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Dynamic Governance in Accelerating the Climate Village Program in Urban Areas: A Case Study of Pekanbaru City in 2025

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Abstract: Rapid urban growth in Pekanbaru City has increased ecological challenges, including urban flooding, rising microclimate temperatures, and solid waste management problems. The Climate Village Program (*Program Kampung Iklim*, ProKlim) provides a community-based approach to climate adaptation and mitigation. However, its implementation in urban areas faces challenges related to bureaucratic rigidity, sectoral fragmentation, and limited sustained public participation. This study analyzes the application of Dynamic Governance in accelerating ProKlim establishment through urban governance in Pekanbaru City in 2025. Using Neo and Chen's (2007) framework of *Thinking Ahead*, *Thinking Again*, and *Thinking Across*, supported by *Able People* and *Agile Processes*, this qualitative case study examines institutional dynamics and policy innovation. The findings show that accelerating ProKlim requires adaptive urban governance capable of anticipating ecological challenges, revising ineffective interventions, and disseminating best practices through cross-sector collaboration.

Keywords: Dynamic Governance, Climate Village Program, Urban Governance, Climate Adaptation.

INTRODUCTION

Global climate change is no longer treated as a speculative environmental issue; it has become an existential crisis that threatens the stability of urban areas worldwide. Reports of the Intergovernmental Panel on Climate Change (IPCC) consistently affirm that urban areas are critical hotspots that are most vulnerable to anthropogenic ecological pressure. Population concentration, the densification of physical infrastructure, uncontrolled land-use conversion, and high energy consumption turn urban areas into accumulators of ecological disaster risk, including the urban heat island phenomenon, clean-water crises, local ecosystem degradation, and increasingly frequent and intense urban flooding. In the context of sustainable development, these dynamics threaten the achievement of the Sustainable Development Goals

(SDGs), particularly Goal 11 (Sustainable Cities and Communities) and Goal 13 (Climate Action). The capacity of city governments to adapt and respond to these threats quickly and in a structured manner has therefore become an absolute necessity.

In Indonesia, the response to the impacts of climate change at the grassroots level has been channeled through a national policy instrument managed by the Ministry of Environment and Forestry (KLHK): the Climate Village Program (*Program Kampung Iklim*, ProKlim). The program is formally regulated by Minister of Environment and Forestry Regulation No. P.84/MENLHK-SETJEN/KUM.1/11/2016 on the Climate Village Program. ProKlim is designed as a community-based climate action movement that integrates climate change adaptation and mitigation activities at the local level, from the neighborhood unit (*Rukun Warga*, RW) and hamlet (*dusun*) to the village or urban village (*desa/kelurahan*). Through ProKlim, communities are encouraged to undertake concrete actions such as building rainwater harvesting facilities, constructing biopori infiltration holes and *rorak* (soil infiltration trenches), managing waste independently, greening their neighborhoods, forming urban farming groups, and preventing and controlling climate-related diseases. As part of its national commitment under the Nationally Determined Contributions (NDC), the Government of Indonesia has set a target of establishing and strengthening at least 20,000 Climate Villages across the archipelago.

However, executing this national target becomes complex when it is devolved to the arena of local government, particularly in urban areas with highly dynamic socio-ecological characteristics. Pekanbaru City, as the seat of government and the principal economic growth node of Riau Province, is an urban laboratory facing a fairly acute ecological crisis. Rapid population growth, the expansion of commercial and residential areas, and the conversion of water catchment areas in several sub-districts have produced significant environmental vulnerability. Pekanbaru routinely experiences urban flooding in residential areas during the rainy season, degraded air quality, and spikes in urban microclimate temperatures. This complexity is compounded by the city's geographic proximity to peatlands prone to forest and land fires (*karhutla*), which makes the city's temperature dynamics and environmental quality highly sensitive to regional climate change.

Through its Environment and Forestry Agency (*Dinas Lingkungan Hidup dan Kehutanan*, DLHK), the Pekanbaru City Government has in fact responded to this national regulation by proposing and supporting several locations to join ProKlim. Based on the map of ProKlim development in Pekanbaru, the initiation of the program has fluctuated from year to year:

1. 2020: Initial initiation at one location, namely Tobek Godang Urban Village (*Kelurahan*), Tampan Sub-district (*Kecamatan*).
2. 2021: Expansion to two locations at the neighborhood-unit level, namely RW 02 and RW 03 of Tobek Godang Urban Village, Binawidya Sub-district.
3. 2022: A surge in registrations covering eight new locations, including RW 07 and RW 16 of Tobek Godang Urban Village (Binawidya Sub-district), RW 13 of Bambu Kuning Urban Village (Tenayan Raya Sub-district), RW 06 of Sidomulyo Timur Urban Village (Marpoyan Damai Sub-district), the Ibnu Al Mubarak Islamic Boarding School (*Pondok Pesantren*) in RW 03 of Agrowisata Urban Village (Rumbai Barat Sub-district), RW 04 of Binawidya Urban Village (Binawidya Sub-district), and RW 12 and RW 13 of Umban Sari Urban Village (Rumbai Sub-district).
4. 2023–2024: Additional locations were designated, including RW 06 of Agrowisata Urban Village (Rumbai Barat Sub-district) and Sekip Urban Village (Lima Puluh Sub-district).

Entering 2025, Pekanbaru City, which comprises 15 sub-districts and 83 urban villages with hundreds of RW areas, faces far higher demands for acceleration. Although several locations, such as Agrowisata Urban Village and the Ibnu Al Mubarak Islamic Boarding

School, have earned ProKlim *Utama* (Main) Category certificates from KLHK, in aggregate the distribution of ProKlim across Pekanbaru remains very limited, uneven, and not yet systemically integrated across the urban area. Most urban villages in the city have not yet received any ProKlim mentoring. This condition points to a wide gap between the city's ecological vulnerability and the pace at which Climate Villages are established and institutionalized at the grassroots level. Empirically, the slow pace and unevenness of ProKlim establishment in Pekanbaru can be traced to a series of governance bottlenecks at the local level, namely the following.

Procedural pragmatism and registration formalism. The establishment of ProKlim in the field is often trapped in a purely administrative orientation, in which local government agencies expend most of their effort on meeting the documentary requirements for registration in KLHK's National Registry System (*Sistem Registrasi Nasional*, SRN). This pattern leaves many Climate Villages passive or drained of vitality (sustainability) once the assessment is over or the certificate has been awarded.

Dependence on local champions and weak community sustainability. At several leading locations (such as Agrowisata Urban Village), the success of ProKlim depends heavily on the prominence of particular local figures or RW officials. When community leadership changes or the enthusiasm of these local figures wanes, climate adaptation and mitigation activities stagnate immediately, because there is no structured and self-reliant community institution.

Sectoral ego and the absence of multisector program integration. ProKlim policy in Pekanbaru is still perceived narrowly as the "sole task" of the DLHK. Yet urban climate action requires drainage improvements (the authority of the Public Works and Spatial Planning Agency, PUPR), the management of slum settlements and green open space (the Housing and Settlements Agency, Perkim), waste management (the DLHK), and local development budget interventions (the Regional Development Planning, Research and Development Agency, Bappedalitbang, and the sub-district and urban village offices). This lack of cross-sector coordination means that urban infrastructure programs often run in isolation and fail to support the grassroots needs of ProKlim.

Limited institutional capacity and local bureaucratic budgets. Officials at the sub-district and urban village levels in Pekanbaru generally have very limited understanding of the technical aspects of climate change and of the ProKlim registration mechanism. Moreover, financing schemes for mentoring and for providing the physical infrastructure that supports ProKlim have not been explicitly and sustainably integrated into the Urban Village Fund (*Alokasi Dana Kelurahan*, Dankel) or the Pekanbaru Regional Revenue and Expenditure Budget (APBD).

Fragmented involvement of non-governmental sectors. Resources outside government have not been consolidated within a single partnership forum with a clear direction. These include Corporate Social Responsibility (CSR) funds from the private sector, intellectual contributions from universities in Pekanbaru (through Thematic Community Service Program, or KKN, activities and applied research), and the participation of environmental civil society organizations and NGOs.

The situation demonstrates that ProKlim acceleration in Pekanbaru is not simply a matter of increasing the number of registered locations, but also of strengthening the governance capacity required to sustain climate action. Urban climate challenges are dynamic, interconnected, and continuously evolving, requiring local institutions to anticipate emerging risks, reassess existing approaches, and coordinate resources across administrative and sectoral boundaries. Therefore, the effectiveness of ProKlim depends on the capacity of local government to develop adaptive institutional arrangements, foster sustained community engagement, and integrate climate action into broader urban development policies.

These empirical problems confirm that the main obstacle to accelerating ProKlim in

urban areas lies not merely in the absence of regulation or a lack of citizen enthusiasm, but in the limited adaptive capacity of the bureaucracy and of local governance in responding to fast-moving environmental challenges. Conventional models of government that are rigid, hierarchical, and oriented toward business as usual have proven unable to accommodate the acceleration of ProKlim, which demands speed, agility, flexibility, and multisector collaboration. In the fields of public administration and urban governance, conventional approaches such as Old Public Administration (OPA), which emphasizes hierarchical compliance, and New Public Management (NPM), which focuses solely on economic efficiency, have proven inadequate for explaining and resolving urban ecological problems characterized by volatility, uncertainty, complexity, and ambiguity (VUCA). This situation underscores the urgency of applying the Dynamic Governance paradigm.

Operationalizing Dynamic Governance at the local level requires strengthening adaptive institutional capacity and fostering regulatory flexibility within local financing schemes. The Pekanbaru City Government must drive bureaucratic transformation away from a rigid administrative focus toward actively cultivating cross-sectoral collaboration that systematically integrates private enterprises, academia, and local communities. Aligning the Urban Village Fund (Dankel) with climate resilience agendas constitutes a strategic imperative to ensure self-reliant program sustainability. Through participatory and continuous monitoring mechanisms, every urban village will be empowered to respond dynamically to evolving climate risks. Consequently, this governance enhancement will transform ProKlim from a mere procedural formality into a deeply integrated and sustainable socio-ecological movement across the urban area.

Based on the global context, the national regulation, the empirical data on ProKlim development in Pekanbaru, and the theoretical gaps outlined above, this study aims to analyze in depth how Dynamic Governance, reflected in the capabilities of *Thinking Ahead*, *Thinking Again*, and *Thinking Across* and supported by *Able People* and *Agile Processes*, is applied by the Pekanbaru City Government to redesign, accelerate, and institutionalize the establishment of the Climate Village Program in urban areas in 2025. The findings are expected to contribute theoretically to the literature on adaptive public administration and urban governance, and to offer concrete policy recommendations for the Pekanbaru City Government in realizing a climate-resilient city.

Literature Review

Dynamic Governance in Public Sector Adaptation

Dynamic Governance, developed by Neo and Chen (2007), explains how public institutions maintain institutional effectiveness in volatile, uncertain, and rapidly changing environments through continuous organizational adaptation (Handoko, 2021). Rather than relying on rigid administrative routines, this framework emphasizes three core dynamic capabilities: *Thinking Ahead*, *Thinking Again*, and *Thinking Across* (Dwiyanto, 2018). *Thinking Ahead* refers to the strategic capacity to anticipate future risks, ecological pressures, and policy opportunities (Moore, 1995); *Thinking Again* involves the critical evaluation and systematic revision of underperforming or overly complex policy instruments (Prabowo et al., 2020); and *Thinking Across* concerns cross-boundary learning, absorbing best practices beyond institutional and sectoral silos (Neo & Chen, 2007).

These dynamic capabilities depend on two institutional enablers: *Able People* and *Agile Processes* (Handoko, 2021). *Able People* represents competent, adaptive, and public-value-oriented actors across the bureaucracy and civil society who act as change agents (Moore, 1995). *Agile Processes* denote flexible institutional mechanisms, streamlined procedures, and adaptive regulatory frameworks that allow fast public-sector responses while preserving accountability (Prabowo et al., 2020). While early applications of Dynamic Governance

focused heavily on national-level administrative systems (Dwiyanto, 2018), recent public administration literature highlights its critical relevance for local governments managing complex, non-linear environmental crises (Handoko, 2021).

Urban Environmental Governance and the Co-Production of Climate Action

Urban climate governance is inherently multi-level, polycentric, and collaborative (Bulkeley & Betsill, 2005). Traditional top-down hierarchical approaches (Old Public Administration) and market-driven efficiency models (New Public Management) have proven structurally inadequate for resolving complex urban ecological pressures (Hood, 1991). Resolving urban vulnerability requires structured collaboration among state agencies, private enterprises, academic institutions, and grassroots communities (Ansell & Gash, 2008).

In community-based climate policy, the concept of co-production provides a vital lens for understanding program sustainability (Ostrom, 1996). Public services and ecological resilience cannot be delivered solely by government agencies; they are jointly produced through active citizen engagement, local knowledge, and institutional support (Brandsen & Pestoff, 2006). In the context of local climate adaptation, urban residents contribute social capital, grassroots mobilization, and physical maintenance (Aylett, 2014), while the local state provides regulatory legitimacy, technical expertise, and sustained financial allocations (Shi et al., 2016).

Synthesis of Previous Studies and Research Gap

Extensive empirical literature on the Climate Village Program (ProKlim) in Indonesia has primarily focused on community participation levels, local adaptive capacity, and socio-ecological impacts at rural or semi-urban pilot sites (Pratama & Sugiyanto, 2022). Concurrently, studies on public sector governance in environmental management have analyzed bureaucratic reform (Dwiyanto, 2018) or isolated collaborative networks (Ansell & Gash, 2008).

However, a critical research gap remains at the intersection of dynamic public governance and local climate action in dense urban settings (Suryani et al., 2020). Existing studies fail to adequately explain how local urban bureaucracies operationalize dynamic capabilities specifically how they overcome bureaucratic rigidity to anticipate microclimate risks, simplify complex administrative procedures, foster cross-sectoral co-production, and mobilize adaptive leadership under tight urban spatial and budgetary constraints (Wibowo & Maryani, 2021). Most ProKlim evaluations treat local government capacity as a static background variable rather than an evolving institutional dynamic (Pratama & Sugiyanto, 2022). This study addresses this gap by investigating the systemic acceleration of ProKlim in Pekanbaru City in 2025, analyzing how the synergy of Thinking Ahead, Thinking Again, Thinking Across, Able People, and Agile Processes redesigns urban environmental governance to turn a paper-based administrative exercise into a resilient socio-ecological movement (Handoko, 2021).

METHODS

This study employed a qualitative approach using an exploratory case study design to examine the acceleration of the Climate Village Program (Program Kampung Iklim/ProKlim) in urban areas of Pekanbaru City in 2025. The qualitative approach was selected to capture the processes, institutional practices, and adaptive dynamics underlying ProKlim implementation, particularly through the lens of Dynamic Governance. The case study focused on Pekanbaru because the program involves interactions among local government institutions, communities, and other actors in addressing urban climate and environmental challenges.

The research focused on the implementation and acceleration of ProKlim and its

relationship with the five dimensions of Dynamic Governance: Thinking Ahead, Thinking Again, Thinking Across, Able People, and Agile Processes. The study involved 25 participants selected to provide information relevant to the implementation of ProKlim in Pekanbaru. The participants represented actors involved in or knowledgeable about the program, allowing the study to examine both institutional processes and community-level practices in the implementation of climate adaptation and mitigation activities.

Data were collected through in-depth interviews, field observations, and document study. In-depth interviews were used to obtain detailed information regarding the experiences, strategies, and adaptive practices of actors involved in ProKlim. Field observations were conducted to understand the implementation of activities and the interaction between government and community actors in the selected locations. Documentary data were used to complement the interview and observation findings, including relevant program documents and administrative records concerning ProKlim implementation in Pekanbaru.

The data were analyzed using the interactive model developed by Miles, Huberman, and Saldaña, which consists of data condensation, data display, and conclusion drawing and verification. The analysis was conducted iteratively throughout the research process so that emerging findings could be compared and interpreted in relation to the Dynamic Governance framework. To strengthen the credibility of the findings, data triangulation was applied by comparing information obtained from different participants and data-collection techniques. This process was used to identify consistent patterns and to ensure that the interpretation of ProKlim acceleration was supported by multiple sources of evidence.

RESULTS AND DISCUSSION

Dynamics of Urban ProKlim Development and Acceleration in Pekanbaru

The acceleration of the Climate Village Program (ProKlim) in Pekanbaru from 2020 to 2025 represents a philosophical and practical transformation of environmental governance, from a partial approach oriented toward administrative fulfillment (procedural compliance) to an integrated, adaptive governance movement in urban areas. As a metropolitan city experiencing rapid economic growth and physical expansion in Riau Province, Pekanbaru faces complex anthropogenic ecological pressures. The conversion of water catchment areas into commercial and residential zones in dense sub-districts such as Binawidya, Marpoyan Damai, and Tampan has increased the number of urban flooding hotspots. At the same time, the densification of the city's physical structure and the loss of shade vegetation have driven up urban microclimate temperatures (the urban heat island effect), a problem exacerbated by Pekanbaru's location adjacent to peatlands prone to forest and land fires (*karhutla*).

In mapping the institutional response of the region, empirical data show that the course of ProKlim establishment in Pekanbaru can be divided into two main phases. The first phase (2020–2022) was marked by sporadic initiation and complete dependence on isolated citizen initiatives. In 2020, ProKlim establishment reached only one location, in Tobek Godang Urban Village. Although registrations surged in 2022 to eight new locations (such as RW 07 and RW 16 of Tobek Godang Urban Village, RW 13 of Bambu Kuning Urban Village, RW 06 of Sidomulyo Timur Urban Village, RW 04 of Binawidya Urban Village, RW 12 and RW 13 of Umban Sari Urban Village, and the Ibnu Al Mubarak Islamic Boarding School in Agrowisata Urban Village), this phase was characterized by the absence of any design for integrating the program into spatial planning and the regional budget. Many ProKlim locations that had received national verification in KLHK's National Registry System (SRN) subsequently experienced a decline in activity (stagnation) once the field assessment was completed.

The second phase (2023–2025) was a turning point, in which the Pekanbaru City Government redesigned its mentoring approach in response to the push to accelerate the national target. Entering 2025, with an administrative structure of 15 sub-districts and 83 urban

villages, the City Government faces demands to broaden the distribution of ProKlim systemically. The success of Agrowisata Urban Village and the Ibnu Al Mubarak Islamic Boarding School in earning the ProKlim *Utama* Category certificate from KLHK has been used as a benchmark for institutional learning. However, field realities show that acceleration in dense urban areas (such as Sidomulyo Timur and Sekip Urban Villages) faces structural obstacles that differ from those in the city's periphery: limited residential land, high resident mobility, and rigid and fragmented inter-agency budget allocation.

In-depth interviews with 25 cross-sector participants confirmed that the acceleration of ProKlim in urban Pekanbaru can no longer be accomplished through conventional, business-as-usual bureaucratic means. An accumulation of Dynamic Governance capabilities, as formulated by Neo and Chen, is needed to dismantle governance bottlenecks through the integration of predictive planning, the revision of rigid intervention procedures, the formation of multisector collaboration networks, and the provision of leadership capital and operational rule agility at the local level.

Application of the *Thinking Ahead* Capability: Spatial Risk Mapping and Urban Climate Policy Projection

The *Thinking Ahead* capability tests the extent to which the Pekanbaru City Government bureaucracy has the depth of anticipatory vision to project long-term climate risks and map vulnerable urban areas before an open ecological crisis occurs. The findings show that in the early phases, ProKlim planning by the DLHK was reactive-paternalistic: ProKlim locations were determined solely on the basis of the readiness of the administrative documents of RWs submitting applications, or by ad hoc designation to meet provincial reporting quotas. This pattern failed to build urban climate resilience because the locations established were often not situated at the points most vulnerable to flooding or urban heat islands.

The Thinking Ahead transformation began to take shape in 2024–2025 through the reported integration of spatial data and geographic information systems (GIS) between the DLHK and the Regional Development Planning, Research and Development Agency (Bappedalitbang). Based on interviews with an official of Bappedalitbang and a functional official of the DLHK (Participants 1 and 4), the City Government was preparing an instrument referred to as the Pekanbaru Urban Climate Vulnerability and Risk Map 2025. Participants described the instrument as grouping the 83 urban villages according to an Ecological Vulnerability Index that considers land elevation, history of waterlogging, building density, green vegetation cover, and urban-village-level Human Development Index (HDI). Because the study did not obtain the underlying map extract, indicator weights, reference years, or documentation of the method used to derive urban-village-level HDI values, this instrument is treated here as a reported planning instrument under preparation rather than as a validated predictive model or scenario-based climate projection.

Interview accounts further indicated that the vulnerability-mapping exercise was intended to inform the identification of areas requiring greater ProKlim attention in 2025. The heads of Sidomulyo Timur and Sekip Urban Villages (Participants 9 and 10) reported that their areas were identified as ProKlim acceleration locations and that technical discussions presented information concerning waterlogging risk and green-space deficits. These accounts are treated as evidence of an anticipatory planning practice, rather than as independent verification of a predictive map or of a formal priority-ranking system. The Thinking Ahead capability was also reflected in the reported consideration of adaptation measures suited to dense urban settlements. Whereas areas such as Agrowisata can accommodate larger-scale greening and retention measures, participants described plans for space-limited interventions in dense settlements, including biopori infiltration holes, covered rorak along alley drainage channels, rainwater harvesting on public-facility roofs, and vertical gardens or urban farming in RW

yards. Thus, the evidence supports a shift toward anticipating location-specific adaptation needs, but it does not establish predictive capacity or a ten-year climate scenario.

However, the qualitative analysis also reveals limits to the evidence available for assessing Thinking Ahead. Interviews with a university academic and an NGO activist (Participants 22 and 24) identified a gap between longer-term climate planning aspirations and the annual regional budget cycle. Their accounts suggest that spatial risk information is not automatically translated into sustained urban-village-level financing. Accordingly, the Thinking Ahead finding in this study is limited to documented and reported anticipatory practices such as the preparation of spatial risk information and consideration of location-specific adaptation options—and does not claim that Pekanbaru had a validated ten-year climate projection or that the reported instrument had demonstrated predictive capacity.

Application of the *Thinking Again* Capability: Redesigning Registration Procedures, Mentoring, and Regional Financing Schemes

The *Thinking Again* capability represents the courage and capacity of the bureaucracy to continuously and critically evaluate ongoing policies, regulations, and operating procedures, and to revise instruments that prove rigid, convoluted, or ineffective. In the context of ProKlim establishment in Pekanbaru, *Thinking Again* has been a key factor in dismantling two main bottlenecks: the complexity of the registration procedure in KLHK's National Registry System (SRN) and the absence of dedicated financing allocations at the urban village level. In the early phase, the ProKlim registration procedure was the greatest bureaucratic obstacle for RW officials and local communities. The SRN questionnaire format required filling in dozens of technical data variables, such as calculating the volume of greenhouse gas (GHG) emission reductions, the specific area of vegetation cover, and documentary evidence of adaptation actions, which lay residents found extremely difficult. This caused frustration at the grassroots level and triggered a *paper-based ProKlim* phenomenon, in which residents focused only on compiling files to obtain a certificate, without any real activity in the field.

In response to the failure of this old pattern, the DLHK exercised the *Thinking Again* capability by redesigning its mentoring mechanism. As explained by functional officials of the DLHK (Participants 2 and 3), the City Government ended the “passive mentoring” pattern (in which the DLHK merely waited for files to arrive) and replaced it with the formation of an *Urban ProKlim Facilitator Task Force*. The team conducts *direct mentoring clinics* at the urban village level. The convoluted SRN registration procedure was trimmed through a division of roles: RW and KSM officials were only required to record daily physical actions and collect activity photos digitally in a simple way (via instant messaging applications), while the entry of technical data variables into the SRN was fully handled by DLHK facilitators and Thematic KKN students.

Another fundamental innovation reported under Thinking Again concerns the reorientation of the program financing scheme at the urban-village level. Participants described the previous absence of a dedicated ProKlim allocation as a practical obstacle to sustaining activities. Through coordination among Bappedalitbang, the Governance Division (Bagian Tata Pemerintahan), and the DLHK, participants reported that the City Government adjusted the technical guidance for using the Urban Village Fund (Dankel) so that climate-adaptation activities and waste-bank strengthening could be considered among activities financed through the fund. The heads of Tobek Godang and Agrowisata Urban Villages (Participants 7 and 8) associated this adjustment with greater certainty for supporting activities such as biopori facilities, communal composting, and shade-tree planting. Because the study did not obtain the relevant guideline number, date, before-and-after provisions, or site-level budget allocation and expenditure records, these changes are reported as participant accounts rather than as independently verified documentary findings. The evidence also does not justify describing

urban villages as having unrestricted independent authority over the funds; proposing activities, approving budgets, appointing implementers, and disbursing funds remain analytically distinct stages of the financing process.

Nevertheless, the qualitative evaluation shows that the *Thinking Again* capability still faces challenges in integrating budgets across regional government work units (SKPD). Interviews with the heads of Binawidya and Rumbai Barat Sub-districts (Participants 5 and 6) revealed that the Public Works and Spatial Planning Agency (PUPR) and the Housing and Settlements Agency (Perkim) of Pekanbaru have not fully revised the technical guidelines for drainage and neighborhood road improvement programs to align them with the needs of ProKlim locations. As a result, in some locations, concrete road-paving projects by the Perkim Agency have often buried biopori holes and damaged infiltration wells built by ProKlim residents. This phenomenon shows that *Thinking Again* has been strongly instilled only within the DLHK and the urban village administrations, and that it still needs deeper institutionalization in the city's physical infrastructure agencies.

Application of the *Thinking Across* Capability: Innovative Learning and Building Multisector Collaboration (Cross-Boundary Governance)

The *Thinking Across* capability measures the ability of the Pekanbaru City Government bureaucracy to break through sectoral barriers, administrative boundaries, and inter-institutional obstacles in order to absorb new knowledge and consolidate collaboration networks (*cross-boundary governance*). In accelerating ProKlim in a heterogeneous urban setting, the limited budget, personnel, and authority of local government make *Thinking Across* an absolute prerequisite for creating the co-production of public services.

The findings identify two main dimensions of *Thinking Across* in Pekanbaru. The first is *cross-regional learning and the adoption of innovation*. In early 2024, DLHK staff, together with several urban village heads and ProKlim local champions from Pekanbaru, conducted comparative study visits and intensive learning in Surabaya and Bandung, which have successfully institutionalized self-reliant ProKlim networks based on urban farming and local ecotourism. From this learning process, the City Government adapted two key innovations:

1. Digital waste bank and “Gold Savings” model: Redesigning dry-waste management at the RW level so that it has direct economic value for residents.
2. Child/Youth Climate Ambassador scheme: Involving members of youth organizations (*Karang Taruna*) and schools around ProKlim locations as drivers of environmental education.

The second dimension of *Thinking Across* is *the building of multisector partnerships (pentahelix collaboration)* that connect the local bureaucracy, the private sector, universities, community groups, and civil society organizations. Before 2024, outside parties' involvement in ProKlim in Pekanbaru was highly fragmented: private companies channeled CSR funds on their own without coordination with the City Government, while universities carried out community service without a map of priority locations. Driven by the *Thinking Across* capability, the City Government consolidated these partnerships by establishing the *Pekanbaru ProKlim Acceleration Partnership Forum*. According to interviews with CSR management representatives of regional state-owned enterprises (BUMD) and private companies (Participants 19 and 20), private companies in Pekanbaru were directed to allocate their CSR funds to high-value physical infrastructure that the Urban Village Fund cannot finance, such as building communal wastewater treatment plants (IPAL), constructing greenhouses for plant seedlings, and providing three-wheeled waste transport vehicles.

On the other hand, synergy with universities was realized through the *Thematic KKN ProKlim* scheme involving Universitas Riau (UNRI) and Universitas Islam Riau (UIR). As

described by an academic/supervising lecturer (Participant 21), hundreds of KKN students were deployed in a focused manner in the ProKlim acceleration urban villages (such as Sidomulyo Timur, Tobek Godang, and Sekip). The students acted as “capacity injectors” who helped RW officials map the coordinates of environmental infrastructure, produce digital information boards, educate households on waste sorting, and assist with administrative SRN data entry. Civil society organizations and environmental NGOs (Participants 23 and 25) were also integrated, providing training in making liquid organic fertilizer and advocating environmental justice for flood-affected residents. This multisector synergy demonstrates that the *Thinking Across* capability can multiply resources and overcome the limited internal capacity of the Pekanbaru City Government bureaucracy in driving climate action in urban areas.

Institutional Lever Foundations: The Synergy of *Able People* and *Agile Processes* in Institutionalizing ProKlim

The three dynamic capabilities (*Thinking Ahead*, *Thinking Again*, and *Thinking Across*) cannot operate effectively without the support of two institutional levers: *Able People* (capable human resources) and *Agile Processes* (agile operating procedures). In the institutional dynamics of Pekanbaru, the availability of adaptive key actors and flexible regulation is the main bulwark that determines whether the acceleration of ProKlim will become a permanent movement or collapse once again.

1. The Role of *Able People*: Adaptive Leadership and Local Champions

The findings show that *Able People* manifest in Pekanbaru at two structural levels: the level of the local bureaucracy (*bureaucratic champions*) and the level of the local community (*local champions*). At the level of the local bureaucracy, the presence of responsible and functional officials at the DLHK, together with Bappedalitbang leaders who have a holistic understanding of environmental issues (*environmental literacy*), serves as the engine of change. These officials no longer act as passive, rigid supervisors (*bureaucratic caretakers*) but as facilitators and program advocates (*policy entrepreneurs*) who tenaciously fight for ProKlim budgets and regulations in city-level coordination meetings.

At the regional level, adaptive leadership is demonstrated by Lurah and Camat who are strongly committed to environmental innovation. For example, in Agrowisata and Tobek Godang Urban Villages, the Lurah (Participants 7 and 8) actively go to the field every weekend to lead *gotong royong* activities, open informal dialogue with residents in coffee stalls, and give urban-village-level rewards to the RW that is most active in managing waste banks. This close and persuasive leadership has proven able to erode the apathy of urban communities, which tend toward individualism.

Table 1. Institutional Levers in the Acceleration of ProKlim in Pekanbaru

Lever (Enabler)	Form of Implementation in Pekanbaru	Impact on ProKlim Acceleration
ABLE PEOPLE	<i>Bureaucratic Champions</i> (DLHK) <i>Adaptive Lurah and Camat</i> <i>Local Champions</i> (RW/KSM)	The bureaucracy acts as an agile facilitator. Communities gain resilience and independent institutionalization.
AGILE PROCESSES	Digitalized SRN data entry Cross-sector Mayoral Decree Flexible Dankel technical guidelines	Efficient SRN registration. Cuts through bureaucratic silos. Certainty of grassroots budgets.

However, the most crucial *Able People* foundation at the grassroots level is the presence of local champions: community leaders, RW heads, or women activists of the Family Welfare Movement (PKK) who serve as the main drivers of environmental action. In Agrowisata Urban Village, the success in obtaining ProKlim *Utama* status was largely determined by the prominence of the KSM officers and the leader of the Ibnu Al Mubarak Islamic Boarding School (Participants 11 and 15), who integrated an environmental education curriculum for students (*santri*) with waste management and urban farming among the surrounding residents. In Sidomulyo Timur Urban Village, a woman waste bank activist (Participant 14) managed to consolidate more than 100 households to routinely sort kitchen waste and exchange it for economic value. This study underlines that wherever ProKlim has survived and grown in Pekanbaru, there is always a strong synergy between bureaucratic champions, who provide regulatory space, and local champions, who mobilize citizen volunteerism.

2. The Role of Agile Processes: Regulatory Agility and the Reduction of Bureaucratic Obstacles

Alongside the quality of human resources, Agile Processes are an enabler that can reduce rigid administrative obstacles. Before 2024, participants described ProKlim establishment as involving several layers of administrative verification across the urban-village, sub-district, city, provincial, and national levels. In interviews, officials and community actors also described the establishment of a cross-sector ProKlim acceleration arrangement intended to clarify and streamline facilitation and verification. Participants further reported the use of Type IV self-management (Swakelola Type IV) for some environmental facility activities involving community groups. However, the study did not obtain the relevant Mayoral Decree, its document number and date, the detailed provisions before and after the arrangement, or site-level transfer and expenditure records. These institutional changes are therefore treated as reported procedural practices rather than independently verified legal or financial effects.

Based on accounts from KSM heads and RW officials (Participants 12 and 13), the revised procedural arrangement was perceived to reduce the waiting time associated with procuring environmental facilities from several months to several weeks. The study does not have records specifying the exact activities compared, the start and end points used to calculate the waiting time, the implementation periods, or documentary evidence for the reported duration. Therefore, the finding is presented as a perceived reduction in administrative waiting time rather than as a demonstrated causal effect on overall ProKlim acceleration. This distinction is important because the evidence supports the participants' experience of greater procedural responsiveness, while a robust before-and-after assessment would require comparable administrative records.

CONCLUSION

The acceleration of the Climate Village Program (ProKlim) in Pekanbaru is a tangible manifestation of the transformation of environmental governance driven by human engagement and system agility. The success of this movement began with the presence of *Able People*, that is, close collaboration between an adaptive bureaucracy and an empowered community. From the agency level down to the sub-district and urban village levels, local officials no longer act as rigid regulators but have transformed into *Bureaucratic Champions* who actively facilitate residents' needs. This spirit blends harmoniously with the role of *Local Champions* at the RW and Self-Reliance Community Group (KSM) levels. The presence of these local drivers ensures that climate mitigation and adaptation actions do not remain mere administrative formalities but grow into self-reliant movements with high resilience that become institutionalized within

the community.

However, such human resilience requires the support of a responsive operational ecosystem through Agile Processes. The evidence indicates that cross-sector coordination, clearer facilitation arrangements, simplified SRN data entry, and reported flexibility in the use of the Urban Village Fund were perceived by participants as reducing administrative obstacles. At the same time, the study does not independently verify the underlying Mayoral Decree, revised funding guideline, or site-level disbursement records. The main contribution of Agile Processes should therefore be understood as a reported improvement in procedural responsiveness rather than a fully measured causal acceleration of the ProKlim program. Together with Able People, these practices appear to have strengthened the conditions for more responsive and sustained climate action in the studied urban villages.

REFERENCES

- Anguelovski, I., Shi, L., Chu, E., Gallagher, D., Goh, K., Lamb, Z., ... Teicher, H. (2016). *Equity impacts of urban climate adaptation planning: Systemic resilience or exclusionary development?* *Urban Studies*, 53(16), 3331–3348.
- Ansell, C., & Gash, A. (2008). *Collaborative governance in theory and practice*. *Journal of Public Administration Research and Theory*, 18(4), 543–571.
- Aylett, A. (2014). *Progress and challenges in urban climate action planning: Results of the global survey of urban climate action*. MIT Center for Clean Energy Development.
- Brandsen, T., & Pestoff, V. (2006). *Co-production, the third sector and the delivery of public services: An introduction*. *Public Management Review*, 8(4), 493–501.
- Bulkeley, H., & Betsill, M. M. (2005). *Rethinking sustainable cities: Multilevel governance and the urban politics of climate change*. Routledge.
- Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2006). *New public management is dead—Long live digital-era governance*. *Journal of Public Administration Research and Theory*, 16(3), 467–494.
- Dwiyanto, A. (2018). *Mewujudkan dynamic governance melalui reformasi birokrasi di Indonesia* [Realizing dynamic governance through bureaucratic reform in Indonesia]. Gadjah Mada University Press.
- Emerson, K., Nabatchi, T., & Balogh, S. (2012). *An integrative framework for collaborative governance*. *Journal of Public Administration Research and Theory*, 22(1), 1–29.
- Handoko, T. (2021). *Dynamic governance in environmental crisis management: A case study of local government adaptation in Indonesia*. *Journal of Governance and Public Policy*, 8(2), 115–128.
- Hood, C. (1991). *A public management for all seasons?* *Public Administration*, 69(1), 3–19.
- Kementerian Lingkungan Hidup dan Kehutanan. (2016). *Peraturan Menteri Lingkungan Hidup dan Kehutanan Nomor P.84/MENLHK-SETJEN/KUM.1/11/2016 tentang Program Kampung Iklim* [Minister of Environment and Forestry Regulation No. P.84/MENLHK-SETJEN/KUM.1/11/2016 on the Climate Village Program]. Author.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.
- Moore, M. H. (1995). *Creating public value: Strategic management in government*. Harvard University Press.
- Neo, B. S., & Chen, G. (2007). *Dynamic governance: Embedding culture, capabilities and change in Singapore*. World Scientific Publishing.
- Nugroho, R. (2018). *Public policy and dynamic governance in developing nations*. Elex Media Komputindo.
- Osborne, S. P. (Ed.). (2010). *The new public governance? Emerging perspectives on the theory and practice of public governance*. Routledge.

- Ostrom, E. (1996). *Crossing the great divide: Coproduction, synergy, and development*. *World Development*, 24(6), 1073–1087.
- Prabowo, H., Raharjo, S., & Setiawan, A. (2020). *Building agile bureaucratic capability through dynamic governance in local government*. *Indonesian Journal of Public Administration*, 6(1), 45–62.
- Pratama, A., & Sugiyanto, H. (2022). *Evaluasi implementasi kebijakan Program Kampung Iklim (ProKlim) di tingkat daerah [Evaluation of the implementation of the Climate Village Program (ProKlim) policy at the regional level]*. *Jurnal Ilmu Lingkungan & Kebijakan Publik*, 14(2), 89–102.
- Pritchett, L., Woolcock, M., & Andrews, M. (2013). *Looking like a state: Capability traps in development*. *Journal of Development Studies*, 49(1), 1–18.
- Shi, L., Chu, E., Anguelovski, I., Aylett, A., Debats, J., Goh, K., ... VanDeveer, S. D. (2016). *Roadmap towards justice in urban climate adaptation research*. *Nature Climate Change*, 6(2), 131–137.
- Suryani, E., Nurmandi, A., & Kurniaaoan, D. (2020). *Community participation and local capacity in climate change adaptation: Evidence from ProKlim*. *Environmental Governance Review*, 11(3), 201–218.
- Weber, M. (1947). *The theory of social and economic organization* (A. M. Henderson & T. Parsons, Trans.). Free Press.
- Wibowo, R., & Maryani, S. (2021). *Modal sosial dan keberlanjutan aksi mitigasi perubahan iklim berbasis komunitas [Social capital and the sustainability of community-based climate change mitigation action]*. *Jurnal Sosio-Teknologi Lingkungan*, 19(1), 34–48.