Recognising and Rewarding Resilient Infrastructure: the Angololo Case

Paris InfraWeek, *Beyond Risk Diagnosis: Making Adaptation and Resilience Investable*
EDHEC Climate Risk Institute
3 November 2026

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A global certification for quality infrastructure investments

- A **trusted signal for investors and other stakeholders** that projects are environmentally and socially sustainable, resilient, open and transparent, and economically efficient.
- Certified projects are **aligned with international standards, well-prepared, and have identified and addressed key risks**.
- A **public-private collaboration** hosted by the OECD.



What is a Blue Dot Network certified project?

Self-assessed against essential requirements derived from commonly-applied international standards

Independently verified by third-party certification bodies

Monitored over the lifecycle of the project



Incentivising a race to the top



Projects that **are well-planned and prepared**, and that **satisfy essential requirements** based on commonly-agreed international standards for quality infrastructure, but have yet to proceed to implementation. (1)



Robust projects that **satisfy essential requirements** and thus reflect commonly-agreed international standards for quality infrastructure.



Projects that **exceed the essential requirements** in a number of areas and thus reflect the expectations conveyed by more ambitious or new standards that have received strong international endorsement.



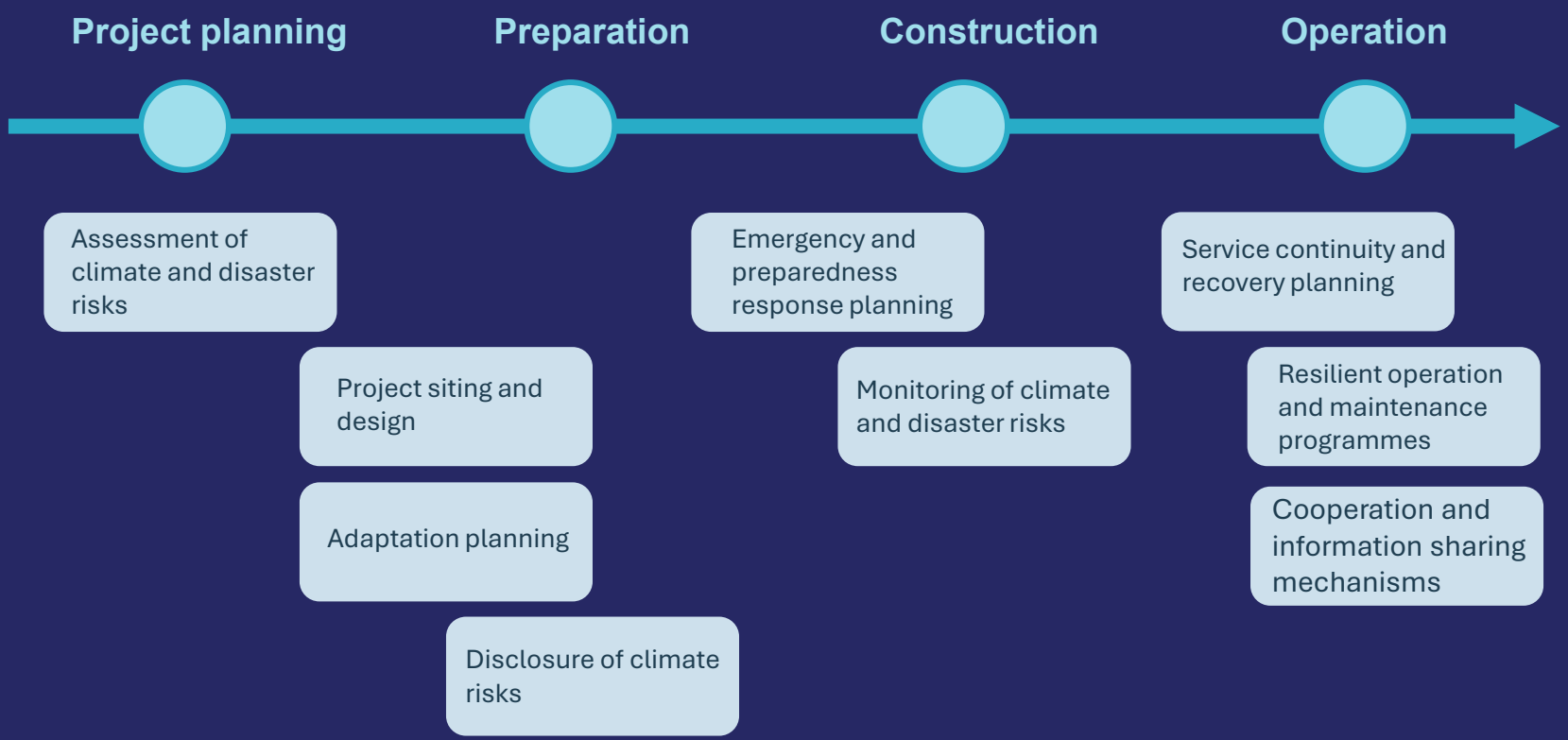
Projects that not only exceed the essential requirements in some areas, but **incorporate innovative practices that generate a strong positive impact**.

(1) A pale blue dot is awarded to projects that are still in the preparation stage. Projects become eligible to receive a dark blue dot once they have completed a tendering process and/or a contract has been awarded.

Blue Dot Network Elements

1. Promote sustainable and inclusive economic growth and development.
2. Promote market-driven and private sector-led investment, supported by judicious use of documentation and/or data.
3. Support sound public financial management, debt transparency, and project-level and country-level debt sustainability.
4. Build projects that are resilient to climate change, disasters, and other risks, and aligned with the pathways towards 2050 net-zero emissions needed to keep global temperature change of 1.5 degrees Celsius within reach.
5. Ensure value-for-money over an asset's full life-cycle cost.
6. Build local capacity, with a focus on local skills transfer and local capital markets.
7. Promote protections against corruption, while encouraging transparent procurement and consultation processes.
8. Uphold international best practices of environmental and social safeguards, including respect for labour and human rights.
9. Promote the non-discriminatory use of infrastructure services.
10. Advance inclusion for women, people with disabilities, and underrepresented and marginalised groups.

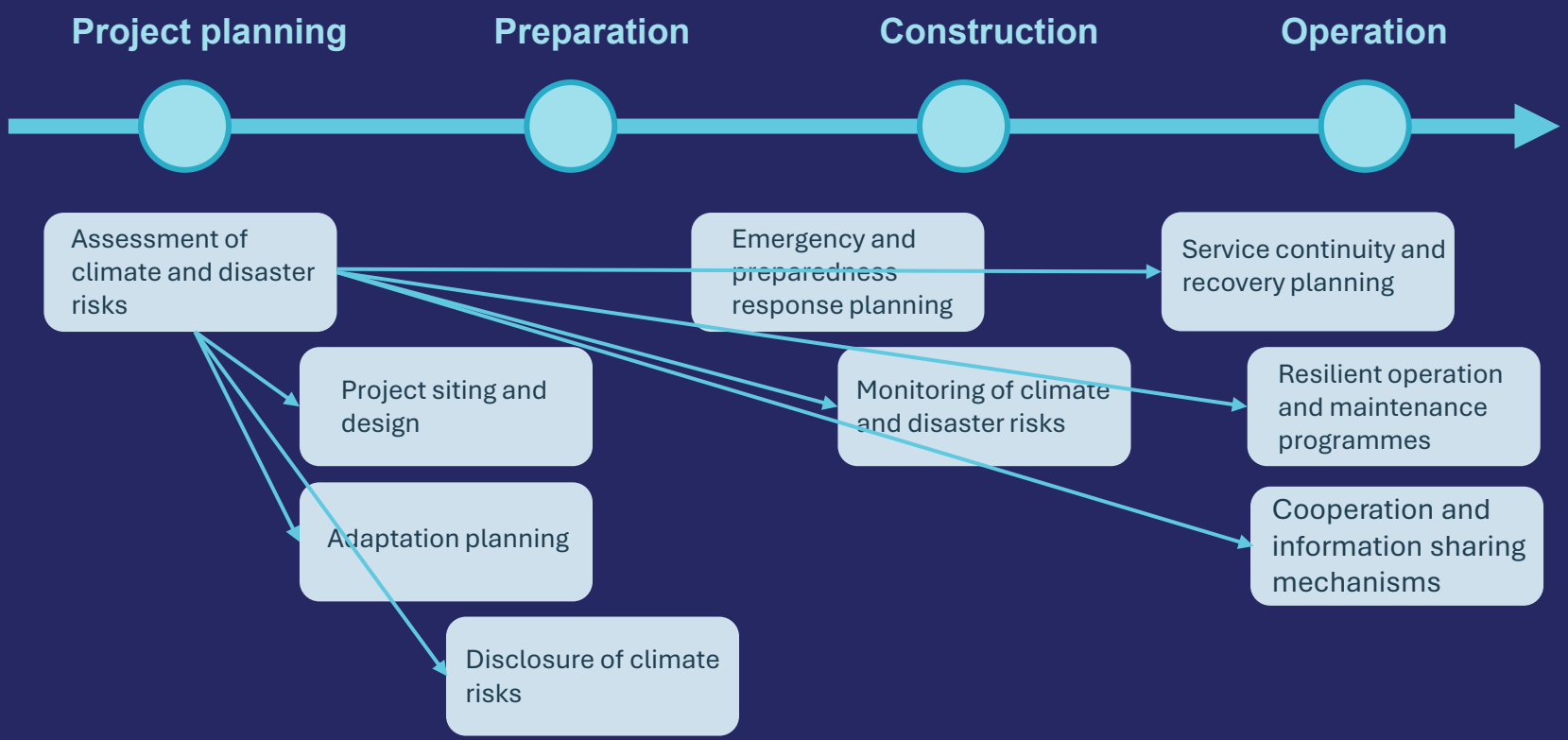
Embedding resilience across the infrastructure lifecycle



BDN framework for resilient assets

Criteria	Requirements	Level
4.6 Assessment of climate risks and vulnerabilities	4.6.1 The project has identified and assessed risks resulting from climate change over its expected lifetime.	Essential
	4.6.2 An assessment of vulnerabilities and risks to the project over its expected lifetime resulting from climate change has been performed using a forecast based on plausible future conditions at an appropriate scale derived from a recognised climate model and plausible climate scenarios.	Superior
	4.6.3 The climate risk assessment is updated periodically to reflect changes in emissions pathways, evolution in modelling technologies and availability of new data.	Best-in-class
4.8 Disclosure of climate risks	4.8.1 The Project discloses physical and transition climate risks in a manner that is accessible to all stakeholders and consistent with good practice (e.g. TCFD recommendations).	Superior
4.9 Disaster risk and vulnerability assessment	4.9.1 Relevant disaster risks, including natural catastrophes and human-caused threats (such as cyber-threats, terrorism and industrial accidents) have been identified, prioritised and assessed based on their likelihood and their potential impact on the asset	Superior
4.10 Adaptation plan for physical climate risks	4.10.1 An adaption plan has been developed that includes measures to avoid, mitigate or minimise physical climate risks identified and prioritised in the climate risk assessment	Superior
4.11 Service continuity and recovery plan	4.11.1 A service continuity and recovery plan to minimise disruptions resulting from hazards caused by natural or human-made disasters has been developed.	Essential
4.12 Resilient project planning, siting and design	4.12.1 The project site has been chosen to reduce exposure to hazards and the design incorporates measures to avoid or mitigate climate and disasters risks identified in the risk assessments	Essential
	4.12.2 The project contributes to improving the resilience of infrastructure systems through creating redundancy or enhancing system responsiveness or flexibility.	Best-in-class
4.14 Operation and maintenance enhance resilience	4.14.1 The project's operation and maintenance programmes have been developed taking into account climate risks and other threats with a view to extend the life of the asset	Superior
4.15 Ongoing monitoring of climate and disaster risks as well as mitigation measures	4.15.1 Data on the priority hazards and the implementation of mitigation measures is regularly collected and monitored, and reported to management	Superior
4.16 Emergency preparedness and response plan	4.16.1 An Emergency Preparedness and Response Plan has been developed, with involvement of workers and their organisations, and the local community as appropriate, that specifies actions and measures in response to major accidents and hazards, and serves to avoid and mitigate harm to people and the environment	Essential
4.17 Cooperation and information sharing mechanisms in the management of critical risks	4.17.1 Formal cooperation and information sharing mechanisms for the management of critical risks have been established between the project operator and local authorities, workers and their organisations, and affected communities have been established	Superior

Embedding resilience across the infrastructure lifecycle



Some of features of good climate risk assessment

- **Customised:** specific to the asset's characteristics and its location
- **Forward-looking:** time horizon aligned with asset life
- **Scenario-based:** applies multiple climate scenarios
- **Downscaled:** impacts analysed at the appropriate geographic scale
- **All hazards:** addresses both acute (floods, storms, wildfires, heatwaves) and chronic risks (sea-level rise, average temperature, water stress)
- **Quantified:** estimates of financial impacts where possible

➢ *Requires climate science and modelling, engineering, financial analysis capabilities*



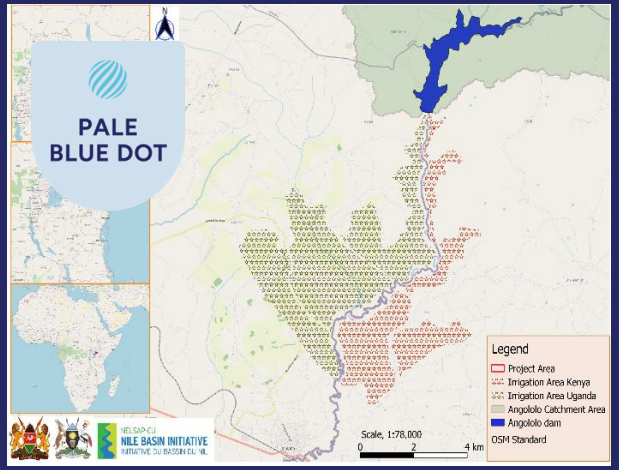
Case study: Angololo Water Resources Development Project (Uganda, Kenya)





Certified May 2026

Case study: Angololo Water Resources Development Project



Project features

- **Description:** The project includes a dam, mini hydropower plant and irrigation network that will support irrigation across approximately 4,000 hectares of land, provide water access to more than 270,000 people, generate over 1.3 MW of hydropower and restore more than 130 sq. km of degraded upstream watershed.
- **Location:** transboundary Malaba River that is between Kenya and Uganda
- **Stage in life cycle:** Project preparation
- **Project owners:** Governments of Uganda and Kenya supported by AUDA-NEPAD through the PIDA programme
- **Estimated cost:** Preparation: USD 1.1 million; CAPEX: USD 132 million

Project rationale

- 70% of the community members derive their livelihoods from rain-fed subsistence farming.
- >90% of community members use firewood for cooking and < 6 % are connected to the national power grid.
- Community access to clean and safe water is < 25% far below the national average of 53% (rural water supply).

Resilience dimension

- **Well-documented baseline climate conditions**
- **Community-validated climate change observations**
- **Climate-adjusted water availability and flood hydrology projections**
- **Resilience measures embedded in design (storage capacity, flood management, irrigation)**

Case Study : Angololo Water Dam - Climate Exposure Rating - Overview

Standardised, forward-looking rating translating climate exposure to both physical and transition risks into actionable metrics.

Angololo ranks Top 2% globally — a B rating in 2035 against a peer median of F. Low absolute damage exposure, robust physical design, and embedded resilience measures that are all actively working.



Number of Assets

01 Asset(s), available shapefiles for review

Download asset images

Peer Group Definition

To ensure relevant comparison, the Peer Group was built based on TICCS sector only.

TICCS Classification
IC2020

Angololo Water Resources Development Project

TICCS IC2020

Peer Group: Water Supply and Treatment
Asset ID: RWA_00001
Country: RWA
Rating Updated: 2026-06
Scenario: Expected

			Peer Median	Peer Ranking
B		**Climate Exposure Rating** Score: 17/100 *(2035 Horizon)*	F	Top 2%
A	55% CER Weight	**Physical Exposure** Score: 2/100 *(2035 Horizon)*	F	Top 7%
C	45% CER Weight	**Transition Exposure** Score: 36/100 *(2035 Horizon)*	F	Top 2%

Top 3 Climate Drivers, Expected Scenario

Rank	Driver	Category	CER Contribution[1]
1	Heat	Physical	50%
2	Market Demand Shifts	Transition	44%
3	Wildfire	Physical	5%

Complementarities between BDN and Scientific Climate Ratings (SCR)

BLUE DOT network

- Roadmap for developing resilient assets
- Framework that accommodates expert tools and methodologies
- Signal to investors regarding the resilience of assets throughout their life cycle

Scientific Climate Ratings
An EDHEC Venture

- Standardised and quantified measurements of climate exposure and risk
- Financial metrics for investors (NAV and IRR impacts)
- Resilience strategies and measures