

SUMMARY

This best practice brief presents Component 5 of the Data-to-Deal (D2D) framework, which addresses stakeholder engagement. This component focuses on the cross-cutting role of stakeholder engagement in enabling the development of effective climate strategies. Effective stakeholder engagement contributes to the technical design process, fosters political will, and enhances investment-readiness by demonstrating national ownership. Component 5 comprises three sub-components of successful stakeholder engagement: (i) Early

and strategic engagement, (ii) Iterative and inclusive engagement mechanisms, and (iii) Institutionalising engagement for long-term ownership. These sub-components are embedded across the D2D framework, strengthening the legitimacy and feasibility of climate transition planning processes. The brief draws on various case studies, particularly from Costa Rica, Eswatini, and Chile, to illustrate the best stakeholder engagement practices for developing transition plans and successfully mobilising the finance required for implementation.

KEY RECOMMENDATIONS

- Transition plans should be formulated through inclusive and collaborative processes of shared learning and ownership.
- Governments should establish formal coordination mechanisms under the D2D governance structure for current and future strategy planning.
- Governments and supporting international organisations should invest in capacity development and process facilitation.
- 4. Iterative multi-stakeholder engagement exercises should be prioritised at Components 3, 4, and 6 of the D2D framework.
- 5. National socio-political contexts should be systematically analysed to uncover stakeholder risk perceptions and identify context-specific barriers to the national plan's development.

CONTRIBUTING INSTITUTIONS











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This document forms part of a series of guidance notes, each focused on one D2D component. The series provides practical advice to governments and their partners on how to integrate D2D into national planning and financing processes. This series (available here) is co-authored by leading

international organisations, along with contributors from LMIC countries, to reflect a collective perspective on how best to leverage investment for climate-aligned energy and transport transitions.

The primary audience for these briefs includes energy and transport policymakers in LMICs at national and subnational levels, as well as development partners and international organisations that provide technical and financial support. The guidance applies to both mitigation and adaptation priorities, while recognising that the balance between them will differ across country contexts.



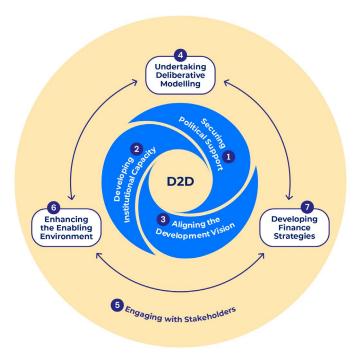
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1. Introduction

Low- and middle-income countries (LMICs) are working to transform major economic sectors to advance development priorities, meet climate commitments, and strengthen infrastructure resilience. Achieving these objectives will require accelerated socio-economic change across energy, transport, and other high-emitting sectors. Most countries, however, cannot achieve these transformations without mobilising much higher levels of finance [1].

The Data-to-Deal (D2D) framework, developed by over 75 global experts, provides a structured, evidence-based approach to help countries close this gap [1]. The framework consists of seven interlinked components – Politics, Capacity, Vision, Modelling, Engagement, Policy, and Finance – that move from political commitment and institutional readiness through to financing. These components are designed to be adapted to national contexts, rather than be followed in strict sequence, and are they underpinned by sustained stakeholder engagement.

Figure 1: The D2D framework visualised.



This brief focuses on Component 5: Engagement

- Engaging with Stakeholders, which highlights the central role of stakeholder engagement in developing successful transition plans [1]. In this brief, the terms 'consultation' and 'stakeholder engagement' are used interchangeably to describe a process of ongoing co-development and shared ownership. While engagement underpins every element of the D2D framework (Figure 1), Component 5 consolidates and structures this process, ensuring it is institutionalised as a core mechanism for success rather than treated as a secondary consideration. This brief sets out key principles and best practices for stakeholder engagement and concludes with practical recommendations for designing and implementing engagement that is inclusive, strategic, and finance-focused.

1.1. Inter-linkages

Within the D2D framework, Component 5 is crucially embedded into each stage as outlined in **Table 1**.

1.2. Value proposition

Stakeholder engagement, founded on open dialogue, shared understanding and mutual respect, is essential to the development of successful transition plans. Formalising stakeholder engagement as its own component in the D2D framework elevates it from a subsidiary activity to a core, institutionalised process. The key value propositions of successful stakeholder engagement include:

■ Equitable and inclusive outcomes.

Integrating opportunities for stakeholder participation throughout the planning process ensures diverse perspectives and priorities are considered in the methodological design, policy formulation, and final financial planning. This will make end results more effective, equitable, and feasible [2].

- Contextual relevance. Stakeholder engagement grounds national strategies within local socio-political contexts and aligns the corresponding sectoral policies to credible investment plans. Moreover, including diverse stakeholder perspectives can lead to more realistic and context-sensitive climate planning scenarios.
- Shared ownership and trust. Co-designing climate transition strategies with a variety of stakeholders, including government departments and agencies, industry representatives, academic institutions, civil
- society, financial institutions, and the public, fosters mutual understanding and trust in government-led processes [3]. This provides a social licence to operate, reducing reputational risk and regulatory setbacks. At the same time, this will ease project implementation and strengthen support for initiatives.
- Enhanced investor confidence. Plans and strategies built on such inclusive, transparent, and participatory planning processes can signal broad consensus and credibility, thereby increasing investor confidence and lowering risk premiums.

Table 1: Interactions between Component 5 and other Components of the D2D Framework

D2D Component	Link to Component 5: Engagement
1. Politics: Securing political support	Component 1 establishes political support through early engagement with leaders and ministries, embedding stakeholder participation in the strategy design process from the outset. By operationalising a Governing Coordination Function (GCF) to anchor consultation processes, fostering structured dialogue with financial institutions, and applying political economy analysis, stakeholder engagement ensures mandates are trusted and politically sustainable.
2. Capacity: Developing institutional capacity	Component 2 supports institutional development by using stakeholder engagement to strengthen cross-sectoral coordination mechanisms established under the Governing Coordination Function (GCF), including the Technical Delivery Group – Special Interest Groups (TDG-SIGs). Engagement embeds ownership within ministries and agencies, facilitates data sharing, and strengthens technical capacity through TDG-SIG collaboration and joint training, ensuring that skills are anchored in national institutions.
3. Vision: Aligning the development vision	Component 3 aligns the national development vision with sectoral priorities through multi-stakeholder consultations convened under the Political Steering Committee – Special Interest Group (PSC-SIG) and the relevant TDG-SIGs. Engagement activities such as workshops, public consultations, and backcasting exercises provide early feedback on feasibility and trade-offs. This will ensure that the shared vision reflects broad stakeholder perspectives and informs a strategy rooted in consensus.
4. Modelling: Undertaking deliberative modelling	Component 4 undertakes deliberative modelling by engaging stakeholders through the TDG-SIGs to refine assumptions, data, and outputs. Open communication between modelling teams, ministries, and coordination mechanisms under the GCF, combined with participatory refinement workshops, ensures that scenarios are grounded in socio-economic realities and shaped by stakeholder input.
6. Policy: Enhancing the enabling environment	Component 6 enhances the enabling environment through stakeholder engagement coordinated under the GCF and PSC-SIG, which review draft strategies for alignment, acceptance, and robustness. Mechanisms such as visual tools, online consultation platforms, and tailored policy briefs allow broad participation, strengthening legitimacy and embedding stakeholder perspectives in policy and regulatory reforms.
7. Finance: Developing finance strategies	Component 7 develops credible finance strategies through early and ongoing engagement with financial stakeholders coordinated through the PSC-SIG and relevant TDG-SIGs. Using existing communication channels and presenting investment requirements visually demonstrates how consultations have shaped the financing plan, builds investor confidence, and ensures strategies are market-aligned and feasible.

1.3. Sub-components

Component 5 consists of three sub-components that collectively ensure stakeholder input is integrated throughout the D2D process:

- 1. Engaging early and strategically. Stakeholder engagement should begin in the initial scoping and capacity assessment stages, helping to shape the overall vision and technical design of the transition plan. This engagement should be strategic. This involves prioritising actors whose early input is essential and ensuring stakeholders are contributing where their feedback will be most relevant.
- 2. Establishing iterative and inclusive engagement. Stakeholder engagement should be an ongoing, iterative process that incorporates regular feedback mechanisms. This works to strengthen the alignment of cross-sectoral policies, enhance model credibility, and improve policy coherence. It should also be inclusive, ensuring a diverse range of actors are engaged throughout. This includes identifying when specific stakeholders, such as Ministries of Finance, can provide the most relevant input.

3. Institutionalising engagement for long-term ownership. The engagement process should be formalised into national institutional structures by building technical capacity and embedding engagement processes into legal mandates to facilitate lasting impact.

The rest of this brief presents a detailed analysis of these three sub-components, followed by targeted recommendations to support policymakers in designing and implementing effective national plans that lead to strategic finance mobilisation. The brief draws on case studies from Costa Rica, Eswatini, and Chile to highlight effective stakeholder engagement practices that support the development of transition plans and the successful mobilisation of finance for their implementation.

2. Best Practice Guidelines

2.1. Engaging Early and Strategically

The first sub-component of Component 5 is early and strategic engagement. This rests on three core elements, which work together to build a strong foundation of engaged stakeholders who trust the process and are committed to the national strategy over the long term:

- Engaging stakeholders early.
- Conducting stakeholder mapping.
- Including financial stakeholders.

2.1.1. Engaging Stakeholders Early

Engaging with relevant stakeholders from the outset of the decision-making process is vital to ensure they share ownership over the final outcomes. Not only does this enhance the legitimacy of the planning process, but it also builds long-term mutual trust and commitment to delivering the final strategy.

The International Renewable Energy Agency (IRENA) specifically highlights the importance of involving cross-sectoral policymakers, grid operators, scientific institutions, civil society organisations, financial institutions, the general public, and the private sector in energy planning participatory processes [3]. In the transport sector, early engagement often requires the inclusion of additional actors such as municipal authorities, city transport planners, and private mobility operators whose roles in infrastructure delivery and service provision differ from the centralised institutions common in the power sector. More broadly, the specific mix of stakeholders will vary depending on the sector and type of transition being pursued, but the principle of inclusive and cross-cutting engagement remains constant.

BOX 1. Early Stakeholder Engagement in Costa Rica's Long-Term Strategy (LTS) Development.

Local universities and community stakeholders were involved from the outset of Costa Rica's LTS development, helping to define national priorities and inform the modelling process. This not only contextualised the modelling within real-world conditions but also built public trust in the results. Early and ongoing engagement with political leaders also ensured high-level buy-in and eased the eventual adoption of the strategy. In the transport sector, where fuel and vehicle taxes are a major government revenue source, the Ministry of Finance played a critical role, ensuring that the fiscal implications of decarbonisation were considered alongside climate objectives. Ultimately, Costa Rica's strategy was seen as both nationally legitimate and internationally credible, transforming a modest USD 200,000 research effort into over USD 2.4 billion in secured climate finance. See Jaramillo et al. for more information [4].

2.1.2. Conducting Stakeholder Mapping

Systematic stakeholder mapping reveals who needs to be at the table. Prioritising stakeholder engagement should begin at the earliest stages of the strategy planning process; in Component 1: Politics of the D2D framework, this can coincide with a political economy analysis (PEA) of the country's transition process. Such an analysis examines the interests and influence of key stakeholders to identify strategic points of engagement. The PEA exercise can be conducted in tandem with a broader stakeholder mapping exercise to create a comprehensive picture of all actors who have an interest in, or may be affected by, the transition plan. In this context, Figure 2 illustrates which stakeholders are needed at different stages of the D2D process

and for what roles.

Figure 2: Early entry points for key stakeholders across the D2D stages.

GCF = Governing Coordination Function; PSC-SIG = Political Steering Committee – Special Interest Group;

TDG-SIGs = Technical Delivery Group – Special Interest Groups. Source: Authors.

Consult with: Relevant line ministries; Ministry of Finance; Securing **GCF**; PSC-SIG **Political Support** Technical experts; research institutions; **Developing GCF**; PSC-SIG **Institutional Capacity Engaging with Stakeholders** Civil society organisations; communty representatives; private sector stakeholders; sectoral ministries; GCF; PSC-SIG **Aligning the Development Vision** Modelling team; line ministries or sectorspecific departments with data; research **Undertaking** institutions; GCF; PSC-SIG; TDG-SIGs **Deliberative** Modelling Relevant line ministries; regulators and procurement bodies; off-takers; private sector **Enhancing the** actors; financial sector; GCF; PSC-SIG **Enabling Environment** Ministry of Finance; potential investors; financial institutions and banks; **Developing** GCF; PSC-SIG; TDG-SIGs **Finance Strategies**

Directing effective stakeholder mapping can be a challenge. While the exercise should consist of identifying both obvious and less apparent stakeholders who are relevant to the process, it can be easy to inadvertently recognise more visible or influential actors. This can in turn reaffirm existing complex power dynamics and potentially marginalise those with less formal power. To mitigate this risk, the stakeholder mapping exercise should be carried out by a group of individuals with different backgrounds, areas of expertise, and priorities. Likewise, the outcomes of the stakeholder mapping exercise should be treated dynamically and regularly reviewed to reflect newly emerged stakeholders, changing priorities, and evolving strategic scopes.

BOX 2. Stakeholder Mapping in Ghana.

The value of stakeholder mapping was demonstrated in the formulation of Ghana's Strategic National Energy Plan. Stakeholders were systematically categorised into technical and steering committees based on their skills and expertise. This structured approach enabled a targeted and phased process: members of the technical committee concentrated on the initial modelling and scenario development, while stakeholders not directly engaged in the committees were subsequently involved to refine and validate the scenarios into the final strategic plan. See IRENA for more information [3].

2.1.3. Including Financial Stakeholders

Financial actors must be engaged from the start. Multi-stakeholder engagement is integral to reflect diverse priorities in sector-specific policy designs. In addition, it is equally important that these policies are fiscally feasible and aligned with long-term public finance strategies. Engaging with both public and private financiers, such as development banks and the Ministry of Finance (MoF), is therefore critical for aligning future investment strategies with market dynamics and feasibility considerations. This requires formalised

interactions with key financial stakeholders throughout the policymaking design process, creating finance–policy dialogues that ensure technical plans are matched with fiscal and market realities.

This is particularly relevant to Component 7:
Finance, where the MoF is responsible for preparing a national financing plan for the transition strategy. At the same time, under Component 1: Politics, engaging in open dialogue with financial stakeholders helps to build and sustain high-level support and long-term commitment. Such dialogue, maintained through early and ongoing consultations, strengthens planning by identifying blended finance opportunities and clarifying the respective roles of public, private, and external capital.

Early MoF engagement strengthens credibility in the final strategy from the perspective of external investors. As the institutional custodian of national budgets and fiscal policy, the MoF is uniquely positioned to provide critical data, macroeconomic insights, and policy direction to inform the technical and financial design of national transition pathways [3]. Its involvement signals strong institutional ownership, coherence with national development and budgetary priorities, and a commitment to prudent financial management. All these factors contribute to increased investor confidence. By proactively engaging the MoF from the beginning, governments can strengthen the quality, feasibility, and perceived long-term resilience of their transition plans, laying a more solid foundation for implementation. Moreover, the MoF's existing lines of communication with potential financiers and development banks can be leveraged to support mobilisation efforts, creating an institutional bridge between national planning and external investment.

BOX 3. Involvement of the BNDES in Brazil's Renewable Energy Sector.

In the development of Brazil's renewable energy sector, the Banco Nacional de Desenvolvimento Econômico e Social (BNDES) - Brazil's primary federal development bank - was consulted consistently in the process. This was pivotal to easing project financing, as BNDES was able to contribute market knowledge to designing power purchase agreements and leverage their existing communication lines with auctioneers to improve the financing opportunities [5]. This resulted in a mutually beneficial relationship; not only has Brazil's power capacity increased by 79.4 Gigawatts through direct funding from BNDES, but BNDES have been able to diversify their energy portfolio and are now recognised as the top financier of clean energy globally. See IRENA & **BDNES** for more information [5].

BOX 4. Involvement of the MoF in Costa Rica's LTS Development.

In the case of Costa Rica and the development of their National Development Plan, the MoF provided key transport sector data that directly informed the design of more granular and policyrelevant modelling scenarios. Transport was a particularly sensitive sector in Costa Rica's LTS, not only because it represented the largest share of national emissions, but also because it was a major source of government revenue. Moving away from fossil fuel use risked reducing income from long-standing fuel and vehicle taxes, creating fiscal challenges alongside the climate transition. Engaging the Ministry of Finance early in the process was therefore critical, ensuring that the strategy accounted for these trade-offs and aligned decarbonisation with long-term budgetary resilience. See Jaramillo et al. for more information [4].

2.2. Establishing Iterative and Inclusive Engagement

Effective national planning requires the active involvement of diverse stakeholder groups, each with distinct priorities and objectives. As such, it is imperative that frequent stakeholder participation activities are embedded into the design of the planning processes. This facilitates ongoing deliberations to reach mutual consensus around a shared vision. There are four elements to this sub-component:

- Ensuring consultations are iterative.
- Using diverse, inclusive engagement mechanisms.
- Establishing feedback mechanisms.
- Adopting transparent and open communication.
- Tailoring communication for diverse audiences.

2.2.1. Ensuring Consultations are Iterative

Iteration is essential in collaborative planning; it enables continuous learning, trust-building, and adaptation in the face of complexity and uncertainty. It is therefore imperative that Component 5 of the D2D framework is not interpreted as a fixed, one-off event. A single consultation offers stakeholders with only a limited opportunity to comment on the methodological design or strategic plan developed up to that point. By revisiting assumptions and refining understanding through repeated cycles, stakeholders can learn together, conduct joint fact-finding, and adjust strategies as new information emerges. Iterative processes also foster stronger relationships and shared norms over time, while allowing institutions and ideas to evolve together as discussions progress and circumstances change.

BOX 5. Feedback Mechanisms in Costa Rica.

In Costa Rica, the qualitative methodology involved 20 stakeholder workshops, which informed the subsequent quantitative scenario modelling development. The iterative engagement process helped align the scenarios with national decarbonisation goals, sector-specific realities, and local socio-economic contexts, strengthening the credibility of the final plan and securing widebased support across government and society. See Jaramillo et al. for more information [4].

2.2.2. Using Diverse, Inclusive Engagement Mechanisms

Inclusive forums balance trade-offs and build alignment. Stakeholder engagement should be understood as an inclusive and ongoing deliberation that is integral to every stage of the process. Common mechanisms for involving diverse stakeholder groups include public consultations, surveys, multi-stakeholder roundtables and workshops, and iterative scenario development sessions.

Multi-stakeholder workshops and forums that bring together have proven especially effective for co-designing long-term scenarios and national strategies (see Box 6). These participatory activities bring together public, private, and financial actors to collaboratively assess potential cross-sectoral synergies and trade-offs, evaluate government objectives and priorities, and gauge risk appetite. They also provide a platform to identify regulatory challenges and policy enablers that can shape implementation, thereby informing subsequent stages of the process. Within the D2D framework, workshops are particularly relevant to Component 3: Vision, where they ensure the priorities of different sectors are reflected in the national development plan, and to Component 4: Modelling, where discussions directly inform assumptions and quantitative analysis. For example, in Morocco, the development of the 2021 Nationally Determined Contribution

involved a series of workshops with government, civil society, and private sector stakeholders to review proposed climate change mitigation policies [6]. This inclusive approach helps to maintain political alignment and improves the overall policy coherence, ensuring the final strategic frameworks put together at Component 6: Policy are fair and equitable.

Shared learning and co-creation approaches extend this collaboration by treating stakeholders as active partners in strategy design. Within the D2D framework, this process is anchored through the Governing Coordination Function (GCF), which oversees the Political Steering Committee – Special Interest Group (PSC-SIG) at the political level and the Technical Delivery Group - Special Interest Groups (TDG-SIGs) at the technical level. These mechanisms typically include Ministries of Energy, Finance, and Transport, together with regulators, utilities, development banks, private investors, and civilsociety organisations. Their role is to oversee scenario development, incorporate diverse perspectives, and provide a platform for resolving trade-offs. This arrangement is closely tied to Component 1: Politics, where early involvement of the Ministry of Finance helps secure longterm political engagement and facilitates later financing discussions. It also links to Component 2: Capacity and Component 4: Modelling, as the TDG-SIGs coordinate technical teams, support local capacity development, and ensure that the modelling process remains iterative as new data becomes available. By embedding ownership across institutions and promoting joint analysis through these structures, governments can build trust, mutual respect, and feasibility in proposed strategies. In Ghana, for example, the technical coordination group working on future power plans participates in regular modelling training workshops, which has strengthened local technical capacity and supported long-term institutional engagement [6].

BOX 6. Engagement Mechanisms in Chile.

Chile's Long-Term Energy Planning Strategy (LTS) was developed within the broader Planificación Energética de Largo Plazo (PELP - translation: 'Long-term Energy Planning') procedure. In recognition of the need for a socially responsive and inclusive planning process, particularly in the context of the widespread social unrest marked by the 2019-2020 Estallido Social (translation: 'social outburst') protests, the LTS was developed with a working group consisting of public citizens, academic institutions, legal representatives, and youth groups. The participatory process also included six thematic roundtables to establish a shared national vision for a "Neutral and Resilient Chile", 22 mitigation roundtables to define sectorspecific decarbonisation goals, and 22 adaptation roundtables to identify and assess robust climate resilience indicators. To ensure regional representation and the integration of subnational priorities, 16 additional workshops were conducted across the country. See Rodríguez-Zúñiga et al. for more information [7].

2.2.3. Establishing Feedback Mechanisms

Feedback mechanisms strengthen the contextual relevance and robustness of development strategies. It is vital that feedback mechanisms are included in planning processes to allow methodologies and policy priorities to adapt dynamically to stakeholder input. This in turn improves the continuity and resilience of the final strategy over time. In addition, it helps align plans with national goals, sectoral realities, and local socio-economic contexts while addressing practical barriers such as unclear procurement procedures.

Institutionalised feedback mechanisms provide a structured way to achieve this. Within the D2D framework, these mechanisms are coordinated through the GCF and its associated structures, including the PSC-SIG and TDG-SIGs. In practice, they may take the form of standing advisory groups, online portals, or review panels that bring together representatives

from government, finance, civil society, and technical institutions. Embedding these mechanisms in the planning process ensures that engagement is continuous, transparent, and formally connected to the development of national transition strategies.

Within the D2D framework, feedback mechanisms are most relevant to Components 3–6: Vision, Modelling, Engagement, and Policy. In practice, they allow transition scenarios to be reviewed by multiple stakeholder groups, helping to identify potential synergies and trade-offs and to refine modelling assumptions. Regular opportunities for review and adjustment also improve the legitimacy of draft strategies and contribute to stronger, more coherent policy and regulatory frameworks.

BOX 7. Improving the Success Rates of Tender Processes in Eswatini.

In 2018, Eswatini published its National Energy Masterplan, outlining a long-term strategic vision for the country's energy sector up to 2034 [8]. Developed by the Ministry of Natural Resources and Energy in collaboration with the International Renewable Energy Agency (IRENA), feedback mechanisms were embedded into the procurement planning process to help address stakeholder concerns. Iterative consultations revealed issues in government tenders that previously caused bidders to withdraw. As a result, tender descriptions were revised, improving clarity and leading to successful project closure with fewer delays. See Ministry of Natural Resources and **Energy** for more information [8].

2.2.4. Adopting Transparent and Open Communication

Open communication builds trust and reduces conflict. An accessible and open line of communication creates feedback mechanisms that strengthen transparency, build trust, and minimise opposition during

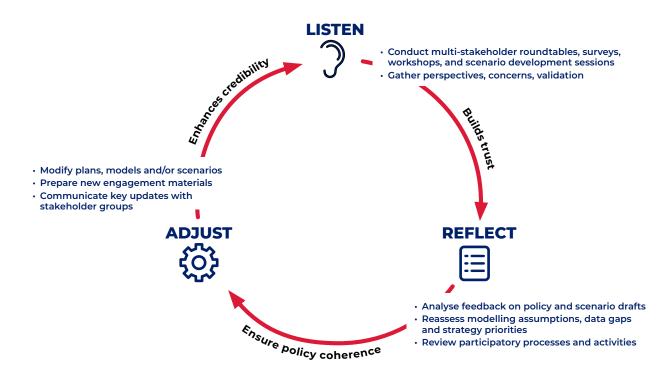
implementation. Iterative engagement through a 'Listen–Reflect–Adjust' cycle (**Figure 3**) allows stakeholders not only to provide input but also to review assumptions and shape revisions, enhancing the credibility and coherence of the final strategy.

Formal communication tools can help sustain this process. Online portals and data transparency platforms, for example, enable governments to share draft policy frameworks and strategy updates in a manner that is easily accessible to a wide range of stakeholders. These tools are particularly valuable for maintaining engagement with non-public sector actors, such as civil society groups or private investors, who may not participate directly in TDG-SIGs. Within the D2D framework, this function links most directly to Component 5, as accessible communication channels strengthen trust, enable long-term participation, and reduce the risk of opposition later in the implementation process.

BOX 8. Chile's Online Consultation Platform for Feedback.

During the development of Chile's LTS, an online consultation platform was established to facilitate feedback from various stakeholders, including citizens who were unable to participate in in-person activities. This platform provided an accessible avenue for individuals to share their perspectives on the progress of the strategy. The feedback collected through this platform was subsequently integrated into the final strategy. By ensuring that the contributions were visibly reflected in the final document, the process enhanced transparency, promoted long-term engagement, and bolstered confidence in the decision-making process. This approach also contributed to a smoother implementation by addressing concerns early on, thereby reducing potential opposition later in the process. See Rodríguez-Zúñiga et al. for more information [7].

Figure 3: Iterative Engagement Cycle for Stakeholder-Informed National Planning. Source: Authors.



2.2.5. Tailoring Communication for Diverse Audiences

Tailored messages help stakeholders understand and align with the key objectives. Effective stakeholder participation is not only dependent on inclusion, but also on the ability of participants to understand and engage with complex technical and financial information. Tailoring content to the audience is therefore essential. As different stakeholders have different priorities, perspectives, and capacity to engage with the materials, a single communication format may not serve all groups, and multiple formats will be required.

One effective approach is the use of tailored policy briefs that set out the key objectives, concerns, and assumptions of a national strategy in ways that are relevant to specific stakeholder groups. These can be complemented by visual tools, such as interactive dashboards, that present technical information in a clear and accessible way. Within the D2D framework, such approaches are particularly relevant to Component 6: Policy, where accessible summaries of policy proposals and strategy developments help stakeholders to engage more quickly and provide informed feedback. This in turn strengthens the coherence and legitimacy of the policy framework. Evidence from IRENA (2025) shows that interactive visualisation tools can be especially effective in communicating complex topics to non-expert groups, widening participation and improving the overall quality of consultation processes [3].

BOX 9. Kenya's Adaptable 2050 Carbon Emission Reduction Calculator.

To explore Kenya's potential decarbonisation pathways, the Kenya Carbon Emission Reduction Tool (KCERT) was developed. KCERT is an open-source, Excel-based model that allows users to investigate alternative energy-secure, low-carbon transition pathways through to 2050. Recognising the diverse needs of different audiences, multiple versions of KCERT were developed: a gamified tool designed for public engagement, as well as visual and spreadsheet-based formats tailored for policymakers and technical analysts. This approach supported both public education and informed decision-making, while encouraging interdepartmental collaboration. See IRENA for more information [3].

2.3. Institutionalising Engagement for Long-Term Ownership

Durable and effective collaboration needs to be based on mutual trust and long-term commitment. Such trust can be cultivated through consistent engagement, reciprocity, and transparency. To realise these long-term benefits, collaborative approaches must be embedded into the institutional governance, rather than remain limited to ad hoc or one-off projects.

The following sub-components are integral to effectively institutionalising engagement for long-term ownership:

- Developing capacity in relevant institutions.
- Creating formal governance and coordination mechanisms.
- Establishing legal mandates for consultation.

2.3.1. Developing Capacity in Relevant Institutions

Capacity development sustains technical and institutional ownership. Institutionalising engagement mechanisms requires public institutions to reorganise their internal processes to support collaboration, shift staff roles towards facilitation, and include relationship building and stakeholder engagement in deliverables and performance metrics. Lead institutions should also be willing to cede some control over the process in favour of collective decision-making [9]. Participatory processes that centre on long-term technical capacity development are particularly valuable in energy and transport planning, where increasing system literacy and understanding across stakeholder groups can reduce the risk of disproportionate power dynamics or siloed sector-specific planning [3]. Crucially, these institutionalised technical capacity development efforts address investor concerns by signalling the long-term durability of the national plan and minimising the risk of implementation failure.

BOX 10. Establishing a National Working Team for Eswatini's Energy Planning Process.

What distinguished Eswatini's energy planning approach was the explicit prioritisation of national capacity development. A national working team of 12 practitioners were equipped, with the support of IRENA, to take full ownership of the modelling process. This was achieved through a series of participatory activities, including online instruction, a two-week intensive training course, and continued technical support throughout the process. The national team developed ten distinct scenarios, which allowed for comparative assessments of policy options and their anticipated impacts on the national energy system. See

Ministry of Natural Resources and Energy for more information [8].

Understanding which engagement mechanisms are most effective in addressing investor concerns is essential in the context of national strategy planning. It is particularly critical in countries where relatively short political cycles lead to frequent shifts in government priorities, shaped by the current socio-political contexts. Such changes can result in contradictory sector-specific policies that are inefficient and create unnecessary trade-offs. They also often lead to personnel turnover, which can disrupt ongoing projects and cause stakeholder engagement to be deprioritised.

Building technical capacity in-country is one engagement mechanism that can help strengthen long-term national ownership (see Box 11). This approach involves establishing national TDG-SIGs to lead the quantitative scenario modelling required for climate transition analyses. This mechanism aligns directly with Component 2: Capacity of the D2D framework, as the TDG-SIGs are responsible for conducting the modelling analysis and ensuring it aligns with broader national goals. Over time, the institutionalisation of these groups supports the development of sustained technical expertise, consistent with Component 4: Modelling, while also fostering the creation of robust methodological processes that enhance confidence among potential investors, as highlighted in Component 6: Policy. Not only does this contribute to sharing project ownership across different stakeholder groups, but local experts have a nuanced understanding of regional contexts that can inform and improve the methodological design.

BOX 11. Building Institutional Technical Capacity in Costa Rica.

In the development of Costa Rica's LTS, a dedicated modelling team was established at the University of Costa Rica to lead the design and implementation of the quantitative modelling analysis. To strengthen their technical skills, the team participated in an intensive energy modelling workshop organised by the International Centre for Theoretical Physics Joint Summer School. This initiative helped the team strengthen their capacity to facilitate and lead the scenario development process, which resulted in the creation of eight cross-cutting sectoral strategies grounded in the modelling outputs. By building a pool of technically skilled practitioners, Costa Rica positioned itself to sustain evidence-based policy development, reduce reliance on external consultants, and ensure that future modelling exercises remain closely aligned with domestic priorities and context. See **Jaramillo et al.** for more information [4].

2.3.2. Creating Formal Governance and Coordination Mechanisms

Clear governance arrangements are essential for embedding stakeholder engagement as a structured and enduring feature of national planning and implementation. The Governing Coordination Function (GCF), established under Component 1: Politics, provides the institutional anchor for coordinating and sustaining engagement across the Data-to-Deal (D2D) framework. The GCF ensures that consultation processes are coherent, inclusive, and continuous, linking political leadership, technical analysis, and stakeholder participation throughout the strategy cycle. Typically situated at the centre of government, for example, within the Prime Minister's or President's Office, the GCF must remain closely connected to the lead ministry responsible for developing and implementing the transition plan, such as the Ministries of Energy, Transport, or Finance.

Institutionalising engagement through the GCF offers several advantages. It creates a single, accountable focal point for managing consultation processes, strengthens transparency by clarifying roles and responsibilities, and enables systematic documentation of stakeholder input. By embedding engagement mechanisms within existing institutional structures, governments can safeguard participation across political cycles, ensuring that consultation remains a continuous and credible practice rather than a one-off event. To function effectively, the GCF should be supported by a dedicated secretariat with sufficient staffing, facilitation expertise, and budgetary resources to convene meetings, coordinate technical inputs, and oversee follow-up actions.

The GCF oversees two complementary coordination mechanisms that operationalise stakeholder engagement: a Political Steering Committee – Special Interest Group (PSC-SIG) and one or more Technical Delivery Group – Special Interest Groups (TDG-SIGs). Together, these structures ensure that engagement is embedded both at the political and technical levels and that feedback from diverse stakeholders directly informs national decision-making processes.

At the political level, the PSC-SIG formalises collaboration and trust among senior decision-makers. It brings together representatives from key ministries, regulators, and state-owned enterprises, along with selected non-state actors such as development partners, private-sector representatives, and civil-society observers. The PSC-SIG provides high-level political guidance, approves milestones, and ensures that stakeholder perspectives are meaningfully reflected in strategic decisions. By creating a platform for aligning diverse institutional perspectives, it helps reconcile cross-sectoral

priorities and ensures that engagement remains central to both immediate strategy development and the longer-term political roadmap. This function is closely aligned with Component 3: Vision, where cross-sectoral collaboration is essential for achieving a shared national trajectory, and with Component 6: Policy, where inclusivity and transparency enhance the legitimacy of reforms. Early engagement with the Ministry of Finance and other key institutions through the PSC-SIG also contributes to building investor confidence when financing strategies are presented, consistent with Component 7: Finance.

At the technical level, the TDG-SIGs coordinate the analytical and operational aspects of stakeholder engagement. These groups manage consultations, synthesise stakeholder inputs, and ensure that feedback is systematically incorporated into technical deliverables such as models, scenarios, and draft strategies. Different TDG-SIGs may be convened under the Governing Coordination Function for specific D2D components, reflecting the distinct expertise and stakeholder profiles required at each stage. For example, one TDG-SIG may focus on Component 4: Modelling, engaging technical institutions, utilities, and data providers to co-develop transition pathways, while another may focus on Component 7: Finance, engaging ministries of finance, development banks, and private investors to co-design financing strategies. Each TDG-SIG operates under common engagement principles set by the GCF but adapts its composition and consultation processes to the needs of the specific component.

To maintain legitimacy and stakeholder trust, both the PSC-SIG and TDG-SIGs should ensure that engagement outcomes are communicated back to participants through accessible and transparent channels. Consultation reports, online portals, or summary briefs should document how

stakeholder feedback has influenced decisions, reinforcing the credibility and openness of the process. Embedding these practices within the GCF transforms stakeholder engagement from an ad hoc activity into an institutionalised function—one that builds legitimacy, fosters shared ownership, and strengthens the long-term durability of national transition strategies.

Together, the GCF, PSC-SIG, and TDG-SIGs provide a structured mechanism for institutionalising stakeholder engagement across political and technical levels. This arrangement ensures that feedback loops are maintained between policy direction, technical analysis, and stakeholder participation, allowing engagement to underpin the entire D2D process. It strengthens coherence between Components 3–7: Vision, Modelling, Engagement, Policy, and Finance, ensuring that national plans are shaped by inclusive dialogue and reflect broad-based ownership.

BOX 12. The Formation of Eswatini's Steering Committee.

The development of Eswatini's National Energy Master Plan 2034 illustrates a Technical Delivery Group – Special Interest Group (TDG-SIG) in action. A multi-stakeholder steering committee brought together the Eswatini Electricity Company, Electricity Regulatory Authority, Central Statistics Office, University of Eswatini, Ministry of Economic Planning and Development, and the Central Bank of Eswatini. The steering committee decided on possible energy policies that could be implemented in Eswatini for the period 2014-2034, and these were then used as the basis for a series of scenario modelling assessments. See Ministry of Natural Resources and Energy for more information [8].

However, establishing and maintaining such committees can be resource-intensive: decision-making can be very time-consuming as diverse

priorities and objectives must be balanced, and sustaining long-term commitment from all participating actors is challenging [3]. Given the significant time, coordination, and technical resources needed to create and maintain a long-standing committee, it is essential to institutionalise its operation from the outset. This may include formally defining roles and responsibilities, securing a long-term secretariat, and allocating budgetary resources for hosting regular meetings. Moreover, utilising existing shared spaces, such as public town halls, can be both time- and cost-effective. These types of venues also traditionally represent a neutral environment for different individuals and groups to be involved, which promotes inclusive participation and helps to reduce logistical barriers for the inclusion of diverse stakeholders.

BOX 13. Chana's Energy Planning Governance.

While Ghana's energy sector is officially governed by the Ministry of Energy and the Energy Commission, the planning process for developing the sector brings together a wide range of stakeholders from both the public and private spheres. To embed these perspectives, the Government has institutionalised two formal bodies: the Power Planning Technical Committee (PPTC) and the Steering Committee. Drawing on representatives from different sectors, these committees determine the scope of the planning process and ensure that decision-making is grounded in a bottom-up approach. See IRENA for more information [6].

2.3.3. Establishing Legal Mandates for Consultation

Legal mandates safeguard inclusivity across political cycles. Embedding inclusive engagement mechanisms into a country's legal or political frameworks ensures that stakeholder participation is a consistent and formalised part of any decision-making procedure. This helps to safeguard against the exclusion or

underrepresentation of certain groups in transition planning. Moreover, it helps strengthen national ownership by ensuring multistakeholder perspectives are represented in every national decision-making process. This ultimately contributes to Component 6: Policy of the D2D framework by enhancing political alignment through institutional credibility, while also supporting Component 7: Finance by increasing investment readiness through the inclusion of diverse and representative viewpoints.

One mechanism for achieving this is the creation of legal or regulatory provisions that formally require stakeholder participation throughout the planning process. Embedding such requirements into national legislation, regulatory frameworks, or official planning guidelines ensures that consultation activities are not discretionary or one-off events, but integral to the governance of future strategy developments. This approach is particularly effective in safeguarding the continuity of participatory processes across political cycles and leadership transitions. Moreover, legal mandates signal a strong institutional commitment to inclusive decisionmaking, reinforcing stakeholder confidence, trust, and long-term buy-in.

This mechanism aligns closely with Component 3: Vision of the D2D framework, which emphasises formalising coordination structures and planning mandates. By codifying the requirement to engage diverse actors in the development of transition plans, legal mandates help align stakeholder visions and expectations, thus contributing to the legitimacy and coherence of the overall process. Over time, this contributes to the strengthening of the policy and regulatory framework (Component 6: Policy), enabling the formulation of robust, resilient, and widely supported transition pathways.

While legal mandates can be powerful tools for institutionalising inclusivity, their feasibility and effectiveness depend on each country's governance structures, administrative capacity, and political context. In some settings, softer mechanisms, such as formal guidelines, executive directives, or memoranda of understanding, may provide more practical pathways to achieving similar outcomes. The choice of approach should therefore be adapted to national circumstances and existing institutional frameworks.

BOX 14. Citizen Participation in Chile's Climate Law.

Chile provides a clear example of how legal mandates can institutionalise inclusive engagement in national strategy development. In 2022, the country adopted the Framework Law on Climate Change (Law No. 21,455), which includes the Sistema Nacional de Acceso a la Información sobre Cambio Climático y Participación Cuidadana (translation: National System of Access to Information and Citizen Participation on Climate Change). This instrument legally requires the active participation of public citizens in the design and review of national climate change strategies. By embedding participation in law, Chile ensures that stakeholder engagement is not a voluntary add-on but a required step in national, regional, and local strategy development. See Ministry of the Environment for more information [10].

3. Recommendations

Drawing on the most effective stakeholder engagement practices identified in key case studies and from the collective experience of the co-authors, the following recommendations distil key insights into actionable lessons for governments and line ministries to integrate into their national strategy development processes. Designed to align with the broader Data-to-Deal (D2D) framework, these recommendations aim to support the development of transition plans that attract and secure the required funds for implementation.

- Transition plans should be formulated through inclusive and collaborative processes of shared learning and ownership.
 Stakeholder engagement processes should be founded on principles of authentic and open dialogue, mutual respect, and collaborative problem-solving. They should be designed to promote shared learning and joint exploration of the impacts of national transition pathways. To achieve this, a broad range of stakeholders should be involved from the outset and integrated into the scenario co-creation as equal partners with shared ownership in the process.
- Governments should establish formal coordination mechanisms under the D2D governance structure for current and future strategy planning. Creating lasting collaboration and strong commitment to collective processes among stakeholders requires institutionalisation and ongoing engagement. Formal mechanisms, such as the Political Steering Committee Special Interest Group (PSC-SIG) and the Technical Delivery Group Special Interest Groups (TDG-SIGs), operating under the Governing Coordination Function (GCF), ensure long-term

- continuity and buy-in, even as political parties and individuals change. These mechanisms help create a strengthened culture of policy coherence, inclusive processes, and shared learning. To function effectively, each group should have clearly defined roles and responsibilities, with the leading ministry coordinating initial governance, managing the stakeholder-mapping process, and guiding ongoing stakeholder interactions in collaboration with the GCF secretariat.
- 3. Governments and supporting international organisations should invest in capacity development and process facilitation. The second stage of the D2D framework, which centres on building institutional capacity, crucially revolves around effective stakeholder engagement. This may involve strengthening coordination mechanisms under the Governing Coordination Function (GCF), including the TDG-SIGs, and supporting the participation of local technical modelling experts. Such arrangements promote shared learning, improve data accuracy, and build domestic capacity for long-term planning. Capacity-development investments should extend beyond technical modelling to include dedicated support for facilitating stakeholder engagement, such as resourcing the GCF secretariat or designating focal points within TDG-SIGs to oversee coordination and ensure continuity across planning processes.

- Iterative multi-stakeholder engagement exercises should be prioritised across the D2D framework.
 - It is crucial that the strategy planning process offers stakeholders the opportunity to engage from the onset and share initial inputs and ideas. It is equally imperative that stakeholders can also react and provide feedback to provisional decisions made during the development process. A collaborative and inclusive stakeholder process should establish an open line of communication across the entire D2D framework, customised to each component's specific requirements.
- National socio-political contexts should be systematically analysed to uncover stakeholder risk perceptions and identify context-specific barriers to the transition plan's development.
 - Understanding these dynamics can help uncover context-specific barriers to the development and implementation of specific strategies, while also informing the design of more inclusive and feasible public policies. By addressing concerns grounded in the socio-political reality, especially in perceived high-risk political climates, ministries can build trust, enhance stakeholder confidence, and increase acceptance of proposed national strategies.

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ACKNOWLEDGEMENTS:

This material has been produced with support from the Climate Compatible Growth (CCG) programme, which brings together leading research organisations and is led out of the STEER centre, Loughborough University. CCG is funded by UK aid from the UK government. However, the views expressed herein do not necessarily reflect the UK government's official policies.

REVIEWERS:

We thank Sandra Loayza and Thomas McEwan for their contribution to the review of this work.

ADVISORY COMMITTEE:

We thank Hannah Luscombe, Vivien Foster, Will Blyth, and Jairo Quirós-Tortós for their contribution to the Advisory Committee.



CREDIT AUTHOR STATEMENT:

¹**Annie Flint Smith** (Loughborough University and CCG): Conceptualisation, Writing – Original Draft, Writing – Review and Editing, Visualisation.

²**Tom Alfstad** (Loughborough University and CCG): Conceptualisation, Writing – Original Draft.

³Nadeem Goussous (International Renewable Energy Agency (IRENA)): Conceptualisation, Writing – Reviewing and Editing, Validation.

4Juan Jose Garcia Mendez (IRENA): Conceptualisation, Writing – Reviewing and Editing, Validation.

⁵**Hyeonyu Son** (IRENA): Writing – Reviewing and Editing, Validation.

⁶Hannah Luscombe (Smith School of Enterprise and the Environment (SSEE), University of Oxford; Centre for Environmental Policy (CEP), Imperial College London; and CCG): Conceptualisation, Writing – Review and Editing, Project Administration, and Validation

Vivien Foster (CEP and CCG): Conceptualisation, Writing – Review and Editing, Project Administration, and Validation

RECOMMENDED CITATION: Flint Smith, A., Alfstad, T., Goussous, N., Garcia Mendez, J.J., Son, H., Luscombe, H., and Foster, V. (2025). Data-to-Deal – Component 5. Engagement: Engaging with Stakeholders – A Best Practice Brief. Climate Compatible Growth D2D Series.



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