Vol. 3 No. 4 Edisi Agustus - Oktober 2026 E. ISSN. 3032-2472
Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

THE URGENCY OF A LAND CONSOLIDATION LAW AS A BASIS FOR LIMITING LAND RIGHTS IN INDONESIA

URGENSI UNDANG-UNDANG KONSOLIDASI TANAH SEBAGAI DASAR PEMBATASAN HAK ATAS TANAH DI INDONESIA

Indra Pranata Zaki Wijaya[1*], Frisilia Mariko Sapardi[2], Farrel Paramudita Pashya[3]

[1*]Politeknik Agraria STPN, Email: wijayaa.indra24@gmail.com
[2]Politeknik Agraria STPN, Email: frisilia03sapardi@gmail.com
[3]Politeknik Agraria STPN, Email: farelbudu234@gmail.com

*email koresponden: wijayaa.indra24@gmail.com

DOI: https://doi.org/10.62567/micjo.v3i4.3545

Abstract

Land consolidation in Indonesia has largely been carried out under ministerial regulations, while sectoral statutes mention it only in passing. Yet the activity alters the location, shape, and size of land parcels and sets aside part of participants' land for public use. This article examines why restricting land rights through land consolidation requires a statutory basis and cannot rest on ministerial regulations or passing references in sectoral laws. This normative legal research employs statutory, conceptual, and comparative approaches, with Japan as the main comparator and China as a supporting one. The analysis covers the constitutional requirement that restrictions on rights be established by statute, the weaknesses of the existing regulation, and the Japanese land readjustment model, which is governed by a dedicated statute and integrated with urban planning and public facility provision. The study yields three findings. First, a Land Consolidation Act is needed as a valid legal basis for restricting land rights, because a ministerial regulation cannot serve as the source of such restrictions. Second, the Act is needed to overcome sectoral egoism through firm institutional integration among land affairs, spatial planning, housing, and local government. Third, the Act is needed to package land arrangement together with the development of public infrastructure, facilities, and utilities (PSU), so that public facility provision does not proceed separately from parcel reorganization. The article concludes that enacting a dedicated land consolidation statute is an urgent legal necessity.

Keywords : Land Consolidation, Land Readjustment, Restriction of Land Rights, Law-Making, Legal Certainty.

Abstrak

Konsolidasi tanah di Indonesia selama ini dijalankan melalui peraturan menteri, sedangkan undang-undang sektoral hanya menyebutnya sepintas. Padahal, kegiatan ini mengubah letak, bentuk, dan luas

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

bidang tanah serta menyisihkan sebagian tanah peserta untuk kepentingan umum. Artikel ini mengkaji alasan pembatasan hak atas tanah melalui konsolidasi tanah memerlukan dasar undang-undang, dan tidak cukup bertumpu pada peraturan menteri atau penyebutan sepintas dalam undang-undang sektoral. Penelitian hukum normatif ini menggunakan pendekatan perundang-undangan, konseptual, dan komparatif dengan Jepang sebagai pembanding utama dan Tiongkok sebagai pembanding pendukung. Analisis mencakup syarat konstitusional bahwa pembatasan hak harus ditetapkan dengan undang-undang, kelemahan pengaturan yang ada, serta model *land readjustment* Jepang yang diatur dalam undang-undang tersendiri dan terintegrasi dengan perencanaan kota dan penyediaan fasilitas publik. Hasil kajian menunjukkan tiga temuan. Pertama, Undang-Undang Konsolidasi Tanah diperlukan sebagai dasar hukum yang sah bagi pembatasan hak atas tanah, karena peraturan menteri tidak dapat menjadi sumber pembatasan hak. Kedua, undang-undang tersebut diperlukan untuk mengatasi ego sektoral melalui integrasi kelembagaan yang tegas antara urusan pertanahan, penataan ruang, perumahan, dan pemerintah daerah. Ketiga, undang-undang tersebut diperlukan untuk memaketkan penataan tanah dengan pembangunan prasarana, sarana, dan utilitas umum (PSU) agar penyediaan fasilitas publik tidak berjalan terpisah dari penataan bidang tanah. Artikel ini menyimpulkan bahwa pembentukan undang-undang tersendiri tentang konsolidasi tanah merupakan kebutuhan hukum yang mendesak.

Kata Kunci : Konsolidasi Tanah, *Land Readjustment*, Pembatasan Hak Atas Tanah, Pembentukan Undang-Undang, Kepastian Hukum.

1. INTRODUCTION

Rights in land are not absolute. Article 28H paragraph (4) of the 1945 Constitution protects private property against arbitrary deprivation, while Article 28J paragraph (2) provides that limitations on rights may only be established by law. Article 6 of the Basic Agrarian Law (Law No. 5 of 1960) adds that every land right carries a social function. Taken together, these provisions mean that a state measure which rearranges parcels and asks owners to give up part of their land, as land consolidation does, limits the exercise of property rights. A limitation of this kind needs a statutory basis, and it must keep a fair balance between public and individual interests (Hakim, 2023; Hananto, 2025).

The current regulation does not meet this requirement. Land consolidation in Indonesia is governed at the level of a ministerial regulation, namely Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency No. 12 of 2019 on Land Consolidation. The regulation was issued because the earlier instrument, Regulation of the Head of the National Land Agency No. 4 of 1991, no longer fully accommodated developments and regulatory needs. At the statutory level, the closest provisions are found in Law No. 1 of 2011 on Housing and Settlement Areas. That law defines land consolidation in Article 1 point 18 and lists it among the ways of providing land for housing (Article 106 letter b). It then states that consolidation is carried out by agreement among the parties concerned, subject to a minimum level of owner approval, in locations designated by the regent or mayor (Articles 108 and 109). These provisions treat consolidation as a consensual means of supplying housing land. They say little about the contribution of land, the reallocation of parcels, or the remedies available to owners. Under Articles 7 and 8 of Law No. 12 of 2011 on the Formation of Laws and Regulations, a ministerial regulation is recognized only insofar as a higher regulation orders it or it is issued under an existing authority (see also Pratama et al., 2022). Restrictions of land rights that are detailed only in a ministerial regulation therefore remain open to challenge as exceeding the authority of the body that issued them.

A second problem is institutional fragmentation. Land consolidation touches land affairs, housing, public works, spatial planning, and local government at the same time, yet no statute binds these sectors in a single framework. Each acts within its own mandate, and coordination depends on goodwill instead of legal obligation. A comparative study of Indonesia and Thailand finds that sectoral egoism and fragmented institutions hinder the implementation of land consolidation, while Thailand,

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

which enacted a dedicated statute in 2004, benefits from clearer regulation (Almahbubi, 2026). The timing for reform also looks favorable, since a Land Administration Bill is being prepared by the government together with the House of Representatives (RRI, 2026). The bill, however, is concerned with land administration in general, which is not the same as a regime for rearranging parcels, so it leaves open the question of what a statute devoted to land consolidation should contain.

Japan offers the most systematic point of comparison. Land readjustment (kukaku seiri) is regulated there by a specific statute, the Land Readjustment Act of 1954, which is closely tied to the City Planning Act of 1968. The model was later transferred to other Asian countries, Indonesia among them, through technical cooperation (Fermín, 2024; Venter et al., 2024). Scholarly interest in the instrument is long-standing, as a centennial review of research published between 1919 and 2019 shows (Lai et al., 2022). Japan's recovery from the 2011 earthquake and tsunami carries a further lesson. Special legislation that relied on land registers to deal with land of unidentifiable ownership allowed authorities to designate and acquire land without the safeguards of the ordinary expropriation law, which the author describes as a form of lawful land-grabbing (Kaneko, 2024). That case does not concern land readjustment as such. It does show that an emergency framework can be formally lawful and still weaken owners' protection, which is why a statute must also set limits on state action, and not only grant power.

China is used in this article as a supporting comparator. Its land consolidation has developed through several historical stages and typical modes, and it is largely concerned with rural land (Guo & Wang, 2023). Research on its effects on farmers' decisions to abandon farmland (Li & Zhang, 2024) is a reminder that consolidation outcomes depend on how the instrument is designed. Read against the Japanese model, which is closely tied to urban planning and public facilities, the Chinese experience helps to show what varies across legal systems and what does not.

Studies of land consolidation in Indonesia have so far concentrated on practice in particular locations or sectors, such as housing, slum upgrading, and disaster mitigation (Arba & Hamzah, 2022; Subekti et al., 2021; Nurmawati et al., 2023; Kurniawan & Manaf, 2023; Pribadi et al., 2025), or on the protection of right holders who are harmed by the program (Mosa & Susilo, 2021). These contributions are valuable, but they generally take the legal basis of the instrument for granted. Why the instrument needs a statute, and what the statute should regulate, receives little sustained attention. This article's contribution lies in treating land consolidation as an instrument for restricting land rights that must rest on a statute, and in using Japan as the main reference for the content of that statute, with China as supporting material.

Against this background, the article addresses one research question: why does the restriction of land rights through land consolidation in Indonesia require a statutory basis, given the weaknesses of the current regulation, and how can the Japanese land readjustment regime, supported by the Chinese experience, inform the content of a Land Consolidation Act that integrates land arrangement with the provision of public infrastructure, facilities, and utilities (PSU) and with the institutions concerned? Accordingly, the article aims to analyze the urgency and constitutional basis of a land consolidation statute in Indonesia, to draw lessons from the regulation of land readjustment in Japan and China, and to formulate the material that such a statute should regulate.

2. RESEARCH METHOD

This study is normative (doctrinal) legal research. It treats law as a system of norms and asks what the law requires, where the existing regulation falls short, and what the law ought to provide. Three approaches are combined. The statute approach is used to examine the 1945 Constitution, the Basic Agrarian Law (Law No. 5 of 1960), Law No. 1 of 2011 on Housing and Settlement Areas, Law No. 2 of 2012 on Land Acquisition for Development in the Public Interest, Law No. 12 of 2011 on the Formation of Laws and Regulations, the relevant government regulations (Government Regulation No. 18 of 2021 and No. 21 of 2021, and Government Regulation No. 14 of 2016 as amended by No. 12 of 2021), and Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

National Land Agency No. 12 of 2019 on Land Consolidation. This approach shows how land consolidation is placed in the hierarchy of norms and which provisions presently support the restriction of land rights.

The conceptual approach is used to clarify three concepts on which the argument depends: the restriction of rights, the social function of land, and land readjustment. Their meanings are drawn from the legal literature and from the constitutional and statutory texts mentioned above, so that the analysis rests on defined terms instead of on the loose usage found in practice. The comparative approach compares Indonesia with Japan, the principal comparator, and China, a supporting one. Japan was chosen because its land readjustment is governed by a dedicated statute linked to urban planning legislation, which is the very feature whose absence this article examines in Indonesia. China is included to show how a different institutional setting shapes land consolidation, and the comparison is therefore narrower. In addition, Constitutional Court Decision No. 91/PUU-XVIII/2020 is used as a reference on the legitimacy of law-making, namely on the conditions a statute must satisfy to be formed properly.

Primary legal materials consist of Indonesian statutes and regulations, the Constitutional Court decisions cited above (including Decision No. 88/PUU-XII/2014), and Japanese statutes, namely the Land Readjustment Act of 1954 and the City Planning Act of 1968. The Japanese statutes were read in the official Japanese text available through the Japanese government's e-Gov Law Search system, together with the official English translations of the Japanese Law Translation database where one exists. Where no official translation was available, the English renderings of provisions in this article are the author's own working translations and are checked against the secondary literature on Japanese land readjustment. China is examined through secondary sources only, because this study does not analyze Chinese legislation directly, which is a limitation acknowledged in Section 4.

Secondary legal materials consist of journal articles and institutional reports published between 2021 and 2026, drawn from national and international sources, including studies of land consolidation and land readjustment, works on the theory of rights and legal certainty, and reports by international organizations (OECD & Lincoln Institute of Land Policy, 2022; Venter et al., 2024). Selection was based on relevance to the three themes of the study, the legal basis of consolidation, institutional integration, and the provision of public infrastructure, facilities, and utilities (PSU). The materials were gathered through library research, and every source used is listed in the references.

The materials were analyzed qualitatively and prescriptively using syllogistic reasoning. The major premise is the legal norm, for instance the requirement in Article 28J paragraph (2) of the 1945 Constitution that restrictions on rights be established by law. The minor premise is the condition of the existing regulation and its practice, namely that consolidation is governed mainly by a ministerial regulation and mentioned in sectoral statutes only briefly. The conclusion states whether the present arrangement satisfies the norm and, where it does not, what a Land Consolidation Act should regulate. The comparative material from Japan and China serves in this reasoning as a source of regulatory options. It does not determine the outcome, and each option is assessed against Indonesia's constitutional and institutional setting before it is proposed.

3. RESULT AND DISCCUSSION

The discussion follows the syllogistic structure set out in the method. Sections 3.1 to 3.3 establish the major premise, test the existing regulation against it, and explain why the shortcomings call for a statute. Sections 3.4 and 3.5 draw regulatory options from Japan and China. Sections 3.6 and 3.7 turn those options into proposals on infrastructure, institutions, and the content of a Land Consolidation Act.

Restriction of Land Rights and the Requirement of a Statutory Basis

Article 28H(4) of the 1945 Constitution protects private property against arbitrary taking, and Article 28J(2) allows the exercise of rights to be restricted only by statute, for the purpose of respecting the rights of others and meeting just demands of morality, religious values, security, and public order

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

in a democratic society. The two provisions do not forbid restriction. They regulate its source and its purpose. A restriction of property is constitutionally sound when it is laid down by the House of Representatives (DPR) together with the President and when it serves one of the purposes listed in Article 28J (2). The principle of legality in restricting rights is therefore a constitutional reservation of subject matter to the legislature, not merely a doctrinal preference.

The Basic Agrarian Law (UUPA) points the same way. Article 6 attaches a social function to every land right, and Article 2 grants the state a right of control. These provisions explain why ownership, though described in Article 20(1) as the strongest and fullest right, is not absolute, but they do not say which organ may limit it or how far. Where the interference is heaviest, the UUPA answers that question itself: Article 18 permits the revocation of land rights in the public interest only with appropriate compensation and through procedures regulated by statute, a mandate implemented by Law No. 20 of 1961. The legislature that introduced the social function did not treat it as self-executing authority for the executive.

The social function must also be weighed against the interests of individual holders. Hakim (2023), following Radbruch, treats justice, utility, and legal certainty as values to be held together, and warns against using the social function selectively. Hananto (2025) shows that utilitarianism offers an impartial way of balancing public and individual interests, but that its aggregative character can hide the burdens of particular persons; rule utilitarianism is one response he discusses. Applied here, a rule-utilitarian asks which rule on the source of restrictions produces the greater benefit over time. A rule under which restrictions are set by statute, after public deliberation and subject to constitutional review, gives landholders stable expectations; a rule under which they can be set and altered by a minister gives less. On utilitarian as well as constitutional grounds, the source of a restriction matters.

The minor premise concerns what consolidation does to rights. Under Permen ATR/BPN No. 12 of 2019 (Permen 12/2019), participants surrender part of their land as land for development (*tanah untuk pembangunan*, TP) (Article 11), release their rights to the state for rearrangement (Article 50 letter c), and receive parcels of altered location, shape, and size. Consolidation may be designated as mandatory in post-disaster, conflict, slum, and strategic program areas (Article 4(2)), and owners who refuse are directed to transfer their rights and, failing that, toward land acquisition (Article 10(4)–(5)). Where an owner joins freely and with full information, the contribution is a concession made in exercising the right. Once an area is declared mandatory, or once a majority threshold decides for everyone, the contribution becomes a burden imposed by public authority. Land consolidation that requires a land contribution from owners who have not consented is therefore a restriction of land rights within the meaning of Article 28J(2), and it must derive from statute.

The Current Regulation and Its Weaknesses

As the introduction noted, Law No. 1 of 2011 defines consolidation, lists it among the ways of providing housing land, and requires agreement and a minimum level of owner approval in locations designated by the regent or mayor. Beyond this, the statutory references are thin. Law No. 2 of 2012 does not regulate consolidation, yet it becomes decisive because Permen 12/2019 refers to it for owners who continue to refuse. The government regulations of 2021 address housing (GR No. 12 of 2021), land rights and registration (GR No. 18 of 2021), and spatial planning (GR No. 21 of 2021), but none of them sets out the consolidation regime. Permen 12/2019, which replaced Head of BPN Regulation No. 4 of 1991, is therefore the only comprehensive instrument. Table 1 summarizes what each layer provides and what it leaves open.

Table 1. The Existing Legal Framework of Land Consolidation and Its Gaps

Instrument	What it provides on consolidation	What it leaves unregulated
Law No. 1/2011 (Arts. 1 point 18, 106 letter b, 108–109)	Definition; a means of providing housing land; agreement and minimum owner approval; location set by regent or mayor	Non-housing consolidation; limits on contribution; valuation; position of owners who refuse; remedies

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Law No. 2/2012	Land acquisition procedure, compensation, and objection in the public interest	Consolidation itself; the conditions under which a consolidation dispute may move into acquisition
GR No. 12/2021, GR No. 18/2021, GR No. 21/2021	Housing provision; land rights and registration; spatial planning	A consolidation regime; the vesting of facility land produced by consolidation
Permen ATR/BPN No. 12/2019	Voluntary principle and mandatory designation (Art. 4); 60% participant approval (Art. 10(3)); transfer and referral to acquisition (Art. 10(4)–(5)); equal-value right (Art. 49 letter b)	No maximum contribution; open purpose of "other national strategic programs" (Art. 9(4)); objection limited mainly to data; no criminal sanctions possible

Source: Authors' analysis of primary legal materials

Two weaknesses follow from Table 1. First, the statutes mention consolidation without attaching legal consequences to it. None states whether a designation binds owners who disagree, how much land may be taken as a contribution, how the new parcel is valued, or how an owner may contest the design. The norms that actually decide the position of a dissenting owner are found only in the Permen. Second, the norms are not coherent with one another: the approval threshold in Law No. 1 of 2011 is tied to owners and area within housing projects, whereas Permen 12/2019 counts participants and applies to every form of consolidation. The problem is not a legal vacuum. It is the downward displacement of norms that Article 28J(2) assigns to the legislature.

Articles 7 and 8 of Law No. 12 of 2011 frame the question of authority. A ministerial regulation outside the hierarchy binds only when a higher regulation orders it or when it is issued within an existing authority (Pratama et al., 2022). Neither source supports the core of Permen 12/2019. A delegation located in the housing statute cannot carry agricultural consolidation or the referral of owners to land acquisition. The minister's authority over land affairs covers the administration of land, not the creation of restrictions that the Constitution reserves to statute. Most of the Permen consists of legitimate administrative arrangements, but its mandatory provisions, particularly Article 4(2) and Article 10(4)–(5), exceed what either source can sustain. The Permen also cannot impose criminal sanctions (Article 15(1) of Law No. 12 of 2011).

Legitimacy also depends on how a norm is made. In Decision No. 91/PUU-XVIII/2020, the Constitutional Court held the Job Creation Law conditionally unconstitutional on formal grounds, partly for lack of meaningful participation, which it defined as the right to be heard, the right to have one's views considered, and the right to an explanation. A statute debated in the DPR gives affected owners a forum to contest the restriction itself, and the result can be reviewed by the Constitutional Court against Articles 28H(4) and 28J(2). A ministerial regulation is drafted within one ministry and can be reviewed only by the Supreme Court against statutes. For a norm that decides whether a minority must surrender land, the difference is substantive.

The weakness in protection completes the picture. Mosa and Susilo (2021) show that owners harmed by consolidation depend largely on administrative handling rather than on defined rights and remedies. Manik and Idham (2021) show that rural consolidation on customary (*ulayat*) land fits poorly with a model built on individual participants, leaving open whose consent counts. The equal-value guarantee in Article 49 letter b is significant, but without a ceiling on contribution, a valuation standard, or an objection mechanism that reaches the design and the burden, it is difficult to enforce. In utilitarian terms, these gaps fall hardest on small-parcel owners and tillers, for whom a uniform contribution ratio takes a larger share of livelihood. Aggregate benefit can thus conceal a distribution of burdens that favors those who need protection least.

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

The Urgency of a Land Consolidation Act

a. Political will and the seriousness of the state

Statutes are made when the state treats an issue as national policy rather than departmental routine. The preparation of the Land Administration Bill by the government and the DPR (RRI, 2026) shows that land administration has reached that stage, but, as noted in the introduction, a general administration bill is not a regime for rearranging parcels. Demand for consolidation is also growing beyond land supply: it is used for housing schemes (Kurniawan & Manaf, 2023), urban slum arrangement (Subekti et al., 2021), vertical consolidation (Nurmawati et al., 2023), and settlement revitalization in Kampung Bugisan, Pekalongan (Pribadi et al., 2025). These studies show that the distinctive purpose of consolidation is to reorganize space while owners stay in place. When consolidation is treated as a variant of acquisition or as a route to certification, that purpose disappears. A dedicated Act would signal that the state regards consolidation as an instrument of land management with its own principles.

b. A basis for government action, including in disasters

Government action that affects rights requires a legal basis; legality is the first principle of government administration under Article 5 of Law No. 30 of 2014. The requirement is tested most severely after disasters, which Permen 12/2019 lists among the grounds for mandatory consolidation. In such settings owners are displaced, documents are lost, boundaries are disputed, and officials are pressed to act quickly. Arba and Hamzah (2022) show the value of consolidation for housing and disaster mitigation in Mataram City, but its usefulness does not remove the need for a clear basis. Kaneko's (2024) study of land of unidentifiable ownership after the 2011 Japanese disaster adds a qualification: special measures can be formally lawful and still weaken owners' protection. Emergency powers in consolidation should therefore be defined in advance by statute, with their triggers, duration, and limits, and compensation and objection rights should remain in force during the emergency.

c. Overcoming sectoral egoism and asserting leadership

Consolidation cuts across land affairs, housing, public works, spatial planning, and local government, and each acts within its own statutory mandate. Almahbubi (2026) identifies sectoral egoism and fragmentation as obstacles in Indonesia and contrasts them with Thailand's dedicated 2004 statute. The legal reason is simple: the discretion of each agency is bounded by statute, and no agency can enlarge its reach by regulating its own scope. A regulation of the Minister of ATR/BPN cannot oblige the ministry responsible for housing to build infrastructure in a consolidation area, or a regional government to accept and maintain the facilities. Only a statute can allocate tasks across sectors and levels of government. By designating a lead authority and imposing a duty of cooperation, it would also give those who lead programs a rational rule to enforce instead of an arrangement to negotiate. Lai et al. (2022), reviewing a century of land readjustment research from a neo-institutional perspective, emphasize that clear rules reduce the transaction costs of assembling land; lower coordination costs are part of the utility a statute delivers.

Land Readjustment in Japan as the Primary Reference

Japan regulates land readjustment (*tochi kukaku seiri*) in a dedicated statute, has applied it for about a century, and has transferred the model to other Asian countries, including Indonesia (Fermín, 2024; Venter et al., 2024). The Land Readjustment Act (Act No. 119 of 1954) defines a project as one carried out within a city planning area to improve public facilities and increase the usability of residential land by changing the shape and character of land and building public facilities (Article 2(1)). The City Planning Act (Act No. 100 of 1968) places land readjustment among the urban development projects determined in a city plan. A project is therefore the implementation of a planning decision, not an isolated land transaction.

The core mechanism is replotting (*kanchi*). Each owner receives a new parcel in place of the former one, and the replotted land must correspond to the former land in location, area, soil quality, water use, and environment (Article 89). Because part of the area becomes roads and parks and part is set aside as reserve land (*hoyochi*), parcels usually shrink; this reduction (*genbu*) is justified by the

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

higher value of a serviced parcel. Reserve land is sold to finance the project. For public implementers, it may be used only to cover costs and only to the extent that the total land value after the project does not fall below the value before it. Remaining differences are settled in money (*seisankin*), and where a public project lowers total land value, the implementer must pay compensation for the decrease. After the replotting disposition, the new parcel is deemed to be the former one, so the owner's title continues. Indonesia takes the more intrusive route: participants release their rights to the state and then receive new rights (Permen 12/2019, Article 50 letter c), and this route is regulated at the lower level.

The Act also links the degree of consent to the strength of procedure. Implementers include individual owners, associations of at least seven persons, land readjustment companies, local governments, the national minister, and certain public corporations (Article 3 and following). An association may be established only with the consent of at least two-thirds of owners and of leaseholders, whose land must cover at least two-thirds of the area (Article 18), after which all owners and leaseholders become members (Article 25). The dissenting minority is bound, but by the statute and under a dual threshold of persons and area. Public implementers need no consent; instead, the project rests on a city planning decision, the plan is opened for public inspection and written opinions (Article 55), a council largely elected by owners and leaseholders takes part in replotting decisions (Article 56 and following), and the replotting plan is again open to opinions. The less a project relies on consent, the more procedure the statute demands.

Restrictions on owners are also statutory. After public notice, changing land or building within the area requires permission, and owners whose buildings must be moved receive compensation. Financing combines the sale of reserve land with public subsidies; the OECD and Lincoln Institute of Land Policy (2022) classify land readjustment as a land value capture instrument because part of the value created by public investment funds that investment. Facility land vests in the authority that will manage it when the replotting takes effect, so the ownership of roads and parks is settled by the Act. Land readjustment has also served post-disaster reconstruction, a role discussed by Salalı and İnam (2025) in comparing Japan and Türkiye; because the statute already existed, reconstruction could follow known procedures. The model should not be idealized, since projects are slow and depend on planning and valuation capacity that Indonesia is still building. Its value lies in its structure, which Table 2 sets beside Indonesia and China.

Table 2. Comparison of Land Consolidation and Land Readjustment Regulation

Aspect	Indonesia	Japan	China
Legal basis	Permen 12/2019; brief references in Law No. 1/2011	Land Readjustment Act 1954 (dedicated statute); City Planning Act 1968	Statutory basis reinforced by tiered planning (Guo & Wang, 2023)
Implementers	ATR/BPN with regional governments and participants	Owners, associations, companies, local governments, the minister, public corporations	Government-led, enterprise-driven, and village-initiated models (Guo & Wang, 2023)
Owner consent	60% of participants (Permen, Art. 10(3)); minimum owner approval for housing (Law No. 1/2011); mandatory designation possible	Associations: two-thirds of owners and leaseholders and two-thirds of area, then all bound; public projects: planning decision, inspection, elected council	Reform paths stress residents' wishes and prohibit coercion by administrative order (Guo & Wang, 2023)

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Contribution and reserve land	TP by agreement; no maximum; money compensation for unsuitable parcels	Reduction (genbu); reserve land (hoyochi) limited to costs for public implementers; settlement money	Not directly comparable owing to collective ownership of rural land
Integration with PSU	PSU construction and handover regulated separately	Facilities built within the project; facility land vests in the managing authority	Linked to agricultural infrastructure and village planning
Protection and disputes	Equal-value right; problem handling; referral to acquisition	Correspondence principle; compensation for losses and value decrease; written opinions; appeal and litigation	Household-level effects call for safeguards for farmers (Li & Zhang, 2024)

Source: Authors' analysis of primary legal materials and the cited literature

China as a Supporting Comparator

China offers narrower lessons, because its land system rests on state and collective ownership and the sources concern rural land. Guo and Wang (2023) trace rural consolidation since 1949 through five stages and three models, and note that it operates on a statutory basis reinforced by tiered planning. Yet their proposed improvements stress participation, supervision, the priority of residents' wishes, and the prohibition of coercion by administrative order, which suggests that participation remained weak even with a statutory basis. Li and Zhang (2024) examine how consolidation shapes farmers' decisions to continue cultivating or abandon land, a reminder that outcomes must be assessed at the household level. Two lessons follow for Indonesia: a statutory basis and tiered planning allow large programs to proceed consistently, but a statute that merely authorizes a program does not ensure that those affected are heard. The Act must regulate participation and protection, not only power.

Integrating Land Arrangement with PSU and Institutions

The public benefit of consolidation, and so its justification, lies in the infrastructure it makes possible. Law No. 1 of 2011 requires housing and settlement areas to be equipped with infrastructure, facilities, and public utilities (PSU). If consolidation ends with rearranged parcels or new certificates, owners give up land without a corresponding improvement and the contribution loses its justification. Land arrangement and PSU construction must therefore be regulated as one package.

The status of PSU land is a known problem. Mauliandi (2026) shows the uncertainty over the possession and ownership of PSU land in housing areas when facilities are built but not formally handed over. Minister of Home Affairs Regulation No. 9 of 2009 governs handover to regional governments, but it was designed for developers. In consolidation, PSU land comes from the participants' own contributions, and no norm states who holds it, when it passes to the regional government, or who maintains it. Following Article 105 of the Japanese Act, the statute should provide that facility land designated in the consolidation plan vests in the managing authority upon registration of the result.

Roles should follow the existing division of government affairs. Under Law No. 23 of 2014, land affairs are a concurrent mandatory affair not related to basic services, whereas public works and spatial planning, and housing and settlement areas, are basic-service affairs. Law No. 26 of 2007 and GR No. 21 of 2021 require land use to follow the spatial plan. A workable allocation would have ATR/BPN lead the rearrangement and registration of land, the ministries responsible for housing and public works together with regional governments build and maintain the PSU, and regional governments designate consolidation areas in their detailed spatial plans. The Act should state this allocation and the duty to cooperate.

Financing is the final link. In Japan, reserve land pays for much of the project and contributed land becomes the facilities themselves. Almahbubi (2026) shows that financing schemes help

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

determine whether programs in Indonesia and Thailand are completed. Indonesian practice knows land set aside to cover implementation costs, but its use and accountability rest on administrative rules. Following the land value capture logic of the OECD and the Lincoln Institute of Land Policy (2022), the Act should authorize reserve land expressly, limit it to project costs and to the value the project creates, require public accounting, and allow central and regional budget support where participants cannot bear the costs.

Reconstructing the Content of a Land Consolidation Act

The Act need not absorb the whole of Permen 12/2019. It should contain the norms that restrict rights, allocate authority across sectors, and protect affected parties, leaving technical procedures to clear delegation. Table 3 sets out ten matters, each with its proposed core norm and its basis in the preceding analysis.

Table 3. Proposed Content of a Land Consolidation Act

Matter	Proposed core norm in the Act	Basis
(a) Principles and objectives	Legality, participation, utility, justice, and proportionality; an exhaustive list of purposes replacing "other national strategic programs"	1945 Constitution, Art. 28J(2); Hakim (2023); Hananto (2025)
(b) Definitions and objects	Types (agricultural and non-agricultural, horizontal and vertical, voluntary and mandatory); eligible land; collective consent for customary land	UUPA, Arts. 2, 6; Manik & Idham (2021)
(c) Authority and coordination	ATR/BPN as lead authority; duties of housing and public works ministries and regional governments; eligible implementers, including owner associations	Law No. 23/2014; Law No. 26/2007; Almahbubi (2026); Japan, Art. 3
(d) Consent and participation	Dual threshold of owners and area for voluntary projects; exhaustive grounds for mandatory designation, offset by public inspection, written opinions, and an elected project council	Law No. 1/2011, Arts. 108–109; MK Decision 91/PUU-XVIII/2020; Japan, Arts. 18, 55–56
(e) Contribution and reserve land	Maximum or method of contribution; correspondence and equal value of new parcels; settlement money; relief for small parcels; reserve land limited to costs	1945 Constitution, Art. 28H(4); Japan, Arts. 89, 94, 96
(f) PSU and spatial planning	Consistency with the detailed spatial plan; PSU built within the project; vesting of facility land on registration	Law No. 1/2011; Mauliandi (2026); Japan, Art. 105
(g) Compensation, protection, and disputes	Compensation for value loss and relocation; protection of tillers and tenants; objection extending to design, valuation, and contribution; independent resolution; access to court; acquisition only as a last resort	Law No. 2/2012; Mosa & Susilo (2021); Japan, Arts. 78, 109
(h) Financing	Funding from reserve land, central and regional budgets, and participants; public accounting for each project	OECD & Lincoln Institute of Land Policy (2022); Almahbubi (2026)

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

(i) Emergencies and disasters	Defined triggers, temporary building restrictions, and a maximum duration; compensation and objection rights not suspended	Arba & Hamzah (2022); Kaneko (2024); Japan, Art. 76
(j) Sanctions and other statutes	Administrative and, where necessary, criminal sanctions; the Act as the general regime, with Law No. 1/2011 applying only to matters it regulates specifically and Law No. 2/2012 as the last resort	Law No. 12/2011, Art. 15(1)

The ten matters correspond to the three findings stated in the abstract. Matters (a), (d), (e), and (g) supply the valid legal basis for restricting rights that a ministerial regulation cannot provide. Matter (c) addresses sectoral egoism by allocating duties that no single ministry can impose. Matters (f) and (h) bind land arrangement to PSU so that facilities are not provided apart from the reorganization of parcels. Technical matters, such as valuation formulas, verification of consent, coordination procedures, deadlines, and report formats, may be delegated to government and ministerial regulations, provided the delegation states its scope.

Three objections deserve a reply. First, a ministerial regulation is more flexible, but the proposal moves into the statute only the norms that restrict rights and allocate authority. Second, legislation is slow and costly, but that bears on the choice between a separate Act and a chapter in a broader land statute, not on whether restrictions may remain at the ministerial level. Third, voluntary consolidation works without a statute, and the proposal accepts this; it concentrates on cases in which consent is absent or incomplete, which are the cases Article 28J (2) addresses. Table 3 is a normative proposal derived from doctrinal analysis, and its effects on minority owners remain to be tested empirically.

4. CONCLUSION

This article asked why restricting land rights through land consolidation in Indonesia requires a statutory basis, and how the Japanese land readjustment regime, supported by the Chinese experience, can inform the content of a Land Consolidation Act that integrates land arrangement with public infrastructure, facilities, and utilities (PSU) and with the institutions concerned. The analysis leads to three conclusions, which match the findings stated in the abstract.

First, consolidation that obliges owners to contribute part of their land is a restriction of land rights, and Article 28J(2) of the 1945 Constitution reserves such restrictions to statute. The social function in Article 6 of the Basic Agrarian Law and the need to balance public and individual interests explain why rights may be limited, but they do not say who may limit them. The current regulation falls short of this requirement. Law No. 1 of 2011 treats consolidation as an agreed means of supplying housing land and says little beyond that, while the provisions that matter most for a dissenting owner sit in Permen 12/2019: mandatory designation in certain areas, a participant threshold of sixty percent, and the referral of owners who refuse to land acquisition. Under Articles 7 and 8 of Law No. 12 of 2011, these provisions lack a clear source of delegation and remain open to challenge as exceeding ministerial authority. Protection of owners also depends more on administrative handling than on defined rights and remedies.

Second, the Japanese experience shows what a dedicated statute adds. Land readjustment there rests on its own Act, linked to city planning legislation, which ties the degree of consent to the strength of procedure. Associations need the agreement of two-thirds of owners and of leaseholders, measured also by area, while public projects instead rely on a planning decision, public inspection of the plan, and a council that takes part in replotting. The Act also requires replotted parcels to correspond to the former ones and treats reserve land as a source of project financing. China, as a supporting comparator, adds a caution. A statutory basis and tiered planning allow large programs to proceed consistently, yet a statute that only authorizes a program does not ensure that those affected are heard. An Indonesian Act should therefore regulate participation and protection together with state power.

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Third, the Act should contain the norms that restrict rights, allocate authority across sectors, and protect affected parties, leaving technical procedures to clearly delimited delegation. This article proposed ten matters for that purpose: principles and objectives, definitions and objects, authority and coordination, consent and participation, contribution and reserve land, PSU and spatial planning, compensation and dispute resolution, financing, emergencies, and sanctions and the relationship with other statutes. By naming a lead authority and imposing a duty to cooperate, the Act would reduce sectoral egoism. By settling who holds facility land and how facilities are funded, it would tie land arrangement to PSU, so that owners who give up land receive a corresponding improvement.

These conclusions suggest that the government and the House of Representatives should treat a dedicated land consolidation regime as a legislative priority, whether as a separate Act or as a distinct part of the Land Administration Bill now under preparation. Some limits should be acknowledged. This study is doctrinal, China is examined only through secondary sources that mostly concern rural land, and the proposed content has not been tested against practice. Future research could examine how the proposed thresholds, contribution rules, and objection mechanisms affect small-parcel owners and tillers in actual projects.

5. REFERENCES

Almahbubi, H. (2026). Land consolidation implementation in Indonesia and Thailand: Empirical dynamics and financing schemes. *Indonesian Journal of Agrarian Law, 4*(1). https://doi.org/10.15294/jal.v4i1.59108

Arba, & Hamzah, A. S. (2022). Kajian yuridis-empirik konsolidasi tanah perumahan dan pemukiman sebagai salah satu upaya mitigasi bencana di wilayah Kota Mataram [Juridical-empirical study of housing and settlement land consolidation as a disaster mitigation effort in Mataram City]. *Jurnal IUS Kajian Hukum dan Keadilan, 10*(1), 215–242. https://doi.org/10.29303/v10i1.1021

City Planning Act [Toshi keikaku hō], Act No. 100 of 1968 (Japan).

Fermín, E. G. (2024). From sleeping beauty to proven solution: The transformation of land readjustment into an informal settlement upgrading tool. *Land Use Policy, 145*, Article 107283. https://doi.org/10.1016/j.landusepol.2024.107283

Guo, Y., & Wang, J. (2023). Land consolidation in rural China: Historical stages, typical modes, and improvement paths. *Land, 12*(2), Article 491. https://doi.org/10.3390/land12020491

Hakim, L. (2023). Memenangkan bisnis dengan menegasikan fungsi sosial atas tanah: Analisis keadilan, kemanfaatan, kepastian dari perspektif pemikiran Gustav Radbruch [Winning business by negating the social function of land: An analysis of justice, utility, and certainty from Gustav Radbruch's perspective]. *Jurnal Yudisial, 16*(3), 301–315.

Hananto, A. (2025). Utilitarianisme dan keseimbangan antara kepentingan umum dan kepentingan individu [Utilitarianism and the balance between public and individual interests]. *Jurnal Hukum IUS QUIA IUSTUM, 32*(1), 72–98. https://doi.org/10.20885/iustum.vol32.iss1.art4

Kaneko, Y. (2024). "Land without identifiable ownership" in the post-East Japan earthquake recovery: Lawful land-grabbing in neoliberal Japan. *Asian Journal of Law and Society, 11*(2), 103–130. https://doi.org/10.1017/als.2024.9

Kurniawan, H., & Manaf, A. (2023). Skema konsolidasi tanah dalam penerapan pembangunan perumahan di Indonesia [Land consolidation schemes in housing development in Indonesia]. *Jurnal Pengembangan Kota, 11*(1), 92–102. https://doi.org/10.14710/jpk.11.1.92-102

Lai, L. W. C., Davies, S. N. G., Chau, K. W., Choy, L. H. T., Chua, M. H. Y., & Lam, T. K. W. (2022). A centennial literature review (1919–2019) of research publications on land readjustment from a neo-institutional economic perspective. *Land Use Policy, 120*, Article 106236. https://doi.org/10.1016/j.landusepol.2022.106236

Land Readjustment Act [Tochi kukaku seiri hō], Act No. 119 of 1954 (Japan).

Li, Y., & Zhang, Q. (2024). Impact of land consolidation on farmers' abandonment behavior. *Land, 13*(12), Article 2429. https://doi.org/10.3390/land13122429

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Manik, R., & Idham. (2021). Analisis yuridis konsolidasi tanah pedesaan atas tanah ulayat masyarakat hukum adat [Juridical analysis of rural land consolidation on the customary (ulayat) land of customary law communities]. *ARBITER: Jurnal Ilmiah Magister Hukum, 3*(1), 107–117.

Mauliandi, W. S. (2026). Status hukum penguasaan dan pemilikan tanah prasarana, sarana, dan utilitas umum (PSU) pada kawasan perumahan dan pemukiman [Legal status of the possession and ownership of infrastructure, facilities, and utilities (PSU) land in housing and settlement areas]. *Private Law, 6*(2), 459–475. https://doi.org/10.29303/0wwqhk56

Mosa, A. R., & Susilo, H. (2021). Perlindungan hukum bagi pemegang hak atas tanah yang dirugikan dalam program konsolidasi tanah [Legal protection for land right holders harmed in land consolidation programs]. *Jurnal Ilmiah Pendidikan Pancasila dan Kewarganegaraan, 6*(1), 18–25. https://doi.org/10.17977/um019v6i1p18-25

Nurmawati, B., Herman, K. M. S., Iryani, D., Darmawansyah, A., & Butarbutar, R. (2023). Vertical land consolidation for handling urban housing and slum settlement arrangements. *Pena Justisia: Media Komunikasi dan Kajian Hukum, 22*(3), 147–157.

OECD, & Lincoln Institute of Land Policy. (2022). *Global compendium of land value capture policies* (OECD Regional Development Studies). OECD Publishing. https://doi.org/10.1787/4f9559ee-en

Peraturan Kepala Badan Pertanahan Nasional Nomor 4 Tahun 1991 tentang Konsolidasi Tanah [Regulation of the Head of the National Land Agency Number 4 of 1991 on Land Consolidation].

Peraturan Menteri Agraria dan Tata Ruang/Kepala Badan Pertanahan Nasional Nomor 12 Tahun 2019 tentang Konsolidasi Tanah [Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 12 of 2019 on Land Consolidation] (Berita Negara Republik Indonesia Tahun 2019 Nomor 756).

Peraturan Menteri Dalam Negeri Nomor 9 Tahun 2009 tentang Pedoman Penyerahan Prasarana, Sarana, dan Utilitas Perumahan dan Permukiman di Daerah [Regulation of the Minister of Home Affairs Number 9 of 2009 on Guidelines for the Handover of Housing and Settlement Infrastructure, Facilities, and Utilities in the Regions].

Peraturan Pemerintah Nomor 14 Tahun 2016 tentang Penyelenggaraan Perumahan dan Kawasan Permukiman [Government Regulation Number 14 of 2016 on the Implementation of Housing and Settlement Areas], as amended by Peraturan Pemerintah Nomor 12 Tahun 2021.

Peraturan Pemerintah Nomor 18 Tahun 2021 tentang Hak Pengelolaan, Hak Atas Tanah, Satuan Rumah Susun, dan Pendaftaran Tanah [Government Regulation Number 18 of 2021 on Management Rights, Land Rights, Apartment Units, and Land Registration].

Peraturan Pemerintah Nomor 21 Tahun 2021 tentang Penyelenggaraan Penataan Ruang [Government Regulation Number 21 of 2021 on the Implementation of Spatial Planning].

Pratama, J. P., Tyesta ALW, L., & Pinilih, S. A. G. (2022). Eksistensi kedudukan peraturan menteri terhadap peraturan daerah dalam hierarki peraturan perundang-undangan [The existence of the position of ministerial regulations toward regional regulations in the hierarchy of laws and regulations]. *Jurnal Konstitusi, 19*(4), 865–885. https://doi.org/10.31078/jk1947

Pribadi, I. G. O. S., Fadhilah, N., & Pramita, A. N. (2025). Revitalizing slum residential areas through land consolidation approaches in Pekalongan City: A case study of Kampung Bugisan. *ARTEKS: Jurnal Teknik Arsitektur, 10*(1), 137–150. https://doi.org/10.30822/arteks.v10i1.3782

Putusan Mahkamah Konstitusi Nomor 88/PUU-XII/2014 tentang Pengujian Undang-Undang Nomor 2 Tahun 2012 tentang Pengadaan Tanah bagi Pembangunan untuk Kepentingan Umum terhadap Undang-Undang Dasar Negara Republik Indonesia Tahun 1945 [Constitutional Court Decision Number 88/PUU-XII/2014 on the Review of Law Number 2 of 2012 on Land Acquisition for Development in the Public Interest] (2014).

Putusan Mahkamah Konstitusi Nomor 91/PUU-XVIII/2020 tentang Pengujian Formil Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja terhadap Undang-Undang Dasar Negara

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Republik Indonesia Tahun 1945 [Constitutional Court Decision Number 91/PUU-XVIII/2020 on the Formal Review of Law Number 11 of 2020 on Job Creation] (2021).

RRI. (2026, July 8). RUU Administrasi Pertanahan jadi pilar baru sistem pertanahan nasional [The Land Administration Bill becomes a new pillar of the national land system]. RRI.co.id. https://rri.co.id/kupang/info-kementerian/2553728/ruu-administrasi-pertanahan-jadi-pilar-baru-sistem-pertanahan-nasional

Salalı, V., & İnam, Ş. (2025). Strategic approaches for a sustainable future in an earthquake zone: A comparison between Japan and Türkiye. *DEPARCH Journal of Design, Planning and Aesthetics Research, 4*(2), 93–111. https://deparch.selcuk.edu.tr/index.php/deparch/article/view/42

Subekti, R., Raharjo, P. S., Waluyo, Hermawan, S., & Nugroho, A. (2021). Konsolidasi tanah perkotaan dalam rangka penyediaan tanah untuk penataan perumahan dan pemukiman kumuh [Urban land consolidation for land provision for housing and slum settlement arrangement]. *e-Journal Komunitas Yustisia, 4*(3), 773–783.

Undang-Undang Dasar Negara Republik Indonesia Tahun 1945 [Constitution of the Republic of Indonesia of 1945].

Undang-Undang Nomor 1 Tahun 2011 tentang Perumahan dan Kawasan Permukiman [Law Number 1 of 2011 on Housing and Settlement Areas].

Undang-Undang Nomor 2 Tahun 2012 tentang Pengadaan Tanah bagi Pembangunan untuk Kepentingan Umum [Law Number 2 of 2012 on Land Acquisition for Development in the Public Interest].

Undang-Undang Nomor 5 Tahun 1960 tentang Peraturan Dasar Pokok-Pokok Agraria [Law Number 5 of 1960 on Basic Agrarian Principles].

Undang-Undang Nomor 12 Tahun 2011 tentang Pembentukan Peraturan Perundang-undangan [Law Number 12 of 2011 on the Formation of Laws and Regulations], as amended most recently by Undang-Undang Nomor 13 Tahun 2022.

Undang-Undang Nomor 20 Tahun 1961 tentang Pencabutan Hak-Hak atas Tanah dan Benda-Benda yang Ada di Atasnya [Law Number 20 of 1961 on the Revocation of Rights to Land and Objects Thereon].

Undang-Undang Nomor 23 Tahun 2014 tentang Pemerintahan Daerah [Law Number 23 of 2014 on Regional Government].

Undang-Undang Nomor 26 Tahun 2007 tentang Penataan Ruang [Law Number 26 of 2007 on Spatial Planning].

Undang-Undang Nomor 30 Tahun 2014 tentang Administrasi Pemerintahan [Law Number 30 of 2014 on Government Administration].

Venter, C., Dutu, M., Antonopoulos, K., & Samourkasidou, E. (2024). *Land readjustment policies: Potential for transformative urban policy in the age of climate adaptation*. World Bank. https://documents1.worldbank.org/curated/en/099100124053525592/pdf/P180002-1e146c52-162c-45d7-be97-fa2e0ade5b4f.pdf