

# Contested Airport Land

Social-Spatial Transformation and  
Environmental Injustice in Asia and Africa

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## About this book

The global aviation industry was growing at a rate of 4% annually in the years before the Covid-19 pandemic and was therefore one of the fastest-growing sources of CO<sub>2</sub> emissions (IPCC 2019). In 2018, only 1% of the world's population was responsible for 50% of global emissions from aviation (Gössling & Humpe 2020), and approximately 80% of the global population has never flown in a commercial aircraft (Gurdus 2017). Aviation is also one of the most unequal industries in terms of freedom of movement and gender equity (Gössling et al. 2019). The sector's growth is based on the construction of new airports and the expansion of existing facilities. Given this context, our book, *Contested Airport Lands*, focuses on socio-political and economic dynamics on the land beyond the fenced airport grounds, such as the project areas of greenfield development, anticipated airport cities, or land resources reserved for future airport expansion. The book assembles eight chapters, including case studies from Nepal, Sri Lanka, India, Indonesia, Côte d'Ivoire, South Africa, and Kenya (Figure 1.1), which describe the manifold consequences of airport development.

The initiative for this book originates from a research project carried out by Irit Ittner and Sneha Sharma in India and Côte d'Ivoire on competing land uses between airport expansion and informal settlements.<sup>1</sup> While conducting the project, the authors found that the inspiring social geographical literature about airports and aviation was disconnected from debates in critical development studies. The literature framed airport conflicts mainly as protests against noise pollution or falling real estate values (due to decreased quality of life around airports; see Boucsein et al. 2017). The sidelining of local knowledge and priorities, threats to local identities by land use changes, inter-generational justice, and aviation's contribution to global warming have also provoked protests against airports (Hornig 2017; Hicks 2022; Mingorría & Conté 2023). Faburel and Levy argued, for example, that 'environmental issues are beginning to structure the future of aeromobility, with nuisance caused by aircraft noise playing a major role in this process' (2009: 211). Researchers, however, have mainly investigated airports in European, North American, Southeast Asian, and Gulf states. Authors have discussed aviation-led economic development but made little reference to development visions

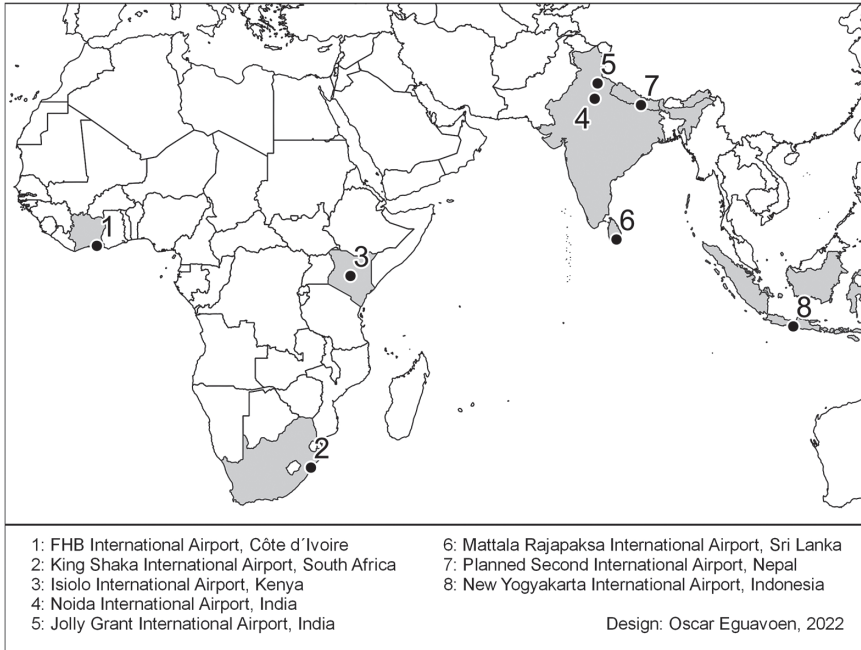


Figure 1.1 Map of airports covered by the case studies.

Source: Map by Eguavoen.

in low- and low-middle-income countries. We argue that the relationship between airports and the inhabitants or local users of airport lands is different in the Global South compared to the Global North because of colonial path dependencies (Button et al. 2019; Chalfin 2019; Tahir 2021) and highly hegemonic relations between builders, investors, and the affected communities. Dynamics differ due to prevalent legal pluralism and insecurity in land tenure, as well as because of greater dependency on foreign funds, weaker accountability, rule of law and democracy, and human rights violations in some countries of the Global South. Unintended consequences of airport construction and new risks include, for example, the perpetuation of human–wildlife conflicts (Gunasekara & Senaratne 2024), emergent land and leadership disputes (Ittner 2023, 2024), growing mistrust towards post-conflict governments (Tahir 2021), or inter-ethnic violence (Owino & Okwany 2024).

Work by scholars, journalists, and activists highlights social and environmental injustice resulting from aviation in both the Global North and the Global South, as well as the contributions of local and global environmental justice movements to stop the growth of the industry. Between 2018 and 2023, the Global Atlas of Environmental Justice (EJAtlas, hereafter), which is a collaborative online mapping platform,<sup>2</sup> recorded 160 cases of protest and mobilisation against new airports or airport expansions worldwide. Researchers and activists like Rose Bridger, who

wrote the foreword to this book, have retrieved most of their evidence from local media sources, accounts by local activists and eyewitnesses living and working on the respective airport lands (GAAM 2021a, 2021b; Stay Grounded 2021). An important contribution in this context was the book *Plane Truth* by Bridger (2013), who co-developed the EJAtlas with the ENVJUSTICE project at the University of Barcelona.<sup>3</sup>

In 2021, we invited other scholars via an open call to contribute in-depth studies from the Global South. We got to know each other online and became more familiar with each other's work in the course of the project. Most of the studies existed prior to this book and were realised by scholars originating from the respective countries. Some authors updated their previous datasets for the chapters, or they pooled expertise in new teams of authors. Two, Isaac Khambule and Hanna Geschewski, joined the editorial board to support the finalisation of the manuscript.

The aim of the book is to draw attention to the ongoing acceleration of airport construction and expansion in the Global South, particularly in South Asia, South-East Asia, and Sub-Saharan Africa. South Africa, a middle-income country, does not match the Global South category per se but displays development challenges because land disputes are quite common. Khambule (2024), however, presents a contestation deriving from multi-level governance dynamics and municipal competition (see following text).

The case studies deepen academic understanding of builders' and investors' visions and motivations, as well as of the manifold socioeconomic processes, political dynamics, and contestations accompanying and following airport projects. While three cases each describe the situation in South Asian and Sub-Saharan African countries, one is devoted to a South-East Asian country. Though the geographical distribution of chapter submissions started randomly, the final content indicates the regions where we see the most urgent need for scientific documentation and analysis. Studies about airports as contested infrastructure are rarely found in the first two regions. We also recognise the need to explore and analyse dynamics around new and expanding airports in Latin America (e.g. Lassen & Gallant 2014) but did not receive contributions for this book. In contrast, new airports in South-East Asia have already attracted the attention of regional scholars and stirred academic debates in some countries, such as Indonesia (Kaputra & Putri 2020; Putri & Paskarina 2021; Utami et al. 2021; Heron & Kim 2023; Edita 2024).

Some regional differences in scholarly debate go back to the history of airport construction and expansion, which began earlier in South-East Asia and the Gulf states of the Middle East compared to South Asia and Sub-Saharan Africa (Goetz & Budd 2014b).<sup>4</sup> However, as Njoya and Knowles (2020: 2) underline, 'the commercial aviation industry has become one of the fastest growing sectors in the Global South. . . . For all Global South regions, growth in air traffic has exceeded the world average'. Authors have also pointed out the importance of colonial path dependencies and of huge differences in air transport between countries of the Global South. African countries generally lag behind various indicators, which prompts many African leaders to invest in their infrastructure to address historical socioeconomic and spatial infrastructure inequalities. According to Pirie (2014: 247), 'air transport

in Africa is forecast to grow faster than the global average until 2030, and the industry is expected to be a key driver of regional economic development’.

Contributors to this book present nuanced insight into the socioeconomic, administrative, and political dynamics that unfolded before, during, or even decades after airport construction. They provide evidence for the fact that airport construction may be an even more politically sensitive issue in countries at the last development frontier of the aviation sector. Airport development in the Global South is neither necessarily linked to the demand of national industrial sectors nor necessarily targeted improved air mobility of national populations, because most individuals cannot afford flights. As the case studies illustrate, new and larger airports may be driven instead by national development visions, by the growth dynamics of the aviation sector itself, as well as by increased global competition between cities and regions in attracting global investment and international tourism. Air connectivity has evolved into a standard variable in global intra-city competition that motivates further airport development.

This book analyses the complex constellations of land regulation, politics, and strategies that cut across both rural–urban divides and administrative levels and boundaries. They embrace diverse temporalities. The authors have investigated social networks and everyday practices through which social-spatial transformation, political marginalisation, and environmental degradation take place. Repeating themes which the studies bring to the forefront include environmental injustice, the reconfiguration of land markets, the rapid transition from rural to peri-urban and urban livelihoods, multi-level governance dynamics, housing and the displacement of poor and migrant communities, and the dynamic interplay of strategies used by governments, administrative offices, airport authorities, and local protest movements. The hegemonic relation between residents and the developmental state sits at the core of these accounts. The chapters give voice to farmers, pastoralists, and urban dwellers whose livelihoods are or will soon be tremendously affected by new or expanding airports or airport cities. Most residents of the airport lands in this book are economically highly vulnerable. The loss of livelihood resources, such as access to agricultural or pastoral land, water resources, forest, biodiversity, or affordable housing, may be existential for them.

The following chapters show how airport construction is always a political project. Visions of economic development and well-being may differ drastically between populations and political leaders, as well as among different levels and offices of public administration. The cases shed light on the aviation sector in the respective countries, including their historical path dependencies. They present public discourses and national development policies in which aviation plays a prominent role.

The questions connecting the chapters are the following: Who determines how airport land is used now and in the future? Who claims decision-making rights over existing or anticipated airport land? How are these claims justified? What strategies do different interest groups, such as government actors, investors, airport authorities, and the inhabitants of airport lands, pursue to either change or conserve existing land uses? How are airport planning, airport construction, and protests against

airports governed? Which socioeconomic and environmental consequences can be observed on the ground? How does multi-level governance play out on airport lands?

Besides drawing attention to the emergent theme of airport-induced conflicts in the Global South and providing rich empirical studies, we aim to synthesise empirical findings. We decided against a general theoretical framework to better grasp the diversity of perspectives. The authors have opted for various concepts, such as legal pluralism, political ecology, environmental justice, urban land governance, political marginalisation, impoverishment risk and reconstruction (IRR), and temporality or territoriality, to explain what is going on around airports.

### **The different perspectives of the Global North and Global South on aviation**

To underline the conditions of our case studies, we argue for the existence of differing perspectives on aviation in countries of the Global North and the Global South. Njoya and Knowles (2020: 1) stated that ‘air transport geography has hitherto focused largely on . . . the developed, powerful countries of the Global North, and principally North America, Europe, Japan, Singapore, South Korea, Australia and New Zealand’.

In addition, the socio-cultural and geographical stream of literature has focused on spaces located on airport grounds, such as terminals, airplanes, and runways, and on the airside. Land issues beyond the airport wall have received less scientific attention unless at a wider spatial scale, analysing airports in relation to regional planning, integration, and governance (Knippenberger & Wall 2010).

Other parts of airport research have analysed particular airports, airlines, and their development from a historical, cultural, or economic perspective. Again, most books discuss airports in high-income or high-middle-income countries (for example, Porter 2023). Some of these studies do include discussions of land disputes, displacement, or protest movements (for example, Poulin 2023).

There is also an overrepresentation of Global North literature on the development of the aerotropolis. Kasarda and Lindsay (2011) posited that the transition from airports to airport cities was underpinned by the move away from airports as standard aeronautical spaces to business-oriented and multifunctional projects within and outside them. This is evident in the rise of shopping malls within airports and the number of airports linked to special economic zones in the Global North and in other regions (Nielsen & Da Silva 2017; Wissink 2020).

Airport contestations in countries which we refer to as the Global South (Haug 2020) tend to centre on alternative issues. Residents in our studies, for example, arranged themselves with the noise of the aircrafts and did not phrase it as the major problem,<sup>5</sup> while it was an issue for people living around Mexico City International Airport. They, however, did not succeed in putting the theme on the political agenda and defend themselves against noise (Lassen & Galland 2014).

To provide an example, we found it difficult to identify research on airports in Sub-Saharan Africa that was not business- or management-oriented. Akpoghomeh

(1999) trailblazed with a study on Nigerian aviation. Amankwah-Amoah and Debrah (2013) delivered research on the airline Air Afrique. Njoya (2016) focused on open-sky policies in Africa. Button et al. (2019) assembled contributions, which provided an inventory of the African aviation sector. Njoya and Knowles initiated a first comparative analysis of low- and low-middle-income countries in their special issue of the *Journal of Transport Geography* in 2020. A study by Guntermann (2019) analysed the history and social world of Addis Ababa International Airport and Ethiopian Airways. Kouassi (2021) wrote a history of the international airport in Abidjan and Ivorian aviation.

The situation in South Asia is similar. Hirsh (2016) studied five airports in Asian cities to discuss informal spaces within international air, whereas Nielsen and Da Silva (2017) have written about conflicts arising from a proposed airport in Goa (India).

In countries of the Global South, we identified a particular mix of variables leading to protest movements against airports. Most protest movements do not use argumentation that we know from anti-aviation movements based in the Global North, such as, for example, on the negative impact of aviation on global warming, misled state subsidies, unequal workers' rights, or complaints about noise and pollution (Smith 2019).<sup>6</sup> However, protest movements have taken up these arguments when having aligned with anti-aviation movements in the Global North<sup>7</sup> in order to pool knowledge resources for resistance and to build global networks among airport-opposing movements. Local protests, however, have centred on land disputes due to legal pluralism, unequal political participation, the marginalisation of communities, corruption, human rights violations, or development-induced displacement mirroring protests against other large infrastructure in the Global South. Environmental issues, such as the destruction of habitats and productive landscapes, dust pollution, and water insecurity, have also driven people onto the streets.

For this reason, scholarship that is thematically and conceptually closely related to our case studies emphasises processes of change categorised as development- or infrastructure-induced socioeconomic dynamics with a focus on low- and low-middle-income countries (e.g. Satiroglu & Choi 2017; Johnson et al. 2021; Price & Singer 2019). Infrastructure-induced dynamics may entail the destruction of livelihoods, the impoverishment of resident populations or their displacement, environmental degradation, political oppression, and eventually, violence. Many studies under this scholarship use a political economy or political ecology approach, an environmental justice perspective, or the IRR model proposed by Cernea (1997).

Scholars working on contested infrastructure in the Global South mainly originate from critical development studies, which are multi-disciplinary. Local protest typically sets in before, during, or after the construction of highways, elevated roads, railways, bridges, ports, or large dams (Del Bene et al. 2018; Beier et al. 2022). Because most airports in these regions stem from colonial or post-colonial times and have been operational for decades, studies on contested airports remain rare. This is about to change with a new wave of greenfield development, airport expansion, and aerocity development. Regional development or transport corridors are also debated in the literature, indicating the tendency to plan trans-regional



mega-infrastructure made up of several components, including airports. Two chapters in this book reflect on airport development within such corridors (Khambule 2024; Owino & Okwany 2024).

Scholars of contested infrastructure have indicated that infrastructure causes less contestation even though it might damage habitats, livelihoods, communities, or global climate. Generally, populations in low- and low-middle-income countries rather welcome new infrastructure, as it serves as tangible manifestations of progress and modernity and the ability of policymakers to deliver public utilities – even though it might conflict with individual interest. Often, large infrastructure is linked to development promises. Putri and Paskarina point out this aspect based on their study on Yogyakarta International Airport in Indonesia. According to them, it was not the infrastructure that caused the airport conflict but other issues, such as interrupted relations to the land, endangered agricultural income, and fear for the future:

Although the construction had the same interest, that is, in the name of progress and prosperity – in reality, the conflict still occurred. That means that it was not the progress that became the source of dispute, but there were some other . . . things taken into consideration by the people that eventually some of them put up resistance.

(Putri & Paskarina 2021: 60)

Scholars and activists also emphasise that specific ways of planning and implementing infrastructure have raised disagreement and motivated local opposition. In many projects, there was little or insufficient engagement with affected people. This differs in most countries of the Global North, where public participation schemes are binding for environmental impact assessments. There, statements and questions posed by citizens, environmental organisations and municipalities are systematically collected and archived. Project authorities are obliged to respond. Affected people and communities, therefore, can utilise public participation to communicate and defend their interests. If no public participation schemes are set up, or if project authorities do not respond as required, citizens and activist groups usually use litigation as a powerful tool to improve, delay, or cancel infrastructural projects. The contestation around the new runways at Heathrow Airport in London (Hicks 2022) and at Frankfurt International Airport (Hornig 2017) illustrates such cases.

In the Global South, infrastructure projects are often implemented without integrating them with local livelihoods, many of which are informal businesses (e.g. GAAM 2021a, 2021b; Stay Grounded 2021). Project documentation and planning documents are usually less extensive than in the Global North, even for large infrastructure. Lawsuits against unwanted infrastructural projects are even less common. There is, however, growing evidence that communities and local organisations use litigation in their fights against airports (for example, Lassen & Galland 2014). Modes of project administration and implementation that are frequently reported include misinformation, unkept development promises, irregularities, and elite capture. Studies have also emphasised the relevance of temporal



aspects. Anticipation, waiting, and sometimes even the non-materialisation of planned infrastructure may have negative effects on the ground for residents; some reduce over time, while others hinder positive local socioeconomic development for many decades (Geschewski & Islar 2022).

In low- and middle-income countries with high numbers of people living in poverty, governments, planners, and investors envisage airports as engines for economic growth, as competitive hubs of regional and global connectivity. Airports also serve national image building. In the Global North, governments, investors, and builders of airports also communicate these visions – though with much less emphasis on poverty alleviation.

### **New and larger airports in the Global South – trends in the aviation sector**

This section sketches key points in the recent history of the aviation sector to provide readers with contextual knowledge. For decades, airports have been recognised as essential infrastructure for economic development. In countries of the Global South, the idea of catching up with countries of higher income is widespread, as is the perception that catching up would require following European, North American, or Middle Eastern role models.

Even if a distinction is drawn between economic development and social well-being, growth is still suggested as the one desirable development goal. Those who do not achieve or aim for this goal are considered backward and underdeveloped. This fits in with the understanding of catch-up development under a neoliberal world order. Following the example of the world's top airports, which for a long time were located almost exclusively in the Global North, the aim is to achieve the highest possible growth rates.

(Guntermann 2019: 21, translated by Ittner)

Initially, international airports were public utilities providing air mobility for passengers, cargo, and the military. That was their core purpose and business. It was at a later point that airports were transformed into profit-making spaces in which air mobility is but one business besides others. The management of many airports changed from states to either public–private partnerships or international corporations with shareholders. In many countries, the state became a shareholder of airports in order to keep some influence over decision-making on aviation. Although international airports are open to the public to use, many are no longer public utilities in the narrow sense but private businesses. Liberalisation encouraged private actors to enter the market by offering a competitive environment. Privatisation was aimed at fostering the efficiency of airline companies by cost-cutting and increasing profitability. In most countries of the Global South, the privatisation of airports began in the late 1990s, when low-income, low-middle-income, and middle-income countries liberalised their economies. From there, the privatisation trend led to leasing out the management and expansion of airports

to private firms when the state lacked financial resources. This kind of privatisation allowed the fulfilment of national interests for modernisation and participation in the global competition for foreign investment while the government retained a share of ownership.

With globalisation and the opening up of markets around the globe, there was a pressing demand for integrating additional cities and regions into the global air network. In Sub-Saharan Africa, for example, the air network displayed an orientation towards the centres of former colonial powers in Europe, with a lower number of intra-continental and regional connections (Njoya 2016; Button et al. 2019). Depending on the places of departure and destination, some international flights took ridiculous detours across the continent, via Europe or the Middle East.

The development of cargo and logistics followed the flows of goods across the world as supply chains evolved. Liberalisation and open-sky policies opened up trade restrictions in the 2000s. Airports were seen as key connectors for global growth corridors. The aviation sector was transformed into an industry requiring large capital investments. Building, expanding, and developing airports relied on the participation of multiple stakeholders, particularly in the form of global financial consortia. There were waves of institutional mergers, acquisitions, and restructuring of airlines and these consortia in the following decades due to regional and national liberalisation policies.<sup>8</sup> The active role of national governments in the aviation sector decreased.

In middle-income countries, airports were not only points for taking off and landing. The infrastructure also provided symbolic power to cities and contributed to the expansion of metropolitan areas because they acted as hubs of growth, which was not limited to the airport but extended to ancillary, non-aerial services around the airport. A modern city was defined by the presence of a high-tech international airport which could cater to the needs of commerce and international tourism. Thus, the air mobility of populations was not the main policy target. Civil passengers were typically made up of foreign tourists, international organisations, development cooperation agents (often from the Global North), politicians, international businesspeople, and domestic elites.

Airport development is brought about through planning, governance, and policy changes that facilitate non-aeronautical economic development through airports (Freestone & Wiesel 2016). Experts envisaged an integration of local development with fast-expanding global trade networks to an extent that planners incorporated airports as critical sites for city and regional development. A networked model was seen as ideal, where accommodation, shopping, tourism, luxury services, and cargo freight centres could all be integrated into a cluster-based economy around the airport. Land was at the centre of this model of growth, as proposed by Kasarda and Lindsay (2011), who declared that modern urban development would take place around airports. In Kasarda and Lindsay's 'aerotropolis', the economic development of hinterlands and non-aerial services takes precedence over basic functional needs for connectivity. Airport cities do not serve the aerial global transport networks but are implemented as drivers of local economies. Announcements of new airport construction trigger speculation and create a thriving real estate market

where there was none. Airport cities are thus not dependent on aviation but are concentrated hubs that bring together real estate and businesses by hijacking the precincts of airport lands. In the Global South, governments have treated airports as critical projects of modernisation to attract investment, trade, and tourism, thereby prioritising commercial development over the mobility needs of the majority of their populations.

The global expansion of aerial networks is strongly embedded in territorial and place-based processes. Airports are key infrastructure which interlace the global and the local in complex ways that go beyond fulfilling the need for connectivity. Though airports are perceived as complex techno-systems, they are strongly rooted in their locales, given the need for land, security, and labour.

A major shift in African and Asian aviation development has been the intensification of inter-city travel within countries as against the long-distance routes. The use of airports and air mobility significantly increased after the introduction of low-cost carriers, which made flights more affordable for domestic populations. To encourage people from the middle class to travel for business and tourism, point-to-point connecting airports were constructed as against large, hub-based airports.

This book focuses on the territorial aspect of airports. This includes the local political economy, socio-spatial linkages based on the locations of the airport, workplaces, and housing, thus infrastructure such as cargo transport, warehouses, small and medium shops, vegetable production, and housing estates which develop on airport land. (Though workers and inhabitants are possibly connected to the airport through their everyday activities and income strategies, they are usually far less mobile than air passengers and often never even enter the airport.) The main reason for the neglect of socioeconomic dynamics beyond the airport wall in earlier studies, it seems, was the interest in the social world of airports and the airside. Works by Pascoe (2004), Salter (2008), Cwerner et al. (2009), and Adey (2010), for example, suggested social and spatial approaches to studying airports which were novel at that time (aerial life, aeromobilities, the airside of aviation), from which a scholarship evolved during the following years (e.g. Goetz & Budd 2014a; Adey et al. 2017; Baer 2020), one which centred on airports in the Global North.

### **Contestation around the airport land**

Land disputes are central in infrastructural development and social, economic, and environmental change (Chitonge & Harvey 2021; Satiroglu & Choi 2017; Price & Singer 2019; Neef 2023). Land disputes in the context of airport development bring basic political questions to the forefront. Governments operate at multiple, at times competing, levels to plan and implement airports. Laws and environmental regulations define the bearable cost of aviation-induced land use changes. Governance frameworks determine the responsibilities and rights of actors, prescribe project cycles, and conceptualise compensation schemes. Political cultures frame communications with affected residents and influence the political response to project opponents, who defend their stakes on airport land.

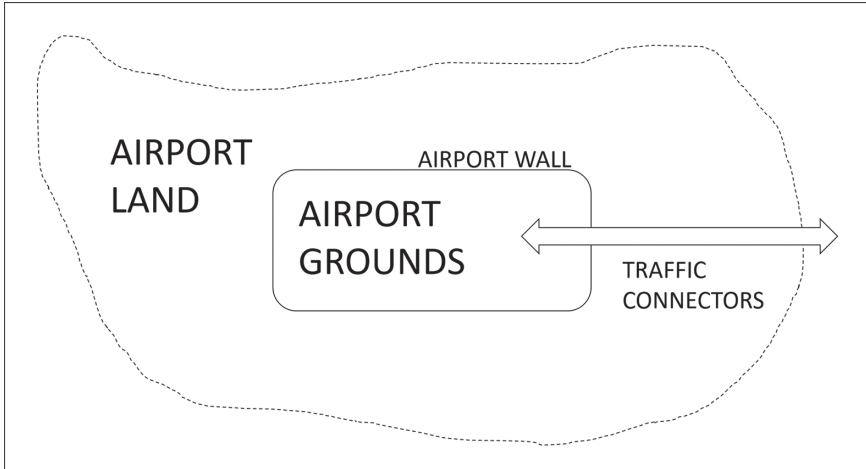


Figure 1.2 Spatial model of airport land.

Source: Design by Ittner.

We conceptualise airport land as the project area of the airport. It consists of the fenced airport grounds, including terminals, runways, other buildings, and aviation-related logistics, as well as areas located beyond the airport wall (Figure 1.2).

Unlike airport grounds, which are indicated by the airport wall or fences, airport land does not usually have tangible borders. The demarcation is rather defined in project documents and laws, as well as by Global Positioning System (GPS) points and lines on maps. In some of our case studies, the airport land is visible on billboards or indicated by the names of hotels or companies. Estate advertisements announce the arrival of the airport and thereby declare plots in the closer or further vicinity to be airport land. Often, airport land can be sensed by the spread of utopian narratives and economic promises. Airport land, as experienced by resident populations and private, small-scale investors, is rather imagined than based on spatial indicators in project documents. Often, there are accelerating land and estate values in these places in relation to the prices of what is not considered airport land. The ownership of plots and houses changes within a short period. Municipalities apply new zoning rules, often in a manner that residents describe as ad hoc and not transparent. Rural land becomes peri-urban or urban by declaration, which entails a number of consequences, including for land value.

Airport roads, metros, and other traffic connectors between airport grounds, airport land, and the surrounding areas are also important for the analysis, as they divide and connect the airport with the city, the countryside, and neighbouring countries. The latter are especially relevant when airports are part of mega-infrastructure, such as regional transportation corridors.

A review of the literature reveals that questions of land rights, ownership, and political authority over land lie at the core of many contestations. This is so because

modern international airports require large land resources which already supported various land uses, such as settlements, agriculture, pasture, commerce, or nature conservation, before construction or expansion. New or extended airports always imply massive land use change as well as changes in land tenure and governance. To ensure the security of airport grounds and air traffic, airport authorities prohibit non-aviation uses. Multiple uses are not negotiable. This used to be different, when airports were smaller and their surroundings less intensively used.<sup>9</sup> Nowadays, whoever and whatever is on the land envisaged for new airport facilities will be expropriated in exchange for compensation. In most countries worldwide, the national constitution allows expropriation when important public interests are at stake. Large transport infrastructure, such as airports, counts under this interest.

Project or state authorities conduct inventories of assets, such as houses, fruit trees, cattle, shops, or plantations, and then pay compensation to their owners or, in the case of common pool resources, to communities. From the perspective of the state or airport project, the case of land acquisition and compensation is closed afterwards – but from the point of view of the residents, the process is often not yet finalised due to irregularities and inappropriate compensation payments that do not allow a smooth relocation and recovery.

A refusal to relocate may result in three scenarios: a long delay in airport expansion or construction, with the hope of project cancellation; the forceful eviction of residents (fully or incrementally) to move on with construction; or an avoidance strategy – the construction of satellite airports as greenfield developments. In some cases, authors have observed a mixture of all three scenarios. In Mumbai, for example, debate and resistance to the relocation of the so-called airport slums have been ongoing for decades (Arputham & Patel 2010; Ren 2017). An additional runway could not be built, and part of the air traffic congestion will be channelled to a new greenfield airport in Navi Mumbai. Despite this, airport expansion has been put on hold, leaving the residents of the dense settlements around the Mumbai airport in a permanent limbo of illegality and vulnerability, in which they have developed resistance strategies (Sharma 2024). In Dakar, Senegal, the inner-city airport received a satellite airport, which was built on a rural greenfield site because there was no space reserved for airport expansion. Of course, new land issues and disputes occur on such greenfield sites as well because these are also used by people (Sanogo & Doumbia 2021).

Aviation-induced relocation is framed differently in studies. People or communities refuse to leave because they feel that their ownership rights to the land were (fully or partly) disregarded by authorities. A central variable is the legitimacy of the existing land uses and tenure relations. Legitimacy may be based on diverse factors, such as a long settlement history and resulting customary land rights, as well as customary land transfers, informal land sales, allotments, leases, or rents. The payment of compensation is very tricky in countries where legal pluralism in land tenure persists. In low- and low-middle-income countries, state administrations do not guarantee the full formalisation of land titles because of a limited capacity to manage cadasters and govern land issues. In these countries, several people may hold legal land titles on the same plot, as well as other legitimate

temporal or enduring forms of land rights which are not fully recognised by legislation. In such situations, competing claims to land tend to overlap, and land disputes occur. Existing disputes over landownership may turn into open conflicts after large infrastructural projects are announced. Several owners of the same plots may come out and try to formalise the land titles, as the announcement leads to the anticipation of land use change and a revaluation of land resources. If land uses are considered illegitimate or illegal, authorities announce the displacement, evict populations, and demolish buildings without compensation. This may happen, for example, with settlements located on public land. An essential component in such instances is whether inhabitants or other land users hold titles to their plots and buildings and can claim legal ownership.

Airports (and other public infrastructure) in the Global South are often constructed or expanded on communal lands. Communal landownership, however, is not always secured by legal land titles but by a general recognition of customary rights. This turns out to be problematic under rapid land use change scenarios. Migrant communities, meaning people who arrived a century or some decades ago and settled on marginal lands, face the challenge of proving their landownership without holding full citizen rights associated with nationality. Their land use might not have been opposed by local populations because the land was of low value. Swamps are such an example. The legal recognition of migrant land rights in many low- and low-middle-income countries is a long and complicated process which even slows or ends as soon as the state declares an interest in the land. Existing communal land titles have been declared non-valid by authorities in such situations.

Much discomfort, anger, and protest centres on inappropriate or unfair compensation. The literature underlines various reasons for this phenomenon. It seems that planners of relocation and compensation schemes often act without deep knowledge of the historical trajectories of local tenure relations. Land market dynamics on the project land and at the relocation sites are always underestimated. Land disputes or inhabitants' refusal to leave the airport land usually occur because relations between landowners and land users were not sufficiently taken into consideration by compensation schemes. At times, resident landowners and other users receive the same kind of compensation and are put on the same legal footing by authorities. This may entail the upset of local land-giver and land-taker relations, set off local political dynamics, and lead to grievances among owners/users and against the state that endure over many decades (e.g. Ittner 2023, 2024). Often, inhabitants clearly distinguish between the value of their assets and the value of the land they own. While compensation was paid for houses and trees, for example, people were not compensated for the loss of their land. Protest consequently aims at the payment of appropriate compensation and is not necessarily directed against the new airport (Sanogo & Doumbia 2021). Especially when rural communities maintain ritual ties to the land, relocation from ancestral places is felt as an irreversible and painful loss that cannot actually be compensated. In the extreme case of an international airport in Senegal, the communal cemetery was transformed in the building plot for the president's pavilion, an airport building of high symbolic power (Sanogo & Doumbia 2021).

Other disagreements over compensation occur with regard to the categorisation of land and the associated land values for rural and urban land. While greenfield projects begin in rural or peri-urban settings, airports, and especially airport cities, kick off legal land allotment, a construction boom, and rezoning from rural to urban. Inhabitants and land users feel cheated because their compensation payments were based on rural land values, which are much lower than urban land values. They are unable to buy new plots in the vicinity of the airport and watch how other actors gain large profits from land speculation. Compensation is reported as being too low to allow the construction or purchase of other houses. Another concern is the unattractiveness of relocation sites, which may lack connectivity or public infrastructure (Mteki et al. 2017).

Discomfort and disputes have occurred in cases when authorities expropriated and compensated communities but started the construction of the airport some decades later. The current land users and owners do not receive compensation for their losses because earlier generations had received and spent the compensation without yet experiencing the loss. Instead of turning to the elders within their communities, residents confront the state and airport authorities with their frustration. Sometimes, inhabitants learn from the authorities that their grandparents sold their customary land to public authorities many decades ago. They are shown legally binding documents and then have hardly any legal means to fight against their displacement or for compensation.

At times, the affected population exceeds the residents on the airport land. Two studies on the expansion of Julius Nyerere International Airport in Tanzania, for example, illustrate how the loss of land intersected with other risks and hardships that were experienced by people who had to leave informal settlements on the airport land and move to a peri-urban area at about a 20 km distance (Mteki et al. 2017; Magembe-Mushi 2018). The resettlement site was peri-urban and less developed than the former living place, with a lack of water, electricity, schools, and health facilities. It also offered less opportunity to earn an income. Displaced households claimed a lack of transparency about compensation payments. Their new neighbours, who were farmers, did not welcome their arrival, because according to Magembe-Mushi (2018), the state had expropriated them in order to create the resettlement site. They had lost their farm and grazing land, partly their homesteads as well, and still awaited compensation payments. Landlessness, joblessness, and homelessness thus affected displaced newcomers and the host community and resulted in social tension and marginalisation, which were accompanied by other negative health and social consequences. This case also included residents' unsuccessful court cases against the government, very long project delays due to lack of finance for compensation and obsolete land legislation over the project period, as well as state oppression against protests by residents. The land plots after relocation were a bit larger than those owned previously, but this could not compensate for the loss of facilities (Mteki et al. 2017).

These dynamics or patterns apply to the construction of other infrastructure, not just airports. Be it roads or dams, infrastructure is planned to represent modernisation and a vision of the future; however, we see that they are, in fact, conduits



of power given the role of investment and expert planning which they entail. We argue that our empirical descriptions of and findings on contested airport lands are not extraordinary, even if every case study displays its particularities and is based on extensive data collection in order to show the connections of different variables. They are like any other infrastructure that is used as a symbol of progress and development.

### **Chapter breakdown**

In Chapter 2, Geschewski (2024) considers the case of the suspended ‘Second’ International Airport in Nijgadh, Nepal. As countries grow and increase their overall economic competitiveness, the need for air connectivity is expected to increase. In the case of Nepal’s conceived Second International Airport, it has been 25 years since the airport was planned, yet it has not been delivered by the authorities. Drawing on the political ecology of temporality and anticipation, Geschewski shows how the region of Nijgadh completely changed – moving from agricultural to industrial modes in anticipation of the airport. The speculative nature of the Second International Airport has led to a disruption in local people’s lives and investments.

Infrastructure plays a vital part in connecting people to opportunities and is probably one of the most important components of human development. In Chapter 3, Gunasekara and Senaratne (2024) revisit the case of Mattala Rajapaksa International Airport in Sri Lanka, which not only failed to deliver the intended socioeconomic benefits but also contributed to negative social and environmental impact through water-grabbing and disturbing wildlife. The authors consider how this megaproject was grudgingly implemented and overtook the Managed Elephant Reserve development in Hambantota, thus leading to protests. Gunasekara and Senaratne argue that the project was bound to fail because it did not consider the socio-political and ecological impact on local people.

India has embarked on historical and mass infrastructure development that has made the country one of the most globally competitive economies. In its expansion, it was bound to need to expand some of its international airports. As such, Sharma (2024) undertakes a critical review of airport land contestations in India and notes that the country has a long history of land contestations related to airport development. However, Sharma’s chapter addresses the lack of studies on community and environmental implications in India through the case studies of Jewa in Uttar Pradesh and Dehradun in Uttarakhand. The author finds that the case of Dehradun was mired in protests to preserve wildlife territory, whereas the case of Jewa revealed the need for fair compensation.

In Chapter 5, on Indonesia’s Yogyakarta International Airport, Edita (2024) reveals the political forces driving the decision to establish the airport and airport city. Edita also followed displaced farmers to their relocation site. She analyses the social and economic impacts of airport construction using the IRR model. Airport construction caused landlessness, joblessness, and marginalisation and led to a change in livelihood, which came with the loss of people’s identity as farmers.

In Chapter 6, Ittner (2024) explores the popular appropriation of the airport reserve by customary landowners and former land users in Abidjan, Côte d'Ivoire, and illustrates how two spatial forms have evolved as a result: dense informal settlements and peri-urban agriculture with villages. She interweaves the colonial, economic, and migrant history of Abidjan to contextualise the airport city and the ground resistance from those who occupy this space. Authorities find it difficult to demolish buildings after eviction to ensure airport security due to mobilisation and protest against the displacement by urban dwellers. Ittner argues that the living conditions of evicted and returned residents have deteriorated.

Chapter 7 takes the analysis on anticipated airport cities further by using the South African context to study the case of the Durban aerotropolis. Unlike other chapters, which focus on the contestation between authorities and communities, Khambule (2024) shows how this contestation evolved between municipalities. He studied the underlying contestation of the land and benefits of this megaproject between a metropolitan and a local municipality. The author observes that traditional planning mechanisms argue for the metropolis to lead this initiative and that lower-tier municipalities will benefit from trickle-down benefits. However, Khambule argues for shared and balanced growth strategies to evade the emergence of territorial disputes between urban and rural municipalities.

Sub-Saharan Africa has made tremendous progress in infrastructure development after the colonial project. These have been evident in improved human development indices and the connection of many African cities with global aviation networks. In Chapter 8, Owino and Okwany (2024) explore the competing aspirations and contestations at Isiolo International Airport in Kenya. This study is important because it shows the complexities of dealing with land that is not registered within modern constitutionalism. The authors show how the construction of Isiolo International Airport affects the pastoral communities in and adjacent to the airport and raises tensions between the government and affected communities. The land tenure insecurity ensuing from this process creates fragilities that may lead to armed conflict between the Kenyan government and its population.

### **Findings from this book**

To conclude the introductory chapter, we briefly mention the following general conclusions drawn from the empirical case studies. (1) An increase in airport-induced conflict can be assumed for South Asian, South-East Asian, and African countries, as well as in other low- and middle-income countries, with the new wave of airport and airport city construction/expansion. (2) Conflicts over airport lands vary in intensity, ranging from local contestations to region-wide protest movements. Depending on the response by government and airport authorities, conflicts may escalate and display human rights violations, such as illegal imprisonment, gender-specific violence, and state violence against communities. (3) Conflicts over airport land may set in even before construction actually begins, due to the effects of anticipation on local land markets, and may last for many years. (4) Airport-induced conflicts may occur before, during, and long after airport construction or expansion. There

may be unintended long-term effects. (5) The interests, policies, and strategies of governments at various levels may strengthen or weaken airport-induced conflicts, especially in the long term. Airports may lead to competition and tension between governments of the same level if airport projects are trans-boundary. (6) Communities or populations threatened by eviction often immigrated into the area decades ago but still lack adequate citizen rights and/or legal land titles to their housing, farming, or pastoral plots. (7) The main forms of protest against airport projects in South Asia, South-East Asia, and Africa include demonstrations, petitions, and the building of political alliances. There are, however, country-specific and cultural forms of resistance used by protest movements that can also be effective.

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### **Notes**

- 1 ‘Urban villages by the airport: Everyday entanglements of social-economic extremes and negotiations in anticipation of development-induced displacement in Mumbai and Abidjan’ was conducted at the University of Bonn, Germany.
- 2 <https://ejatlas.org/featured/airport-conflict-around-the-world>, 18.09.2023.
- 3 The initial work was undertaken by Rose Bridger and Sara Mingorria. Each case in the EJAtlas includes information on history and key facts, such as on resistance movements and strategies, institutional support and funding of the airport project, the anticipated and experienced social, environmental, and economic impacts, and the outcome of the protest. The database offers opportunities for the comparative analysis of a large number of case studies, for example, Del Bene et al. (2018), on the resistance to conflictive dams.
- 4 Goetz and Budd (2014b) provide an idea on how world regions experienced growth in aviation. After Northern America and Europe, they mention rapid growth of the sector in the Asia-Pacific region (Tokyo, Hong Kong, Shanghai, Beijing, Singapore, Seoul, and Sydney), including Thailand. The aviation sector in India and Indonesia started rapid growth by this time, as well as countries in the Middle East (especially the United Arab Emirates and Qatar), Latin America (Brazil, Mexico, Chile, Argentina, Colombia, Peru), and Africa (South Africa, Egypt, Ethiopia, Kenya, Morocco, Nigeria). According to them, Turkey played a special role.
- 5 Informal settlements in many countries of the Global South are located in the close vicinity of airports.

Permanent noise, for sure, also shows a negative health impact on residents there. In Abidjan and Mumbai, for example, airport noise is not framed as a nuisance but something that one needed to adjust. People told us, for example, how they used the timing of noise from aircraft going to particular (and known) destinations in order to organise their daily routines, such as getting up, sending children to school, or taking a break from work. We admit that air traffic in Abidjan and Mumbai was much lower than in airports covered by Boucein et al. (2017).

- 6 A summary of anti-aviation arguments and political suggestions is presented in a brochure by the NGOs Stay Grounded and Kollektiv Periskop: we need a radical de-growth of the aviation sector beyond just sharing the external cost of flying and economic disincentives, as well as policy that supports alternative mobilities (Smith 2019).
- 7 Relevant initiatives are the Global Anti-Aerotropolis Movement (GAAM) and Stay Grounded.
- 8 For the EU, 1992 was a milestone year, as the aviation markets of the EU member states were merged into a single aviation market (see Christidis 2016). The open-sky aviation policies mainly emerged in the 2000s for the Global North as well as the Global South, where bilateral and multilateral agreements were made with other countries.
- 9 Early airports were not always fenced. Air traffic was much less frequent too. Security requirements were fewer. Therefore, historical accounts report on close and even symbiotic relationships between inhabitants and non-aviation users of airport lands and the airports. The airport grounds and runway, for example, could be crossed by residents (Sanogo & Doumbia 2021; Ittner 2023).

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