ICAT Namibia Lessons Learnt Report

ICAT Initiative for Climate Action Transparency

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Initiative for Climate Action Transparency - ICAT

ICAT Namibia Lessons Learnt Report

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1 INTRODUCTION

1.1 CONTEXT AND PURPOSE OF THE ICAT WORK IN NAMIBIA

Namibia's participation in the ICAT Transparency Programme aimed to strengthen the country's capacity to monitor, report, and verify climate actions in line with the Paris Agreement. Despite strong policy commitment, Namibia has historically faced challenges including limited data availability, fragmented institutional arrangements, and insufficient technical capacity for policy assessment and long-term scenario modelling.

The ICAT project was designed to address these constraints through a set of technical deliverables, capacity-building workshops, and institutional strengthening activities. Key outputs such as the Diagnostic Assessment, New Energy Scenario Modelling, REFIT Policy Impact Assessment, Data Quality and Institutional Arrangements Review, and the NDC Tracking Templates contributed to building a more coherent foundation for climate transparency and evidence-based decision-making.

Project implementation occurred within a complex policy environment, shaped by evolving national priorities in the energy and transport sectors and overlapping institutional mandates. Despite these challenges, the ICAT initiative improved coordination, enhanced technical literacy, and provided practical tools that align with Namibia's long-term climate commitments.

This Lessons Learnt Report documents these experiences to ensure the knowledge generated becomes part of an ongoing national effort to strengthen climate governance and embed transparency practices across institutions..

1.2 OVERVIEW OF THE LESSONS LEARNT

This Lessons Learnt Report summarises the key insights generated through the implementation of the ICAT Transparency Project in Namibia. It draws on the project's technical deliverables, sector engagements held during diagnostic and modelling phases, and feedback from the national Validation Workshop involving government institutions, regulators, utilities, academia, and development partners. Together, these inputs provide a consolidated understanding of Namibia's progress in strengthening climate transparency and highlight areas requiring further attention.

Lessons were identified through a combination of technical analysis, stakeholder consultations, review sessions for the NDC Tracking Templates, and the final Validation Workshop. This ensured that insights reflect national realities and institutional experiences rather than theoretical considerations.

Overall, this report distils what worked well, the challenges encountered, and the opportunities available to advance Namibia's readiness for the Enhanced Transparency Framework (ETF) under the Paris Agreement.

2 KEY MILESTONES AND CORE ACCOMPLISHMENTS

The implementation of the ICAT Transparency Project in Namibia yielded several important achievements which provide a strong platform for future climate reporting and policy assessment efforts. These accomplishments reflect both technical outputs and institutional strengthening.

2.1 Strengthening Technical Foundations for Climate Transparency

Through the five core deliverables diagnostics, scenario modelling, policy impact assessment, data quality review, and NDC tracking templates the project provided Namibia with standardised tools and methodologies for climate transparency.

The Diagnostic Assessment clarified emissions trends and institutional constraints, while the New Energy Scenario Modelling demonstrated the value of structured long-term planning. The REFIT Policy Impact Assessment applied a consistent framework for evaluating mitigation and sustainable development benefits. Complementing these, the Data Quality & Institutional Arrangements Report outlined systemic bottlenecks and improvements needed, and the NDC Tracking Templates established clear indicators and reporting pathways.

2.2 Enhancing Coordination and Collaboration

The project strengthened engagement among MEFT, MME, NSA, ECB, NamPower, and other stakeholders through regular consultations and workshops. These interactions improved understanding of institutional roles and built momentum for coordinated climate reporting. The Validation Workshop demonstrated a strong sense of national ownership of ICAT tools and methodologies.

2.3 Enhancing Data Governance and Systematic Reporting

ICAT contributed to foundational improvements in Namibia's data landscape. While systemic challenges persist, the work on data quality provided clarity on metadata requirements, QA/QC practices, and focal point responsibilities. These contributions support long-term efforts to institutionalise MRV processes and standardise climate-related datasets.

2.4 Building Human and Technical Capacity

Capacity-building activities improved national understanding of modelling, policy assessment, and MRV design. Stakeholders reported increased confidence in applying tools such as LEAP, GACMO, and ICAT policy methodologies. Although continued training is still required, the project marked an important step toward establishing a sustainable base of technical expertise.

3 INSIGHTS AND LEARNING FROM IMPLEMENTATION

The ICAT Transparency Project generated a wide range of insights that reflect both technical and institutional realities within Namibia's climate governance system. Lessons emerged through project deliverables, sector engagements, and the Validation Workshop, offering a clearer understanding of what has improved and what constraints continue to affect transparency efforts. The lessons are grouped into four thematic areas.

3.1 Lessons on Strengthening Namibia's Climate Transparency Architecture

A major insight from the project is the growing recognition that climate transparency requires a sustained, coordinated system rather than periodic reporting. Stakeholders noted that a strong transparency architecture improves national planning, supports climate finance readiness, and strengthens inter-ministerial cooperation.

The ICAT process helped illustrate the value of structured data flows, clear reporting roles, and evidence-based tools for long-term mitigation planning. Participants recognised that the methodologies and templates developed through ICAT form an important foundation for future Biennial Transparency Reports (BTRs), National Communications, and NDC updates.

The project also highlighted that validation is a continuous process. As policies evolve and new data becomes available, assumptions in scenario modelling, policy assessment, and NDC tracking must be updated regularly to maintain relevance and accuracy.

3.2 Lessons on Data and Coordination

Data availability and quality remain the most significant constraints to effective climate reporting in Namibia. The Diagnostic Assessment, Data Quality Review, and modelling exercises all revealed fragmented datasets, inconsistent formats, and limited documentation across institutions.

Stakeholders agreed that formalising institutional coordination is essential. While MEFT, MME, NSA, ECB, NamPower and others demonstrate strong commitment, collaboration mechanisms remain largely informal and dependent on individual relationships. This undermines continuity, especially when staff change.

The project demonstrated that improving Namibia's data landscape requires systemic reforms not isolated project interventions. Clear mandates for focal points, legally supported data-sharing arrangements, and standardised QA/QC procedures are needed to ensure consistent and high-quality data flows.

3.3 Lessons on Technical Capacity, Modelling, and Policy Impact Assessment

The project strengthened national understanding of scenario modelling, mitigation quantification, and SD assessment. However, technical expertise remains concentrated in a small group of individuals, creating bottlenecks when specialised tasks arise.

A key lesson is the need for sustained, institutionalised capacity-building on tools such as LEAP, GACMO, and ICAT's policy assessment methodologies. Stakeholders also emphasised the importance of co-developing modelling assumptions with national experts to ensure that outputs reflect Namibia's context, including local emission factors and sector-specific data.

The workshop reinforced the need to directly integrate modelling results into the NDC tracking and MRV system. Linking projections, policy impacts, and QA/QC insights to tracking templates will help ensure that Namibia's transparency architecture remains technically grounded and adaptive.

3.4 Lessons on SD Metrics, Engagement, and Ownership

The project reaffirmed the importance of tracking sustainable development benefits alongside GHG reductions. Participants highlighted the need for improved baseline data and tailored methodologies for indicators related to jobs, gender, water, and land use.

Stakeholder engagement emerged as a critical factor for building national ownership. Early involvement in setting modelling assumptions, defining indicators, and reviewing reporting processes strengthened trust and improved the credibility of analytical outputs. The Validation Workshop itself revealed additional data gaps and helped clarify institutional roles.

There was strong consensus that ICAT deliverables are nationally relevant and should be integrated into ongoing government processes. This ownership is essential for sustaining the transparency system beyond the life of the project.

4 CONDITIONS THAT SUPPORTED EFFECTIVE DELIVERY

Several enabling conditions contributed to the successful implementation of the ICAT Transparency Project in Namibia. These factors strengthened collaboration, improved technical understanding, and ensured that project outputs remained relevant to national priorities.

4.1 Strong Institutional Commitment and Leadership

High levels of commitment from MEFT, MME, and other key institutions were central to the project's progress. These entities actively participated in consultations, provided data inputs, and guided technical work, ensuring that the deliverables aligned with national policy directions. Broad engagement from EIF, NSA, ECB, NamPower, and other stakeholders further reinforced ownership and legitimacy.

4.2 Effective Stakeholder Engagement and Open Dialogue

The project benefited from an inclusive engagement process featuring regular workshops and technical consultations. Open discussions on modelling assumptions, data limitations, and methodological choices helped build trust and encouraged institutions to contribute constructively. This approach helped break down sectoral silos and facilitated more coherent cross-sector planning.

4.3 Availability of Technical and Methodological Resources

The structured ICAT guidance covering policy assessment, sustainable development, and GHG impact analysis provided a clear methodological foundation for technical work. These frameworks helped standardise scenario modelling, policy evaluation, and data diagnostics, enabling Namibia to adapt global methodologies to national needs and develop its own tools such as the NDC tracking templates.

4.4 Responsiveness and Collaboration of Technical Experts

Close collaboration between national experts and the ICAT technical team ensured that analytical processes reflected national realities. Consultants provided detailed technical explanations and worked with institutions to refine assumptions and indicators. This responsiveness enhanced national understanding of complex areas such as LEAP modelling and mitigation quantification.

4.5 Alignment with National Policy Processes and Timing

The timing of the project coincided with important national processes, including the development of the new National Integrated Resource Plan (NIRP) and ongoing NDC work. This alignment made ICAT outputs such as the scenario modelling and REFIT assessment highly relevant and increased the likelihood that they will be used beyond the project's lifespan.

4.6 Collaborative Environment and Willingness to Learn

Institutions consistently demonstrated openness to learning new tools and methodologies. This positive engagement created a strong learning environment, supported innovation, and encouraged institutions to strengthen their internal processes in preparation for ETF requirements.

5 CHALLENGES AND MITIGATION STRATEGIES

Although the ICAT Transparency Project made notable progress, several systemic, technical, and institutional challenges affected delivery. Understanding these barriers and how they were managed provides important guidance for future transparency initiatives.

5.1 Fragmented and Incomplete Data Systems

Challenge - Data is held across multiple institutions in inconsistent formats with limited documentation. This fragmentation complicated modelling and slowed indicator development.

Mitigation - The project conducted a detailed diagnostic of data systems and produced the Data Quality & Institutional Arrangements Report, which set out harmonised templates, identified gaps, and proposed a roadmap for improved data governance.

5.2 Limited Access to High-Resolution or Publicly Available Data

Challenge - Some critical datasets are not easily accessible due to internal procedures or the absence of formal data-sharing agreements.

Mitigation - Workshops and consultations encouraged proactive data sharing. Stakeholders agreed on the need for transparent protocols, which facilitated access to priority datasets during the project.

5.3 Absence of Formal QA/QC Procedures

Challenge - Many institutions lack documented quality assurance processes, creating uncertainties about the reliability of data used in key analyses.

Mitigation - ICAT introduced a structured QA/QC framework and metadata requirements. While full implementation requires policy support, this created a basis for future standardisation.

5.4 Limited Technical Capacity for Modelling and Policy Assessment

Challenge - Expertise in LEAP modelling, causal chain development, and SD indicator scoring remains concentrated among a few individuals.

Mitigation - Hands-on training was integrated across all deliverables, and modelling assumptions were developed collaboratively to support knowledge transfer. Long-term institutional training is still required.

5.5 Informal Coordination and Overlapping Mandates

Challenge - Climate-related responsibilities are not fully formalised, leading to overlaps and reliance on informal networks.

Mitigation - Regular multi-institutional engagements improved coordination and clarified roles. The institutional mapping under the Data Quality deliverable provides a basis for future reforms.

5.6 Inconsistent Policy Documentation and Outdated Information

Challenge - Some policies required for assessment lacked updated implementation data, limiting the completeness of modelling outputs.

Mitigation - The team worked with focal points to obtain supplementary documents and validate missing assumptions through workshops, enabling the generation of credible results.

5.7 Timing Constraints and Competing Institutional Priorities

Challenge - Project activities coincided with major national processes, limiting stakeholder availability at times.

Mitigation - Flexible scheduling and bilateral consultations ensured that institutions could engage meaningfully despite competing demands.

5.8 Need for Continuous Refinement of Modelling Assumptions

Challenge - Modelling assumptions such as technology costs and grid emission factors require frequent updating to reflect sector changes.

Mitigation - The project adopted an iterative approach to refining assumptions, with stakeholders actively participating in reviews. This improved output credibility and set a precedent for ongoing updates.

6 EMERGING TRANSPARENCY PRIORITIES

The implementation of the ICAT Transparency Project revealed important progress but also highlighted key areas where additional focus is required to sustain and deepen Namibia's readiness for the Enhanced Transparency Framework (ETF). These emerging priorities reflect the collective perspectives of stakeholders and point to strategic interventions that can help embed transparency practices across government systems.

6.1 Formalising Institutional Coordination for Climate Data Management

One of the most urgent priorities identified is the establishment of a formal, legally supported mechanism to coordinate national climate data. Namibia currently relies on informal networks, voluntary participation, and project-based arrangements to facilitate data sharing. To ensure long-term sustainability, stakeholders recommend:

- Creating a designated national coordinating entity or unit responsible for climate data governance.
- Developing clear legal mandates for sectoral focal points within key ministries and agencies.
- Establishing binding data-sharing agreements to ensure timely submission of activity data, indicators, and policy information.
- Integrating climate data responsibilities into institutional job descriptions and performance systems.

Such reforms will help strengthen institutional memory and reduce reliance on individual staff members or temporary structures.

6.2 Advancing Systematic and High-Quality Data Collection

As Namibia prepares for future Biennial Transparency Reports (BTRs) and NDC updates, systematic improvements in data quality and availability are essential. Emerging priorities in this area include:

- Developing national metadata standards for climate-related datasets.
- Formalising QA/QC procedures across all institutions involved in data generation.
- Improving digitisation and archiving of datasets to reduce reliance on ad hoc spreadsheets.
- Enhancing public accessibility of non-confidential datasets to support transparency and academic research.

- Aligning institutional data systems with the needs of the NDC tracking and MRV frameworks developed under ICAT.

Addressing these priorities will help reduce inconsistencies and provide more reliable evidence for policy assessment.

6.3 Scaling Up Technical Capacity for Modelling and Policy Assessment

Despite the progress achieved, Namibia's modelling capacity remains concentrated within a limited pool of experts. To sustain the long-term utility of the ICAT tools, stakeholders identified several key actions:

- Institutionalise regular training programmes on LEAP, GACMO, and policy impact methodologies.
- Establish a national modelling community of practice involving MEFT, MME, NSA, NamPower, ECB, academia, and other stakeholders.
- Encourage joint development of modelling assumptions to ensure that outputs reflect local conditions and sector priorities.
- Develop standard operating procedures for modelling updates to institutionalise consistency and repeatability.
- Allocate dedicated staff or units within key ministries to maintain modelling systems.

A coordinated approach to capacity-building will help ensure continuity, reduce vulnerability, and support evidence-based decision-making.

6.4 Integrating SD Indicators into Planning

The ICAT project demonstrated that mitigation strategies provide benefits beyond emissions reductions. However, Namibia does not yet have consistent systems for tracking SD outcomes linked to climate actions. Emerging priorities include:

- Developing sector-specific methodologies for SD indicators such as jobs, gender outcomes, water use, land impacts, and socio-economic benefits.
- Strengthening baseline datasets and harmonising indicators across ministries.
- Embedding SD metrics into energy planning tools, environmental assessments, and national policy review processes.
- Aligning SD tracking methodologies with Namibia's broader sustainable development frameworks.

Integrating SD metrics will enhance the credibility of climate reporting and support stronger climate finance proposals.

6.5 Strengthening Ownership Through Engagement

Stakeholder participation played a central role in the success of the ICAT Transparency Project. Sustaining this momentum requires:

- Ongoing interministerial dialogue on modelling assumptions, indicators, and reporting processes.
- Annual or periodic transparency coordination workshops to track progress and review data challenges.
- Increased collaboration with academic institutions to support research, innovation, and independent validation.
- Improved communication of transparency results to the public and development partners.

These efforts will reinforce national ownership and create continuity even as institutional contexts evolve.

6.6 Embedding MRV and NDC Tracking into National Systems

To ensure long-term sustainability, the ICAT outputs must be embedded into Namibia's existing institutional structures. Priority areas include:

- Integrating ICAT tools such as NDC templates and SD indicators into ministerial planning and reporting cycles.
- Exploring the development of a centralised Climate Data Management System (CDMS).
- Aligning transparency processes with national systems such as the National Integrated Resource Plan (NIRP), national GHG inventory updates, and sectoral planning tools.
- Developing a long-term financing strategy to support MRV operations beyond donor-funded projects.

By institutionalising the MRV architecture, Namibia will ensure sustained ETF readiness and improved alignment between policy design and implementation.

7 CONCLUSION

In conclusion, the ICAT Transparency Project has played a pivotal role in advancing Namibia's readiness for the Enhanced Transparency Framework by strengthening technical foundations, building institutional capacity, and deepening national ownership of climate reporting processes. While systemic challenges persist particularly around data quality, coordination, and sustained technical expertise the lessons learnt from implementation provide a clear roadmap for continued improvement. The insights generated through this project underscore the importance of formalising institutional arrangements, embedding MRV and NDC tracking tools into national systems, and investing in ongoing capacity-building to ensure continuity and resilience. As Namibia prepares for future National Communications, Biennial Transparency Reports, and long-term mitigation planning, the momentum created through ICAT offers a solid platform for consolidating transparency practices and enhancing evidence-based climate governance across all sectors.

7.1 Summary Key Takeaways from the ICAT Support to Namibia.

Theme	Key Message	Implications for Namibia's Transparency System
Overall Achievement	ICAT strengthened technical, institutional, and coordination foundations for climate transparency.	Provides a solid base for BTRs, NDC updates, MRV system development, and long-term policy planning.
Persistent Challenges	Data fragmentation, inconsistent QA/QC, inadequate formal coordination, and limited modelling expertise remain significant barriers.	Requires systemic reforms rather than project-level interventions to ensure sustainability and reliability.
Capacity Building	National capacity for modelling, policy assessment, and SD tracking improved but remains limited to a small group of experts.	Necessitates institutionalised training programmes, dedicated staff, and long-term skill retention.
Institutionalisation Needs	Tools, methodologies, and templates developed must be embedded in national systems.	Adoption through regulations, SOPs, and integration into planning cycles is essential for permanence.
Sustainable Development Integration	SD indicators and co-benefits were recognised as critical components of climate action.	Strengthening baselines and integrating SD metrics into sectoral planning will enhance reporting and climate finance readiness.

Theme	Key Message	Implications for Namibia's Transparency System
National Ownership	Stakeholders showed strong engagement and willingness to adopt ICAT outputs.	Ensures continuity beyond the project and creates a foundation for coordinated, transparent climate governance.
Path Forward	Formalised coordination, improved data management, MRV institutionalisation, and resource mobilisation are priority next steps.	Strengthening systems now positions Namibia for long-term ETF compliance and improved climate decision-making.