

Transfer of Development Rights (TDR) and Urban Heritage: A Preservation Tool or a Recipe for Disaster?

Comparative Analysis of TDR Policy Implementation and its Impact on Urban Heritage Preservation in Select Highly Urbanized Areas in Southeast Asia

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Abstract

Preserving built heritage in highly populated Southeast Asian countries such as the Philippines, Thailand, and Myanmar is jeopardized by social, economic, environmental, and political pressures in urban development. The lack of financial resources renders heritage conservation unprofitable, decreasing preservation efforts. Countries like Hong Kong, Turkey, and the United States have implemented urban planning policies like Transfer of Development Rights (TDR) to address conservation imperatives. Nevertheless, implementing TDR can reduce the value of built heritage since it might result in future challenges such as urban densification, instability on an urban scale, and exceeding carrying capacities. This study analyses the gray area between conservatism and liberalism in preserving urban heritage. It concludes that TDR can effectively balance urban development demands and safeguard heritage. Practical implementations in Hong Kong, Turkey, and the US prioritize establishing objectives, regulations, incentives, and active involvement of the public. Effective localization and strategic governance coordination are paramount for Thailand, the Philippines, and Myanmar.

Keywords

Transfer of Development Rights, Built Heritage, Conservation, Urban Planning, Policy

1. Introduction

Transfer of Development Rights (TDR) is an urban planning strategy used to regulate and balance the built environment and its growth to promote many conservation efforts, including the conservation of built heritage to preserve historically significant structures and properties. TDR involves the practice of reallocating development rights such as the remainder floor area ratio (FAR) and supposed gross floor area (GFA) from one property to another designated property, termed a sending area, resulting in a maximized development potentially exceeding its FAR and GFA designation rights while preserving the area where the developer of the sending area bought the said rights Field (Park & Lippoldt, 2008; Rist, 2014; Vichienpradit, 2024; Weiner, 2009).

1.1. Impacts of TDR on urban development

As a public policy, TDR has positive and negative impacts on urban development. In some cases, TDR benefits the economic sector by creating a market for conservation efforts, benefiting both developed and developing countries. In some studies, TDR proved to be an effective policy for regulating extensive urban development while preserving the environment, as it offers mechanisms for conserving land resources while permitting suitable property developments (Falco & Chiodelli, 2018; McMichael & Weber, 2020; Panayotou, 1994). TDR is also a developer- and development-friendly tool, providing incentives through tax exchange rates and shields, infrastructure improvement, and a smooth and streamlined development approval process for sending and sender areas patronizing TDR (Aken et al., 2010). TDR is also instrumental for urban decentralization and property value increase, which appraise growing neighborhoods, areas with higher household income, areas with lagging property values, and areas with limited access to public infrastructure, services, and utilities, which can result in an equitable urban development (Kopits et al., 2008; Shih et al., 2019). TDR as an urban development policy is also a potential tool to augment the conservation of privately owned built heritage by allowing owners to sell and transfer their development rights to potential buyers and gaining fair remuneration to potentially conserve their respective historically significant built heritage while still allowing new potential developments and redevelopments (Hou, 2017). However, despite its possible benefits for urban development and heritage conservation, TDR has certain drawbacks. In terms of urban development, the potential increase and appraisal of land values in some areas result in gentrification, land exhaustion, and further commercialization of land, which can influence locals to move out, induce overdevelopment, and reduce the availability and affordability of housing (Carroll et al., 2009). TDR also established a potential bias between development and conservation efforts, equitable zoning regulations, unclear property strategies, and development rights, and balancing economic growth and environmental protection (Falco & Chiodelli, 2018; Jedwab et al., 2022; Linkous, 2016). TDR has its fair share of adverse impacts regarding building height and density, resulting in uncontrolled locations where densification might occur. In contrast, such phenomena may result in the absence of human scale essential for creating comfortable and pedestrian-friendly environments and the possible devaluation of historically significant built heritage fields (Ewing & Handy, 2009; Hou, 2017; Shih et al., 2019; Ye et al., 2019; Zhong et al., 2020). There are also instances where the income generated from selling development rights is misused and diverted from its intended purpose of conserving and preserving built heritage without proper intervention from a governing body (Vichienpradit, 2024).

1.2. Success points of TDR policy and strategy implementation

Despite facing challenges, TDR has been successfully implemented in countries like Hong Kong, Turkey, and the United States. The success of TDR depends on the presence of a governing body, transparent regulations, and incentives. Legislation-driven TDR requires a government presence and transparent rules, while incentive-driven TDR relies on TDR banks and the purchase of development rights programs. These factors help counterbalance economic imbalances and encourage developers to adopt TDR as an urban development concept. (Aken et al., 2010; Hou, 2017). A democratic and participatory approach to planning is crucial for successful TDR implementation, promoting cooperation, technology transfer, and learning processes. This approach is critical in Southeast Asia, where human rights and social justice are crucial for cultural preservation. (Aken et al., 2010; Hou, 2017; Luthe, 2017; Yasuda, 2002; Zscheischler et al., 2018). Many nations use TDR for urban renewal, historic building preservation, and environmental protection. It benefits historic buildings through development transfer models, incentives, and market-based strategies (BenDor et al., 2022; Guzle et al., 2020; Hou, 2017; Konbul & Yanalak, 2022; Linkous, 2016).

1.3. Failure points of TDR policy and strategy implementation

The failure of TDR can be attributed to its complexity, ambiguity, exclusionary, and rudimentary application. The complexity of zone designations can negatively affect built heritage and environmentally sensitive areas. Moreover, ambiguity in policy drafting can lead to unequal pricing and compensation, causing conflict and abandonment of conservation efforts. Rudimentary implementation can also lead to bias and inequality in urban development (Hou, 2017; Miller, 1999).

1.4. Southeast Asia and Urban Heritage Preservation

Southeast Asia's heritage preservation faces challenges due to over-tourism and rapid urbanization. The lack of funding and capitalization hinders efforts to preserve built heritage sites. Tourists can sustain historic buildings, affecting their authenticity and integrity. Rapid urbanization can lead to neglect, mutilation, or demolition, erasing history traces. Despite the Hoi An Protocol, threats from modernization, lack of funding, and inadequate preservation efforts in countries like Thailand, the Philippines, and Myanmar put urban heritage, particularly historic buildings, at high risk. (Byrne, 2014; Chong & Balasingam, 2019; Miura, 2022; Sham, 2015; Stough, 2021; Tantinipankul, 2013; Tunprawat, 2010). Thailand's disregard for and lack of preservation efforts for historic provincial towns and urban communities indicates the neglect of urban heritage in Southeast Asia. Because of urban growth, these areas—which do not match traditional royal and Buddhist architecture or rural vernacular heritage—are being rapidly demolished, causing them to decay and be neglected (Sham, 2015; Tantinipankul, 2013). Urban heritage in the Philippines is primarily neglected since it is believed to have little economic worth and to indicate underdevelopment. Even with initiatives to revitalize historic downtown districts, historical preservation is sometimes disregarded unless related to financial activities. However, heritage protection is sometimes seen as a losing investment with large expenditures and few returns, so cultural apathy in the Philippines has prevented substantial investment in this field (Cruz, 2019). The challenges of preserving urban heritage in Myanmar include top-down urban policy decisions, social injustice, the exclusion of marginalized groups, gentrification, and elite-driven initiatives centered on economic development (Guenther, 2013; Sabrié, 2019).

1.5. Research objectives, outputs, and outcomes

The research paper aims to identify best practices in TDR policy and strategy implementation in successful Asian and North American countries. Through case studies and content analysis of conservation policies, the researchers aim to identify barriers and drivers for implementing TDR in Southeast Asian countries. The study will compare the outcomes of heritage laws and policies of selected Southeast Asian countries without TDR policies to identify potential barriers and drivers for implementing TDR as an urban planning and development concept. The findings will help address gaps in modernization and lack of funding for conservation and preservation.

2. Methodology

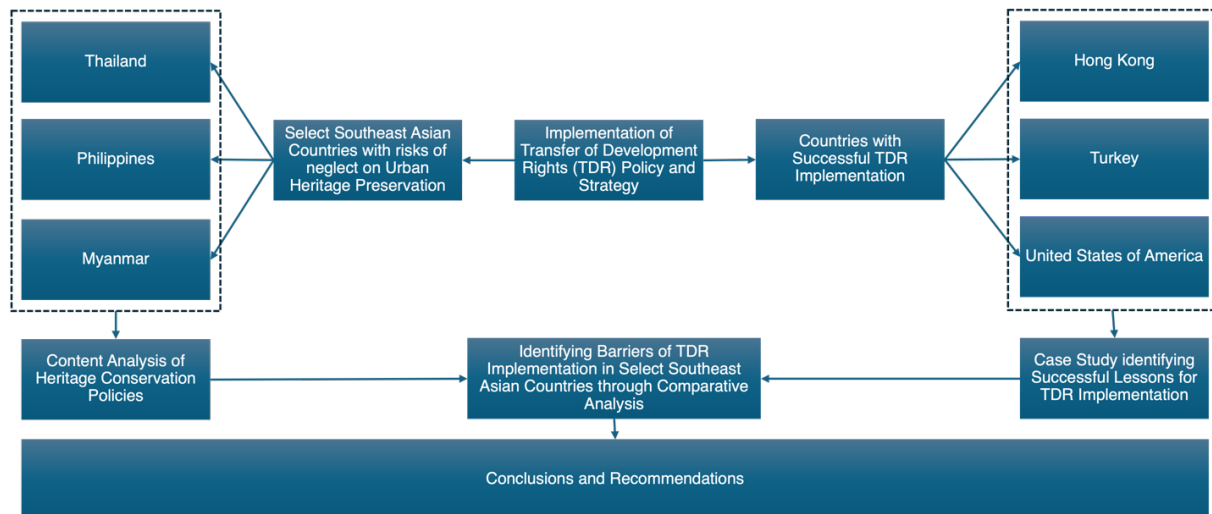


Figure 1 Theoretical Framework of the Study (Source: Authors)

This study uses case studies, content analysis, and comparative analysis to analyze successful and acceptable TDR implementation in Hong Kong, Turkey, and the United States and select Southeast Asian countries with risks of neglecting urban heritage preservation and their policies. The findings are compared to identify barriers and drivers for implementing TDR in these countries, aiming to eliminate potential risks.

2.1. Case study of successful countries implementing TDR

Using a case study approach, researchers identified three successful countries implementing TDR, two from Asia and one from North America. They aim to extract lessons and identify constraints, compare heritage laws and policies in Southeast Asian countries without TDR, and identify barriers.

2.1.1. Hong Kong

In Hong Kong, implementing the TDR is mainly utilized as a conservation incentive, from a concept for urban development intended to decentralize neighborhoods from micro to macro level urban developments with appropriate government support and facilitation. To manage urban growth densities, the TDR system in Hong Kong became an enabling instrument. TDR also influenced land use and zoning laws by establishing sending and receiving zones for development rights, promoting balanced urban development. To conserve its heritage, Hong Kong established a system in which heritage assessment certification was needed before development rights were transferred. The heritage assessment certification and comprehensive assessment parameters provide standards for measuring TDR values and determining sender and receiver compensation. Through its systematic approach, Hong Kong established identified growth and preservation nodes around the country (Hou, 2017; Li, 2008).



Figure 2 Ohel Leah Synagogue (in lower middle), a historic site in Hong Kong that utilized TDR as a measure for heritage preservation, surrounded by high-rise buildings (Source: <https://images.app.goo.gl/NTTXTtUzD787BBE48>)

Hong Kong has successfully implemented TDR for historic buildings despite challenges such as high market demand, low returns, and discretionary transactions. The government and local authorities are working to improve the system, implementing stricter regulations and incentives for those who follow the policy. This has led to transparent transactions, urban developments, and public green spaces. Heritage buildings have received more funding and support, generating economic returns. One successful example is the Ohel Leah Synagogue, which sold its TDR rights to maintain its condition. (Hou, 2017; Li, 2008; Vichienpradit, 2024).

2.1.2. Turkey

Turkey's Culture and Cultural Heritage Law established TDR in 2004 as an alternative income source. However, the lack of regulation led to abuse and misinterpretation, making TDR an instrument for political, social, and financial pressures. The local government should establish a TDR Bank to facilitate transactions, including location, acquisition, and operation limits, subject to approval by management units and authorities. (Guzle et al., 2020; Konbul & Yanalak, 2022).



Figure 3 The historic Kemeralti Bazaar in Izmir, Turkey (Source: Wikimedia Commons)

To further meet the objectives of the law for maintaining a large market for conservation and development, as well as preserve essential landmarks and built heritage. Comprehensive zoning policies are envisioned to reinforce these outcomes. In the case of the Historic Kemeraltı Bazaar in Izmir (See Figure no. 3), the implementation of TDR following the Culture and Cultural Heritage Law is high time. However, implementing TDR, a complex process involving the conservation of registered historical, cultural, and natural assets, requires a comprehensive guideline specifically underscoring measures for heritage conservation. This is necessary to make the law and its objectives feasible (Guzle et al., 2020; Konbul & Yanalak, 2022; ÇİÇEK & ÇAY, 2018).

2.1.3. United States of America

TDR was first introduced in the USA in the 1960s, but there is no binding law or policy mandating compliance in its implementation. Successful TDR implementations in the USA include Livermore, California, Dade County, Florida, New Jersey Pinelands, and Montgomery County. A framework for assessing TDR success based on 14 U.S. TDR case studies includes political foundation, uniform regulatory process, sense of place, resources, public acceptance, suitable receiving areas, TDR leadership, mandatory programs, TDR bank, compatibility with PDR, simplicity and cost efficiency, and knowledge of development and local land use demands. TDRs are widely used in the U.S., preserving at least 300,000 acres of agriculture, natural regions, and open space across 33 states. (Aken et al., 2010; BenDor et al., 2022; Chan & Hou, 2015; Kaplowitz et al., 2008; Linkous, 2016; Vichienpradit, 2024).

2.2. Content analysis of Southeast Asian countries' policies for TDR implementation

Southeast Asian countries like Thailand, the Philippines, and Myanmar are working on heritage preservation policies but lack a definitive TDR policy. Content analysis of these policies can help identify potential barriers and consider TDR an acceptable tool for urban heritage preservation, comparing them to successful case studies.

2.2.1. Thailand

The rapid urban development posed challenges to the old urban communities and heritage sites. The market-driven real estate development and the government's prioritized mega infrastructure projects create new urban centers that are competing against the old urban centers, and the mass transit stations in old urban centers increase the land values in historical areas, leading to the new development (Siriphatthanakun, 2023). In addition to the modern development projects, the country's tourism agenda

and commercial interests usually affect the historical communities and their heritage (Tantinipankul, 2013). According to Thailand's legal frameworks, the conservation of urban heritage is generally overseen by the regulations of the Fine Arts Department, the regulations of the Office of Natural Resources and Environmental Policy and Planning, the measures from the Town Planning Act 2019, and some area specific plan for instance the "Master Plan of Conservation and Development of Krung Rattanakosin 2032" (Issarathumnoon, 2020). However, these regulations focus primarily on the landmark's heritage and are less concerned with the less valuable and ordinary buildings. And they are known for their rigid framework and lack of incentives (Issarathumnoon, 2020; Richter et al., 2020).

One of the recent attempts to pour incentives for heritage conservation is the air rights transfer (ART) program by the Planning Office of the Bangkok Metropolitan Administration (BMA) in 2017 (Pimonsathean, 2022). The program allows the owners of low-rise buildings in the heritage district or zone to sell their unused air rights above their building to another site developer who wants to build higher than zoning regulations. It tries to provide economic viability to the owners while encouraging them to protect the heritage site or the building. Yet, it is still a voluntary scheme, and details such as the sending and receiving areas were not provided.

Along with the Bangkok City Plan (4th revision), the government initiates the idea of transfer of development rights (TDR) that shall be applied on the land plots with a heritage building or the plots in rural and agricultural conservation areas (Katharangsiporn & Sangwongwanich, 2018). The TDR can be sold to developers from plots within 500 meters of mass transit stations. Vanchai Thanomsak, director-general of the City Planning Department for the Bangkok Metropolitan Administration (BMA), said, "Some landowners may not want to utilize their land to the fullest. Their plots may allow for the construction of high-rise buildings, but they only want to build houses. They can profit from the difference between their development rights and those they use" (Katharangsiporn & Sangwongwanich, 2018). This aims to provide heritage building owners with financial resources to keep their buildings from alterations or demolitions and increase land utilization. Therefore, it can be said the government's shift towards TDR is not purely for heritage preservation, and it is still unknown how much TDR sales will impact the urban heritage sector in Bangkok. Currently, the draft City Plan is under public hearing until August 2024, and the citizens are encouraged to send their opinions directly to the Bangkok Urban Planning and Development Office, making it an inclusive policy framework with a high public participation rate.

2.2.2. Philippines

Under the Philippines' National Cultural Heritage Act of 2009, the country's cultural properties are classified as National Cultural Treasures, Important Cultural Property, World Heritage Sites, National Historical Shrine, National Historical Monuments, and National Historical Landmarks (Republic of The Philippines, 2009). All the heritage officially declared as national cultural properties are entitled to priority government funding for their preservation works, incentive for private support, official heritage marker, and priority protection by the government in times of armed conflict or state of emergency. Specifically, sections 35, 36, and 37 of the National Cultural Heritage Act describe the incentive programs such as tax exemption on donations to the National Commission on Culture and the Arts (NCCA) and related cultural agencies, National Heritage Resource Assistance Program that provides financial assistance in the form of grant to organizations and agencies that work for the heritage preservation and research, and lastly awards and citations for unique and essential contributions and services for heritage preservation. In the case of private owners of cultural properties, the NCCA may agree to the terms, including the financial assistance provision and dispute resolutions, with the owners to preserve their properties. The provision of incentives for conservation in the form of tax relief and fund appropriation is also mentioned in the Philippine Heritage Charter's Principle 9 (National Commission for Culture and the Arts, 2022).

On the other hand, the private owners of heritage properties are prohibited from demolishing, altering, or defacing the buildings or conducting any construction or real estate developments without prior written permission from the NCCA. According to the Urban Land Reform Act, "development rights," also known as "new use rights," are defined as the right to use or implement improvements for a more intensive use or a more profitable use by increasing the density or so (Republic of The Philippines, 1978). The act provided the guidelines for land acquisitions or assembly through expropriation or negotiated purchases from individual owners and land exchange for another piece of land of equal value in government or quasi-government corporations. According to this, the landowner where the heritage building is can either sell their land and property through negotiated purchase to the government or cultural preservation agency or swap their land with another of estimated similar value under the government's corporation (Dulay, 2024). Based on the act, the development rights seem to be attached to the land, and there is no mention of a separate sale or exchange of development rights from the land. In a city like Metro Manila, where its urban landscape has drastically changed in the previous 60 years (Okyere et al., 2015), modernization has affected some of the Philippines' heritage sites by growing real estate projects or the government's prioritization for tourism, economic and infrastructural development projects (Nepomuceno, 2021). The high-rise real estate developments not only diminish the aesthetic visual of the heritage buildings but also adversely affect the authenticity of the context of the heritage site. Heritage buildings are not only negatively affected by modern developments, but the cost to preserve them is shouldered either by financial incentives allowed by the government or their funding. This calls for another intervention that can balance the growth of modern development projects and the preservation of heritage buildings in the city and share the financial responsibility of preservation expenses between the government, owners, and private developers.

2.2.3. Myanmar

Yangon is one of the cities in Asia with a high concentration of colonial architecture, with an estimated number of 2,000 properties dating back to the 1950s, which are principally prevented from rapid modern developments by an extended period of political and economic sanctions claimed by U Toe Aung, director of Urban Planning Division (Aung, 2015). However, much of Yangon's urban heritage has been replaced by high-rise buildings, office towers, and commercial places. In addition to the replacement by the newly developed projects, many of the city's colonial-era buildings are facing the danger of deterioration due to natural disasters and the state of abandoned, especially after the capital moved to Nay Pyi Taw in 2005 (Frauke Kraas et al., 2015).

The heritage, both tangible and intangible, in Myanmar is protected by sets of laws, primarily the Protection and Preservation of Cultural Heritage Regions Law (1998) (The State Peace and Development Council, 1998), Law on the Preservation and Protection of Ancient Buildings (2015) (Pyidaungsu Hluttaw, 2015a), the Protection and Preservation of Ancient Monuments Law (2015) (Pyidaungsu Hluttaw, 2015b), and Yangon City Municipal Law (2018) (Yangon City Development Committee, 2018). These legal frameworks mandate that government departments such as the Ministry of Culture and the department under the Yangon City Development Committee (YCDC) protect the country's heritage. Although these legal documents define the terms and highlight the hierarchy in heritage preservation, they are merely concerned with the policies and incentive programs to protect the heritage. Regarding heritage preservation, the Strategic Urban Development Plan of the Greater Yangon 2013 presented the strategy for realizing an attractive urban landscape suitable for an international city through the conservation and utilization of historic buildings. It proposed heritage protection and conservation zones in controlled urban redevelopment and urbanization control areas (Yangon Region Government et al., 2013). The zoning regulations now have imposed height regulations for the Shwe Dagon Restricted Area (SDRA) in which the

buildings in the three sub-areas under SDRA are not allowed to build with heights beyond 62 ft, 190 ft, and 417 ft, respectively (Yangon City Development Committee, 2020).

The current regulatory frameworks for heritage preservation in Yangon lack coordination among the implementing government departments and sometimes the regulations themselves. Particularly in Yangon, where the conservation zone falls into the Central Business District (CBD) with high land value, regulatory frameworks are required to accommodate both the needs of conservation and economic development. However, due to the lack of transparency in the privatization process and the weakness in the rule of law, controversial projects such as 68 Residence Luxury Condominiums in Bahan Township broke the zoning regulations (Frontier Myanmar, 2016). The current laws, building codes, and zoning regulations do not include incentives that encourage the citizens to be more cooperative and compensate the owners of buildings in restricted and conservation zones for compromising their development rights.

To foster the heritage preservation process and increase infrastructure and economic development, Yangon needs heritage-led development strategies and additional incentives such as transfer of development rights (TDR) that promote preservation but also appreciate the economic values of the heritage buildings.

3. Results

There are specific remarkable characteristics that Hong Kong, Turkey, and the US have in common from the effective execution of the transfer of development rights programs. The most obvious is their defined objectives. Conservation is the main reason any nation implements TDR. Other goals are also determined based on each nation's needs and environment. For example, with the conservation objectives, TDR also aims to raise urban growth densities in Hong Kong. For Turkey, it would mean finding a different source of income and legally exceeding restrictions and regulations over developments to be acceptable; for the US, it would mean simultaneously achieving both conservation and development objectives. Therefore, before beginning the implementation process, the countries should consider having the correct and explicit aims and objectives for implementing TDR. That is what Myanmar, the Philippines, and Thailand must specify. As with the heritage assessment certificates in Hong Kong and the restrictions on location, purchase, and operation in Turkey, the successful case studies also include control elements that are used to prevent the TDR from being misused. Simultaneously, they include supporting elements like attractive incentives or better public access to TDR information. Another thing in common with these countries is the presence and intervention of a governing body through TDR banks. Selling development rights is one thing. However, managing and facilitating it is another primal consideration. Hence, a mediating body might be essential in effectively executing TDR. Institutionalizing a law or policy for TDR implementation may or may not be required since a mediating body will be present. The researchers believe a TDR policy and principle may be enough for the national and local governments to institutionalize the TDR. However, with the advent of passing laws for implementation, it should not be too restrictive or too relaxed to avoid potential abuse or resentment of TDR as an urban development concept.

As already said, Thailand, the Philippines, and Myanmar have yet incentives to draw prospective TDR buyers and sellers. Except for Thailand, where their comprehensive city plan is now undergoing public hearings and requests for public comments, public recognition of the implementation of TDR could be higher. Every approach and program utilized, in the meantime, might have different outcomes. Lack of some measures could be acceptable for one nation but disastrous for another. With the obligatory rules, for instance, TDR is workable and effective in the United States, but Turkey needs more law enforcement for TDR. Thus, it is necessary for the nations implementing TDR to match the success indicators with their situations. But regardless of the problem, a governing TDR policy and principle may be a suitable course. These countries should give options for potentially safeguarding their built heritage.

4. Discussions, conclusions, and recommendations

TDR can be a tool to mediate the contesting demands of new urban development and to conserve the past. The comparative and content analysis of successful TDR implementation in Hong Kong, Turkey, and the United States highlights the importance of setting goals and scopes that are well-suited to the needs of the city and having adequate controls such as limitations, assessments, and certificates for TDR doable land and zones (both receiving and sending). It supports incentives, TDR banks, and public participation and awareness. They also validate that the success factors and pain points can vary depending on the local context, underlining the need to localize the international TDR standards and criteria. However, it can also be a misused disaster, risking the heritage. The definition and concept of TDR might be simple, but putting it into practice is complex and requires details. For countries like Thailand, the Philippines, and Myanmar, where TDR is not fully practiced yet, a comprehensive framework or guideline is required that is contextualized to the needs of each country with good governance coordination, transparency, and public participation.

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