and II)*, in: P. Balakrishnan (ed.), *Economic Reforms and Growth in India [Essays from Economic and Political Weekly]*, Hyderabad 2011, pp. 55–78, 79–99.

22 M. Rangarajan, *Fencing the Forests: Conservation and Ecological Change in India's Central Provinces 1860–1914*, New Delhi 1996.

Rangarajan, the pre-colonial tensions between the inhabitants of the hill areas and the cultivators of the lowlands indicated that landscapes had undergone very substantial transformations much prior to the British arrival in the region.²³

The publication of Sivaramakrishnan's *Modern Forests* in 1999 further added to the new shift in mood, with a rigorous examination of colonial forestry plans and their implementation in the woodlands of Eastern India (Bengal). In particular, it was noted that a homeostatic or equilibrium view of nature offered little understanding about the region's many layered social contexts and ecological possibilities.²⁴ The idea of ecological change, for Sivaramakrishnan, more pointedly, could not be grasped as a one-dimensional shock. Rather, *Modern Forests* argued that the colonial encounter in woodland Bengal revealed that yawning gaps existed between the implementation of colonial forest policy, social, and ecological complexity on the ground and the perplexing problem of local resistance. Put differently, the Guha-Gadgil thesis appeared naive, if not entirely ahistorical.

Just as the new arguments against the colonial watershed thesis began to gain acceptance, the social anthropologist David Mosse with the publication of *Rule of Water* (2003) brought in a fresh set of critiques by throwing a spotlight on irrigation in pre-colonial and colonial South India. By problematizing environmental history writing through discussions on collective action and policy-making, the monograph was able to make several compelling claims. It pointed out that the Tamil countryside with its characteristic tank system was inherently unstable, changeable and often subject to recurring extreme events such as floods.²⁵ Consequently, the irrigation community in South India sought to hedge their investments in tank construction and maintenance not through strategies for achieving village level isolation but the reverse by seeking out the patronage of powerful strong men, alliance building, the cultivation of reputation and the accumulation of honour.²⁶ In effect, instead of finding the enduring indigenous and autonomous community at the heart of a tank system, Mosse through the lens of environmental history, was able to argue that pre-colonial practices involved the careful massaging of tentative and delicate negotiations with local and regional power groupings. The "traditional timeless community", hence, for Mosse, was non-existent.

Amidst the backdrop of a growing critique of the quest for an eternal ecosystem community, Arun Agarwal and K. Sivaramakrishnan in a jointly edited collection of essays under the unlikely title *Social Nature* (2001), pressed for another sharp conceptual re-orientation.²⁷ For one, they argued, that the divide between an "autonomous nature" and a "human constructed landscape" was actually a far more fuzzier boundary in much of South Asia. Forests and settled agriculture, for example, through the course of the Indian sub-continent's long and troubled histories, existed in a state of flux, by which

23 Ibid., p. 200.

24 K. Sivaramakrishnan, *Modern Forests: Statemaking and Environmental Change in Colonial India*, New Delhi 1999.

25 D. Mosse, *The Rule of Water: Statecraft, Ecology and Collective Action in South India*, Oxford 2003, p. 7.

26 Ibid., p. 5.

27 A. Agrawal/K. Sivaramakrishnan, *Social Nature: Resources, Representations, and Rule in India*, Oxford 2001.

the agrarian frontier was often in retreat as much as there were periods when it advanced against forests and pastures.²⁸ The environmental dynamics, moreover, between pastoralism, shifting cultivation, pristine forests, nomadism or desert and wetland ecologies were made up of layered material interactions and cultural interdependencies. Put differently, Agarwal and Sivaramakrishnan argued that the “malleability of landscapes” in South Asia brought to the fore the problem of trying to understand how history, power and identity shaped varied ecological imaginations, natural resource conflicts, and environmental politics.²⁹

In effect, the EHSA by the latter half of the 1990s, informed by a fresh set of studies, arrived at the realization that South Asia was marked by fluid landscapes, complex social-ecological arrangements, and fluctuating boundaries between nature and culture. The argumentation in this fresh turn, moreover, changed in two specific ways. First, instead of the previous emphasis on critiquing the developmental state, the continuity-with-change advocates turned towards a diverse range of concerns such as governance, law, citizenship, environmental impact assessment, and conservation. Second, while the Guha-Gadgil framework sought, in the main, to address popular grass roots environmentalism around the politics of sustainable resource use, the continuity-with-change enthusiasts focused on environmental policy-making. That is, historical imaginings about South Asia's varied environmental pasts were treated as ingredients for the making of present day or contemporary environmental policy. The harnessing of environmental history writing was, thus, primarily envisioned as inputs for environmental expert committees, legal tribunals, conservation strategies, and for institutional responses to problems of environmental degradation.

5. The Globalists

While the colonial-watershed and the continuity-with-change frameworks occupied the centre stage in the writings of EHSA, Richard Grove's magisterial *Green Imperialism*, published in 1995, found itself pivoted into the debates. In great part because the sheer novelty and intellectual force of *Green Imperialism* announced an altogether different template for understanding the links between environmental history and contemporary environmentalism.³⁰ As noted in a review by the historian Sivaramakrishnan, *Green Imperialism* advanced, amongst many others, two particularly unusual formulations that directly addressed the concerns of the EHSA. First, Grove's compendious study argued for the centrality of nineteenth-century British India as being primarily an experimental laboratory and field research station in the evolution of a global environmental consciousness. And second, in telling us that the European and colonial encounters with

28 Ibid., pp. 1–22.

29 Ibid., p. 6.

30 R. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600–1860*, Cambridge 1995.

tropical and island ecologies from the eighteenth century onwards turned the study of the natural world into essentially becoming a vital endeavour for the study of nature through scientific discovery and intervention.

Consequently, not only did the British empire, as it steadily brought vast territories under its imperial sway and control, build institutional capacities in fields such as tropical medicine, meteorology, botany, zoology, geology, soil sciences, horticulture, and a host of other scientific domains, but that these knowledges proved crucial to generating an environmental consciousness at a planetary scale. Grove's *Green Imperialism*, hence, sought to move the EHSA beyond the standard concerns of colonial domination and indigenous resistance by suggesting instead that the British colonial encounter in South Asia was crucial for not only birthing the environmental sciences but proved central to the emergence of a global notion of environmentalism.³¹

Grove's *Green Imperialism* and several of his subsequent writings, in fact, repeatedly underlined that the EHSA could only be meaningfully grasped within broader global dynamics. In effect, local/regional environmental impacts in British India or for that matter understanding colonial environmental policies in South Asia needed to be framed in the larger backdrop of the making of the early modern global political economy and proved crucial in raising alarms about environmental degradation at the planetary scale. Grove's planet level emphasis could be broadly referred to as the "globalist" framework.

Two monographs that were published in 2006 seemed in particular to be keen to build on such a globalist perspective. Ravi Rajan's *Modernizing Nature* explored how modern attitudes to "natural resource management" was first incubated in specific European settings before being implemented in the colonies of South Asia. The argument here was that ecological change in British India was driven and determined, in the main, by European contexts, circumstances, and knowledge.³² Colonial forest policies, in effect, in Rajan's opinion, stemmed from a larger set of calculations than simply that of colonial conservation efforts or from local extractive agendas. That is, he sought to argue that the peculiar pattern, pace, and modes of ecological change in British India were a result of a broader European-led global quest to create a new type of "modern" nature: a nature turned into an abstract commodity and a resource that could be alienated from community access and its' cultural entanglement. For Rajan, therefore, explaining the emergence of a modern notion of nature was key to unlocking the colonial strategy in British India and its ecological impacts. In a similar vein, Rohan D'Souza's *Drowned and Dammed* argued that the British colonial ecological imprint in India was essentially shaped by the dynamic of capitalism. In the early decades of the nineteenth century, he points out, the *Mahanadi* delta in Eastern India was transformed through the notion

31 K. Sivaramakrishnan, *Histories of Colonialism and Forestry in India*, in: P. Squatriti (ed.), *Natures Past: The Environment and Human History*, Ann Arbor 2007, p. 105.

32 On *Green Imperialism*, Rajan argues that Grove fails to engage with the "ideologies of resource management". Put differently, the very science that Grove maintained was generative of conservation and preservation knowledges was, in Rajan's opinion, deeply implicated in various high imperial political and economic agendas. See R. Rajan, *Modernizing Nature: Forestry and Imperial Eco-Development 1800–1950*, New York 2006, p. 4.

of flood control from being a flood-dependent agrarian regime into a flood-vulnerable landscape.³³ The assembling of flood control in the Mahanadi delta, in effect, drew upon the calculations, technologies, and economic imperatives that were part of the larger narrative of capitalism, albeit in a colonial context.

For both Rajan and D'Souza, the economic interests and knowledges that informed and shaped the environmental impacts of British colonialism in South Asia need to be given context in a range of global imperatives and persuasions. Put differently, while the majority of EHSA studies explored colonial interventions and local responses, the globalists were keen to situate such narratives within an overwhelmingly global backdrop. That is, an emphasis on exploring the wide ranging geographical scale of interactions and influences rather than focussing only on the colonial project as a particular difference of kind.³⁴

The globalist framework in EHSA, in other words, remains far more conceptually tuned to exploring the contemporary phenomenon of climate change than perhaps the approaches advocated by the colonial-watershed and the continuity-with-changes adherents. Richard Grove was perhaps alert to such a possibility when as early as 1998 he published a collection of essays under the title *Ecology, Climate and Empire* which explored the links between climate and conservation within the sweep of five centuries (1400–1940).³⁵ In the final essay to the volume, Grove, in fact, surmised that because “most studies have been compartmentalised by sub-continent, state or colony”, there was a felt need to stress the “global common denominators of [...] colonial ecological control”.³⁶ Towards which, he averred that by carefully mapping the varied administrative responses and scientific documentation across regions to climatic impacts, climate anxieties, and extreme weather, one could grasp how global ecological processes were integrated, enmeshed, and coupled through innumerable webs of dependence. Having an ecological measure of impacts, consequently, required a global perspective rather than a limited regional, national or even continental view. Clearly, an incipient argument for adopting a planetary scale.

6. Concluding Remarks

Despite the many differences in conceptual emphasis and political orientation, the three frameworks of EHSA – Colonial Watershed, Continuity-with-Change and the Globalist – at heart advocate declension narratives. That is, environmental histories that essentially

33 R. D'Souza, *Drowned and Dammed: Colonial Capitalism and Flood Control in Eastern India*, New Delhi 2006.

34 For edited collections that adopt the globalist framework see R. H. Grove/V. Damodaran/S. Sangwan (eds.), *Nature and the Orient: The Environmental History of South and Southeast Asia*, New Delhi 1998; D. Kumar/V. Damodaran/R. D'Souza (eds.), *The British Empire and the Natural World: Environmental Encounters in South Asia*, Oxford 2011; V. Damodaran/R. D'Souza, *Commonwealth Forestry and Environmental History: Empire, Forests and Colonial Environments in Africa, the Caribbean, South Asia and New Zealand*, Delhi 2020.

35 R. Grove, *Ecology, Climate and Empire: The Indian Legacy in Global Environmental History, 1400–1940*, Oxford 1998.

36 *Ibid.*, pp. 181–182.

provide a grim documentation of ecological change as being coterminous with environmental degradation and the irreversible loss of forests and biodiversity. The implicit assumption for environmentally informed action seems to then become either a nostalgic return to past natures or the assembling of a conservation ethic that are nevertheless anchored in previous environmental imaginations. In effect, the focus of the EHSA and its environmentalism, in a broad sense, appears to advocate a nostalgic mood.

The Anthropocene, on the other hand, as pointed out earlier, announces an irreversible shift in the Earth system. Hence, with the door for a possible return to the environments shaped by the Holocene climatic variability being firmly shut, the only path open for human flourishing lies with constructing a future that can ensure the survivability and sustainability of planetary life. The pursuit, in other words, is for assembling new ecological worlds, which may or may not bear resemblances to the historical ecologies of the Holocene and yet must enable humans to develop the capacities to take advantage and thrive within these novel ecosystems.³⁷ For Emma Marris, the non-fiction writer on ecology and conservation, since the earth has been “forever altered”, we must reconcile ourselves to “manag[ing] nature for different ends – for historical restoration, for species preservation, for self-willed wildness, for ecosystem services, for food and fibre and fish and flame trees and frogs”. And concludes with a rousing call to arms to “Let the ram-bunctious gardening begin.”³⁸

In sum, environmental history writing might need to entirely jettison the nostalgic framing of the environmental pasts and as a way of informing environmentalism. In a human-determined Anthropocene it is perhaps better to adopt a mood of melancholy, where the human continues to recognize a sense of loss even as we move forward towards creating, nurturing, and sustaining new ecological worlds. Of course, an obvious caveat, can writing environmental history and environmentalism be possible without nostalgia?

37 On novel ecosystems, see R. J. Hobbs/E. S. Higgs/C. M. Hall (eds.), *Novel Ecosystems: Intervening in the New Ecological World Order*, Chichester 2013.

38 E. Marris, *Rambunctious Garden: Saving Nature in a Post-Wild World*, New York 2013, p. 171.