Tenure and Investment in Southeast Asia

Comparative Analysis of Key Trends

This document provides an empirical picture of the causes and effects of tenure-related disputes between private sector actors and local peoples across Southeast Asia. It demonstrates that disputes in Southeast Asia are often more intractable and more violent than in any other region examined. The most common reason for these disputes is forced displacement, but factors like environmental damage, cultural abuse, and compensation also figure.

The analysis is based on an investigation of 51 case studies across Continental and Maritime Southeast Asia. These “new cases” are compared with a global average derived from the IAN Case Study Database’s 237 cases after 2001 and outside Southeast Asia. The aim is therefore to provide greater insight into the way that tenure rights and governance are impacting the private sector at the macro-level.

This high-level view is complemented by separate papers on Continental and Maritime Southeast Asia, each of which profiles the case studies in depth and provides a more nuanced view of how tenure-related disputes develop and how they can be resolved.
1. Overview

This report investigates prevailing trends related to the impact that tenure issues are having on investment in land in Southeast Asia (SEA). It looks at a large sample of cases studies to establish the causes of tenure-related dispute as a first step toward understanding how they can be avoided and managed.

At the same time, we examine the effects of tenure dispute on companies and investors, demonstrating that disputes are financially significant. This financial risk provides strong rationale for the recommendations at the end of this analysis. Overall, this paper provides an evidence-based platform for improved management and more sophisticated discourse around tenure rights in SEA.

Our key findings are presented briefly here and detailed in the third section below:

1) The vast majority (88%) of the cases analyzed remain unresolved, with 74% lasting more than six years. This finding shows that disputes in SEA are harder to resolve than elsewhere in the world. Analysis of 288 cases since 2001 globally, including the 51 SEA cases plus 237 from the IAN Case Study Database (which includes new cases from Africa, see below), finds that 61% remain unresolved.

2) On average, the cases we examined were just 33 kilometers from a national border. Border regions are riskier for investment—local peoples may hold private actors to account even where the law does not.

3) 47% of cases involved violence, with 18% resulting in casualties and fatalities (compared to 44% and 15% respectively at the global level). Local peoples will use the tools at their disposal to defend their interests against land-based investors.

4) 65% of disputes led to material impact for project backers, either as a result of direct action or regulatory intervention (compared to 52% in the rest of the world). Almost three quarters (71%) of the cases involved legal action. These financial risks merit greater recognition, particularly during the early stages of risk assessment and due diligence.

5) Displacement was the most common dispute driver (45%). Environmental damage was also a common grievance, particularly in Maritime SEA. Less than a quarter of cases were driven primarily by issues of compensation. Dispute resolution typically requires genuine understanding and appreciation of local interests as the basis for a relationship of trust.

Methodology overview

This paper is based on qualitative and quantitative analyses of 51 recent cases of tenure dispute in Southeast Asia. We combined desk research, interviews with experts, and field work to compile this set of cases and better understand trends in the region.

We focused on disputes that were less than 10 years old, or which had reignited recently, to gain the most representative picture of tenure risk in SEA today. The cases in this paper date from
2001; of those cases that began more than ten years ago (about 25% of the total), all but one remain unresolved, with significant events in the dispute occurring in recent years.

These “new cases” were drawn from various sectors, including agriculture, mining, hydropower, and forestry. For each of these cases we identified a set of key characteristics. Section 2 below provides more detail on these characteristics.¹

We determined key trends in the region by comparing these new cases with 237 cases from the rest of the world, drawn from the IAN Case Study Database plus new cases from Africa.² This data set was compiled by TMP Systems to inform the development of risk assessment and due diligence tools for tenure risk. The process for identifying and analyzing the new cases and the IAN cases was the same.

We also broke the cases down by sub-region to draw out more localized trends: Continental (Myanmar, Lao People’s Democratic Republic, Thailand, Cambodia, and Vietnam) and Maritime (Malaysia, Indonesia, and the Philippines). These sub-regions are compared with each other and with IAN cases from the rest of the world to provide further insight into macro-level tenure issues. They are also investigated in more detail in the two companion papers to this trend analysis.

2. What We Investigated: Case Study Characteristics

For each case analyzed, we identified key characteristics. Some of the cases are examined in much greater detail in the companion reports to this paper, which look separately at tenure and investment in Continental and Maritime SEA. In this paper, we restrict ourselves to looking at factors that can be easily quantified and compared across a large sample of cases.

Before providing the full results of this analysis, we briefly describe the factors we examined. These descriptions help highlight the relevance of each factor for different stakeholders.

- **Drivers of dispute:** Most disputes are caused by a complex lattice of factors, but identifying the primary drivers can help in the identification and management of tenure-related risks. We disaggregated primary and secondary drivers of dispute into broad categories that are useful for comparison (e.g. displacement, environmental damage, and compensation).

¹ For a fuller description of our methodology in identifying and characterizing the cases, see Appendix IV. It is important to emphasize that while the cases have been identified in order to generate a representative selection, the number of cases overall is still small, and the sample is likely to be affected by issues of reporting. Comparisons in this document should thus be considered indicative and heuristic, rather than as statistically robust statements of fact concerning all tenure-related conflict in the region.

- **Financial impact**: Precise information on disputes is hard to come by but delays provide a useful proxy for financial loss. Examining work stoppages and legal interventions can therefore help us establish the financial impacts associated with tenure-related disputes.

- **Resolving disputes**: The overall length of disputes demonstrates how intractable tenure issues can be. In most instances, these issues take years to resolve, if they can indeed be resolved satisfactorily. This data therefore underscores the value of avoiding disputes in the first place.

- **Stage of investment**: The timing of disputes helps reveal what has and has not been done to address potential drivers of conflict. For example, if most disputes emerge after land conversion begins, it may suggest that little was done to seek consent from local peoples. Please see Appendix I for a full schema of these stages.

- **Violence**: Violence can escalate rapidly, racing out of the control of project managers and creating considerable reputational and financial risks. In addition, violence is more likely to attract the attention of regulators, politicians, and CSOs, whose reactions can be hard to predict.

- **Minorities and indigenous peoples**: These groups are less likely to be adequately protected by governments but more likely to win the support of CSOs and international campaigns. High involvement may indicate problems with the host government as a counterparty and may also reflect increased reputational risk.

- **Proximity to borders**: Border areas are notoriously difficult from a governance perspective. Accountability in these areas is often relatively low, as is the stake that local peoples have in national economic priorities. These are characteristics typically associated with increased tenure risk.

- **Social context**: In many instances, the social context can help companies and investors identify projects that have significant exposure to tenure risk. We look at some key social elements with a view to identifying distinctive characteristics of conflict sites. Specifically, we focus on population distribution and density, the history of social conflict, and prevailing rates of poverty and social welfare.

- **Environmental context**: As with the social context, we have looked at features of the environmental context which may have a predictive connection with tenure disputes. In particular, we examined natural and economic water risks, exposure to climate change, and the local distribution of land use types.

Examining these factors gives us useful insights into the conditions that lead to dispute, while also helping us to understand their financial and reputational impacts. The document provides an

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1 The different ways that governments throughout the region (and globally) define indigenous peoples complicates the characterization of case studies, but we have followed the same approach in this analysis as with our global analysis, which does not base the identification of indigenous peoples or minority groups on government definitions.
empirical basis and rationale for identifying opportunities to improve tenure governance and due diligence in SEA.

3. What We Found: Key Trends

This paper provides much-needed evidence on and analysis of tenure risk at the macro-level in Southeast Asia. Here we provide a comparative analysis between Southeast Asia and the rest of the world, including comparisons between Southeast Asia and other regions (Latin America and Africa).

We also break down Southeast Asia into two sub-regions—Continental and Maritime Southeast Asia—which are compared below. Notably, the data suggest more substantial differences between these sub-regions than between Southeast Asia as a whole and the rest of the world. This finding underscores the value of the sub-regional as well as regional and global levels of analysis.

Our investigation shows that disputes in Southeast Asia are much harder to resolve than in other parts of the world. These disputes are particularly likely to be violent and to result in fatalities, and are also likely to involve a lawsuit. Companies and investors that fail to avoid or rapidly remediate these disputes are therefore exposed to significant financial and reputational risk.

This analysis also indicates that it is possible to identify areas that are exposed to higher levels of tenure risk. For example, it is apparent that border regions are particularly risky. The analysis also indicates that some social and environmental conditions tend to be prevalent in areas that have seen tenure conflicts. With better indicators of risk, companies and investors can and should do more to identify possible tenure disputes early.

One additional finding bears mention. In both sub-regions, a number of cases feature public figures having a stake in private sector land deals. The evidence here is more anecdotal than in the quantitative analysis of trends below, but the recurrence of this dynamic across the region suggests a trend that is particular to this region, and one worthy of additional research.
Drivers of Dispute

The most common driver of dispute in Southeast Asia is the displacement of local peoples, suggesting that companies and investors are failing to recognize or respond to pre-existing claims to land, particularly where these claims are not formally recognized by national law.

The significance of displacement in SEA is in line with global trends, showing that many companies, investors, and governments are probably not taking basic steps to establish who lives in concession areas and what customary claims to land they might have. Better data on the presence of people and on claims mapping can help to reduce the material risk to which projects are exposed.⁴

Compensation features as a primary driver in around a quarter of cases, with environmental damage and curtailed access to basic resources also playing significant roles. This shows that while compensation negotiation and delivery can contribute to local opposition, the project’s impact on ecosystem services and biodiversity can be just as important.

Sub-Regional Comparison

Primary drivers in the Maritime cases are closer to global trends, with displacement and environmental damage dominating, but with compensation and curtailed access to resources also playing minor roles (see below).⁵ The Continental cases, by comparison, feature compensation as an issue much more regularly.

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⁵ Note that totals throughout this paper have been rounded, and may exceed 100%.
The secondary drivers (see graph below) provide some corroboration of the sub-regional pattern, with destruction of the environment and shortage of resources playing a larger role in Maritime Southeast Asian disputes. Meanwhile, compensation plays a greater role in driving cases on the continent than in Maritime Southeast Asia, and displacement plays a much larger role as a secondary driver than in maritime cases.

Overall, therefore, we can see that displacement is the most significant factor in initiating conflicts in the region.

**Global Comparison**

A comparison of Southeast Asia with other parts of the world indicates that the causes of dispute are similar to those in other regions. It is also noteworthy that compensation appears to play a particularly significant role. However, this is a less pronounced trend than in our analysis of Southern and Western Africa, where compensation featured in 27% and 30% of cases respectively.
An assessment of secondary drivers (below) also indicates similarities in the causes of tenure dispute across different regions. Notably, the displacement of local peoples is a particularly common secondary driver of dispute in Southeast Asia, underscoring the risks associated with projects that drive involuntary resettlement.

For an illustrative example of a case study that highlights these trends, please see the sub-regional companion papers for this report.
Delay and Disruption
Over half (65%) of the cases we looked at experienced financially significant delays as a result of tenure disputes. This is higher than in Latin America and the rest of Asia, second only to Africa. In addition, a substantial number of cases (71%) involved lawsuits or formal complaints. Our prior research demonstrated that delays and lawsuits resulting from tenure disputes regularly result in financial losses for project backers.7

However, when we break the results down by sub-region (right) we get an interesting result: cases of conflict in Maritime Southeast Asia experienced delays much more often (81% of cases) than our Continental cases.

This may be because local and international CSOs are now experienced in organizing opposition to oil palm plantations, which account for a high number of our Maritime cases. This finding may therefore relate as much to differences between commodities as differences between geographic areas. While the high profile of oil palm disputes and CSOs involved with them is clear, additional differences between sub-regions (as noted in the sub-regional analyses) provide equally plausible explanations.

Resolving Disputes
Disputes in Southeast Asia appear to be much harder to resolve than in other regions of the world. Only 12% of the cases we examined have been resolved (i.e. with no dispute ongoing). In part, this may reflect the fact that we have focused on recent cases, although in the rest of the world 36% of cases starting between 2001 and 2016 have been resolved.8 Furthermore, the graphic below shows that many cases have been ongoing for years, with a significant proportion unresolved after more than ten years.

It is worthy of note that, of the 12 unresolved cases that have been ongoing for more than ten years, 11 of these are in Continental Southeast Asia. There are a number of possible reasons for this, but the government’s intervention—or lack thereof—in attempting to resolve disputes is likely

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1 The incidence of delay in Southeast Asia is slightly lower than the 69% recorded in the counterpart study for this project which focused on Africa; see TMP Systems, 2017, “Tenure and Investment in Africa,” [link](http://rightsandresources.org/en/publication/tenure-investment-africa-comparative-analysis-trends).


3 9% of cases in the rest of the world are of an indeterminate status, as issues of data availability sometimes make it impossible to classify a case as either resolved or unresolved.
to play a role in their longevity.\(^2\) Longer disputes are also correlated with higher rates of poverty—as we discuss in more detail on pages 12-13—and the Continental Southeast Asia cases have higher rates and intensity of poverty than the Maritime cases.

On average, 65% of the cases that we looked at are more than seven years old and 80% are more than five years old. These cases did not necessarily experience major delays or concentrated financial impacts, but they are subject to chronic disruption and are likely to invite scrutiny from regulators and civil society actors alike. This can lead to serious reputational damage as well as official intervention from the government in the form of fines, court cases, or work stoppages.

**Stage of Investment**

76% of the disputes that we looked at started before operations began. This is higher than the average in the rest of the world (60%). Given that “operations” are a disproportionately long part of most project lifecycles, it is striking that just 20% of disputes started during this phase (see below).

This finding shows that in Southeast Asia, as in many other parts of the world, local perceptions of the impact of an investment tend to determine levels of tenure risk. This highlights the importance of better due diligence and local engagement in the early stages of a project so that companies and investors can understand how their investments are perceived, and make efforts to improve those perceptions. Setting accurate expectations is critical in establishing frank and honest relationships with local counterparties, upon which successful investments depend.

\(^2\) There are many actions that government can take or abstain from that prolong conflicts, such as failing to adequately consult with people affected by a project, or participating in the forced eviction of those people. These actions tend to aggravate affected people, and postpone their opposition rather than resolving it. Specific examples can be found in the sub-regional reports.
Overall, the distribution of disputes by project maturity in Southeast Asia is broadly similar to the rest of the world. Again, however, a sub-regional level of analysis reveals some notable differences (see graphs below).

Disputes are more evenly spread across the investment process in Continental Southeast Asia. Remarkably, none of the Maritime disputes started during Construction, Expansion, and Decommissioning. This may reflect the prevalence of long-term projects in the Maritime sub-region (as in the Philippines, where mining accounted for six of the seven cases). It is notable that the Preparation stage is equally important for both sub-regions.

Violence
Almost half of the cases we analyzed in Southeast Asia involved violence (47%). This is slightly above the global average (44%), and significantly higher than the rates seen in Africa (35%) or the
Americas (38%). Almost a fifth of conflicts (18%) resulted in fatalities, slightly above the global average (15%). These figures are, however, more in line with averages for Asia as a whole (19%). In Continental Southeast Asia, violence was involved in 43% of cases, while the occurrence in the Maritime sub-region is higher at 52%.

The prevalence of violence and fatalities in Southeast Asia demonstrate the level of social unrest and operational disruption that can result from tenure disputes. It also suggests that threats to those employed by land-based investments are particularly high in this region.

Since threats to employees plays a major role in insurance calculations, this data may suggest the need to increase insurance premiums in areas where tenure risk is high. This could increase the cost of doing business significantly in these locations, underlining the multifaceted financial implications of social unrest.

This emphasis on the financial impacts of violence is, of course, in addition to a recognition of the catastrophic human costs of violence connected to private investment.10 The individual lives lost, and the families and communities affected by this loss, should not be forgotten when considering the additional operational, reputational, and financial impacts on the companies involved.

Involvement of Minorities, Indigenous Peoples, and other Vulnerable Groups

Almost half (46%) of the new cases examined involved minorities or indigenous peoples. In absolute terms this rate is quite high, showing that companies and investors need to do more to identify these groups and their interests.

However, this figure is lower than in Latin America (73%) or Asia as a whole (78%), according to the original IAN database. It is unclear whether this reduced rate represents a real trend, or is a

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result of reporting or definition issues related to divergent government stances within the region on recognizing the status of indigenous peoples. For example, officially there are no indigenous peoples or minorities in Lao PDR, while in Indonesia indigenous peoples are referred to as “customary peoples”).

Proximity to Borders
The average distance between the cases we examined and the nearest national border was 32.66 kilometers. There is no comparator here from the IAN database, but our recent study of tenure and investment in Africa found that the average distance was 61 kilometers.

This trend does seem particularly pronounced in Southeast Asia, even though the countries in question are smaller than those in Africa. Border areas are typically less well governed, which may make them attractive to less scrupulous investors. It is also important to note that Special Economic Zones are often set up in border areas precisely to spur cross-border investment, as has happened in Thailand, Laos, and Myanmar, and that these zones have also been the source of tenure disputes. Nevertheless, this finding shows that local peoples will hold companies to account, even or especially where the rule of law is weak.

Social Context
Our assessment of the social conditions around conflict sites in Southeast Asia produced some unexpected and concerning results. Living standards around dispute sites in Southeast Asia are high relative to other regions (see below), which is to some extent a reflection of the broader economic development of the sub-region.

What is more surprising is that they are often above the national average. The sample of cases may well be tilted toward areas where communications infrastructure and the political environment allow the reporting of cases, but this is not something we observed in other regions.

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11 As noted on page 4, we have followed the same approach in this analysis as with our global analysis, which does not base the identification of indigenous peoples or minority groups on government definitions.

Looking more closely at levels of social welfare according to the length of dispute (see graph below), we can see that disputes last longer in places with lower levels of social welfare.\(^\text{13}\) The reason is unclear, but may be linked to the fact that these populations have lower capacity to resist powerful companies, particularly when the company is cooperating closely with the government.

### Population Distribution

While population densities around dispute sites were quite high, they were lower than the numbers seen in Africa, particularly West Africa. Some Southeast Asian palm oil companies have suggested

\(^{13}\) The data on poverty tends to be for a larger area than that affected by concessions, and is unlikely to represent impacts of the project as the statistics come from one point in time, while the cases originate in a variety of different times. As such, this data suggests that disputes in the region last longer in places with lower levels of social welfare, rather than reflecting an impact of the concessions on poverty.
they are looking for new frontiers to expand into." Yet while these companies turn to Africa as a perceived source of vast tracts of unoccupied land, research shows that there is not more available land in Africa than elsewhere.

Looking at different population densities in Southeast Asia, we can identify additional patterns. In particular, we see that violence and delay are more likely in areas with lower population densities. This probably reflects the fact that these areas, like border regions, are typically less economically developed. This equates to greater differences in understanding between concession holders and local peoples of the relative value of natural resources, what is fair compensation, and how to communicate. As a consequence of this, and the lesser access to legal redress faced by poor and remote populations, disputes in these areas are more likely to result in direct action.

Environmental Context
Our assessment of the environmental context around dispute sites did not reveal any outstanding trends at the regional or sub-regional level. Unsurprisingly for a tropical region, flooding is the only notable water-related risk for many of these projects. Access to water was quite low in some areas, but this trend was not as pronounced as in some other regions, such as parts of Africa.

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4. Key Lessons

This study demonstrates that unclear and insecure tenure rights create financial risks for companies and investors. They can also contribute to negative social and environmental impacts, including significant social instability and deforestation. More needs to be done to anticipate and resolve these disputes effectively through better diligence and better data as well as improved local engagement processes and regulation. Below are recommendations for key groups.

Recommendations for companies:

- Engage in rigorous stakeholder mapping processes to ensure that people local to an investment are recognized as a genuine counterparty in negotiation process.
- Identify opportunities to use local peoples and networks as providers of skills and services. This applies to the diligence and monitoring processes as well as actual operations.
- Support access to dispute resolution mechanisms and explore ways to finance them while ensuring that they are (and are perceived as) genuinely independent.

Recommendations for investors:

- Initiate rigorous risk assessment and due diligence process at an early stage in the investment process. Use and ask for robust data with clear verification, particularly around tenure claims.
- Develop and maintain relationships with local peoples. Tenure issues are closely linked with other leading environmental, social, and governance (ESG) concerns. Local relationship building can be a necessary condition of cost-effective solutions for issues like contamination or labor rights.

Recommendations for governments:

- Recognize that private actors are increasingly alert to tenure risk and so are looking for secure and effective tenure regimes. Similarly, they want trade investment authorities and the like to provide accurate information on tenure issues.
- Prioritize formal entitlement processes for customary tenure rights and ensure that local interests are effectively represented in negotiation processes.

Recommendations for civil society:

- Enforce accountability and protect customary rights while taking advantage of opportunities to work constructively with private sector actors. These include opportunities to provide key engagement and ESG assessment services, or the establishment of transparent mechanisms to fund service provision so as to avoid accusations of bias.

Our overarching observation is that protecting legitimate tenure rights while stimulating economic development will require closer collaboration between different stakeholders. Working together can enable outcomes that are good for business, people, and the environment. This is not easy, but it is necessary and desirable.
Appendix I: Stages of Investment

1. Identification/Feasibility
   A piece of land or a project is selected as a viable investment. This process normally involves screening a number of offers and opportunities (greenfield and brownfield) to establish which merit feasibility.

2. Preparation/Licensing
   Taking an identified site to operation or physical construction, including negotiating and signing contracts; licensing and permitting; impact assessments and consultations; and establishing working relationships with counterparties.

3. Establishment
   The physical construction of the project and its peripheral infrastructure. Besides site preparation, this is the phase in which key technology choices and procurement decisions are finalized.

4. Operations
   Day-to-day running of the project. Includes any initial planting for greenfield sites.

5. Expansion/Alteration
   This is not applicable to every project. It covers efforts to enlarge the areal extent of the project or to make significant changes to operational infrastructure.

6. Decommissioning
   Exiting the site of a project. In many cases, this includes the implementation of a development plan. In others, it can include rehabilitation work.
Appendix II: Case Study Data Summary
A complete set of the cases analyzed in this paper can be accessed using the link below:

https://docs.google.com/spreadsheets/d/1xAzrVkJRB4ibAxV4Qh7O7hlF4McZiKKmMdwNuUeJrKk/edit?usp=sharing
Appendix III: Key factor summary tables

*Drivers*

<table>
<thead>
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<th>Primary Driver</th>
<th>SEA Total 51 cases</th>
<th>Sub-regions</th>
<th>Global Comparison</th>
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<tr>
<td></td>
<td></td>
<td>Continental 30 cases</td>
<td>Maritime 21 cases</td>
</tr>
<tr>
<td>Displacement</td>
<td>45%</td>
<td>43%</td>
<td>48%</td>
</tr>
<tr>
<td>Destruction of environment</td>
<td>18%</td>
<td>10%</td>
<td>29%</td>
</tr>
<tr>
<td>Compensation</td>
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<td>10%</td>
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<td>0%</td>
<td>0%</td>
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</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note that totals may exceed 100%, as percentages given have been rounded.

*This includes Central Asia (e.g. Afghanistan), South Asia (e.g. India), and East Asia (e.g. China).*
Appendix IV: Methodology

This paper is based on an analysis of 51 recent cases of tenure dispute in Southeast Asia. These were drawn from a diversity of sectors, including agriculture, mining, hydropower, and forestry. We determined key trends in the region by comparing these cases with a set of 237 global cases from the IAN Case Study Database.

The methodology for this analysis followed a four-step process designed to produce a large but robust sample of cases for comparative purposes as well as a handful of key cases for in-depth investigation. These four steps involved: compiling a long-list, cutting this down to a short-list, filling out key details, and then executing comparative analysis.

1) Creating a long-list
As a first step, we scoured a variety of sources—including academic papers, conflict databases, news reports, and CSO studies—to find as many cases as we could. In addition, we asked participants in the consultation process to identify any cases they thought should be included. These cases were compared with the IAN database to avoid duplication. We also applied criteria to ensure that this body of cases was recent and relatively diverse. We concentrated on disputes that were less than 10 years old or which had reigned recently. We did not set a quota for the search or for the number of cases that should come from any country or sector. However, we did try to find at least one case from each national context.

Our long-list of cases eventually came to about 50 examples that were not included in the IAN database. A large proportion of these cases were suitable for further analysis.

2) Reducing to a short-list
The first task in this step was to ensure that none of the cases we had were too old and that all of them related to a tenure dispute between private actors and local peoples. We also excluded some urban tenure disputes with very different dynamics to the sectors examined in this paper.

The next, much more complicated task was establishing whether sufficient and reliable data was available to enable the analysis that would be executed in Step 4. Where data was meagre or where it conflicted to a degree that made it very difficult to construct a consistent narrative, the case was omitted. This was by far the most common reason for removing cases from our shortlist.

This process of vetting is a necessary condition of meaningful and reliable analysis. However, we do note some practical implications of this approach. First, the most recent cases often have to be excluded; second, we are seeing what is reported rather than what is happening; third, the large number of disputes involving the government or state-owned companies are not included.

3) Second pass investigation
With a complete list of cases, we initiated the process of pulling out the key characteristics of the cases. This followed the same analytical process used to create the IAN case study database. A
team of 3 researchers worked independently and then cross-verified results at the end of the process. These results were then verified by a fourth senior researcher.

In addition, for each of the cases we created a geospatial profile using the IAN Risk database. These profiles were based on average social and environmental indicator values for a 50 kilometer area around the conflict site. Indicators include: land use type; soil quality; water stress and variability; exposure to climate change; population density; poverty and social welfare; access to basic services (food, water, energy); and instances of social conflict.  

4) **Final Trends Analysis**

The final step simply involved comparing the results of Step 3 at different levels. We compared Continental and Maritime Southeast Asia, and compared regional results with the averages for other regions that figure in the IAN Case Study Database. This did not involve any complex statistical processes and was a straightforward like-for-like exercise.

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More information can be found about these indicators and the data used for them here: IAN Technical Note.