

NDC Scorecard Action Plan Report

Next Steps for Sustainable Buildings in Egypt's NDCs

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1. About this Report

This report is developed by the Egypt Green Building Council (EgyptGBC) in collaboration with SHiFTERRA Consultancy. It evaluates Egypt's status in terms of policies, regulations, and nationally determined contribution (NDC) through the lens of the World Green Building Council's (WorldGBC) NDC Scorecard for Sustainable Buildings. It provides a high-level summary of current policy alignment and outlines priority next steps to support greater integration of the built environment in Egypt's climate strategy. The findings and recommendations presented in this report are based on two workshops conducted in Cairo, Egypt, during April and May 2025. These workshops brought together a diverse group of stakeholders, including representatives from government entities, the private sector, academia, banks and others. Recommendations and actions were derived through roundtable discussions and interactive sessions using Menstimeter to document participants' inputs.

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3. Executive Summary

The purpose of this scorecard-based review is to assess the extent to which Egypt's Nationally Determined Contribution (NDC), policies, and regulations incorporate sustainable building practices and to recommend strategic actions for enhancing alignment. The report supports the 2025 NDC update process by highlighting opportunities for decarbonization, resilience-building, and resource efficiency in the built environment sector.

An analysis of Egypt's NDC reveals both significant strengths and notable challenges in the country's climate policy framework:

- Egypt's NDC shows **strong alignment in governance, awareness, and training**, with legally binding codes and ongoing initiatives such as the National Biodiversity Strategy and Action Plan (NBSAP).
- **A notable setback** is that the codes and standards are not regularly updated at the pace of their international counterparts. For Instance, the Egyptian Energy Efficiency Residential Building Code (EEERBC) was introduced in 2005 and was followed by the Egyptian Energy

Efficiency Commercial Building Code (EEECBC) in 2009, and they both have not been updated since then, although they were originally set to be updated every 5 years. ⁽¹⁾

- Many climate-related codes and standards **are non-mandatory and face significant implementation barriers.**
- **A critical policy gaps persist**, including the absence of a national decarbonization roadmap, weak enforcement of existing codes, limited access to finance, and no mandate for key resilience, water, or circular economic measures.
- **A challenge in Egypt** is that various governmental and social society entities launch separate initiatives with overlapping objectives and scope. This creates redundant outcomes and, more concerningly, wastes limited resources by addressing areas that have already been explored.

Table 1 highlights key insights from Egypt's NDC scorecard:

Table 1: Summary Table of Key Findings

Key Policy Areas Included in the NDC	Priority Policies Not Currently Included within the NDC
Energy efficiency codes	Lifecycle carbon reporting and targets
Sub-national government engagement	Passive design and on-site renewable mandates
Ensure equitable access to adequate, affordable, and sustainable housing by embedding housing rights in national legislation, mandating inclusive zoning laws, and investing in green social housing	Climate resilience standards and hazard zoning
Training and awareness programs	Circular economy mandates (durability, reuse, recycled content)
Some adaptation planning initiatives	Mandated water and biodiversity performance standards
Policies that prioritize the renovation of existing buildings, and promote land and space efficiency	
Policies that prioritize building reuse over new construction	
Mandate electrification of heating, cooling and appliances, phasing out fossil-fuel-based systems	

Addressing the key gaps identified in the NDC Scorecard requires urgent policy action. The following priority measures target the most critical areas for decarbonizing and strengthening resilience in Egypt's built environment while unlocking economic and environmental benefits.

1. *Develop and adopt a **National Decarbonization and Resilience Roadmap** for the built environment.*

¹ Guidehouse Germany GmbH, IDG Egypt, & HBRC Egypt. (2021). Analysis and recommendations for the improvement of energy efficiency building codes in Egypt.

2. **Mandate lifecycle carbon reporting** and target setting (upfront, embodied, and operational carbon).
3. **Enforce energy efficiency and green building codes** through compliance audits and penalties.
4. Introduce **mandatory water and biodiversity performance standards**.
5. Scale up **circular economic policies**, including recycled content requirements and right-to-repair legislation.
6. Promote **electrification of buildings** and phase out fossil fuel-based systems.
7. Establish financial incentives and expand **green finance mechanisms** (green mortgages, bonds, and subsidies).
8. Integrate **climate resilience standards** and hazard mapping into urban planning.

To effectively advance sustainable buildings within Egypt’s climate agenda, coordinated efforts across key sectors are essential. Table 2 outlines targeted actions for government, industry, and finance actors to accelerate policy implementation, enable market transformation, and mobilize investment in climate-resilient infrastructure.

Table 2: Summarized Call to Action – Priority Measures for Government, Industry, and Finance

Government	Key Recommendations
Government	Enforce and update green building and energy efficiency codes, mandate recycled materials in public procurement, promote water and renewable energy standards, and integrate sustainability and resilience into national planning. Establish digital platforms, launch awareness campaigns, and support workforce capacity building.
Industry	Adopt sustainable materials, green certifications, and environmental product declarations (EPDs); invest in workforce training and innovative circular business models; prioritize nature-based solutions; and participate in public-private partnerships.
Finance Sector	Mobilize funding for green buildings, offer incentives and risk-sharing mechanisms, and support innovation through research funding and favorable lending schemes.
Civil Society & Academia	Deliver training, drive innovation through research, and foster awareness via youth competitions and education programs.
International Organizations	Provide financial and technical support for green building benchmarks, demonstration projects, and local adaptation efforts.

3. Why Buildings in NDCs Matter

NDCs serve as the cornerstone of global climate action under the Paris Agreement, enabling countries to outline strategies for reducing emissions and building climate resilience while aligning national priorities with the international goal of limiting warming to 1.5°C.^(2,3) These five-year renewable

² What are ndcs and how do they drive climate action? UNDP Climate Promise. (2023, May 22).

³ Overholt, M., Gerholdt, R., Srouji, J., & Alayza, N. (2024, August 5). What are nationally determined contributions (ndcs) and why are they important? World Resources Institute.

pledges combine mitigation targets, adaptation measures, and financing needs, creating a framework for incremental climate ambition.^(4,5) For regions like the Middle East and North Africa (MENA), where temperatures are rising twice as fast as the global average and 60% of the population faces extreme water stress^(6,7), NDCs have become critical tools for addressing interconnected challenges of energy security, economic diversification, and climate vulnerability.

In Egypt, where 95% of the population lives on just 4% of the land along the Nile, rapid urbanization and a 2.3% annual population growth rate intensify pressures on infrastructure and resources.^(8,9) The country's updated 2023 NDC commits to generating 42% of electricity from renewables by 2030 and reducing power sector emissions by 37%, partly through replacing 5 GW of fossil fuel plants with renewable energy.^(10,11) These targets align with broader MENA climate priorities, where \$2 trillion in planned construction investments by 2035 could either lock in high-carbon infrastructure or catalyze sustainable urban transitions.⁽¹²⁾

Integrating the built environment into NDCs is particularly strategic for MENA countries, where buildings account for 40% of energy use and 28% of Egypt's total energy consumption.^(13,14) Regional best practices demonstrate the potential:

- **UAE's 2023 NDC** includes 40 built environment measures targeting 56% emission cuts in the sector by 2030, including dynamic building façades that reduce energy loss by 55%.^(15,16)
- **Morocco's renewable integration** shows how solar-powered district cooling systems can address both emission reductions and urban heat island effects⁽¹⁷⁾

⁴ Climate pledges: 5 facts on nationally determined contributions. United Nations University. (2025, January 29).

⁵ New ndcs: How the Paris Agreement Shapes Climate Futures. Português (Brasil). (2025, March 1).

⁶ Arkeh, J. (2025, May 5). Climate resilience in the Mena Region: Navigating challenges, empowering communities, and Transforming Governance. Carnegie Endowment for International Peace.

⁷ Borghesi, S., & Ticci, E. (n.d.). *Climate change in the MENA region: Environmental risks, socioeconomic effects and policy challenges for the future*. IEMed.

⁸ Abdelmelek, M., Ghandour, S. E., Ibrahiem, S., Madi, T. H., & Nadeem, Z. (2022, December 8). *Mitigating the impact of climate change on Egyptian cities: Sustainable Building and construction as a strategy/ التخفيف من أثر تغير المناخ في المدن المصرية: إستراتيجية البناء والتشييد المستدام*. AUC Knowledge Fountain.

⁹ Egypt Arab States. UNDP Climate Promise. (2023a, November 28).

¹⁰ Khalid, M. (2023, June 28). *Tackling climate change in Egypt: More ambitious ndcs*. Ahram Online.

¹¹ Egypt Arab States. UNDP Climate Promise. (2023a, November 28).

¹² Abdallah, K., Nehme, B., Anouti, Y., Bejjani, M., & Al Feghali, S. (n.d.). A sustainable built environment | strategy& middle east.

¹³ Abdelmelek, M., Ghandour, S. E., Ibrahiem, S., Madi, T. H., & Nadeem, Z. (2022, December 8). *Mitigating the impact of climate change on Egyptian cities: Sustainable Building and construction as a strategy/ التخفيف من أثر تغير المناخ في المدن المصرية: إستراتيجية البناء والتشييد المستدام*. AUC Knowledge Fountain.

¹⁴ Abdallah, K., Nehme, B., Anouti, Y., Bejjani, M., & Al Feghali, S. (n.d.). A sustainable built environment | strategy& middle east.

¹⁵ Buildings in the NDCs - Mapping Targets on Buildings in the Nationally Determined Contributions (NDCs). (2023, October).

¹⁶ Reddy, S., Sarraf, S., & Kapoor, R. (2024, November). NDCs for buildings - Ambitious, Investable, Actionable, and Inclusive.

¹⁷ Arkeh, J. (2025, May 5). Climate resilience in the Mena Region: Navigating challenges, empowering communities, and Transforming Governance. Carnegie Endowment for International Peace.

- **Egypt's draft sustainable construction policy** proposes financial incentives for retrofitting existing buildings and mandatory green building codes ⁽¹⁸⁾

For Egypt, prioritizing buildings in NDC implementation could unlock \$246 billion in required climate financing while addressing overlapping crises. ⁽¹⁹⁾ The construction sector already employs 13.6% of Egypt's workforce, meaning green building initiatives could create millions of new jobs by 2030 through retrofitting programs and renewable energy projects. ⁽²⁰⁾

The MENA region has a unique opportunity to embed circular economy principles into NDCs, as demonstrated by Egypt's NWFE initiative linking water, food, and energy transitions. With 87% of African NDCs already including building sector measures, regional leadership could emerge through knowledge-sharing on passive cooling techniques, low-carbon cement standards, and distributed renewable energy systems tailored to arid climates. ^(21,22) As countries prepare 2025 NDC updates, integrating measurable building decarbonization pathways and resilience benchmarks will be essential for attracting international climate finance and achieving Paris Agreement compatibility.

¹⁸ Abdelmelek, M., Ghandour, S. E., Ibrahiem, S., Madi, T. H., & Nadeem, Z. (2022, December 8). *Mitigating the impact of climate change on Egyptian cities: Sustainable Building and construction as a strategy/ التخفيف من أثر تغير المناخ في المدن المصرية: استراتيجية البناء والتشييد المستدام*. AUC Knowledge Fountain.

¹⁹ Khalid , M. (2023, June 28). *Tackling climate change in Egypt: More ambitious ndcs*. Ahram Online.

²⁰ Abdelmelek, M., Ghandour, S. E., Ibrahiem, S., Madi, T. H., & Nadeem, Z. (2022, December 8). *Mitigating the impact of climate change on Egyptian cities: Sustainable Building and construction as a strategy/ التخفيف من أثر تغير المناخ في المدن المصرية: استراتيجية البناء والتشييد المستدام*. AUC Knowledge Fountain.

²¹ Reddy, S., Sarraf , S., & Kapoor, R. (2024, November). NDCs for buildings - Ambitious, Investable, Actionable, and Inclusive .

²² PEEP Working Paper. (2023, October). BUILDINGS IN THE NDCS Mapping Targets on Buildings in the Nationally Determined Contributions (NDCs).

4. Key Findings from the NDC Scorecard

Table 3 provides a snapshot of the country's policy and institutional framework supporting the built environment sector. While there are notable strengths such as clear governance structures, existing legal frameworks, and active awareness and training programs, key challenges persist. These include limited enforcement, funding constraints, incomplete integration of plans, and the absence of a dedicated decarbonization roadmap.

Table 3: Part One: Country Overview and Enabling Environment for the Built Environment Sector

<i>Policy</i>	<i>Measure</i>	<i>Current Status (Existence)</i>	<i>Strengths</i>	<i>Weaknesses / Gaps</i>
Governance & Institutional Capacity	Clear roles and responsibilities across government and regulatory agencies for strategy, funding, and approvals.	Yes	Clear roles and responsibilities exist.	Access to funding is lacking.
	National government is committed to working with sub-national governments and leading action through municipal building projects.	Yes	Commitment to local actions	Implementation is gradual; limited enforcement.
Building Strategy, Policy & Planning	Develop a National Biodiversity Strategies and Action Plan (NBSAP)	Yes	NBSAP exists and is overseen by Ministry of Environment; aligns with global commitments.	Integration into all development frameworks is ongoing.
	Existence of a National Decarbonisation and Resilience Roadmap for the Built Environment	No	-	No clear roadmap
Building Laws & Building Codes	Legal framework governing the construction sector, ensuring compliance with climate, safety, and sustainability goals.	Yes	Legally binding energy efficiency codes exist.	Codes not enforced or reviewed before permits; compliance lacking.
	There is a national emissions target with a defined role for the buildings sector	No	National Climate Change Strategy 2050; National Energy Efficiency Action Plan.	No quantitative GHG emission reduction target for building sector
Building Regulations & Standards	Commitment to national adaptation targets including clear strategies,	Yes	National Adaptation Plan (NAP) under development; multi-ministerial discussions.	Adaptation targets and standards not fully defined or enforced.

<i>Policy</i>	<i>Measure</i>	<i>Current Status (Existence)</i>	<i>Strengths</i>	<i>Weaknesses / Gaps</i>
	sectoral goals, performance indicators, and standards			
International Integration	Signed up to or engaging with the Declaration de Chaillot, Buildings Breakthrough, Intergovernmental Council for Buildings and Climate (ICBC)	Yes ICBC: No	Signed up to Chaillot and Buildings Breakthrough.	Not signed up to ICBC
Fiscal Policy & Market Instruments	Use of taxes, subsidies, and economic incentives to drive sustainable development in the built environment sector.	No	Some funds accessible to industry/SMEs.	Building sector not eligible for most funds; foreign currency constraints.
Social Innovation & Awareness	Public and private sector efforts to raise awareness and drive behavioural change for sustainable built environments.	Yes	Strong public/private awareness efforts.	-
Human Capacity & Industry Skills	Training, education, and upskilling to support the transition to a sustainable built environment sector.	Yes	National training programs; private sector and NGOs involvement.	-



Table 4 outlines the current state of policies across key sustainability areas in the built environment. While there is some progress in energy efficiency, waste management, and water planning, most areas lack comprehensive legal mandates, enforcement, and incentives. Critical gaps remain in resilience, biodiversity, and social equity, with limited integration, data, and cross-sector coordination hindering meaningful transformation.

Table 4: Part Two: Carbon & Energy, Adaptation & Resilience, Circularity, Water, Biodiversity, Health & Wellbeing and Access & Equity

Policy	Policy Outcome	Measure	Current Status (Existence)			Strengths	Weaknesses / Gaps
			NDCs	Policies	Regulations		
Carbon & Energy	Sufficiency	Policies that prioritize the renovation of existing buildings, and promote land and space efficiency	Yes	Yes	No	Some priority given to renovation and efficiency in national policies	No strong legal mandate; weak enforcement; few incentives; high upfront costs; limited expertise
	Efficiency	Mandated Minimum Energy Performance Standards in codes and policies to drive energy efficiency in new and existing buildings	Yes	Yes	Yes	Energy efficiency codes and standards in place for some technologies	MEPS not mandated for all technologies; enforcement inconsistent; retrofit not incentivized
		Passive heating or cooling measures are promoted and incentivised in new and existing buildings	No	No	Yes	Passive design included in some codes/strategies	Not systematically required; lack of incentives; developers favor mechanical systems
	Energy	Existence of policies that promote locally available renewable resources (including on-site), grid interactive and avoids, to the greatest extent possible, on-site fossil fuels	No	No	No	Some mandates for renewable energy exist	Mandates exist but not activated; limited support for on-site renewables; high upfront costs
		Mandate electrification of heating, cooling and appliances, phasing out fossil-fuel-based systems	Yes	No	No	-	No national mandate; no phase-out plan; grid capacity issues
	Whole Life Carbon	Mandate reporting and target setting across the lifecycle of the building including reporting and reduction targets for Upfront, Embodied and Operational Carbon	No	No	No	-	No legal requirement; no national targets; no LCA tools; no centralized carbon database
Adaptation & Resilience	Planning & Regulation	Existence of national planning policy that considers IPCC future climate scenarios when locating, designing and operating a building	No	Yes	No	-	No policy; codes do not reference climate projections; no adaptive/resilient design mandates

Policy	Policy Outcome	Measure	Current Status (Existence)			Strengths	Weaknesses / Gaps
			NDCs	Policies	Regulations		
		Mandate climate risk-based building regulations and resilience performance standards for new and existing buildings, ensuring they exceed historical data	No	No	No	-	No legal requirements; no national standards; no resilience performance metrics
		Local planning policy that integrates hazard mapping and risk zoning to prevent construction in high-risk flood, seismic, and landslide-prone areas	No	No	No	Some local hazard mapping and risk zoning initiatives	Local plans rarely include hazard maps; data outdated; no enforceable zoning regulations
		Existence of contingency plans for extreme climate events such as heat waves, storms, and water shortages, including investment in early warning systems	No	No	No	-	No tailored plans; early warning systems underdeveloped; limited public awareness
	Data & Reporting	Existence of climate risk assessments and long-term resilience strategies for buildings to inform property valuation, insurance, and financing decisions	No	No	No	-	No national framework; climate risks not priced into insurance/finance; lack of reliable data
	Climate-Responsive Design	National and local planning policy strengthens and enforces protections for blue and green infrastructure in city planning and development projects	No	Yes	Yes	Some local projects and partial policy for green/blue infrastructure	No comprehensive, enforceable policies; green/blue infrastructure optional
Circularity	Building Nothing	Policies that prioritise building reuse over new construction	Yes	No	No	Some adaptive reuse initiatives and pilot projects	No explicit national policy; lack of supportive legislation
	Building for Long-Term Use	Mandated minimum durability standards and right-to-repair legislation to prevent planned obsolescence and extend the lifespan of buildings	No	No	Yes	Some durability requirements in building codes	Lack of awareness; insufficient incentives; innovative business models underdeveloped
	Building Efficiently	Policies that encourage optimisation of resources and materials (renovation, design	No	Yes	No	Eco-renovation, recycled materials, and green	Design for deconstruction/modularity not

Policy	Policy Outcome	Measure	Current Status (Existence)			Strengths	Weaknesses / Gaps
			NDCs	Policies	Regulations		
		for deconstruction, material recovery, modularity, adaptive reuse)				infrastructure included in national strategies	mandated; recycling responsibility not enforced
		Existence of circular infrastructure policies (closed-loop material flows, demolition disposal regulation, resource-sharing systems)	No	Yes	Yes	National Circular Economy Strategy and waste management reforms	Regulations non-compulsory; lack of incentives; design inconsistencies
	Building with the Right Resources	Policies that mandate provision of functional and environmental product information (dismantling, re-usability, recyclability, recycled content, toxicity)	No	No	No	-	lack of standards; revision/monitoring needs improvement
		Building regulations that remove barriers and facilitate market entry of secondary building materials from demolition/deconstruction	No	No	Yes	Encouragement of recycling and reuse in some policies	Regulations inadequate/not mandatory; seen as burdens
		Increase the use of secondary materials in construction through mandatory recycled content requirements, material recovery policies, investment in infrastructure	No	No	Yes	Investments in waste sorting and recycling infrastructure	No mandatory recycled content requirements; limited incentives
Water	Avoid	Restrict development in water-scarce or ecologically sensitive areas by introducing bans, moratoria, and planning measures	No	No	Yes	Partial legal protection for sensitive areas (Law 4/1994)	No explicit bans; insufficient integration of climate resilience in land-use planning
	Optimise	Mandate Minimum Water Performance Standards and Water Performance Certificates to reduce the demand and use of potable water in buildings	No	No	No	-	No binding standards; limited adoption of efficient products; no enforcement
		Develop and enforce urban water management policies, incorporating water demand and supply management measures	No	Yes	No	National Water Resources Plan 2037 in place	No integrated plans; weak enforcement; over-abstraction

Policy	Policy Outcome	Measure	Current Status (Existence)			Strengths	Weaknesses / Gaps
			NDCs	Policies	Regulations		
	Loop	Require an increase in circular water systems at both the building and urban scale (onsite water recycling systems)	No	Yes	No	National Water Resources Plan 2037 mentions water reuse	No legal requirement; no urban-scale mandates; weak incentives
	Regenerate	Mandate restoration of water ecosystems post-construction, requiring wetland rehabilitation, waterway restoration, and reforestation	No	No	No	-	No national regulation
		Expand the adoption of water-positive innovations (green roofs, flood management, decentralised water treatment)	No	No	No	-	Not included in building codes; limited adoption; no binding commitments
Biodiversity	Avoid	Urban Planning practices that prohibit construction and development in ecologically sensitive areas	No	No	Yes	Protected area laws exist (Law No. 102 of 1983)	Protected area laws often bypassed; urban planning does not systematically exclude sensitive areas
	Reduce	Integrate biodiversity protection into urban planning regulations (ecological impact assessments, protection of vulnerable species, biodiversity net gain)	No	No	No	Partial regulations and strategies	No biodiversity net gain mandate; habitat preservation law/restoration requirements absent
		Ensure nature-positive supply chains by enforcing supply chain transparency requirements and promoting sustainable, locally sourced materials	No	No	No	-	No legal framework; lack of incentives
	Restore	Mandate ecological restoration post-construction (reforestation, afforestation, wetland rehabilitation)	No	No	No	-	No binding requirements
	Transform	Implement national biodiversity strategies, embedding circularity, nature-positive materials, and regenerative practices into construction and planning policies	No	Yes	No	National Biodiversity Strategy and Action Plan (NBSAP) in place	Strategies not fully translated into enforceable codes; no standards for circular/nature-positive materials

Policy	Policy Outcome	Measure	Current Status (Existence)			Strengths	Weaknesses / Gaps
			NDCs	Policies	Regulations		
Health & Wellbeing	Protect Health	Improve air quality in buildings and cities by promoting fuel switching, air quality monitoring, and mandating low-VOC materials	No	No	Yes	Air quality monitoring and fuel switching in transport	No national regulation mandates low-VOC materials; indoor air quality not fully regulated
	Integrate Nature	Encourage biophilic and nature-based design in buildings and cities to support well-being, mental health, and biodiversity	No	No	No	Promoted in pilot projects	No mandatory national policy/regulations or standards
Equity & Access	Accessible & Quality Homes	Ensure equitable access to adequate, affordable, and sustainable housing by embedding housing rights in national legislation, mandating inclusive zoning laws, and investing in green social housing	Yes	No	No	-	Inclusive zoning lacking; insufficient legal protection for informal residents
		Support low-income and otherwise vulnerable households in national retrofitting and renovation efforts through financial mechanisms	No	No	No	-	No structured national program; limited knowledge/incentives
	Skills & Workforce Equity	Enforce fair labour standards and prevent exploitative labor practices within the construction value chain	No	No	Yes	ILO conventions ratified; some labor law in place	Limited enforcement; informality; not fully aligned with ILO best practices
	Just Governance & Partnerships	Establish participatory urban planning by ensuring that communities, especially marginalised groups, have a voice in decision-making and urban redevelopment	No	No	No	Some inclusion in urban upgrading initiatives	Lack of mandated/enforceable mechanisms; limited representation of marginalized groups

5. Priority Actions for sustainable buildings in Egypt's NDC

To support the implementation of Egypt's updated Nationally Determined Contributions (NDCs) and advance the decarbonization and resilience of the built environment, a set of targeted policy actions has been identified. These actions are aligned with the NDC Scorecard framework and address key priority areas including carbon and energy performance, circularity, water and biodiversity protection, adaptation and resilience, and health and well-being. Table 5 outlines each policy action, its corresponding NDC measure, a brief description, the lead implementing actor, the expected timeline, and the potential role of the Egypt Green Building Council (EgyptGBC) in facilitating delivery.

Table 5: Overview of Key Policy Actions to Support NDC Implementation in Egypt's Built Environment Sector and Potential Roles for the Egypt Green Building Council

<i>Key Policy Action</i>	Policy: "Measure" (From NDC Scorecard)	Brief Description of Action	Lead Actor	Proposed Timeline	How EgyptGBC Can Support Delivery
Enforce Building Codes	Enabling Environment: "Legal framework governing the construction sector, ensuring compliance with climate, safety, and sustainability goals"	Strengthen compliance checks, penalties for violations, and public disclosure of non-compliance.	Ministry of Housing, Utilities, and Urban Communities (MoHUUC)	Short-term (0–2 years)	Develop compliance monitoring tools; train inspectors; advocate for enforcement mechanisms.
Develop Decarbonisation Roadmap	Enabling Environment: "Existence of a National Decarbonisation and Resilience Roadmap for the Built Environment"	Create a roadmap with sector-specific targets for electrification, renewables, and lifecycle carbon reduction in building sector.	Ministry of Environment (MoE)	Medium-term (2–5 years)	Provide technical input on building-sector targets; facilitate stakeholder workshops.
	Carbon & Energy: "Mandate electrification of heating, cooling and appliances, phasing out fossil-fuel-based systems"	Introduce regulations requiring all new and renovated buildings to use electric heating, cooling, and appliances, and set a clear timeline for phasing out fossil-fuel-based systems.	Ministry of Electricity and Renewable Energy, Ministry of Environment	Medium-term (2–5 years)	Develop technical guidelines for electrification; certify low-carbon electrification projects; advocate for policy adoption.
	Carbon & Energy: "Mandate reporting and target setting across the lifecycle of the	Require developers and owners to report and set reduction	Ministry of Environment,	Medium-term	Provide LCA tools and training; support

<i>Key Policy Action</i>	Policy: "Measure" (From NDC Scorecard)	Brief Description of Action	Lead Actor	Proposed Timeline	How EgyptGBC Can Support Delivery
	building including reporting and reduction targets for Upfront, Embodied and Operational Carbon."	targets for all lifecycle carbon emissions (upfront, embodied, operational), and establish a national database for tracking and benchmarking.	Ministry of Housing, Utilities, and Urban Communities	(2–5 years)	development of reporting frameworks; certify buildings with low lifecycle carbon.
Strengthen Circular Economy Policies	Circularity: "Policies that encourage optimisation of resources and materials (renovation, design for deconstruction, material recovery)."	Introduce mandatory recycled content requirements, right-to-repair legislation, and material recovery incentives.	Ministry of Trade and Industry	Medium-term (2–5 years)	Develop circularity guidelines; certify recycled materials; promote best practices.
	Circularity: "Mandated minimum durability standards and right-to-repair legislation to prevent planned obsolescence and extend the lifespan of buildings, ensuring materials and components can be maintained, repaired, and reused."	Introduce building codes requiring minimum durability and right-to-repair provisions and incentivize design for maintainability and reuse.	Ministry of Trade and Industry, Ministry of Housing, Utilities, and Urban Communities	Medium-term (2–5 years)	Develop durability and right-to-repair guidelines; certify buildings that meet high standards for maintainability; promote best practices.
Integrate Climate Resilience	Adaptation & Resilience: "Mandate climate risk-based building regulations and resilience performance standards"	Require climate risk assessments and hazard mapping for new developments, with enforceable resilience standards.	New Urban Communities Authority (NUCA)	Medium-term (2–5 years)	Provide resilience design guidelines; certify climate-adaptive buildings.
Scale Green Finance and Reform Fiscal Incentives	Enabling Environment: "Use of taxes, subsidies, and economic incentives to drive sustainable development in the built environment sector. For example, carbon pricing, public-private partnerships, blended finance mechanisms, green loans and mortgages, rebates or grants."	Reform subsidies to prioritize green buildings (e.g., tax breaks for low-carbon materials, reduced permit fees). Expand green loans, grants, and blended finance for retrofits, renewables, and low-carbon materials.	Ministry of Finance and Central Bank of Egypt (CBE)	Short-term (0–2 years)	Advocate for policy reforms; quantify economic benefits of incentives. Collaborate on green mortgage frameworks; train banks on climate risk assessment.

Key Policy Action	Policy: "Measure" (From NDC Scorecard)	Brief Description of Action	Lead Actor	Proposed Timeline	How EgyptGBC Can Support Delivery
Mandate Water Performance Standards	Water: "Mandate Minimum Water Performance Standards and Water Performance Certificates to reduce the demand and use of potable water in buildings"	Mandate Minimum Water Performance Standards and Water Performance Certificates to reduce reliance on fresh water.	Ministry of Water Resources and Irrigation	Medium-term (2–5 years)	Certify water-efficient projects.
	Water: "Mandate restoration of water ecosystems post-construction, requiring wetland rehabilitation, waterway restoration, and reforestation."	Enforce water efficiency codes and require wetland rehabilitation post-construction.	Ministry of Water Resources and Irrigation	Medium-term (2–5 years)	Develop technical guidelines
Protect Biodiversity & Nature	Biodiversity & Nature: "Urban Planning practices that prohibit construction and development in ecologically sensitive areas." Biodiversity & Nature: "Integrate biodiversity protection into urban planning regulations, including ecosystem restoration and regenerative strategies. For example, by including requirements for mandatory ecological impact assessments, explicit protection of vulnerable species, biodiversity net gain targets, and habitat preservation."	Update zoning laws to exclude protected areas; mandate biodiversity net gain in projects.	Ministry of Environment (MoE)	Long-term (5–10 years)	Provide ecological zoning maps.
Enforce Health & Wellbeing Standards	Health & Wellbeing: "Improve air quality in buildings and cities by promoting fuel switching, air quality monitoring, and mandating low-VOC materials." Health & Wellbeing: "Encourage biophilic and nature-based design in buildings and cities to support well-being, mental health, and biodiversity."	Integrate air quality monitoring and biophilic design into building codes.	Ministry of Housing, Utilities, and Urban Communities (MoHUUC)	Short-term (0–2 years)	Develop health-centric certification criteria; train architects.

Achieving climate-resilient, low-carbon urban development in Egypt requires coordinated action across government, industry, and finance sectors. Each stakeholder group has a critical role to play in driving the transition toward a more sustainable built environment. Table 6 presents a set of priority actions tailored to each sector, designed to reinforce policy enforcement, stimulate market transformation, and mobilize green finance. These complementary measures aim to enhance regulatory effectiveness, promote sustainable construction practices, and unlock capital for climate-smart infrastructure.

Table 6: Call to Action: Priority Measures for Government, Industry, and Finance to Advance Climate-Responsive Urban Development in Egypt

Actor	Recommendations (Call to Action)
Government	1. Enforce and update green building regulations and codes (including for public and private project) 2. Improve Energy Efficiency Codes 3. Expand Renewable Energy Mandates 4. Mandate Water Performance Standards 5. Launch national awareness and education campaigns on sustainability and climate change 6. Mandate inclusion of recycled materials in public procurement and set mandatory recycling targets 7. Develop digital platforms to aggregate and share building codes, tools, case studies, and best practices 8. Integrate climate adaptation and resilience measures into national planning and projects 9. Activate green public procurement and require sustainability criteria in tenders 10. Promote and mandate the use of Environmental Product Declarations (EPDs) for construction materials 11. Obligate periodic inspection of water/sewer connections in buildings 12. Develop and enforce national crisis and disaster plans 13. Encourage the use of local resources and technologies in construction 14. Support workforce training and capacity building in green building practices 15. Create and deploy targeted financial incentives to promote the implementation of climate-related policies among key stakeholders
Industry	1. Adopt sustainable materials and green building certifications 2. Invest in workforce training for green building and circularity 3. Develop innovative business models for circularity and resource efficiency 4. Participate in public-private partnerships for sustainable urban development 5. Adopt Nature-Based Solutions 6. Prioritize nature-based solutions in projects (e.g., green roofs, urban wetlands). 7. Implement annual risk and sustainability assessments for projects 8. Enhance local green vendors database 9. Support waste recycling and require recycled materials in tenders

<i>Actor</i>	Recommendations (Call to Action)
	10. Encourage adoption of green building strategies and smart agriculture/irrigation 11. Adopt Environmental Product Declarations (EPDs) for construction materials 12. Develop building user guides and train occupants for green building use 13. Support innovative building systems and maintenance skills 14. Obligate value engineering in design phase
<i>Finance</i>	1. Mobilize and direct finance towards sustainable building projects 2. Encourage banks to provide favorable loans for green construction 3. Create incentives (subsidies, tax breaks) for investments in green building projects 4. Support risk-sharing mechanisms for innovative green construction 5. Fund research and pilot projects for new sustainable technologies 6. Mobilize finance for adaptation and resilience projects
<i>Civil Society & Academia</i>	1. Develop and deliver training programs for green building principles 2. Support research and innovation in sustainable construction 3. Organize competitions in schools and universities on green buildings 4. Share knowledge, best practices, lesson learnt from other countries
<i>International Organizations</i>	1. Provide benchmarking and certification support 2. Fund large-scale demonstration projects 3. Support knowledge exchange and best practice sharing 4. Assist in the development of digital platforms and tools 5. Support local adaptation and resilience initiatives

6. Opportunities for Collaborations

Strong coordination across multiple stakeholders will be required for the successful implementation of the recommended policy actions to advance climate-responsive and resource-efficient buildings in Egypt. These include public institutions, private sector actors, financial entities, civil society organizations, and international development partners. Collaborative engagement will be essential not only for driving technical execution but also for aligning interests, sharing knowledge, and unlocking resources.

1. Government Departments

Key ministries such as the Ministry of Housing, Utilities, and Urban Communities (MoHUUC), Ministry of Environment (MoE), Ministry of Electricity and Renewable Energy, Ministry of Water Resources and Irrigation, and Ministry of Finance are central to creating an enabling regulatory and fiscal environment. Specialized agencies like the Housing and Building National Research Center (HBRC) and the New Urban Communities Authority (NUCA) can serve as technical and planning leads.

2. Industry Bodies and Private Sector

Construction companies, engineering consultants, real estate developers, and material suppliers are vital for operationalizing circular design, decarbonization practices, and adaptation solutions. Organizations such as the Egyptian Federation for Construction and Building Contractors and chambers of commerce can play a key role in mobilizing the sector and supporting professional capacity building. The private sector can also lead in innovation and voluntarily adopt sustainability certification schemes like the Green Pyramid Rating System (GPRS).

3. Financial Institutions

Banks, microfinance institutions, and national development banks such as the Central Bank of Egypt (CBE), the National Bank of Egypt, and Banque Misr can drive financial innovation through the development of green mortgages, green bonds, and risk-sharing facilities. Partnerships with international climate finance providers, such as the Green Climate Fund (GCF), European Investment Bank (EIB), and the World Bank, can significantly increase capital flows into green building initiatives.

4. Civil Society and Research Institutions

Non-governmental organizations, academic institutions, and think tanks can support community outreach, awareness campaigns, and evidence-based policymaking. Their involvement ensures inclusivity, promotes transparency, and strengthens monitoring and accountability. Institutions like the Egyptian Green Building Council can offer technical guidance and training programs.

5. International Development Partners

Bilateral and multilateral organizations, including UNDP, GIZ, UNEP, and IFC, can provide policy support, technical expertise, and funding. Their global experience can help tailor best practices to Egypt's context and accelerate knowledge transfer.

Effective implementation of sustainable building policies relies not only on strong mandates but also on coordinated action across sectors. Strategic partnerships can amplify impact by aligning resources, knowledge, and efforts toward common goals. The following areas illustrate where collaboration can add significant value:

- Public-private partnerships (PPPs) and blended finance models can unlock investment for green buildings and infrastructure, overcoming financial barriers.
- Multi-stakeholder platforms enable the exchange of best practices, technical knowledge, and innovation across sectors and borders.
- Integrated governance and multi-level coordination ensure that national policies are effectively implemented at the local level and aligned with global climate goals.
- Collaboration with civil society ensures that policies are inclusive, address social equity, and are supported by local communities.
- Partnerships with research institutions and international organizations strengthen local expertise and technical capacity.

7. Conclusion

Egypt's commitment to advancing sustainable building practices is evident through existing policies and international engagements. However, the comprehensive review underscores that significant gaps remain, particularly in the enforcement of existing codes, the integration of a national decarbonization roadmap, and the robust application of circular economy, water, and resilience standards. The current framework suffers from a lack of regular updates to building codes, limited financial incentives, and insufficient enforcement mechanisms, which collectively impede the widespread adoption of sustainable construction methods. Addressing these challenges is crucial for Egypt to fully realize its climate goals and leverage the substantial economic and environmental benefits associated with a sustainable built environment. The identified priority actions provide a clear pathway for policy enhancement, market transformation, and mobilization of necessary investments, aligning Egypt's national development with global climate resilience efforts. Ultimately, a proactive and coordinated approach across all sectors is indispensable for a truly transformative impact.