UNCLEAN SLATES: GREENFIELD DEVELOPMENT, LAND DISPOSSESSION AND EIA STRUGGLES IN GOA

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Abstract: This article interrogates the discourse of 'greenfield development' in contemporary India with special reference to the development of a greenfield airport in Goa. By unpacking the conflictual process of carrying out and challenging environmental impact assessments (EIA) in connection with large-scale infrastructure projects, the article analyses the EIA process as one that simultaneously induces the articulation and territorialisation of the discourse of greenfield development in particular environments, with far-reaching consequences in terms of environmental change and land dispossession.

Keywords: dispossession, EIA, environmentalism, Goa, greenfield development, discourse

The idea of greenfield development has gained currency in India in recent years. The high-profile 'Make in India' programme that was launched by Prime Minister Modi in 2014 promotes India as the world's topmost greenfield foreign direct investment (FDI) destination for 2015, and in many Indian states one comes across large-scale infrastructure projects that are promoted as 'greenfield' projects. Here, I approach the idea of greenfield development as a particular discourse on land and nature that, following Kennedy and Sood,[1] conjures up distinct images of emptiness and opportunity and fosters enticing visions of commencing 'development' from a *tabula rasa* – a clean slate on which there is nothing. Yet in practice, few (if any) infrastructure projects are able to operate entirely on virgin lands, or in a political or historical vacuum. Rather, project developers have to deal with 'unclean slates', that is, social and natural environments that are already inscribed with human and non-human history, habitation and activity. The construction of particular places as 'greenfields' available for 'development' is therefore a discursive and political act that seeks to gain recognition for a particular view of a given environment – to the exclusion of other, diverging or contending views – in order to facilitate a specific intervention in that environment.

In this article I link my analysis of the discourse of greenfield development India to an analysis of Environmental Impact Assessments (EIA) and the reports that accompany them as technologies that promote this discourse. I ground my arguments in a case study from Goa, where work on a new 'greenfield' international airport in Mopa, in the state's northernmost *taluka* of Pernem, has just commenced, thus seemingly signalling an end to a decade-long land conflict centred on the state-led acquisition of 800 hectares of land on and around a large lateritic plateau on which the airport is coming up. While the airport project has received the strong backing of political and business elites, both the airport and the land acquisition for it have been opposed by environmentalist groups and sections of the dispossessed in Mopa. This

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[1] Loraine Kennedy and Ashima Sood, 'Greenfield Development as Tabula Rasa', in *Economic and Political Weekly,* Vol. 51, no. 17 (2016), pp. 41-49.

land conflict has over the past years predominantly played out in the domain of environmental approvals in which the EIA process as well as the EIA report itself are crucial. Inspired by Baya-Lafitte's concept of 'EIA struggle',[2] I analyse the EIA process as a key site where 'greenfield' claims are simultaneously produced and contested. While the EIA process is thus shown to mediate and eventually impose closure on the prolonged land conflict in Mopa, I argue that the EIA process operated first and foremost as a technology that worked to 'greenfield' the proposed airport site – to clean the slate, in other words. In this way, the EIA process promoted and consolidated a discourse of greenfield development that enabled a massive transformation of the local environment.

The article proceeds to historicise and contextualise the discourse of greenfield development, and its relationship to airport development in contemporary India. By drawing on recent critical work on EIAs I then analyse the nature and implications of the EIA process and EIA struggle, and bring these into conversation with the case of the greenfield airport in Mopa.

Greenfield Development

At one level, greenfield development can be seen as an enduring idiom in Indian politics.[3] As Gidwani has shown in his analysis of the Permanent Settlement in Bengal, the colonial category of 'wasteland' had by the eighteenth century emerged as a key discursive device through which 'idle' or 'unproductive' land was recast as 'untapped land', that is, as land that was not being tapped for its commercial potential.[4] As Bennike has pointed out, while the category of wasteland was technically part of a descriptive, classificatory system based on

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[2] Nicolas Baya-Lafitte, 'Black-boxing Sustainable Development: Environmental Impact Assessment on the River Uruguay', in Jan-Peter Voss and Richard Freeman (eds), *Knowing Governance: The Epistemic Construction of Political Order* (London: Palgrave, 2016), pp. 237-255.
[3] Kennedy and Sood, 'Greenfield Development as Tabula Rasa', p. 41.
[4] Vinay Krishin Gidwani, '"Waste" and the Permanent Settlement in Bengal', in *Economic and Political Weekly,* Vol. 27, no. 4 (1992), pp. PE39-PE46.

productivity, it functioned first and foremost as a future and revenue-oriented category that conjured up images of a no-man's land open to adventure and investment.[5] Baka has shown how this category was later taken over by the postcolonial state and retained as a land classification technique. [6] Based on this, the postcolonial state would introduce new, comprehensive wasteland development programmes. This 'wasteland governmentality' similarly construed wasteland landscapes as empty, unproductive spaces available for the state's land-use projects[7] or other forms of state-led 'improvement' that would ostensibly provide economic and environmental benefits. [8] Baka's emphasis on how 'wasteland discourses' are a remarkably persistent feature of the language of the state across time and space shows how the logic underpinning the contemporary discourse of greenfield development is part of a longer genealogy. It is also a logic that is integral to what is commonly referred to as 'the global land grab' in which the 'solution' to a multitude of current 'crises' related to food, energy and climate is to be found in capturing the potentials of so-called 'marginal, empty, and available lands across the globe'.[9] Such categorisations of land use are the key operational mechanisms through which land-use changes are facilitated.[10]

In post-liberalisation India, urbanisation and infrastructure have increasingly been instrumentalised to generate economic growth. Big cities and world-class infrastructures are routinely promoted as the key drivers of the Indian economy in the future, and terms such as

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[5] Rune Bennike, 'Frontier Commodification: Governing Land, Labour and Leisure in Darjeeling, India', in *South Asia*, Vol. 40, no. 2 (2017).
[6] Jennifer Baka, 'The Political Construction of Wasteland', in *Development and Change,* Vol. 44, no. 2 (2013), pp. 409-428.
[7] *Ibid*., pp. 410-413.
[8] Jennifer Baka, 'Making Space for Energy: Wasteland Development, Enclosures, and Energy Dispossession', in *Antipode,* Vol. 0, no. 0 (2016), p. 2.
[9] Ben White et al., 'The New Enclosures: Critical Perspectives on Corporate Land Deals', in *Journal of Peasant Studies,* Vol. 39, no. 3&4 (2012), p. 631.
[10] Saturnino M. Borras Jr and Jennifer C. Franco, 'Global Land Grabbing and Trajectories of Agrarian Change', in *Journal of Agrarian Change,* Vol. 12, no. 1 (2012), pp. 34-59.

'growth engines' or 'growth infrastructures'[11] are often mobilised to designate the kinds of infrastructure that are brought into being to attract capital. Insofar as many such projects – and greenfield projects in particular – require far-reaching changes to existing patterns of land use, questions of who has the power to define how and for what purposes land should be used have become increasingly salient. Importantly, India's subnational states retain a large discretionary role in processes of land acquisition, conversion and diversion.[12] By leveraging their control over land, India's subnational state governments can effectively shape the conditions for capital accumulation and circulation,[13] and many state governments are currently 'racing to identify and acquire "available" land'[14] so as to channel it into private sector-led infrastructure development, or other projects. This salience of the state(s) in facilitating the transfer of land to the private sector has led some to label India a 'land broker state'.[15] What drives this development is the expanded potential for accumulation that arises from the conversion of 'available' land to especially urban infrastructures and real estate. As Sampat argues, this reconfigures the political economy of land, seemingly rendering agriculture less profitable and devaluing agrarian infrastructures and relations.[16]

Within this broader picture, the concept of 'greenfield' development occupies a distinct place. In common parlance, the term 'greenfield' when used in conjunction with 'development' can variously denote land that has never been used; land which has not previously been built on; or land that has not previously been developed. This sets greenfield development apart from so-called brownfield development where previously used (and

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[11] Preeti Sampat, *Right to Land and the Rule of Law*, PhD dissertation, City University of New York (2014).

[12] Kanchan Chandra, 'The New Indian State', in *Economic and Political Weekly,* Vol. 50, no. 41 (2015), pp. 46-58.

[13] Loraine Kennedy, *The Politics of Economic Restructuring in India* (London: Routledge); Nikita Sud, 'Governing India's Land', in *World Development,* Vol. 60 (2014), pp. 43-56.

[14] Kennedy and Sood, 'Greenfield Development as Tabula Rasa', p. 43.

[15] Michael Levien, 'Regimes of Dispossession: From Steel Towns to Special Economic Zones', in *Development and Change,* Vol. 44, no. 2 (2013), pp. 381-407.

[16] Preeti Sampat, 'Dholera: The Emperor's New Clothes', in *Economic and Political Weekly,* Vol. 51, no. 17 (2016), pp. 59-67.

sometimes polluted) land is either upgraded or redeveloped; as well as from the predominantly US-American variety of greyfield development centred on redeveloping dead malls and their adjacent seas of empty asphalt.

As the 'Make in India' programme suggests, greenfield development is closely connected to investments, usually private sector investments of the cross-border kind. Indeed, according to the Oxford English Dictionary, the adjective 'greenfield' was originally used predominantly in the context of commercial investments and business. 'Greenfield investments' are often seen as more desirable than their grey or brown counterparts – brownfield investments may improve existing arrangements, but greenfield investments promise to create new physical assets, enhance capacity, create fresh employment, and introduce superior technology. In India, greenfield development projects are now found across sectors. Among the most spectacular are the greenfield city-making projects that are pursued in, for example, Dholera in Gujarat[17] and in Amaravati, the new capital city of Andhra Pradesh.[18] Such urban mega-projects are promoted by entrepreneurial states seeking to position themselves nationally or globally, and they may include a slew of related 'greenfield' developments of, for instance, riverfronts, industrial parks, integrated townships, and much more.[19] But one can also come across 'greenfield development' in the context of steel production, road and seaport construction, beverage production, in the national 'Smart City Mission' and, as mentioned, the 'Make in India' programme.[20] The latter includes aviation

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[17] *Ibid.;* Ayona Datta, 'New Urban Utopias of Postcolonial India: "Entrepreneurial Urbanization" in Dholera Smart City, Gujarat', in *Dialogues in Human Geography,* Vol. 5, no. 1 (2015), pp. 3-22.

[18] C. Ramachandraiah, 'Making of Amaravati', in *Economic and Political Weekly,* Vol. 51, no. 17 (2016), pp. 68-75.

[19] Kennedy and Sood, 'Greenfield Development as Tabula Rasa', p. 44.

[20] 'Tata Steel invests Rs 22,000 crore in Odisha project; to start ops soon', *Livemint.com* (4 Oct. 2015) [http://www.livemint.com/Companies/B5PPwgsrqeeEBHcuscDvqI/Tata-Steel-invests-Rs22000-crore-in-Odisha-project-to-star.html, accessed 27 Feb. 2017]; Rajat Arora, 'Japan may back 10 Northeast highway projects', *Economic Times* (5 Apr. 2016) [http://economictimes.indiatimes.com/news/economy/infrastructure/japan-may-back-10-northeast-highway-projects/articleshow/51691573.cms?intenttarget=no, accessed 27 Feb. 2017]; Gujarat Maritime Board, 'Greenfield Ports' (2017) [http://www.gmbports.org/greenfield-ports, accessed 27

and greenfield airport development among the sectors it covers. India has in fact had a national Greenfield Airport Policy since 2008. This policy put in place a more liberalised approach to greenfield airports and opened up the possibility for private participation and public-private partnerships in greenfield airport development. [21] The 'Make in India' programme takes this policy further. It allows 100 percent FDI for greenfield airport projects, and highlights the planned greenfield airports at Navi Mumbai and Mopa – both described as 'growth drivers' – as offering investments opportunities of US$3 billion. And, in September 2015, another 14 new greenfield airports received in-principle approval from the Central government, with an estimated total project cost of Rs 240 billion.[22] 'Make in India' also encourages Indian airports to emulate the SEZ 'Aerotropolis model', an airport-centric development model whereby an airport is surrounded by other forms of urbanisation that can include luxury hotels, shopping and entertainment facilities, convention, trade and exhibition complexes, golf courses, sport stadiums, industrial parks and more. Greenfield development has, in other words, already taken on not just discursive but also material dimensions in the concrete shape of large projects in many sectors, with everything that implies.

Like other development discourses, the discourse of greenfield development has both imaginative, moral, and material implications. In the present context I find it useful to follow Mühlhäusler and Peace in conceptualising a discourse as referring 'to specific ways of talking about particular environments *and their futures*' (emphasis added).[23] These 'ways of talking'

Feb. 2017]; 'Hindustan Coca-Cola Beverages invests Rs 1,000 crore to set up greenfield plants at Ahmedabad, Nellore', *News Nation* (15 Jan. 2017) [http://www.newsnation.in/business-news/companies-and-commodities/hindustan-coca-cola-beverages-sets-up-greenfield-plants-at-ahmedabad-and-nellore-article-157823.html, accessed 27 Feb. 2017]; Government of India, Ministry of Urban Development, 'Smart Cities: Mission Statement and Guidelines' (New Delhi: Ministry of Urban Development, 2015).

[21] Government of India, 'Greenfield Airports Policy' (New Delhi: Government of India, 2008).

[22] Sunny Sen, 'Govt projects Rs 24,000-crore cost to develop 14 greenfield airports', *Financial Express* (11 Sept. 2015) [http://www.financialexpress.com/economy/govt-projects-rs-24000-cr-cost-to-develop-14-greenfield-airports/133915/, accessed 27 Feb. 2017].

[23] Peter Mühlhäusler and Adrian Peace, 'Environmental Discourses', in *Annual Review of Anthropology,* Vol. 35 (2006), p. 458.

invoke specific ensembles of ideas, concepts, and categorisations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities.[24] Mühlhäusler and Peace's emphasis on how the future is implicated in discourses of the contemporary, however, also points to the relational constitution of discourse and environments insofar as discourses not merely bestow meaning upon what already exists, but are simultaneously implicated in the remaking of particular social and biophysical environments. This may be particularly pronounced in the case of 'development' discourses that explicitly invoke ensembles of ideas about and categories for how environments are to be reconfigured.

As explained above, in the imaginative domain the assemblage of ideas and concepts that are implicated in the discourse of greenfield development work to construe environments as clean slates that are full of untapped potential. To understand the configuration of the moral domain, it is helpful to return once again to the discussion of wasteland. As Gidwani writes,[25] the notion of 'waste' is weighed down by a double pejorative that is both moral and economic. It acts as a rubric for what modern societies consider bad and, as such, takes on a moral quality that aspires to guide conduct.[26] The moral injunction embodied in the idea of waste is directed both at undesirable and economically unproductive forms of land use (i.e. idle land/wasteland) and undesirable and economically unproductive social behaviour (i.e. wastefulness/idleness). This underlying moral rationale of wasteland development across the postcolonial divide has remained constant, namely to improve the productivity of lands by converting 'waste' into 'value' and, in the process, converting the 'savage' into the 'civilized'.[27] While the 'savage versus civilized' distinction may be less pronounced today, it has been observed how the contemporary Indian real estate economy invokes a similar moral

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[24] Maarten A. Hajer, *The Politics of Environmental Discourse* (Oxford: Clarendon Press, 1995).
[25] Vinay Gidwani, 'Six Theses on Waste, Value, and Commons', in *Social and Cultural Geography,* Vol. 14, no. 7 (2013), pp. 773-783.
[26] Gidwani, '"Waste" and the Permanent Settlement in Bengal'.
[27] Baka, 'The Political Construction of Wasteland', pp. 410-411.

vocabulary as it draws upon ideologies and aesthetics of waste and value, and backwardness and modernity, to develop land for private accumulation.[28] The discourse of greenfield development taps into the same moral domain by promising to realise untapped potential (transforming waste to value) and to usher in infrastructural modernity on barren lands. In addition, because it construes specific environments as clean slates it also promises prospective investors a greatly reduced risk of getting stuck in what Levien has evocatively called 'land acquisition purgatory'.[29] Across India, land disputes that have arisen because of state-led compulsory land acquisitions have deadlocked a number of industrial and infrastructure projects and have ostensibly stalled investments worth nearly Rs2,000 billion.[30] The discourse of greenfield development thus combines the imaginative and moral appeals of the tabula rasa fantasy with the more material prospects of high profits coupled with little popular resistance.

Lastly, both wasteland development and greenfield development – and, indeed, 'land grabbing' more generally[31] – are carried out through the mechanism of enclosure. Enclosure is not just a discursive but also an eminently material practice that involves environmental transformation such as dispossession of land, water, forests and other common property resources, and their concentration, privatisation and transaction as corporate property. As such, it has considerable consequences for both social and biophysical environments. For example, much of the 33,000 acres on which the new 'greenfield' city of Amaravati is being built was

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[28] Sampat, *Right to Land and the Rule of Law.*
[29] Michael Levien, 'Rationalising Dispossession: The Land Acquisition and Resettlement Bills', in *Economic and Political Weekly,* Vol. 46, no. 11 (2011), pp. 66-71.
[30] Patrik Oskarsson and Kenneth Bo Nielsen, 'Development Deadlock: Aborted Industrialization and Blocked Land Restitution in West Bengal and Andhra Pradesh, India', in *Development Studies Research* Vol. 1, no. 1 (2014), pp. 267-78; RRI, 'Land Disputes and Stalled Investments in India' (Washington, DC: RRI, 2016).
[31] White et al., 'The New Enclosures'.

earlier farmland;[32] to build the Navi Mumbai greenfield airport, thousands of families had to be displaced; and the Mopa plateau on which the 'greenfield' airport will be located has for decades been inhabited by a number of families who farm and graze their cattle there (see below). It is by erasing or eliding the historical traces of human and non-human activity and their socio-political meanings that the discourse of greenfield development construes environments as 'clean slates'.

In the next sections I link the discussion of greenfield development to the EIA process. As Rozema and Bond have pointed out, impact assessment tools do not exist outside of discourse but rather 'induce the articulation of particular discourses'.[33] In this case, I analyse how the EIA process and its associated documents articulated a discourse of greenfield development to promote a 'greenfield' or 'clean slate' view of the Mopa plateau that eventually enabled the construction of a new airport covering several hundred hectares. To bring this out, I also analyse at length the (eventually failed) attempts by oppositional movements to stop the airport through what I following Baya-Lafitte refer to as 'EIA struggle'.[34]

The EIA Process and 'EIA Struggle'

Projected by the Ministry of Environment, Forest and Climate Change (MoEFCC) as 'an important management tool for ensuring optimal use of natural resources for sustainable development', EIAs are now mandatory for 29 categories of activities that involve investments exceeding Rs500 million.[35] Projects that require EIAs are thus typically large and

[32] Uma Sudhir, 'Amaravati Chosen as New Andhra Pradesh Capital', *NDTV* (2 Apr. 2015) [http://www.ndtv.com/andhra-pradesh-news/amaravati-to-be-andhra-pradeshs-new-capital-751518, accessed 27 Feb. 2017].

[33] Jaap G. Rozema and Alan J. Bond, 'Framing Effectiveness in Impact Assessment: Discourse Accommodation in Controversial Infrastructure Development', in *Environmental Impact Assessment Review*, Vol. 50 (2015), p. 67.

[34] Baya-Lafitte, 'Black-boxing Sustainable Development'.

[35] See http://envfor.nic.in/division/introduction-8 (accessed 27 February 2017).

require access to financing and regulatory processing that are typically only available to elite actors with good political and bureaucratic connections. With estimated investments to the tune of Rs30 billion, Mopa airport is an emblematic case.

It falls on the project proponent to produce the EIA, but the task is often contracted out to consultants.[36] The EIA process necessitates an in theory very thorough exercise in estimating the environmental, biological, social and economic impact of a given project to determine its sustainability; to suggest adequate plans for mitigation and environmental management; and to present the details at a public hearing in the vicinity of the project area.[37] The EIA process is thus one that involves a system of knowledge production about a particular environment,[38] and one of its main functions is to map out the terrain and create an inventory that makes the socio-natural landscape quantifiable and intelligible in scientific terms.[39] This often includes the production of maps, graphs, tables and charts that should, again in theory, offer an authoritative account of just how 'clean' the slate is.

The EIA process also constitutes an arena for the playing out of discursive conflicts over the relative weight given to different values in decision making[40] as affected populations and the general public are to be included. In this way, an EIA 'affords its use for legitimizing and challenging decisions where a balance between competing environmental and developmental interests is to be struck'.[41] This may lead to mutual 'discursive accommodation'[42] between initially opposed actors in countries characterised by a large

[36] Heather P. Bedi, 'Environmental Mis-Assessment, Development and Mining in Orissa, India', in *Development and Change,* Vol. 44, no. 1 (2013), p. 102.

[37] Nupur Chowdhury, 'Environmental Impact Assessment in India: Reviewing Two Decades of Jurisprudence', in *IUCNAEL EJournal,* Vol. 5 (n.d.), pp. 28-32.

[38] Matthew Cashmore and Tim Richardson, 'Power and Environmental Assessment', in *Environmental Impact Assessment Review,* Vol. 39 (2012), pp. 1-4.

[39] Fabiana Li, 'Documenting Accountability: Environmental Impact Assessment in a Peruvian Mining Project', in *PoLAR,* Vol. 32, no. 2 (2009), pp. 222-223.

[40] Cashmore and Richardson, 'Power and Environmental Assessment'.

[41] Baya-Lafitte, 'Black-boxing Sustainable Development'.

[42] Rozema and Bond, 'Framing Effectiveness in Impact Assessment'.

degree of consensus;[43] but, opposing views on land and land use in India often draw on discourses that differ so fundamentally that they easily become well-neigh irreconcilable.[44]

On the one hand, the mandatory and key strategic role of the EIA process makes 'EIA struggles' possible and perhaps even attractive from an environmentalist point of view. EIA struggles as I define them share certain features with the proliferating 'law struggles' recently analysed for India by Sundar.[45] Here, collective action is increasingly geared towards using – or achieving the introduction of – laws that safeguard the rights, entitlements, and needs of subaltern groups to further specific mobilisations in specific locales. Such recourse to law's language and institutions in political struggles parallels the recourse to the language and institutions of the EIA process in environmental struggles that I here refer to as 'EIA struggles'. In theory, an environmental clearance granted to a project may be challenged – and even annulled – on multiple grounds of 'illegality, irrationality and procedural impropriety' during the EIA process.[46] This means that (again, in theory) a simple documented breach of proper procedure in conducting the EIA is enough to build a challenge that could lead to the cancellation of the entire project. Given how environmentalists often justifiably complain about the poor quality of EIA reports in India,[47] and their often barely disguised 'attempts to mask economic goals in the language of social development',[48] the scope for waging successful EIA struggles through the EIA process would seem considerable.

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[43] Hens Runhaar et al., 'Environmental Assessment in the Netherlands', in *Environmental Impact Assessment Review,* Vol. 39 (2013), pp. 13-25.

[44] Patrik Oskarsson, 'Diverging Discourses on Bauxite Mining in Eastern India: Life-Supporting Hills for Adivasis or National Treasure Chests on Barren Lands?', in *Society & Natural Resources* (2017).

[45] Nandini Sundar, 'The Rule of Law and the Rule of Property: Law-Struggles and the Neo-Liberal State in India', in Akhil Gupta and K. Sivaramakrishnan (eds), *The State in India after Liberalization: Interdisciplinary Perspectives* (London: Routledge, 2011), pp. 175-193.

[46] Chowdhury, 'Environmental Impact Assessment in India'.

[47] See e.g. Sujeetkumar M. Dongre, *Research Project on Assessing Quality of Environmental Impact Assessment (EIA), Compliance of Environmental Clearance (EC) Conditions and Adequacy of Environmental Management Plan (EMP) of Mining Industry in Goa: Report* (Goa: Centre for Environment Education, 2013).

[48] Bedi, 'Environmental Mis-Assessment, Development and Mining in Orissa, India', p. 120.

Yet, as the Mopa case will show, the EIA process does not unfold on an even playing field. For one thing, for most projects that require EIAs the investments are significant, the project proponent embedded in networks that will also include politicians and bureaucrats, and influential stakeholders likely to promote the project as a 'prestige project'. However, as recent critical work on EIAs has pointed out, these are in themselves 'inescapably, and fundamentally, concerned with power'.[49] The EIA process requires that decision-makers, developers, consultants, affected populations and other actors agree to play by the rules of the game. This game, however, follows an 'authoritative script'[50] that favours certain discourses, interests and forms of knowledge. The language of the EIA process, and thus also of EIA struggle, is overwhelmingly the language of 'large-scale, capital intensive science'.[51] On the one hand, this privileges investors and project developers with sufficient resources at their disposal while simultaneously directing the actions of environmentalist groups towards the difficult, costly and time-consuming production of scientific or technical counter-arguments, often in contexts where both resources and local expertise are limited. On the other hand, the 'corporate science' produced by project proponents may, as convincingly shown by Kirsch (2014), be systematically biased towards obscuring or minimising environmental impacts. While there are evident power asymmetries at play here, there is also the latent risk of a more subtle depoliticisation of environmental conflict[52] insofar as popular opposition that may be motivated by shared *political* or *moral* concerns can only be registered in the EIA process if it can be convincingly couched in the technical language of *science*. To Aguilar-Støen and

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[49] Cashmore and Richardson, 'Power and Environmental Assessment'; see also Mariel Aguilar-Støen and Cecilie Hirsch, 'Environmental Impact Assessments, Local Power and Self-Determination', in *The Extractive Industries and Society*, Vol. 2 (2015), pp. 472-479; Mariel Aguilar-Støen and Cecilie Hirsch, 'Bottom-up Responses to Environmental and Social Impact Assessments', in *Environmental Impact Assessment Review*, Vol. 62 (2017), pp. 225-232.

[50] Baya-Lafitte, 'Black-boxing Sustainable Development'.

[51] Li, 'Documenting Accountability', p. 229.

[52] Baya-Lafitte, 'Black-boxing Sustainable Development'; Aguilar-Støen and Hirsch, 'Bottom-up Responses to Environmental and Social Impact Assessments'.

Hirsch,[53] the EIA script thus predetermines the horizons of what activists can hope to achieve through an EIA struggle. This challenge is compounded by how, as argued by Li,[54] the very *form* of the EIA tends to facilitate project approvals. This capacity of form to render substance irrelevant has been more eloquently rephrased by the veteran Indian ecologist Madhav Gadgil, who during a recent visit to Goa pointed out how EIAs can 'make reality an illusion and an illusion reality'.[55]

Lastly, the power asymmetries involved in the EIA process and EIA struggles are further cemented by the frequent changes that have been made to the environmental clearance process in India. According to *Hindustan Times*,[56] more than 100 changes were made to this process during a span of just seven years, from 2006 to 2013. To borrow Jenkins' phrase,[57] such a state of 'permanent reform' with back and forth changes usually leads to shifting and contrary interpretations, ad hoc-ism and confusion, and benefits well-positioned individuals who can use their discretionary power and superior knowledge to influence outcomes.

Seeing the EIA process and EIA struggles through this prism reminds us of their embeddedness in often highly asymmetrical power relations. Below I show that while the Mopa EIA process did indeed provide an arena for contestation as local environmentalists mobilised to stop the airport, the EIA process in effect induced the articulation of discourses that worked to 'clean the slate', while also imbuing its claims with scientific authority and legitimacy that enabled land dispossession.

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[53] *Ibid.*

[54] Li, 'Documenting Accountability'.

[55] 'Digging Deeper: Mining Tales', *Navhind Times* (16 Sept. 2015) [http://www.navhindtimes.in/digging-deeper-mining-tales/, accessed 27 Feb. 2017].

[56] Chetan Chauhan, 'Environment impact assessment changed 100 times in less than 7 years', *Hindustan Times* (11 Nov. 2013) [http://www.hindustantimes.com/india/environment-impact-assessment-changed-100-times-in-less-than-7-years/story-EzIZvzfSLmyQDEupHRrgXP.html, accessed 27 Feb. 2017].

[57] Rob Jenkins, 'India's SEZ Policy: The Political Implications of 'Permanent Reform', in Rob Jenkins, Lorraine Kennedy and Partha Mukhopadhyay (eds), *Power, Policy and Protest: The Politics of India's Special Economic Zones* (New Delhi: Oxford University Press, 2014), pp. 39-71.

Clean Slates, Barren Lands: The Draft EIA Report on Mopa

The draft EIA report for the proposed Mopa airport was prepared by the Environment Division of Engineers India Limited (EIL).[58] EIL is a public sector company and one of India's leading consultancy and engineering, procurement and construction services companies in hydrocarbons and petrochemicals, and also has a track record of executing large infrastructure projects including highways, bridges and airports. While the ten 'greenfield refineries' EIL has in its portfolio illustrate its commitment to the discourse of greenfield development, it also has a consultancy service that carries out EIA studies and prepares environmental management plans for external clients. It collected environmental data in Mopa from October to December 2011 and published the draft EIA report in October 2014.[59]

By the time the draft EIA report was released, plans for a new airport at Mopa had been in existence for 15 years. The site had already been selected in 1999. Land acquisition notifications were first issued in 2003 but these were eventually allowed to lapse. Fresh notifications were then issued again in 2008, and the land acquisition proceedings picked up speed under the Bharatiya Janata Party (BJP) government that assumed office in Goa in 2012. In late 2013, the land acquisition was complete, and soon after, Narendra Modi was elected Prime Minister of India on a promise of replicating his 'Gujarat model' in the rest of India. That model was, among other things, rooted in a practice of swiftly obtaining all the required clearances – including environmental clearances – for prospective investors under a 'single-window' system, a practice which Modi's first Minister of the Environment, Prakash Javadekar, went on to adhere to in New Delhi as well. It was against this backdrop that the

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[58] This and the following section draw on Kenneth Bo Nielsen and Solano Jose Savio Da Silva, 'Golden or Green? Growth Infrastructures and Resistance in Goa', in Tereza Kuldova and Mathew Akkanad Varghese (eds), *Urban Utopias: Excess and Expulsion in Neoliberal South Asia* (London: Palgrave Macmillan, 2017), pp. 53-73

[59] EIL, *Environmental Impact Assessment Study for the Proposed Greenfield International Airport at Mopa, Goa* (Panjim: Government of Goa, 2014), p. 118.

draft EIA report was circulated and the mandatory public hearing scheduled to follow some months later.

The draft EIA report described the area earmarked for the airport as having 'only few trees but mainly bushes'.[60] The area was predominantly a 'tabletop plateau area surrounded by steep slopes that act as natural drains' during the monsoon. For this reason, there is 'no surface water available on the plateau'.[61] Four catchments drain rain water both to the north, south, and east and west, down through natural slopes to lower elevated lands where it accumulates in various rivers. The land on the plateau, the report says, is largely non-cultivated due to an out-cropping of lateritic soil with shallow layers of reddish brown sandy soil in several depressed locations; and vegetation and trees are sparse.[62] The report identifies one reserved forest within 15 kilometres, but no other 'environmentally sensitive areas', i.e., no archeologically important places, no national parks or wildlife sanctuaries, no protected forests, and no 'areas occupied by sensitive man-made land uses' such as hospitals or schools.[63] Beyond the plateau, the surrounding land is described as 'predominantly forest land', with reserve forest areas to the north and east, and 'barren and village cultivated land' to the west.[64]

Moving on to describe the socio-economic environment within the project site, the report presents a table to illustrate that agricultural activities are – as one may expect on a barren, rocky plateau – very limited in and around the project area: a mere 3 percent of the population comprises agricultural labourers, while 4.35 percent of people are cultivators. Yet the figures used are from the 2011 population census of India and covers all of North Goa district, that is, half of Goa. These figures thus say virtually nothing about the extent of agriculture on and adjacent to the acquired land. The same section contains a table that shows

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[60] *Ibid.,* pp. vi, 88.
[61] *Ibid.,* p. 8.
[62] *Ibid.,* pp. 11, 37, 73.
[63] *Ibid.,* p. 8.
[64] *Ibid.,* p. 65.

the total number of households in the project affected villages to be 1641 and the total number of affected people to be 7298. Whether one considers these to be large numbers is a matter of perspective; but the EIA report certainly diminishes them by again contextualising with reference to all of North Goa district to claim that only around 1 percent of the district's population stood to be affected.[65] The effect of these kinds of contextualisation is to reinforce the impression that these are sparsely populated lands with very limited agricultural activity.

In the section on biological environment, the report lists the 385 species of plants identified within a 10 km radial distance from the project site, recording no critically threatened species. It also reports on birds, listing only the Indian Peafowl as a schedule-I species.[66] Listed are also 33 butterfly species (three schedule-I species), five species of amphibians, 12 species of reptiles, 10 rather unexceptional mammals (e.g. hare, mouse, rat, and dog), but 'no visual sighting of any threatened species'.[67] There is a brief mention of the closeness of the Mopa plateau to the Western Ghats, a World Heritage Site and Ecologically Sensitive Area (ESA) known for its biological richness and diversity; but, it is correctly stated, Pernem *taluka* is not part of the ESA.

In its assessment of impact, the draft report finds that the 'significance value' of the impact of the airport on the local biology, water, land use, topography, and socio-economic aspects will be uniformly 'low', albeit with two exceptions: first, the presence of construction crew, passengers and staff will increase the demand for water and may lead to water scarcity. And second, increased vehicular movements and open pipeline trenches and un-barricaded waste water pits during construction could cause injury to animals. These two 'medium' impacts in terms of significance value are addressed, along with other concerns, in the report's environmental management plan.

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[65] *Ibid*., pp. 39-40.
[66] *Ibid.,* pp. 42-54.
[67] *Ibid.,* p. 60.

The rehabilitation and resettlement of affected people during the construction phase is also mentioned as an impact under the category 'socio-economic environment'. Here, however, it is stressed that the overall project impact will in fact be positive as it will lead to 'more benefits to the local people' through better infrastructure, more commercial activities, more employment opportunities, development of communication, drinking water supply, and the facilitation of hospitals, schools, clubs, a stadium, regular health camps, a CSR policy, and the creation of 'social harmony and goodwill' through cultural events.[68]

The draft EIA report can reasonably be seen as articulating a discourse that actively co-produces Mopa as a greenfield on which the construction of a new airport can proceed with little negative impact on local social, economic, biological and environmental life: these are sparsely populated dry lands with little agriculture, no places of historical or religious significance, and only common animals that one finds more or less everywhere. The EIA for Mopa is far from unique in this regard. Based on a reading of more than 75 different EIA reports on mining in Goa,[69] Madhav Gadgil concluded that every single report described Goa as a treeless, waterless, barren land with no hills or plateaus.[70] Instead, the airport would – through the 'trickledown' mechanism that Bedi[71] has identified as a key legitimising device in several other Indian EIAs – deliver what this greenfield lacked, namely development through jobs, infrastructure, commerce, and connectivity. This was, however, a discourse that would be hotly contested by environmentalists who challenged the EIA report.

The Life-giving Barazan: Critiquing the Draft EIA

The opposition to Mopa airport has come from several quarters, including the Mopa Vimantal Pidit Xetkari Samiti (MVPXS), a local association of affected land owners and tenants.

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[68] *Ibid*., p. xiii.
[69] Dongre, 'Report'.
[70] 'Digging Deeper'.
[71] Bedi, 'Environmental Mis-Assessment, Development and Mining in Orissa, India'.

Efforts centred on contesting the airport by engaging in the EIA process have, however, been spearheaded by two activist groups who, in terms of membership, overlap to some extent: the Federation of Rainbow Warriors (FRW) and Goans for Dabolim Only (GFDO).[72]

It is commonly accepted that for many decades, Goa's development has been based on the destruction of land rather than the careful use of it.[73] And, FRW activists had – as I detail below – many arguments for why a new airport in Mopa would wreck additional havoc on Goa's already fragile environment and hurl dispossessed locals into poverty. They were also apprehensive that a new airport would exacerbate many of Goa's already existing problems associated with unsustainable tourism – both environmental ones pertaining to coastal erosion and the loss of local control over land and sea, as well as social and moral ones pertaining to increased crime, prostitution and drug abuse;[74] and that it would exclusively benefit real estate developers, wealthy entrepreneurs, land brokers and corrupt politicians. While these critiques are rooted in forms of moral and socio-political reasoning, the problem that faced the FRW when challenging the airport through the authoritative EIA script was strikingly similar to the situation described by Baya-Laffite in the context of struggles over nature in Uruguay,[75] namely, how to move from moral and political reasoning to demonstrating 'the truth' about impacts. This, I suggest, is a problem that requires a different solution than the 'technomoral politics' that Bernstein and Sharma have recently identified as a prevalent strategy among NGOs and civil society groups in Delhi.[76] Among these groups, moral projects are translated into technical terms by mixing the languages of law, policy and morality. The resultant 'technomoral politics' can then be effectively used to claim authority over public stewardship.

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[72] Dabolim is currently Goa's only airport.
[73] Robert S. Newman, 'Goa: The Transformation of an Indian Region', in *Pacific Affairs,* Vol. 57, no. 3 (1984), p. 444.
[74] See also Paul Routledge, 'Consuming Goa: Tourist Site as Dispensable Space', in *Economic and Political Weekly,* Vol. 35, no. 30 (2000), pp. 2647-2656.
[75] Baya-Lafitte, 'Black-boxing Sustainable Development'.
[76] Erica Bernstein and Aradhana Sharma, 'The Righteous and the Rightful', in *American Ethnologist* Vol. 43, no. 1 (2016), pp. 76-90.

In the context of an EIA struggle, however, moral posturing and judicialised strategies of claims-making are in themselves incapable of lifting the burden of proof. What is required is substantial engagement in producing, exchanging and criticising scientific and technical information of an often complicated sort.

The FRW used the mandatory public hearing on the draft EIA held on the Mopa plateau on 1 February 2015 as an opportunity to contest the discursive production of the local environment as a greenfield. The public hearing is the only medium in the environmental clearance process through which people are *assured* an opportunity to interact directly with the relevant public officials and project proponents regarding project-related concerns.[77] And, in theory, the entire EIA process can be undermined if the 'conduct of public hearings [is done] in an improper manner'.[78]

The public hearing drew a large crowd: 1,586 people attended alongside 1,000 deployed police personnel; 70 oral and 1,150 written presentations were made, of which a single FRW activist submitted nearly 600. The hearing proceeded in an unruly manner. There were 'altercations between supporters and opponents which threatened to escalate into physical confrontations',[79] and 'the two groups exchanged verbal feud, while some of them clashed, forcing the police to intervene'.[80] One member of the FRW was attacked as he tried to speak out against the airport, and the GFDO subsequently called the public hearing 'a stage-managed show of strength rather than a public hearing'.[81]

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[77] M.P. Ram Mohan and Himanshu Pabreja, 'Public Hearings in Environmental Clearance Process', in *Economic and Political Weekly*, Vol. 51, no. 50 (2016), pp. 68-75.

[78] Chowdhury, 'Environmental Impact Assessment in India'.

[79] 'Unruly Scenes at Mopa Airport's EIA Hearing', *Times of India* (2 Feb, 2015) [http://timesofindia.indiatimes.com/city/goa/Unruly-scenes-at-Mopa-airports-EIA-hearing/articleshow/46089868.cms, accessed 27 Feb. 2017].

[80] 'Public hearing on Mopa airport impact report held amid chaos', *Business Standard* (1 Feb. 2015) [http://www.business-standard.com/article/pti-stories/public-hearing-on-mopa-airport-impact-report-held-amid-chaos-115020100446_1.html, accessed 27 Feb. 2017].

[81] 'GFDO terms Mopa public hearing as stage-managed', *Navhind Times* (3 Feb. 2015) [http://www.navhindtimes.in/gfdo-terms-mopa-public-hearing-as-stage-managed/, accessed 27 Feb. 2017].

The FRW's submission consisted of, among others, hundreds of signed statements by locals opposed to the airport, detailing their historical connection to the place, the many different vegetables they grew for personal consumption and commercial purposes, the presence of a large number of timber trees, the many perennial springs that supplied drinking water, and the importance of the plateau for irrigation, agriculture, fodder, medicine, fruits, berries, honey and firewood. A sacred grove on the plateau itself, the Barazan, also found regular mention as the most important religious site in the area, alongside a number of other *devasthans* (divine dwellings). For this reason, FRW activists routinely referred to the plateau as the Barazan rather than Mopa, underscoring its crucial role in an ancient socio-religious order linking man and nature.

Many of the written statements opened with a declaration that the signatories were grateful and happy with their current life and survived 'completely on farming and agriculture'. Signatories spoke of how they had seen their grandfathers and fathers struggle to make ends meet, and voiced their fears that they would now lose the traditions, culture, beliefs and community spirit that had been passed down to them from their ancestors. Most submissions ended by calling on the authorities to stop the destruction of the plateau and to allow the local residents to continue to live in eco-friendly connectivity with the environment, the plateau, the life-giving springs and the rich wild-life.

FRW activists had also carried out preliminary studies on and around the plateau over a one month period from December 2014 to January 2015. Based on this they prepared a report that lists 44 springs and their location around the plateau, thus undermining the claim that the rain simply ran off the plateau and into the rivers, leaving the plateau and its surroundings dry and barren.[82] In this report – and in environmentalist discourse more generally – the image of the laterite plateau is thus radically different from that found in the

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[82] FRW, 'A Report – Short Study on Mopa Plateau' (n.d., n.p.).

draft EIA report. In the FRW's report, it appears – in a manner that is strikingly similar to how bauxite hills are described by anti-mining scholars and activists in other parts of India[83] – as a giant sponge that absorbs and stores water, releasing it gently into the many freshwater springs to nurture and sustain life around the year. Its unique hydrology, topology and geology, it is thus argued, 'allow all the larger faunal and floral species to flourish, without a need to leave the plateau'. This includes a number of 'flagship species' – many of them endangered – including elephant, tiger, and leopard. Hundreds of birds are also listed, alongside mammals, reptiles, and four sacred groves. The report concludes that the Mopa biosphere is 'a self-sustaining island that surpasses the Western Ghat ranges and protected areas to its east and south east in biodiversity and uniqueness'.

In a comparable Indian context, Mujumdar and Menezes have argued that the politics of mapping and representation implicated in the production of official EIA reports involve a 'deliberate unmapping of territory and population' in order to push projects through.[84] By this they imply that these reports operate with wilfully distorted mappings of the places and peoples they claim to represent. In light of this, the FRW's reports and submissions can be conceived as attempts at redrawing the map by embedding the plateau in a wider environmental, hydrological, and social context, and by foregrounding a competing claim marginalised by the EIA report, namely the experiential reality of some of the local inhabitants.

The FRW's representations and statements were recorded in the minutes of the public hearing proceedings which were later forwarded along with the revised and final EIA report to the ministry's expert group on infrastructure projects in order to obtain the environmental

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[83] Felix Padel, 'The Bauxite-Aluminium Industry and India's Adivasis', in Cathal M. Doyle, Helen Tugendhat and Robeliza Halip (eds), *Mining, the Aluminium Industry and Indigenous People* (Chiang Mai: AIPP, FPP and IUCN, 2015), pp. 102-112.

[84] Rohit Mujumdar and Benita Menezes, 'Maharashtra: Institutional Politics and the Framing of Resistance', in Rob Jenkins, Lorraine Kennedy and Partha Mukhopadhyay (eds), *Power, Policy and Protest: The Politics of India's Special Economic Zones* (New Delhi: Oxford University Press, 2014), pp. 239-271.

clearance. Additional objections from the project opponents also listed in the minutes included the insufficiency of the data collection period (only three months), the lack of analysis of soil fertility, the likelihood that the airport would lead to the destruction of nearby rivers and cause more floods, the flawed recording of the local flora, fauna and wildlife, the failure to cover the requisite full ten km radial circle in the EIA, the lack of mention of ground water percolation and recharge and the many existing perennial springs, the neglect of local villagers' medical knowledge, the exclusion of sacred groves including the Barazan, missing attention to the four million cashew trees growing on the slopes that generate an annual income of INR 50 *crore* which would be lost if the airport came up, and a general lack of authenticated data which – it was claimed – rendered both the report and the public hearing illegal.

The minutes from the public hearing also contain an overview of the 'comments of the applicant' (i.e. 'response') to the 'statement of issues' (i.e. 'questions') raised during the meeting. The 25 'comments' that are listed provide an interesting illustration of how the technology of the EIA allows for the absorption of environmentalist counter-discourse. First, given the very large number of 'issues' raised through the more than 1000 submissions, the 'applicant' could reasonably choose to respond selectively. Second, those 'issues' that did receive comments were addressed almost exclusively in the techno-administrative language that is embedded in the EIA script: the public hearing had been properly notified and copies of the draft report circulated to all the relevant *panchayats*; rain water harvesting would take care of the water stress; water flows had already been studied; sewage treatment plants and garbage management plans would address pollution concerns; the new terminal building would be energy efficient; the EIA report had been prepared as per the manual of the MoEFCC and as per the terms of reference; all ecological aspects had been taken into account;

etc.[85] This process in which certain EIA critiques are ignored and others addressed in a techno-administrative langue has been described as one of 'rendering technical'.[86] Here, fundamental political debates about development trajectories and their risks are largely eclipsed by techno-scientific arguments.

Beyond the Hearing

After the public hearing the EIA report was re-drafted and submitted to the MoEFCC for environmental clearance.[87] Comparing the final report to the earlier draft report offers an opportunity to analyse to what extent the activists' counter-discourse was accommodated in the text.

In accordance with the critique, the final EIA report had expanded its area of coverage to the mandatory full ten km radius that an EIA must study. Since Mopa is close to the state border with Maharashtra, parts of that state falls within the ten km radial area, and so the final report also incorporated some new information on Maharashtra.[88] There is, again in line with the critique, also a new and expanded list of environmentally sensitive areas that now includes wetlands (two), water bodies (four rivers), state boundaries (one), tourist places (none), industrial estates (four), major industries (two) and archaeologically important places/monuments (three).[89] Yet this recognition of environmentally sensitive areas is partly countered by a new table that quantifies land use patterns to claim that a full 85 percent of the acquired land is either land with scrub, scrub forest, or wasteland. There is also a discussion of a fresh environmental baseline data collection from November 2014 to January 2015.

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[85] GSPCB/Goa State Pollution Control Board, 'Proceedings of the Environmental Public Hearing held on 01/02/2015' (Panaji: GSPCB, n.d.).

[86] Aguilar-Støen and Hirsch, 'Environmental Impact Assessments, Local Power and Self-Determination'.

[87] EIL, 'Environmental Impact Assessment for the Proposed Greenfield International Airport at Mopa, Goa' (Panjim: Government of Goa, 2015).

[88] *Ibid.,* pp. 44-45.

[89] *Ibid.,* p. 8.

The section on biological environment has a new table on medicinal plants (36 species); and a new section on fish diversity which – somewhat curiously, given that Mopa is roughly 25 kilometres from the sea – lists 'some of the major fish species catched (sic) in the sea as well as rivers of Goa'.[90] The section on land environment now also mentions that the airport area consists of bauxite ore, for which a 'no objection certificate' has been obtained from the mining department.[91] The only other change is the addition of some new annexures. Annexure 21 is a mandatory version of the proceedings of the public hearing. Eighty-five comments are listed and addressed more elaborately than in the minutes stamped by the GSPCB. In addition, a new annexure 20 purports to offer a description of the socio-economic environment, but is based almost exclusively on state or *taluka* level census data from 2011, and a mere half a page of stray observations from the 'study area'. The impact of the many representations made by the FRW was thus negligible and limited to some data on Maharashtra finding its way into the report alongside a few water bodies and some common fish and medicinal plants. None of this fundamentally altered the report's discursive production of the project area as a greenfield.

The FRW, however, did not abandon their EIA struggle. They produced a comprehensive plan for conducting further independent studies of the local environment, economy, society and culture on the assumption that a proper EIA study would vindicate their position that the environmental clearance should not be granted. To achieve this, the group enlisted experts in the fields of flora and fauna, sociology and anthropology, as well as an expert on otters and one on reptiles. But although the FRW thus challenged the EIA on the ground of being poor and incorrect, they reaffirmed its legitimacy as a key instrument for arriving at decisions on the environment and, in the process, similarly reaffirmed the need for anchoring counter-arguments in the techno-scientific language of its script.

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[90] *Ibid.,* p. 67.
[91] *Ibid.,* p. 81.

The FRW's work eventually led them to challenge the final EIA report by submitting a list of 13 queries to the MoEFCC. The ministry directed the state government to respond to the queries in writing, and subsequently granted the environmental clearance in late October 2015. This occurred in the wake of a visit by the Union Minister of State for Environment, Forests and Climate Change, Prakash Javadekar, to the Global Business Forum in Goa. Here, Javadekar said that: 'Mopa is essential for development of Goa and my ministry will always have a positive viewpoint on any developmental project of a state'. He added that his ministry would 'not be against the airport and give consent to it readily',[92] which he duly did four days later. With the environmental clearance officially granted, the FRW turned to the National Green Tribunal (NGT), a special tribunal empowered to provide speedy environmental justice and reduce the burden of litigation. While the pleadings on the petition have not yet been completed, the NGT has not ordered a stay on construction which is now well under way.

Concluding Discussion

The case of Mopa airport illustrates how current discourses of greenfield development work to render particular environments as clean slates amenable to particular kinds of interventions that have significant ramifications for land use. The tabula rasa fantasy is, as I have argued, an integral part of this discourse and goes a long way towards accounting for its popularity. As such, discourses of greenfield development not just describe given environments in more or less accurate terms, but rather create the preconditions for their own territorialisation by enabling wide-reaching forms of environmental transformation, in this case the setting up of an international airport on and around a lateritic plateau.

I have devoted special attention to the EIA process as an important 'greenfielding' technology. Although EIAs and other assessment tools are often projected as a useful path

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[92] 'Mopa Airport Vital for Goa's Development: Javadekar', *Navhind Times* (17 Oct. 2015) [http://www.navhindtimes.in/mopa-airport-vital-for-goas-development-javadekar/, accessed 27 Feb. 2017].

towards discursive accommodation between opposing groups, the Mopa case shows how the EIA process in practice worked to induce the articulation of the discourse of greenfield development that is endorsed by elite business groups and politicians alike. In other words, the (strongly disputed) environmental information codified in the EIA reports analysed here have been crucial in securing not just the required environmental clearances, but also in deflecting opposition and bestowing procedural legitimacy on the airport project. The completion of all the mandatory steps involved in the EIA process – data collection, drafting the report, circulating it, holding a public hearing, taking minutes, responding to criticism, redrafting the report, responding to further queries, etc. – in itself appears to provide sufficient grounds for granting the necessary clearances. This is not to say that contents are irrelevant, only that the aesthetics of form and process can significantly compensate for a lack of substance and depth in several areas of study. In a paradoxical way, environmentalist EIA struggles may end up contributing to this. As shown elsewhere,[93] environmentalist counter-knowledge and counter-discourse produced with the intent of undermining an EIA and stop controversial projects may end up being selectively incorporated into the official EIA report, thus resulting in an even more robust and irrefutable EIA. Goa Chief Minister Parrikar acknowledged as much when he commented, with reference to the Mopa project, that 'when someone opposes something the advantage is that it gives perfection to the project'.[94] In this way, environmentalist EIA struggles can inadvertently contribute to the procedural legitimacy of greenfield development projects.

Existing power asymmetries between project proponents and opponents are compounded by a general trend of weakening Indian environmental legislation, coupled with increasing hostility towards NGOs and activist groups who are routinely labelled anti-national,

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[93] Baya-Lafitte, 'Black-boxing Sustainable Development'
[94] 'BJP top brass hits out at NGOs for opposing projects', *Herald* (31 May 2016) [http://www.heraldgoa.in/Goa/BJP-top-brass-hits-out-at-NGOs-for-opposing-projects/102518.html, accessed 28 Feb. 2017].

anti-development, or accused of retarding India's economic growth.[95] The futility of the FRW's efforts to deconstruct the EIA's greenfield discourse was undoubtedly partly attributable to such contributory factors within the larger political economy. Yet, the authoritative script and language of the EIA process has also been shown to consistently reinforce such pre-existing power asymmetries in a manner that can seem almost intrinsic to the nature of the arrangement. Waging EIA struggles is both time-consuming and difficult for environmentalist groups lacking resources and access to expertise, and deconstructing greenfield views of an environment as articulated in an official EIA report is concomitantly burdensome. It is also a process that, as the Mopa case illustrates, can play out over a long period of time in a situation in which many crucial decisions – the choice of location and size and scope of the airport, etc. – had already been made, and where the process of identifying a successful bidder, signing contracts, and commencing construction went on unhindered. The EIA struggle thus evolved in the shadow of growing irreversibility, in which even a hypothetical victory for the FRW began to seem increasingly pyrrhic. Given that the waiting game has come to be synonymous with such processes in India, it seems inevitable that greenfield projects such as that described here will, once begun, eventually get the go-ahead courtesy of political technologies such as the EIA.

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[95] James Manor, 'A Precarious Enterprise? Multiple Antagonisms during Year One of the Modi Government', in *South Asia,* Vol. 38, no. 4 (2015), p. 738.