Police Brief

Green Cooperatives In Building An Ecosystem Of Sustainable Energy Cooperatives As A Strategy Of Climate Crisis Mitigation

Policy Brief | Rumah Energi

EXECUTIVE SUMMARY

This policy brief departs from two great impetuses: a drive for food and energy self-sufficiency as a national agenda and commitment to climate crisis mitigation leading up to the COP-30. The government is targeting to serve thousands of villages that have not yet had electricity primarily through off-grid solar power plants within 4-5 years. Opportunely cooperative movements have a massive social basis and the government is currently implementing a program to establish Red and White Village Cooperatives (KDKMP) in almost 80,000 villages. At this point, green cooperatives can become a 'vehicle' for citizens to make the transition to equitable energy, even though the policy structure still tends to position cooperatives as capital distribution channels/business outlets, not as actors in the energy transition and green economy.

A focus group discussion involving ministries, institutions, regional governments, and financial institutions concluded that consistent patterns of problems exist. Firstly, there has been no exact definition, criteria, or standard indicators for a green cooperative. What is often considered green is labelled as programmatic without environmental performance indicators and financial consequences. Secondly, data systems, such as the ODS/SIMKOPDES system at the Ministry of Cooperatives, the IDM system, and Environmental Resilience Index system at the Ministry of Villages and Development of Disadvantaged Regions have not implemented interoperable green tagging, meaning that the term of green cooperative is not recognized in budget planning and the risk of greenwashing increases due to the lack of database and monitoring indicators.

Third, in terms of fiscal policy, the Ministry of Finance has prepared substantial instruments, namely, Village Funds and Ecological Fiscal Transfer (TANA, TAPE, TAKE, ALAKE) but they have not been systematically connected to green cooperatives. In the development of KDKMP design, even revisions of regulations tend to shift the position of debtor to villages/regional governments while cooperatives become facility users, having no design explicitly directing Village Funds/Ecological Fiscal Transfer to business model of green cooperative. Thus, the opportunity to make green fiscal a driver of community-based energy transition risks becoming a routine project with minimal transformational\ impact.

Fourth, in terms of financing, the key problem is not only a lack of money but also aspects of bankability like governance, business model, technical assistance, and policy mandate that secures the priority of green financing for cooperatives/KDKMP. In fact, in terms of potentials, LPDB-BRI/Himbara-PNM can form a blended financing in which PNM strengthens ultra-micro members, BRI prepares commercial financing/green People's Business Credit, LPDB makes long-term investment. However, the orchestration is still sporadic, not being supported with a verified pipeline of green cooperative project that is ready to be financed.

To answer these structural problems, this policy brief offers two options. Option 1 is a 5 to 7 year-reformation of national laws on green cooperative to lock in the definition, minimum indicators, green business taxonomy, fiscal affirmation, and harmonization with village administrations and energy. Option 2 is 3-year or more consolidation of existing policies and orchestration of programs stitching existing instruments to be measurable implementation packages: tagging across data base systems, pipeline strengthening and assistance as well as financing based on collaboration among institutions, regional government, and universities with easy but credible verification.

This policy brief recommends Option 2 as the most realistic and practicable main option within short-medium term without waiting for revisions of laws. The orchestration should be put under the coordination of the Coordinating Ministry for Economic Affairs through National Green Cooperative Task Force linked to existing cross-sectoral mechanisms. Complimentary the Coordinating Ministry of Community Empowerment protects the pillars of cooperatives-villages-MSMEs (assistance and data/ pipeline interoperability) while the Coordinating Ministry for Food secures the integration of green cooperatives and village food-logistic agenda (For example, cold chain, warehousing, efficiency of logistic chain energy). The implementation of Option 2 is expected to result in measurable quick wins and social-ecological performance evidence that strengthen technocratic-political foundation for succeeding stage of structural reformation.

BACKGROUND

1.Energy Self-sufficiency, Climate Transition, and Equitable Access

The government of Indonesia has positioned self-sufficiency of food, energy, and water as a national strategic agenda in Asta Cita along with green and blue economic agendas. Behind the jargon of self-sufficiency, until mid-2025 there were 5,600 villages being not electrified so that within the next 4 – 5 years, off-grid solar power plants need to reach the entire villages in remote areas (the Ministry of Energy and Mineral Resources, 2025). Presidential instruction No.14/2025 on energy justice from Aceh to Papua affirms that access to energy is a mandate of national equality and resilience not merely a sectoral program.

Globally, Indonesia has renewed its National Determined Contribution with peak emission target of 2030, decreasing emission to around 1.26 – 1.49 Gt CO2e in 2035 and increasing the portion of renewable energy by 70-72% in energy mix of 2060 (Indonesian Government, 2025; Presidential Regulation No.110/2025). The commitment to 2060 net-zero emission requires a gradual shift from fossil energy to renewable energies. However, the transition designs all this time have been dominated by massive projects and top-down schemes while the capacity and roles of grassroot actors such as villages, cooperatives, communities have not been positioned as the backbones. Without a strong institutional model at the grassroots level, the target of village electrification and commitment to climate risk becoming target on paper only.

2.Twin Challenge: Cooperative Governance and Renewable Energy Project

Both community-based cooperative movement and renewable energy projects are locked in governance issues. In cooperative sector, there were 131,617 active cooperatives with 29.8 million members and contribution around 6.2% to national GDP in 2024 (Ministry of Cooperatives, 2025). However, despite the number, many cooperatives had unprofessional management, low transparency and accountability, limited access to technology and markets, and weak financial dan digital literacy. The combination of these factors has made many cooperatives stagnant, inactive, and even disbanded.

Historical experience of Village Unit Cooperative (KUD) program shows that cooperatives established and controlled by state in a top-down manner are institutionally fragile. Criticism of KDKMP program warns of the potential for a repeat of old patterns: cooperatives are political and programmatic tasks without strengthening member independence and internal governance.

Conversely, many initiatives of village solar power plants, bio-energy, and communal electricity stalled after the initial support due to an unclear business model, limited local technical and managerial capacity, weak coordination with local governments and the State Electricity Company (PLN), and the absence of a long-term financing scheme for operation and maintenance. In other words, both cooperatives and renewable energy projects are caught up in institutional weakness and partial policy design.

The twin challenge above essentially outlines two interconnected causes of failure: (1) governance and policy incentives that have not secured cooperative/Renewable New Energy practices as sustainable, and (2) the inadequate capacity of local internal actors to maintain active projects after the support phase. This is where the two pillars of the green cooperative generally come into play: policy and advocacy direction, which targets rule and program design to ensure impartiality and Capacity Improvement, which targets organizational and technical capabilities to enable cooperatives to manage their green businesses/projects consistently and not just run short-term projects.

3. Green Cooperative as a Mediator for Members' Economy, Energy, and Climate

Despite the problems, the cooperatives still have strategic superiority in terms of their huge membership and close ties to communities. With 29.8 million members (approximately 10.6% of the 2024 population), cooperatives have the potential to deliver social and economic infrastructures to villages targeted for electrification and energy transition programs. The KDKMP program in every village has the potential to establish around 80 thousand village cooperatives. If these institutions are managed with a green perspective, their network can become the foundation of an equitable village-based energy transition.

Figure 1. Comparative Advantages of Cooperative: Local Agent of Change and Equitable Energy Transition

The green cooperative concept, endorsed by Yayasan Rumah Energy, shifts the imagination of cooperation away from being merely a savings and loan institution towards an institution that integrates the principles of ESG in its governance and business operations (YRE, 2025a). Green cooperatives filter financing to prevent environmentally damaging activities, develop sustainable businesses, and provide green financing products such as renewable energy credits and waste management services. While green cooperatives are not a new type of cooperative, they consciously position themselves as drivers of green economy and channels of climate financing at the grassroots level.

Within this framework, green cooperatives that manage the renewable energy sector are the most relevant form for the energy transition: cooperatives can own and manage small-scale power plants, operate village electricity services, and distribute renewable energy to members. The KDKMP energy project enables villages to own and manage solar power plants or other renewable energy power plants, based on a business model that relies on members rather than projects. The advantages of cooperatives in microfinance reinforce this potential: their extensive experience of providing small loans can be applied to financing household solar panels, biodigesters, and other green technologies.

Based on data from the Biogas Ramah (BIRU) program (Household Biogas Program), only 152 of the 127,846 active cooperatives (0.12%) have partnered with YRE in climate action such as biogas, micro-hydro, and solar panels. Despite their small number, these pioneering cooperatives demonstrate that cooperatives can distribute environment-friendly loans, encourage members to adopt more climate-smart practices, and provide access to clean energy through affordable instalment schemes (YRE, 2025b). The impacts are not only reduced emissions, but also savings on household energy cost, increased business productivity, and strengthening of the local economy. The West Java government's recognition of cooperatives as catalysts for the energy transition confirms that green cooperatives have the potential to become pillars of the economy rather than complementary elements in the future.

4. Synergy with Climate Agenda and Community Resilience

With the energy sector accounting for around 39% of Indonesia's greenhouse gas emissions, transition to clean energy is crucial for meeting the ENDC targets of 31.89% (unconditional) and 43.2% (conditional) by 2030 (World Bank, 2023; Government of Indonesia, 2025). However, this transition cannot rely solely on large power plants; it must "trickle down" to households, agricultural land, and small businesses. Green cooperatives can facilitate the installation of collective rooftop solar power plants, micro-hydro power plants, biogas from livestock waste, and waste bank or waste-to-energy schemes, providing members with a source of savings and income (YRE, 2023).

Climate issues are also related to waste, environmental health, and disaster vulnerability. If not managed properly, organic waste and livestock manure can lead to methane emissions and pollution. Increasingly unpredictable climates can lead to crop failures, reduced fish catches, and forced migration from rural areas. Vulnerable groups such as indigenous peoples, women, and people with disabilities are disproportionately affected. Indonesia itself ranks 48th out of over 190 countries in the INFORM Risk Index, indicating a high risk of climate hazards.

In this context, green cooperatives can serve as a socio-economic safety net and a pillar of community resilience. For example, independent electricity generation can ensure that basic services continue to operate when the central grid fails. Furthermore, part of the surplus generated by the energy business can be allocated as disaster response funds, and cooperative financing schemes can be directed towards investments in adaptation measures such as water-efficient irrigation systems and crop cooling. The green cooperatives' strength lies in their ability to become multi-helix nodes that connect the government, the private sector, financial institutions, academics, non-governmental organizations (NGOs), communities, the media, and international partners, while remaining member-owned.

5. Policy and Financing Framework: Fragmentation as Main Obstacle

Although the potential is substantial, cooperatives remain in a weak position within the national energy and climate policy structure. In the financing sector, instruments such as Financial Services Authority's Green Taxonomy (FSA) have provided banks and other financial institutions with certain guidelines, but to cooperatives have almost no access to such instruments: there are no special schemes, technical guidelines, or incentives that explicitly encourage them to channel funds into renewable energy or climate adaptation projects (FSA, 2022). Green cooperatives operate "without a clear regulatory address", relying on YRE's initiatives and local actors.

Legally, Law No.25/1992 on Cooperatives is inadequate in addressing the challenges posed by the green economy, digitalization, and the energy transition. The draft bill on national cooperative currently under consideration includes revisions to governance, member protection, and capital arrangements, as well as discussion of the loan guarantee agency. However, green cooperatives and renewable energy are not considered to be the main agenda items. In fact, if the mandate of energy transition and the green economy were to be explicitly integrated, this draft could become a key legal framework for green cooperative.

At village level, Law No.6/2014 encourages village-owned enterprises (BUMDes) as business entities. The emergence of the KDKMP through the Presidential Instruction No.9/2025 creates a new model for the village economy, in which the roles of BUMDes and the village cooperative in managing assets and Village Funds may overlap if they are not clearly defined. Meanwhile, in the energy sector, a draft bill on new and renewable energy, along with presidential regulations on new and renewable energy tariff and the establishment of National Strategic Project, encourage the acceleration of new and renewable energy. However, these have not systematically connected the roles of cooperatives as local actors.

At a local level, many cooperative offices have been waiting for guidelines on how to draft local regulations on climate financing for cooperatives. While the Job Creation Law (Law No.11/2020) does open up possibility of regulating cooperative assistance, it still needs to be harmonized with regulations on villages and energy. The main issue is fragmentation: policies on cooperatives, villages, and energy/climate work independently of each other with no clear meeting points. Consequently, cooperatives, which actually could bridge the gap between the energy transition agenda and the people's economy, have not received the proper institutional mandate, incentives, or design.

This policy brief aims to address the following issue: how green cooperatives can be strategically positioned within the regulatory and national financing framework as a pillar of energy self-sufficiency and an equitable energy transition at village level.

EVIDENCE AND ANALYSIS

General Description: Strong Narration, Fragile Structural Foundation

Most of stakeholders, such as the Ministry of Cooperatives, regional cooperative offices, the Ministry of Finance, the Ministry of Village and Development of Disadvantaged Regions, Ministry of Energy and Mineral Resources, universities, financial institutions, and regulatory bodies politically do not oppose the idea of green cooperative. They even recognize the urgency of it in this era of climate crisis and energy transition.

However, this support ultimately remains at the level of narration, program and pilot projects. Green Cooperative is structurally situated in a regulatory and fiscal 'empty space'.

- There are no normative definition, standards, or green cooperative taxonomy that are secured by laws, ministerial regulations, and in the Ministry of Cooperative's data system.
- The financing system still considers cooperatives to be high-risk debtors and non-bankable.
- Green fiscal instruments (Village Fund, EFT/TANE, TAPE, TAKE, ALAKE, and the International Climate Fund) do not explicitly target cooperatives but merely offer them a share if they are involved.
- In the energy sector, key regulations such as the Ministerial Regulation on Rooftop Solar Power Plants (No.12/2018, No. 38/2016) have not really paved the way for cooperative and community-based renewable energy businesses, despite PP KEN 2025 (Government Regulation on National Energy Policy) explicitly recognizing cooperatives as energy providers.

Consequently, green cooperative at this time is more like a “new cloth” for existing activities rather than a serious scheme of institutional and financing transformation.

Perspectives of the Ministry of Cooperatives and Local Governments: Despite being recognized, green cooperative has no definition and instruments

The Ministry of Cooperatives positions green cooperative as a newcomer in cooperative movement, acting as an agent of the low-carbon economic transition, a grassroots climate financing channel, and an instrument of village development (alongside the BUMDes and the KDKMP). The green cooperative modules and the results of Green Cooperative Policy Readiness Project (GERCEP) have begun to be adopted into the national training system (Simkunas/LMS). Politically, renewable energy, waste, and green finance are considered important issues from the perspective of the cooperative.

However, in terms of concept and institution, there are three key problems:

- No definition and standard: green cooperatives have not become a legal category and data category. Without definitive indicators and a recognition mechanism, the green label tends to be cosmetic only.
- Bias of projects and pilots: many initiatives appear as GERCEPs, collaborating with state-owned enterprises or sectoral clusters rather than as a consequence of a binding legal framework.
- The cooperative base remains weak, with most members and cooperatives being non-bankable and their institutions failing to meet ESG standards, and local cooperative extension workers and facilitators being also in short supply.

At the level of cooperative offices in provinces, regencies, and cities, the situation is even clearer: most of them have declared their support for the green cooperative movement. However, they still do not understand its definition and operational parameters. What they see is:

- **Real opportunity:** The sectors that are already 'green' include livestock biogas, waste management and plantation commodities. The potential market for renewable energy far exceeds the interventions that have already taken place, and local regulations on the green/blue economy provide an entry point.
- **Weighty obstacles:**
  - Many cooperatives have become dormant; with irregularly held Annual General Meetings, weak bookkeeping, and no Standard Operating Procedure and GCG.
  - The number of personnel at cooperative offices is limited and their sanctioning authority is relatively weak. Various business licensing requirements (including capital requirements, BPOM certification, halal certification, and NKV certification for certain products) tend to be easier for medium to large businesses to fulfil than for small cooperatives. This makes it difficult for cooperatives to move up the ladder.
  - oUnderstanding of climate and ESG risks is minimal, and climate issues are considered the responsibility of other government agencies.

For government agencies, this configuration means that green cooperatives are not just a “new theme,” but a significant step forward that requires governance far beyond the standard conditions of the cooperatives they support.

The Ministry of Finance, the Village Funds and the Energy Fiscal Transfer: Green Fiscal Space Does Exist but It Does not Take the Form of a Cooperative.

The appendix reveal that the Ministry of Finance plays a key role in determining the fate of green cooperatives in villages.

KDKMPs and Village Funds

- Regulation No. 49/2025 of the Minister of Finance (KDKMP loans via Him bara) and Regulations Nos. 145/2023 and 108/81/2025 of the Minister of Finance (direct flow of the Village Fund to the village's cash account) create an architecture in which the risks of KDKMP loans are ultimately borne by the Village Fund.
- Revision of the KDKMP following the Presidential Instruction No.17/2025 shifts the position of cooperatives: assets and loans are in the hands of village/local governments and cooperatives are business operators only. While this reduces banking risks, it could secure the village funds as “payment machine” for political credit without strengthening the cooperatives themselves.

Ecological Fiscal Transfer (TANE, TAPE, TAKE, ALAKE)

- The Ministry of Finance has designed a green fiscal signal by reformulating the DID and transfer expenditure framework. The EFT scheme enables villages that perform well ecologically to receive additional funding.
- Several regions (North Kalimantan, TAKE-implementing regency) have shown that this incentive can drive the circular economy (waste banks, solar cells in green open public spaces, and fire watch community groups), provided there are clear indicators, adequate data, the commitment of the regional head and technical assistance.

However, green cooperatives have not been explicitly included in the design of the Village Fund or the Ecological Fiscal Transfer. At most, they are referred to as “part of the village community” or 'implementing partners.' Without green tagging that links cooperative/KDKMP data with IRID, IDM/IKL and EFT indicators, it is very difficult to systematically direct the green fiscal flows to cooperatives, not to mention measuring their contributions to national climate targets.

The Ministry of Village and Development of Disadvantaged Regions and the Ministry of Energy and Mineral Resources: Village is the locus but the roles of green cooperatives have not been incorporated into the regulations on energy

The Ministry of Village and Development of Disadvantaged Regions have recognized villages as key actors in an equitable energy transition:

- The Village Funds and Green Ketapang program (West Kalimantan) have opened up areas for renewable energy financing and the green economy in terms of regulation.
- Data from the Ministry of Village shows that energy poverty remains high, with thousands of villages having little or no electricity, tens of thousands of villages having no street lighting. Meanwhile, claims about the electricity ratio in the energy sector mask the gap due to the loose definition of "electrified village".
- Village-owned enterprises (BUMDes) have proven capable of managing local electricity services and communal solar power plants; however, they remain in a legal grey area as they are not recognized in the Electricity Law.

A strategic opportunity lies in the electricity regime: cooperatives are recognized as electricity providers, while the basis of Buds is social and operational in villages. Green cooperatives and Buds could be designed to act as the legal representative and operator for community energy projects, connecting Village Funds, EFT, and renewable energy schemes.

However, the Minister of Energy and Mineral Resources and current energy regulations are still very PLN-centric and corporation-centric:

- The Regulation No. 38/2016 on rural electrification is rarely used. This is because it is not in sync with the legal landscape following the Job Creation Law and the Constitution Court ruling. It also does not provide a realistic business model for local businesses.
- Electricity subsidies only flow through the PLN tariff; business entities that are not PLN customers do not have an equal access to the subsidy.
- The authority on tariffs and business areas is highly centralized with the central government and the house of representatives, making it difficult for local business models (including cooperatives) to thrive.
- The latest rooftop solar power plant policy removes the export-import incentives that are important for the financial viability of cooperative-based collective rooftop solar power plants.
- The Regulation No. 12/2018 on the use of renewable energy still follows the logic of central government projects, making local communities and entities are beneficiaries, rather than main proponents and managers.

Amidst this unfriendly structure, PP KEN 2025 has emerged as an important turning point, as it is the first time that cooperatives and communities have been explicitly mentioned as energy providers within the context of energy self-reliance. This regulation provides a robust foundation for revising existing energy regulations, demanding:

- To recognize green cooperatives as key actors, not exceptions,
- To open access to bankable tariffs, subsidies, and PJBLs, and
- To provide space for cooperative aggregator models for members' rooftop solar power plants.

Without this regulatory follow-up, the recognition of the cooperative in the PP KEN could be purely symbolic.

Universities and Financing Institutions: Ecosystem exists but it is not curated for green cooperative

Environmental and energy issues have been elevated to priority themes for research and community service at the Ministry of Religious Affairs and the Ministry of Research, Technology, and Higher Education. The PTKI's research agendas include the environment and eco-theology as focal points, while the BOPTN and LPDP schemes support multi-year research in collaboration with the Ministry of Religious Affairs. At the Ministry of Research, Technology, and Higher Education, any theme, including green cooperatives, can be prioritized if there is a compelling case for urgency and an official request from leadership.

In other words, universities (both general and PTKI) are ready to become strategic partners for green cooperatives, providing research, mentoring, and business clinics. However, there is currently no national mandate explicitly linking green cooperatives with this research and community service scheme, so the signals are still sporadic and personal.

In terms of financing, the picture is consistent:

- **LPDB:** A BLU under the Ministry of Cooperatives, which has a special mandate to finance cooperatives. This mandate is complementary to those of Him bara, KUR, and PNM, as well as other financing institutions. The LPDB has the potential to support various pilot activities such as the KDKMP initiative, in a number of regions. However, it remains highly dependent on cross-sectoral collaboration with cooperative offices, incubation institutions, the business world, and academics to provide technical assistance and institutional strengthening to cooperatives receiving financing.
- **BRI:** Funds are not lacking; the problem lies in the cooperative's GCG. The SEI socio-entrepreneur unit is an important channel for mentoring and incubating social enterprises, but it does not automatically lead to green cooperatives.
- **PNM:** It is very close to poor households through group lending, intensive mentoring, and business cluster development (waste, maggots, etc.). This scheme is highly relevant for incubating green cooperative members at the ultra-micro level.
- **International Climate Financing and Private Banks:** They have great potential for blended finance, but direct access to cooperatives is very limited due to accreditation requirements, due diligence, and impact reporting. Surveys show that only one-third of cooperatives have an ET portfolio, and that almost none are able to measure impact systematically.

This means that the financial and intellectual ecosystem for green cooperatives already exists, but it is uncoordinated and lacks of green tagging for cooperatives as the main target. It also lacks curators to bring together financing, mentoring, and research in a systematic package.

Figure 2. Green Cooperative Ecosystem: Strategic Roles & Key Challenges

Figure 2 provides an overview of the FGD results. The green cooperative ecosystem is not "one institution, one program," but rather a collaborative engine comprising four interlocking clusters of actors. The FGD shows that this engine is still struggling definition, data, and bankability. While the Ministry of Cooperatives already has conceptual support and has begun to adopt modules and training, green cooperatives remain predominantly programmatic. They have not yet been locked in as a legal category with standard indicators and consistent tagging in ODS/SIMKOPDES, which makes them vulnerable to becoming mere labels. Logically, the Coordinating Ministry for Economic Affairs is the most suitable orchestrator (linking PP KEN, RUPTL, the Presidential Instruction on KDKMP, the Cooperative Minister's Regulation, Village Funds, and access to climate financing), but orchestration in the field is still sporadic and dependent on individuals/projects that have not yet been 'institutionalized' into economic coordination forums or the Green Energy and Economy Transition Task Force. In terms of financial incentives, the Ministry of Finance has robust fiscal/EFT instruments, but these currently flows primarily through the government (central, regional, and village level) and have not been explicitly designed to empower cooperatives. Meanwhile, the Ministry of Villages actually has policy space in the form of Village Funds, IDM, and climate-adaptive villages, but implementation remains heavily focused on traditional infrastructure. Furthermore, the collaboration between BUMDes and cooperatives for community energy has not been widely formalized.

In the energy sector, the Ministry of Energy and Mineral Resources (and its relationship with State Electricity Company (PLN)/Danantara) is still PLN-centric. Cooperatives are not prioritized as local business entities, many derivative regulations are incompatible or underutilized, and the tariff and incentive space for non-PLN entities is narrow. This makes it difficult for energy cooperatives to 'move up' and become bankable. While local governments/OPDs generally have the political will, but their ESG capacity, development budget, and cross-sector forums are limited. Added to this are regulatory/licensing barriers (minimum capital, BPOM, halal, and NKV) that are perceived as unfriendly towards small cooperatives. Consequently, 'green' is perceived as a burden if it is not accompanied by tangible support. Although financing institutions (LPDB–BRI/Him bara and PNM) provide blended finance channels, but they all emphasize the same core problem: the pipeline of green cooperative projects ready for financing remains limited, collateral and prudential requirements disadvantage small cooperatives, and aggregators and orchestrators are needed to prevent financing from becoming fragmented. Finally, although universities (the Ministry of Research, Technology, and Higher Education and Ministry of Religious Affairs) have research and mentoring resources, but their involvement remains sporadic and project-based. Without a thematic mandate and permanent 'business clinics', campus knowledge has not been mobilized to bridge the governance and business design gaps in green cooperatives.

Critical Notes from Public Discussion: Locking in the Definition, Data, and Accountability of "Green Cooperative"

The public discussion emphasized that the green cooperative agenda must be locked in on three operational points: definition (what constitutes green activity), data (in which systems it is recorded), and accountability (how it is verified). An important lesson emerged from the history of KUDs: the main problem was not simply 'failure', but rather project being abandoned after 1998. The policy ecosystem and off-taking that had previously supported KUDs were cut off, while 'active' statistics were often administratively biased (deeds not yet liquidated) and did not reflect business activity. The lesson is clear: do not be fooled by institutional figures; policy diagnosis must be based on operational definitions and accurate data so that interventions are effective.

The forum has proposed a shift from labelling to an incentive ecosystem. Rather than burdening cooperatives with costly and vague 'green entity' certification, the forum encourages an activity-based approach. Green activities and businesses (KBLI/taxonomy references) are tagged and cooperatives carrying out these activities become 'readable' across systems (ODS–SIMKOPES–ESDM data–village data). They can be tested in stages. A clear pipeline is then built: recorded activities → minimum compliance → verification/audit (pilot) → incentives (pricing and priority access) → bankable formal financing. This means that cooperatives will not depend on CSR/ad-hoc funding. The foundation remains equity-first, strengthening member capital as the basis, while positioning loans and equity capital as leverage once governance and business capacity are sufficient. The ultimate goal is for cooperatives to become aggregators and, when ready, owners and managers of sustainable green businesses.

Figure 3. Green Cooperative Transformation: from label to Sustainable Ecosystem as the Results of Public Discussion Elaboration

Tagging Activities as a Gateway to ESG Integration in Cooperative

Rather than dwelling on debates over definitions and labels, the forum is actually pushing for a regime shift from 'green cooperative labelling' to an executable incentive architecture. Activity/business-based tagging is treated as policy infrastructures, acting as a kind of 'ignition key' that makes green cooperatives readable across systems, gradually verifiable, and ultimately eligible for formal financing. In this design, tagging is not just a classification, it is also a steering mechanism that links measurable green activities with auditable governance. This means that access to financing will no longer depend on sponsors or ad-hoc programs, but will follow a consistent logic of accountability that can be replicated across regions and funding sources.

In other words, a pipeline is being built: documented green activities → gradually increasing minimum compliance → verification (e.g., through pilot audits) → incentive pricing and access to financing. The role of the state and financing actors here is not to 'certify labels', but to ensure interoperability of rules and data so that cooperatives that truly carry out green activities receive tangible rewards in the form of priority access, cheaper funding costs, and project preparation support. This framework positions cooperatives as economic actors that are nurtured towards standards, not objects that are burdened with labels.

This framework also paves the way for the institutionalization of ESG (environmental, social, and governance) practices in cooperatives. This involves integrating ESG principles into decision-making and business activities, such as rejecting environmentally damaging financing, developing sustainable production and food systems, and designing green financing products like renewable energy credits and circular waste management (Ramah Energi Foundation, 2025a). Therefore, green cooperatives are not considered as a 'new type of cooperative', but rather as organizations that facilitate climate finance mobilization and drive of the green economy at a grassroots level. They have a governance framework that is becoming increasingly measurable and bankable.

Green Cooperatives Activities: Tagging Levels and Roadmap

Figure 4 shows the four levels of activities that can be used as green tagging tools for cooperatives. Green activities are defined as business units, products, services, and/or financing that have a measurable environmental impact, pass the DNSH (Do No Significant Harm) test and minimum safeguards. They also involve digitalization, training, and governance improvement, which fall under the category of supporting practices/green operations.

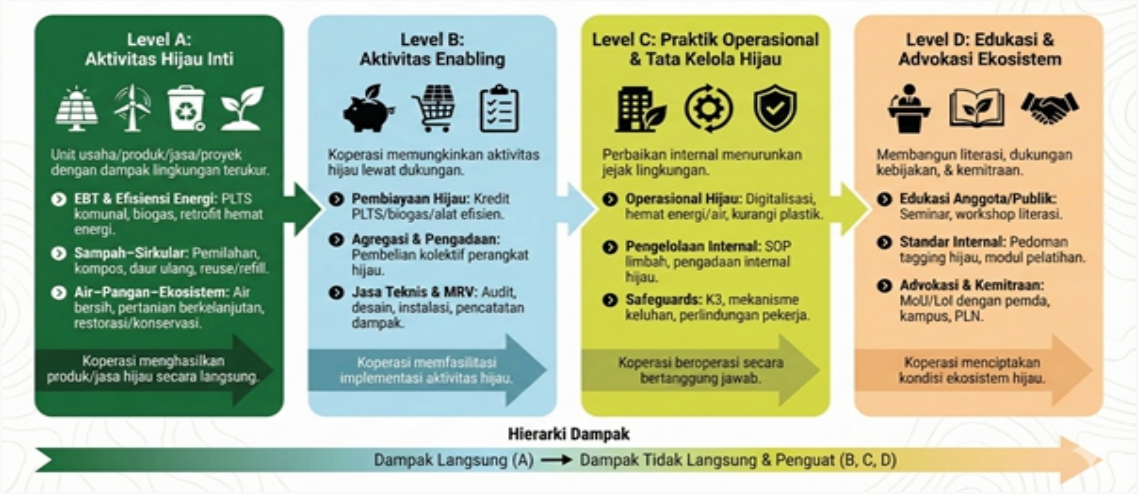

Figure 4. Four Levels of Activities for Tagging Cooperatives Green

Meanwhile, Figure 5 illustrates the Phase 1-2 framework, which provides as a path for gradual and measurable development of financing readiness. Phase 1 (Readiness) involves assessing baseline readiness, the project pipeline, and MRV (Monitoring, Reporting, Verification) planning with the aim of providing financing support and technical assistance to reduce risk. Phase 2 (Transition) involves driving enabling and initial execution: the green financing portfolio is operational, initial outputs have been recorded, and minimum risk SOPs are available. Phase 3 (Green Operation) indicates that the cooperative is already producing routine, documented, and replicable core impacts, and financing is directed towards scale-up.

This framework does not prescribe a mandatory sequential path. Cooperatives that are already in Phase 3 (D+A) can be assessed and financed for expansion directly, without having to "go through" Phase 1-2. The principle is evidence-based: the stronger the evidence of outputs and governance, the larger the scope for investment, financing and replication. Conversely, cooperatives that are still D-only remain eligible as long as their readiness to deliver is clear and they have a deadline for upgrading, ensuring that financing leads to the implementation of projects and does not stop at seminar stage.

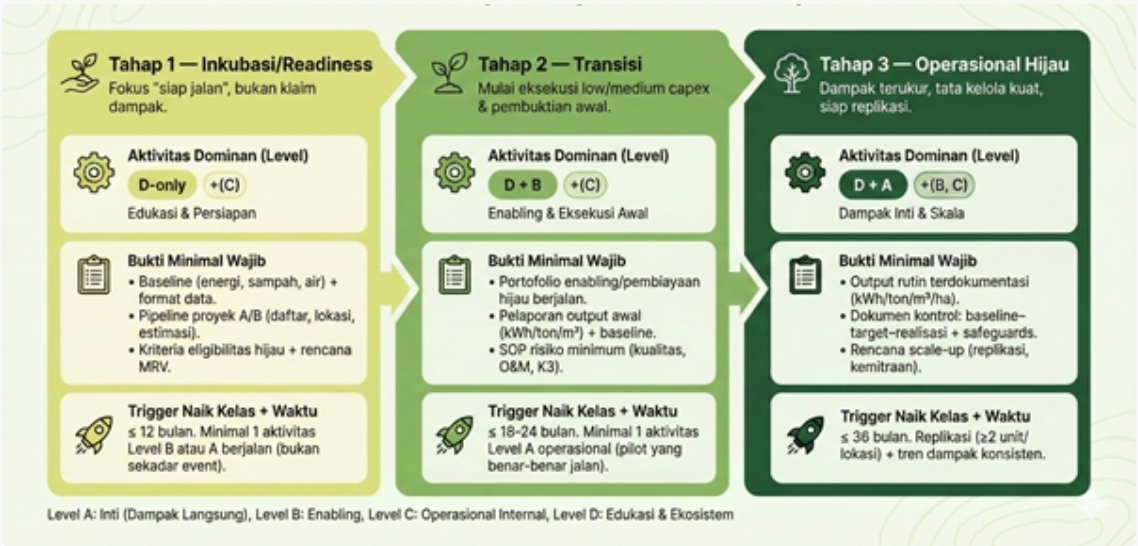

Figure 5. Gradual and Measurable Green Transition Roadmap for Cooperatives

The Role of the Coordinating Ministry for Economic Affairs, Coordinating Ministry for Community Empowerment, and Coordinating Ministry for Food Security in Orchestrating Green Cooperatives

The role of the three coordinating ministries in establishing green cooperatives. The Green cooperative agenda cuts across multiple sectors, including cooperative, village, energy, food, financing. The main obstacle is not a lack of programs but rather fragmented policies. Definition, data, governance standards, and bankability prerequisites have not been locked in across ministries and agencies. Therefore, orchestration needs to be supported by three complementary pillars. The Coordinating Ministry for Community Empowerment establishes the **internal foundation**, harmonizes definition/tagging, integrates data across systems, and fosters governance and business readiness, enabling the green cooperative/KDKMP portfolio can be measured and replicated. The Coordinating Ministry for Economic Affairs locks in the **external connectivity**, including market access, off-taker, industry partnership and the integration of energy, industry, investment, state-owned enterprise policies to reduce risk and increase bankability. The Coordinating Ministry for Food Security will ensure the integration of **village sectoral applications**, linking green cooperatives with food security, low-emission logistics, warehousing and cold storage, and energy efficiency as arenas for the village economy. This division of roles clarifies coordination leadership, reduces overlap, and strengthens cross-sector accountability while accelerating synergies between the Energy Transition & Green Economy Task Force (Coordinating Ministry for Economic Affairs) and the Task Force for the Establishment of 80,000 KDKMPs (Coordinating Ministry for Food). This connects grassroots movements to the low-carbon transition agenda.

Figure 6. Green Cooperative Orchestration: Three Pillars of Cross-sector Coordination

POLICY OPTIONS

Policy Option 1— Reform of National Legal Framework for Green Cooperatives (5–7 years)

Option Summary: establish legal certainty and a permanent governance architecture so that the 'green cooperative' does not remain merely as label but become a policy category with standards, development consequence, and financing access.

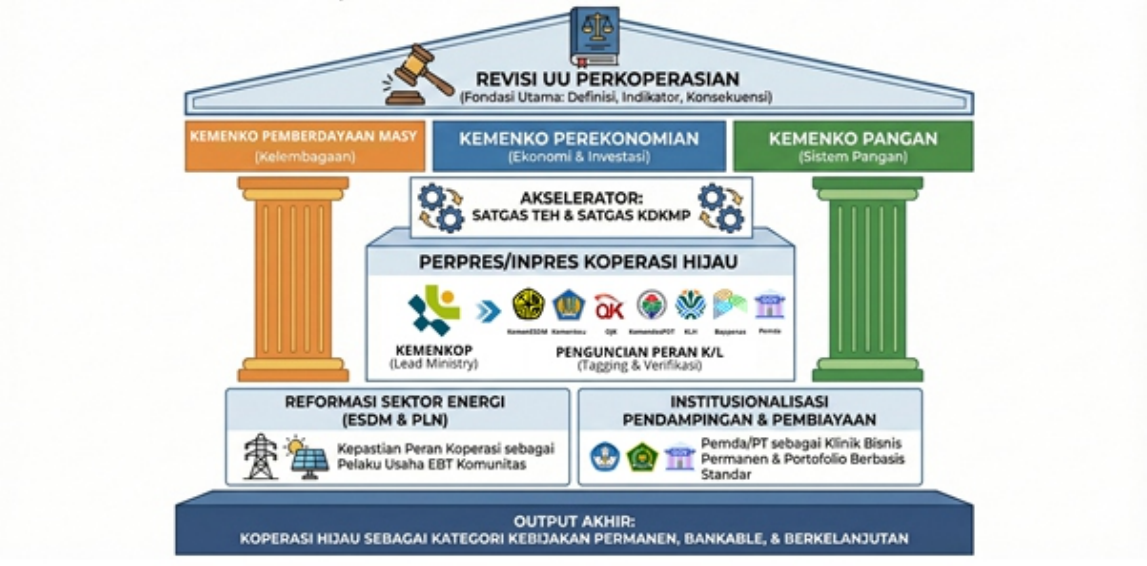

Figure 7. Option 1: Reform of National Legal Framework for Green Cooperative (5-7 years) – Legal Certainty and Permanent Governance Architecture

Reform begins with closing regulatory empty gaps by revising the law on cooperative (or similar instruments) to determine their operational definition, minimum performance indicators, and firm policy consequence. The design distinguishes between 'green activity/business' (activity-based) and 'institutional status of green cooperative' (governance/impact-based), ensuring the policy focus remains on performance and governance rather than tagging.

The current political momentum also provides a real opportunity to accelerate the implementation of green cooperatives, as the government already has an implementation mechanism involving 80,000 KDKMPs that can be optimized to create a green KDKMP portfolio without the need to wait for a lengthy legal reform. Political will is needed to ensure that cross-sector orchestration does not stop at the coordination stage but becomes an operational mandate that unifies the low-carbon economy and energy agenda and rural food and logistics agendas.

Cross-sectoral orchestration is secured at the level of three coordinating ministries. The Coordinating Ministry for Community Empowerment ensures the strengthening of cooperative-village-MSME institutions and mentoring. The Coordinating Ministry for Economic Affairs ensures the connectivity with green economy-energy-investment agendas and bankability. The Coordinating Ministry for Food ensures the relevance of the food system and village logistics (cold chain, warehousing, and energy efficiency) as the main arenas of the village economy. To avoid “slow structural flow”, orchestration can be accelerated through two existing coordination nodes: the Energy Transition and Green Economy Task Force (Coordinating Ministry of Economic Affairs Decree No. 141/2025) and the Task Force for the Establishment of 80,000 KDKMPs (Presidential Instruction No. 9/2025), providing a path for the acceleration of the green cooperative agenda while legal reforms are being prepared.

In terms of governance, presidential regulations and instructions on green cooperatives determine the Ministry of Cooperative as the lead ministry and define the roles of other ministries and agencies such as the Ministry of Village and Development of Disadvantaged Regions, the Ministry of Energy and Mineral Resource, the Ministry of Finance, the National Development Planning Agency, the Ministry of Environment, the Financial Service Authority/Bank Indonesia, the State Electricity Company, local governments, and financing actors. Those roles are defined through job descriptions definition, indicators, tagging, and gradual verification. Presidential Instruction No.9/2025 is considered as a mandate to expand the KDKMP into green KDKMP with indicator-based development and financing implications.

In terms of energy, the Ministry of Energy and Mineral Resources and the State Electricity Company are reforming regulations to ensure the role of green cooperatives/KDKMPs as community-based renewable energy businesses, minimizing the risk of 'pilot projects stalling' by improving business models, licenses/assignments, PLN-cooperative-local government relations and transaction/compensation schemes. The role of energy-economy coordination is overseen by the Coordinating Ministry for Economic Affairs and Green Energy-Economy Transition Task Force with cross-sectoral coordination still supported by two other coordinating ministries.

Ultimately, long-term institutionalization is established within local governments and universities as permanent technical and clinical business partners, building their bankability while the public-commercial financing portfolio is directly linked to compliance with the standards and verification. This ensures that 'green' becomes a continuously assessed, supervised, and financed category.

Policy Option 2 — Consolidation of Existing Policies & Programmatic Orchestration (3 Years)

Option summary: a fast-track process that combines existing regulations and programs to create a measurable implementation package. This package generates evidence of scalability and improve bankability without the need to wait for legislative reform.

Figure 8. Option 2: Consolidation of Existing Policies & Programmatic Orchestration (3 Years)

This option relies on the fact that coordinative machineries are already available. The Green Energy and Economy Transition Task Force (Decree of the Coordinating Minister for Economic Affairs No.141/2025) and the Task Force for the Establishment of 80,000 KDKMP (Presidential Instruction No.9/2025). These task forces serve as the institutional anchors, linking the low-carbon transition agenda with the strengthening of cooperatives at a grassroots level, ensuring that the orchestration does not start from scratch. Based on this, the Coordinating Ministry for Economic Affairs leads the national green cooperative task force to quickly produce job descriptions and minimum indicators, cross-system tagging, light verification (audit sampling) and integrated data-based piloting. The Coordinating Ministry for Community Empowerment secures the institutional pillars of cooperatives, villages, MSMEs (the cooperative/KDKMP pipeline, mentoring, interoperable data), while the Coordinating Ministry for Food Security locks in the food security pillar—village logistics (cold chain, warehousing, supply chain energy efficiency) to make green cooperatives relevant with village economy needs.

In terms of policy, option 2 utilizes Government Regulation 2025 on National Energy Policy as the minimum basis for the role of cooperatives in providing energy. It also uses Ministerial Regulation No. 9/201 and Presidential Instruction No. 9/2025 as the institutional foundation for developing green cooperatives/KDKMPs. The Ministry of Cooperatives' data system (ODS/SIMKOPDES) is upgraded with green tagging and linked to village and regional systems, meaning that 'green' status will have consequences for planning and development.

At the implementation level, the policy package optimizes Village Funds, EFT (TANE/TAPE/TAKE/ALAKE), KDKMP, and the Ministry of Energy and Mineral Resource-State Electricity Company's Renewable New Energy (ESDM-PLN EBT) program through data matching piloting (cooperatives-villages-service needs). Technical improvements to regulations focus on operationalizing local business entity schemes and community renewable new energy projects, while maximizing rooftop solar power plants during daytime loads (MSMEs/social facilities/cooperative offices) with financing bridges.

Finally, financing and assistance are integrated into a single policy chain comprising governance standards light verification incentive/financing consequences, so that 'green' becomes a bankable and accountable category. Universities are positioned as permanent partners to ensure that the institutional capacity leads to a pipeline of viable projects and businesses.

POLICY RECOMMENDATIONS

This policy brief recommends Option 2 (Consolidation of Existing Policies and Programmatic Orchestration) as the primary option that the government needs to immediately takes because it is the most realistic and practicable in the short-term, without the need to wait for legislative reforms. This orchestration will be coordinated by the Coordinating Minister for Economic Affairs through the formation of a national task force on green cooperatives/KDKMPs, established by a ministerial or joint decree across ministries and agencies. This task force is not operating in isolation, but is directly linked to two existing coordination nodes: the green energy and economy transition task force, which harmonizes energy, economy, investment, and technical acceleration readiness, and the task force of the establishment of 80,000 KDKMPs, which accelerate the institutional strengthening of cooperatives at the grassroots level. At the same time, the coordinating ministry for community empowerment will support the cooperatives-villages-MSMEs pillar (assistance and interoperability data), while the coordinating ministry of food security will ensure that green cooperatives/KDKMPs are integrated into the rural food-logistics agenda as the main focus of the village economy (including cold chains, warehousing, and supply chain energy efficiency).

This recommendation emphasizes that green tagging is not merely a technical addition, but a prerequisite of good governance for green cooperatives/KDKMPs to be recognized in planning, budgeting, and financing portfolios, and to have real policy consequences. The Ministry of Cooperatives must implement green tagging in ODS/SIMKOPDES system to identify cooperatives and KDKMPs that are involved in renewable energy, waste/waste management, energy efficiency, and other green businesses based on minimum performance indicators. The Ministry of Village and Development of Disadvantaged Regions will then include the cooperative/green cooperative variable in the village development framework, linking it to the Village Development Index and environmental resilience instruments. This will ensure that 'green' status influences program priorities and assistance. The Ministry of Finance must integrate green cooperative profiles into the design of the IRID and Ecological Fiscal Transfer (EFT) formula (TANE/TAPE/TAKE/ALAKE) to ensure that fiscal policy becomes a measurable incentive to encourage institutional portfolios and green services in villages.

This framework encourages governors and regents/mayors to utilize the policy space provided by the Village Fund and EFT to develop a portfolio of green cooperatives/KDKMPs, ranging from initial capital and pre-investment financing to capacity building. At the regional implementation level, this recommendation emphasizes the importance of formalizing synergistic roles. BUMDes can operate local services/assets, while cooperatives/KDKMPs can serve as channels for business legality, member recruitment, and access to financing. The Cooperative Agency can act as a hub for development and institutional sustainability. These relations must be structured so that village programs and green financing are not fragmented, while also reducing the risk of 'pilot projects stalling' due to the absence of bankable institutional sponsors.

At the same time, this recommendation emphasizes that green cooperatives will find it difficult to access large-scale financing without improved bankability. Therefore, an integrated program of assistance and financing for green cooperatives is required, involving BRI/Himbara, PNM, LPDB, universities, and local governments, and strategically coordinated by the Coordinating Ministry for Economic Affairs. BRI/Himbara has developed a green cooperative KUR scheme, which is supported by business model structuring, risk management, and cash flow certainty strengthening (including the design of off-takers/markets for green business units). PNM strengthens the ultra-micro economic base of cooperative members so that cash flow is more stable and reduce the cooperatives' vulnerability in terms of demand and members' ability to pay. LPDB allocates a special portion of long-term investment financing for energy assets and circular economy facilities. Technical assistance prerequisites are in place, including feasibility studies, project design, bookkeeping, and bankable contract standards, to ensure that financing is not affected by implementation risks.

Higher education institutions are positioned as systemic partners through the establishment of 'green cooperative business clinics' at the regional level, under the coordination of the Ministry of Research, Technology, and Higher Education and the Ministry of Religious Affairs for Islamic Higher Education Institutions. These clinics provide support to strengthen basic governance, including annual member meeting, bookkeeping, compliance, SOPs, as well as to improve business models and risk management. They also help to develop project pipelines, including feasibility studies, technical designs, operational plans, and monitor socio-ecological impacts. Thus, bankability is improved upstream by building “fundable capacity” rather than merely pursuing access to funds downstream.

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