Achieving the Sustainable Development Goals: exploring linkages with the Technology Needs Assessments

Webinar

17/03/2021

10:00AM-11:30AM CET

Moderated by Léa Jehl Le Manceau – UNEP DTU Partnership
James Haselip – UNEP DTU Partnership
Christopher Manda – TNA Coordinator Malawi
Deepitika Chand – TNA Coordinator Fiji
Andreas Brogaard Buhl – Chief Consultant NIRAS A/S

Introduction to the webinar

An introduction to Technology Needs Assessments

***Léa Jehl Le Manceau**, TNA Project Assistant - UNEP DTU Partnership*

How the SDGs and TNAs relate and connect at the strategic level?

***James A. Haselip**, Senior Researcher - UNEP DTU Partnership*

Linkages between TNA activities in Malawi and national SDG targets

***Christopher Manda** – TNA Coordinator Malawi*

Linkages between TNA activities in Fiji and national SDG targets

***Deepitika Chand** – TNA Coordinator Fiji*

Consulting engineers, Technology Needs Assessment and the SDGs

***Andreas Brogaard Buhl** – Chief Consultant*

Sustainability, Water, Energy and Climate Change at NIRAS A/S

Q&A session

GDPR Principles:

- Lawfulness
- Fairness
- Transparency
- Data minimization
- Storage limitation
- Accuracy
- Integrity and Confidentiality

Aristeidis Tsakiris
Data Management
arits@dtu.dk

Louise Lauritzen
Data Protection Officer
loula@dtu.dk

UNEP DTU PARTNERSHIP

James Haselip

James Haselip has worked at UNEP DTU Partnership since 2010 and has overseen the implementation of TNAs in 10 countries. He has an academic background in political economy, specialising in energy policy. James' work focuses on understanding, designing and implementing enabling frameworks for the dissemination of sustainable energy and climate change mitigation technologies, using multi-criteria, economic baselines, market assessments and outcome mapping methodologies.

Christopher Manda

Christopher Manda works with Environmental Affairs Department (UNFCCC, GCF and CDM National Designated Authority) since 2012 and has supported development and implementation of various environment, natural resources and climate change initiatives in Malawi. Currently, Christopher is the Technology Needs Assessment Coordinator for Malawi. Christopher has a background in climate change, energy and development, and possess an MSc in Climate Change and Development from University of Reading.

Deepitika Chand

Deepitika Chand is Senior Climate Change Officer for the Fijian Government and the Country Coordinator for the TNA Project in Fiji. She is an Environmental Chemist by academic background and specialises in conducting GHG inventory calculations for waste and agriculture sectors. Deepitika aspires to build her career in Monitoring, Reporting and Evaluation Systems for GHG Emissions.

Andreas Brogaard Buhl

Andreas Brogaard Buhl is an internationally experienced professional with experience in corporate sustainability, ESG, sustainable investments, impact investing, environmental management, CSR, corporate governance and international cooperation. Since 1991 he has been assigned as a leading figure of various sustainability, environment and nature programmes including 4 long term adviser positions abroad in Bolivia, Malawi, Madagascar and Zambia and short term missions to more than 25 countries.

The Technology Needs Assessments project

Sara Lærke Meltofte Trærup, TNA Project Manager slmt@dtu.dk
Léa Jehl Le Manceau, TNA Project Associate ljlma@dtu.dk

UNEP DTU PARTNERSHIP

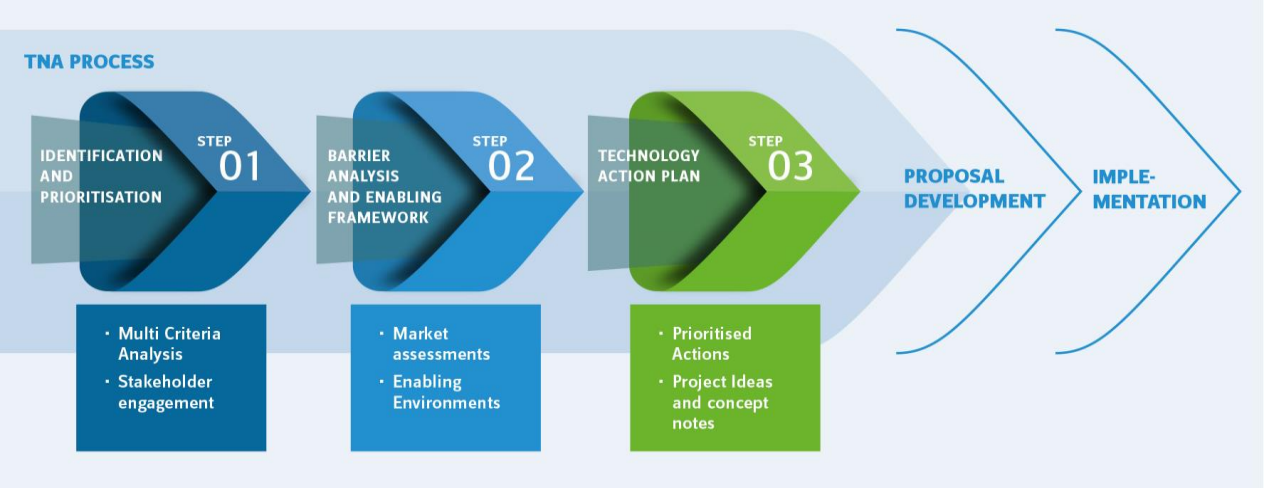
TNA TECHNOLOGY NEEDS ASSESSMENT

DTU

UN environment

What are the Technology Needs Assessments?

TNAs are a set of activities that identify mitigation and adaptation technology priorities of developing countries



The TNAs support:

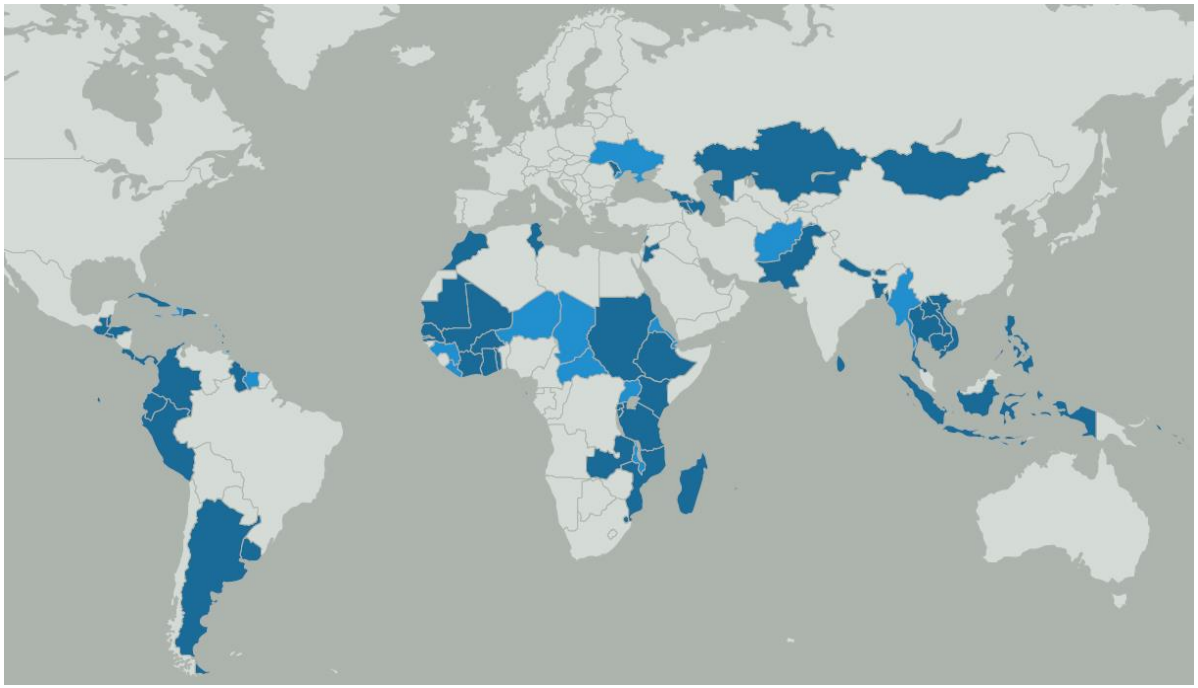
- ✓ **national strategies**
- ✓ **policies**
- ✓ **programmes**
- ✓ **projects**
- ✓ **inputs to NDCs and other processes under the Convention (National Adaptation Plans)**

Funded by the Global Environment Facility, implemented by UN Environment through UNEP DTU Partnership

Technology Needs Assessment - countries

Since 2009, close to a hundred developing countries have joined the project

- **24** in Latin America and Caribbean
- **37** in Africa
- **39** in Asia-Pacific



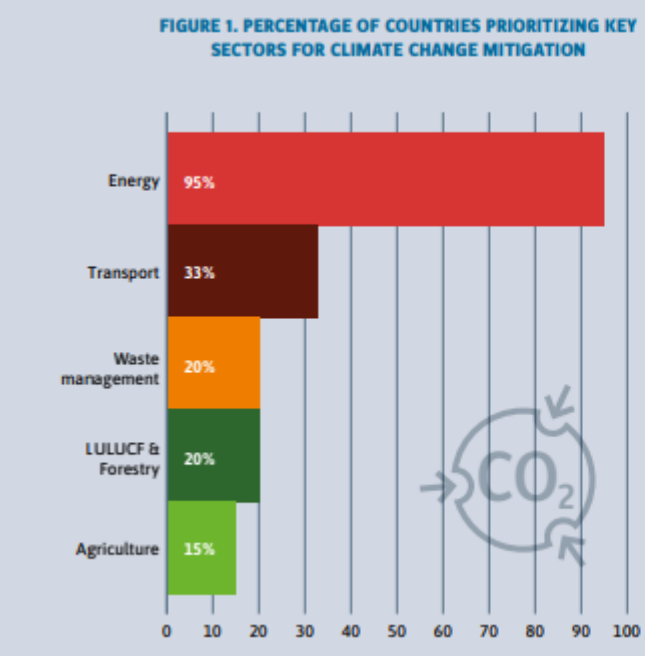
TNA IV countries (2020-2023)

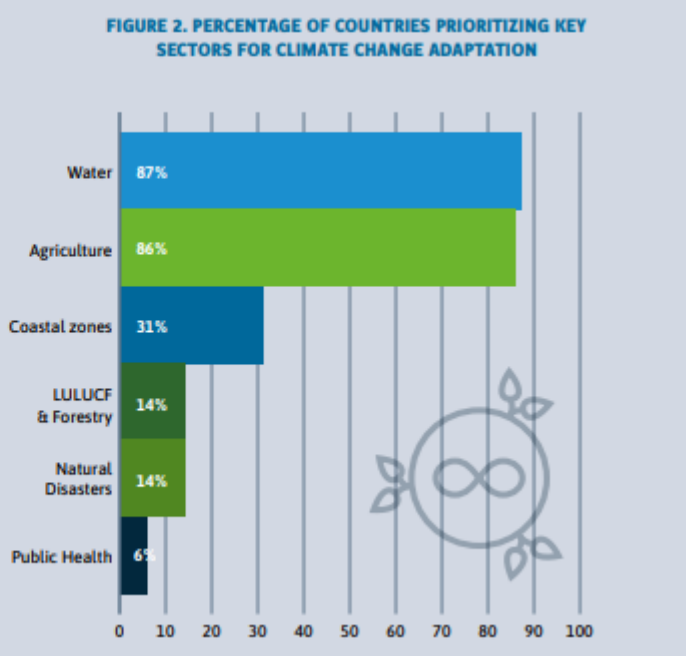
Africa (Comoros Union; Ethiopia; Guinea Bissau; Lesotho; Somalia; South Sudan);

Asia-Pacific (Kiribati; Maldives; Niue; Papa New Guinea; Solomon Islands; Timor-Leste; Tonga; Tuvalu; Yemen)

The Caribbean (Bahamas; St Kitts and Nevis).

Priority sectors
TNAs 2009-2020





Key adaptation and mitigation sectors prioritized by countries in their TNAs
Source: TNA database

Top 3 priority sectors for mitigation

- **Energy**
- **Transport**
- **Waste management**

Top 3 priority sectors for adaptation

- **Water**
- **Agriculture**
- **Coastal zones**

What are the Sustainable Development Goals?

- **2015: 2030 Agenda for Sustainable Development** was adopted by all UN Member States
- **17 SDGs** agreed on and applicable to all countries
- **169 targets & 232 indicators** to measure and track progress towards implementation.
- Aims to focus attention and gather resources around a set of clear and commonly-agreed global goals.
- **2020's**: the 'decade of action', a 10-year period in which the world must achieve the SDGs.

'Technology agenda' is closely linked to goal **#17**, which aims to *"strengthen the means of implementation and revitalize the global partnership for sustainable development"* & goal **#13**, which aims to *"take urgent action to combat climate change and its impacts"*.

Thank you for your attention.

For additional information, please contact:
Sara Lærke Meltofte Trærup, TNA Project Manager slmt@dtu.dk
Léa Jehl Le Manceau, TNA Project Associate ljlma@dtu.dk

Sara

Léa

And visit our website!

www.tech-action.org/

TECHNOLOGY NEEDS ASSESSMENT

Linking TNAs and SDGs for investment in 'green growth'

James Haselip, UNEP DTU jhas@dtu.dk

UNEP DTU PARTNERSHIP

TNA TECHNOLOGY NEEDS ASSESSMENT

DTU

UN environment

TNAs / TAPs are intended to stimulate or enable the production of pre-feasibility climate change mitigation or adaptation projects

Investment is what drives / enables technology transfer or upgrading

investors need to see the quantifiable SDGs co-benefits of specific project ideas, beyond more narrow RoI or climate change impact metrics (ESG)

Important to include SDG indicators and co-benefits into TNA multi-criteria assessments

Importance of strong national coordination: dedicated SDG focal persons, including with national TNA working groups and stakeholder consultations

Infrastructure projects often require a larger share of public financing, especially to support climate-resilient development

Likely many co-benefits in terms of improved public health, for example in public transport and urban planning (including 'pandemic-proofing')

Thus, useful to include quantified co-benefits in project concepts (TAPs) that explicitly value both national climate and SDG targets and priorities

There are various global partners and multilateral organisations that welcome country-driven project develop proposals to finance or de-risk investments, based on the conclusions of the TNAs. For example:

- Green Climate Fund
- Adaptation Fund
- Global Environment Facility
- Climate Technology Centre and Network
- Regional Development Banks
- …public or private ESG investors…

"Achieving the Sustainable Development Goals: exploring linkages with the Technology Needs Assessments"

how TNA activities link to Malawi SDG targets

CHRIS MANDA

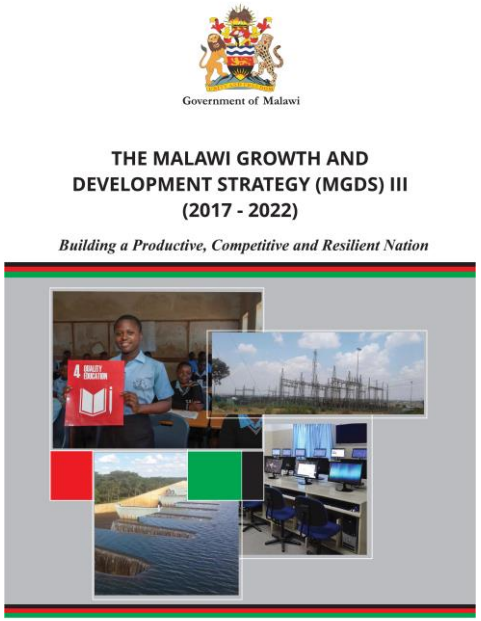
TNA COORDINATOR

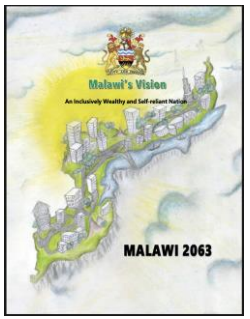
Presentation outline

- SDGs and Malawi Targets
- National Vision and Development Agenda
- Malawi's prioritised climate technologies
- TNA link with SDGs
- Examples of Specific SDG targets

SDGs and National targets and strategies

- The GoM ratified and adopted the **Agenda 2030 for Sustainable Development Goals (SDGs)** in September 2015
- Malawi has domesticated the 2030 Agenda for Sustainable Development through its alignment to the **MGDS III and Malawi Vision 2063**





National vision and development agenda

- Climate technologies have been highlighted as a  to achieve Malawi's vision and DA

  - **Malawi Vision 2063** – *'An Inclusively Wealthy and Self-reliant Nation'*
    - Agricultural productivity and Commercialization Pillar
      - Climate smart and resilient agriculture
      - Integrated agriculture (crops, forestry, livestock and fisheries) key for resilience
      - Effective extension services
      - Ecosystem approach and Sustainable land management practices
    - Industrialization Pillar
      - Sustainable and renewable energy are key to achieve industrialization

  - **Malawi Growth and Development Strategy III** – *'Building a productive, Competive and resilient Nation'*
    - Prioritizes climate change management such as mitigation and adaptation, under the Key Priority Area of "Agriculture, Water Development and Climate Change".

Malawi's prioritised Climate technologies

Sector	Technology
Agriculture	Landscape restoration for improved land productivity
	Integrated crop-livestock-aquaculture-forest production systems
	Community-based agricultural extension
Water	Rainwater harvesting
	Integrated river basin management
	Integrated flood management
Energy	Liquefied Petroleum Gas (LPG) for cooking
	Biofuel as vehicular fuel
	Biomass Gasification
	Lake Malawi hydrokinetic electric power
	Solar PV
	Improved charcoal production kilns
Forestry	Forest landscape restoration
	Efficient use of forest products
	Farmer managed natural regeneration
	Urban forestry
	Biochar production from forest waste

Malawi TNA and SDGs

"Take urgent action to combat climate change and its impacts"

Reduced vulnerability & Enhance resilience building

- Adaptation – Agriculture & Water Sectors

Contribution to GHG abatement

- Mitigation – Energy & Forestry Sectors

MW TNA's and SDGs Targets

Adaptation Sectors (Agriculture and Water)

- SDG 1, Target 1.5 - Build the resilience of the poor and those in vulnerable situations
- SDG 2, Target 2.4 - Sustainable food production systems and resilient agricultural practices
- SDG 6, Target 6.5 - Integrated water resources management at all levels

The TNA process:

- SGD 5, Target 5.5 - Ensure women's full and effective participation and equal opportunities

MW TNA's and SDGs Targets cont.

Mitigation Sectors (Energy and Forestry)

- SDG 7, Target 7.1 - Universal access to affordable, reliable and modern energy services
- SGD 7, Target 7.2 - Increase the share of renewable energy in the global energy mix
- SGD 7, Target 7.3 - Improvement in energy efficiency
- SDG 15, Target 15.1 - Conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services
- SGD 15, Target 15.2 - Sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation

The TNA process:

- SGD 5, Target 5.5 - Ensure women's full and effective participation and equal opportunities

Achieving the Sustainable Development Goals: exploring linkages with the Technology Needs Assessments

From the Fijian Standpoint

Ms Deepitika Chand (TNA Country Coordinator, Fiji)

CONTENTS

1
- Fiji's Policy Overview
- Key National Policies; NDP, NCCP, NDC, NAP, CRV, LEDS

2
- SDGs addressed by the Fijian TNA
- Links between SDGs and Fijian TNA

3
- Draft Climate Change Bill 2020
- The game changer!

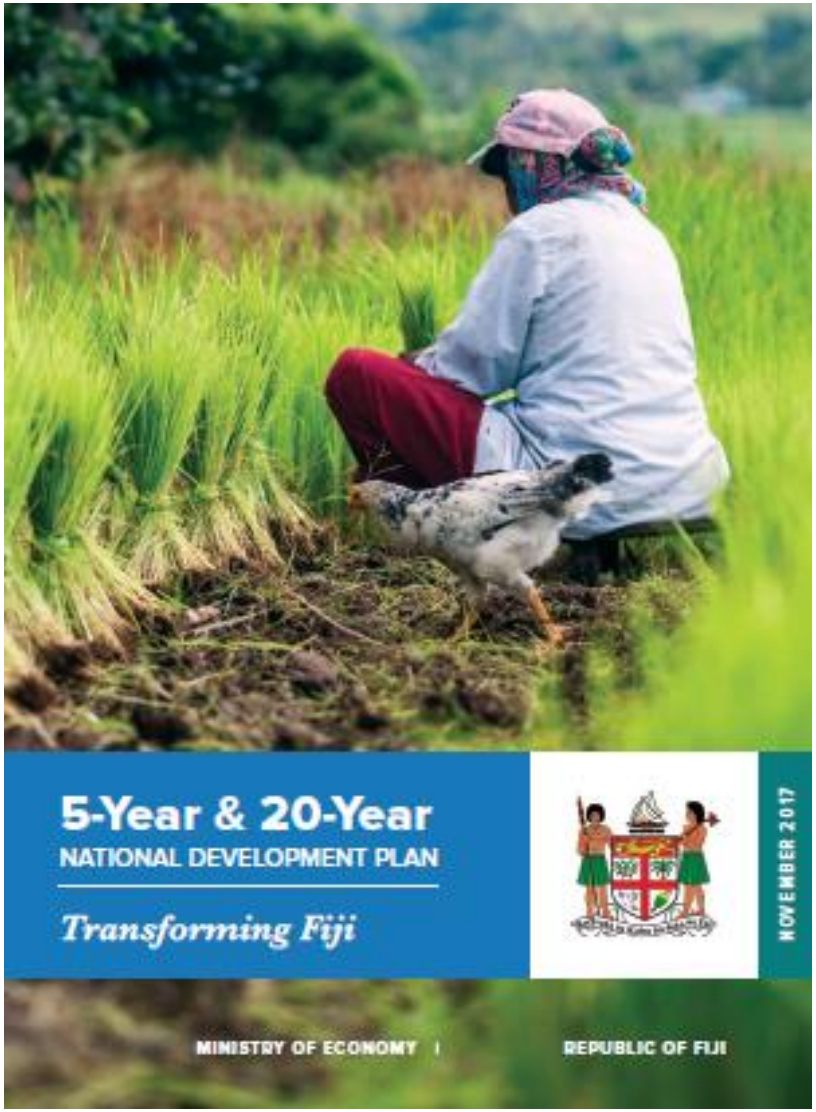
4
- Q & A
- Interactive Session and Areas of Mutual Collaboration

Fiji's Policy Overview

Key Policies and Plans

- 5-Year and & 20-Year National Development Plan
- Republic of Fiji National Climate Change Policy 2018-2030
- Nationally Determined Contributions (NDC) and NDC Implementation Roadmap
- National Adaptation Plan (NAP)
- Low Emission Development Strategy (LEDS)
- Climate Vulnerability Assessment (CVA)

5-Year and & 20-Year National Development Plan (NDP)



- Consists of two pronged approach
  1. Inclusive Socio-economic Development; and
  2. Transformational Strategic Thrusts.

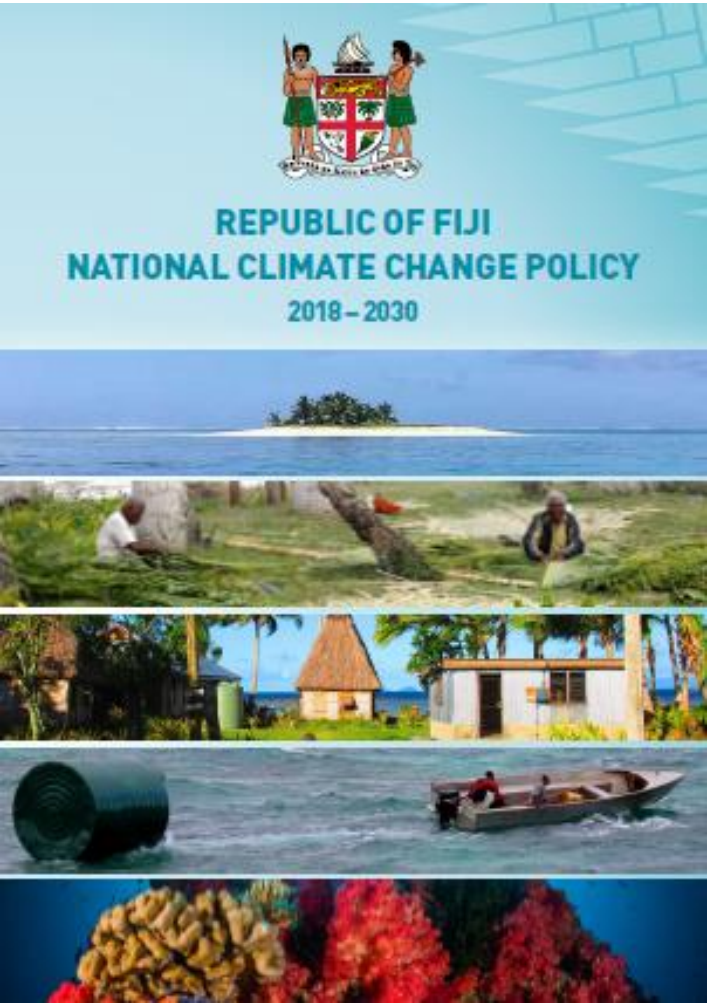
- Measured using Key Performance Indicators (KPIs) derived from Sustainablen Development Goals

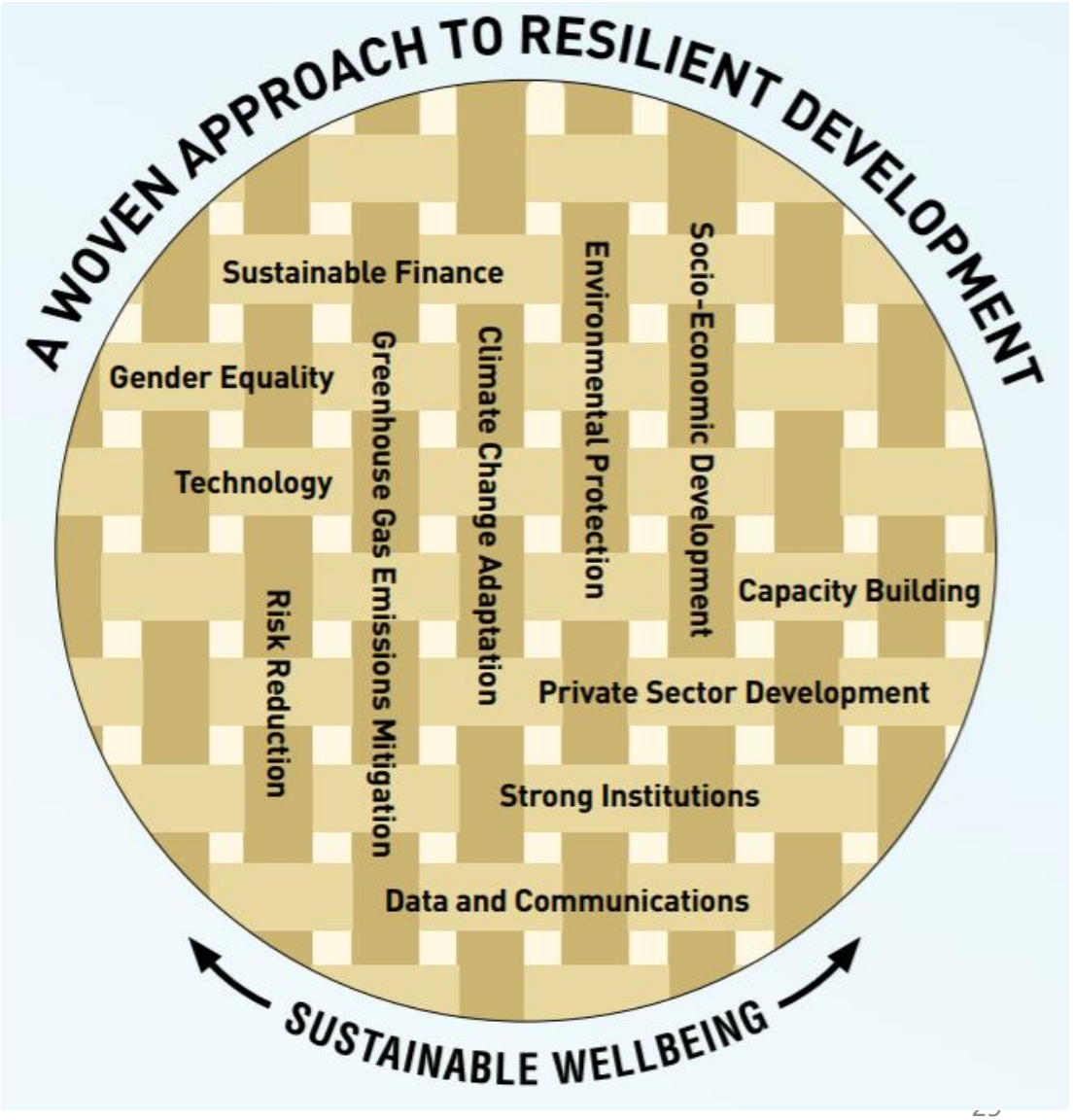
- Efforts to become a resilient, decarbonized Fiji while supporting the achievement of SDGs

National Development Targets and SDGs

	2015	2021	2026	2031	2036
Inclusive Socio-economic Development					
Access to clean and safe water in adequate quantities (% of population) (SDG 6.1)	78	90	95	100	100
Access to clean and safe water in adequate quantities, rural (%of population) (SDG 6.1)	58	85	90	100	100
Access to clean and safe water in adequate quantities, urban (% of population) (SDG 6.1)	98	100	100	100	100
Access to central sewerage system (% of population) (SDG 6.2)	25	40	50	60	70
Access to central sewerage system, urban (% of population) (SDG 6.2)	25	40	50	60	70
Access to central sewerage system, rural (% of population) (SDG 6.2)	0	40	50	60	70
Access to electricity (% of population) (SDG 7.1)	90	100	100	100	100
Percentage of population with primary reliance on wood fuels for cooking (%)	18	12	6	<1	0
Energy intensity (consumption of imported fuel per unit of GDP in MJ/FJD) (SDG 7.3)	2.89	2.86		2.73	
Energy intensity (power consumption per unit of GDP in kWh/FJD) (SDG 7.3)	0.219	0.215		0.209	
Renewable energy share in electricity generation (%) (SDG 7.2)	67	81	90	99	100
Renewable energy share in total energy consumption (%) (SDG 7.2)	13	18		25	
Increase home ownership (% of total households)[1] (SDG 11.1)	43	50	TBD[2]	TBD	TBD
Food sourced domestically compared to total food available (%)	32	42	TBD	TBD	TBD
Net enrolment rate for early childhood education (%) (SDG 4.2)	80	95	100	100	100
Net enrolment rate for primary education (%) (SDG 4.1)	99	100	100	100	100
Net enrolment rate for secondary education (%) (SDG 4.1)	82	86	90	90	90
Perinatal mortality rate per 1,000 total births (SDG 3.2)	12.7	< 10.7	<10	<9	<8
Infant mortality rate per 1,000 live births (SDG 3.2)	13.8	< 8	<8	<7	<6
Under 5 mortality rate per 1,000 live births (SDG 3.2)	18	< 12	<10	<8	<6
Average Life Expectancy at Birth (Years) Male	67.1	68.1	68.9	69.7	70.5
Average Life Expectancy at Birth (Years) Female	71.9	73.0	73.9	74.8	76.0
Premature mortality due to NCDs (< age 70 years) (%) (SDG 3.4)	68.2	49.7	34.9	20	<20
Doctors per 1,000 population	0.7	1	1	1	1
Incidence of Poverty, National (%) (SDG 1.2)	28.4[3]	25	20	14	10
Incidence of Poverty, Rural (%) (SDG 1.2)	36.3	35	32	18	10
Incidence of Poverty, Urban (%) (SDG 1.2)	20.8	15	13	10	5
Gini Coefficient (0 – 1) (SDG 1.2)	0.32			0.16	
Transformational Strategic Thrusts					
Container port traffic (tonnes)	1,755,670 [4]	1,865,836 [5]	TBD	TBD	TBD
Average GDP growth rate in period (%)	3.6	4-5	4-5	4-5	4-5
Income per capita ($) (SDG 8.1)	10,617		21,233		42,466
Investment (% of GDP) (SDG 17.3)	25	25	25	25	25
Private Sector Investment (% of GDP) (SDG 17.3)	20.9	>15	>15	>15	>15
Public Debt (%of GDP)	48.7	47.7	45	40	35
Unemployment Rate (%) (SDG 8.5)	6.2	4	4	4	4
Merchandise trade (% of GDP)	68.1	68.6	TBD	TBD	TBD
Tourism earnings (% of GDP) (SDG 8.9)	17	20	TBD	TBD	TBD
Increase in wired and wireless network coverage in Fiji (%) (SDG 9.c)	95	100	100	100	100
Environment					
Reduction in Greenhouse gas emissions from 2013 baseline (NDC target) (%)[6] (SDG 13.2)				30	TBD
Establish MPAs targeting 30% of Fiji's marine areas (%) (SDG 14.2)	1.8	30			
Forest area under long term conservation (%) (SDG 15.1)	3	5			16

Republic of Fiji National Climate Change Policy 2018-2030





Fiji's Updated NDC

- Reaffirmation of 2030 target;
  - Target 1: To reduce 30% of BAU CO_2 emissions from the energy sector by 2030.
  - Target 2: As a contribution to Target 1, to reach close to 100% renewable energy power generation (grid-connected)
  - by 2030, thus reducing an expected 20% of energy sector CO_2 emissions under a BAU scenario.
  - Target 3: As a contribution to Target 1, to reduce energy sector CO_2 emissions by 10% through energy efficiency improvements economy wide, implicitly in the transport, industry, and electricity demand-side sub-sectors.

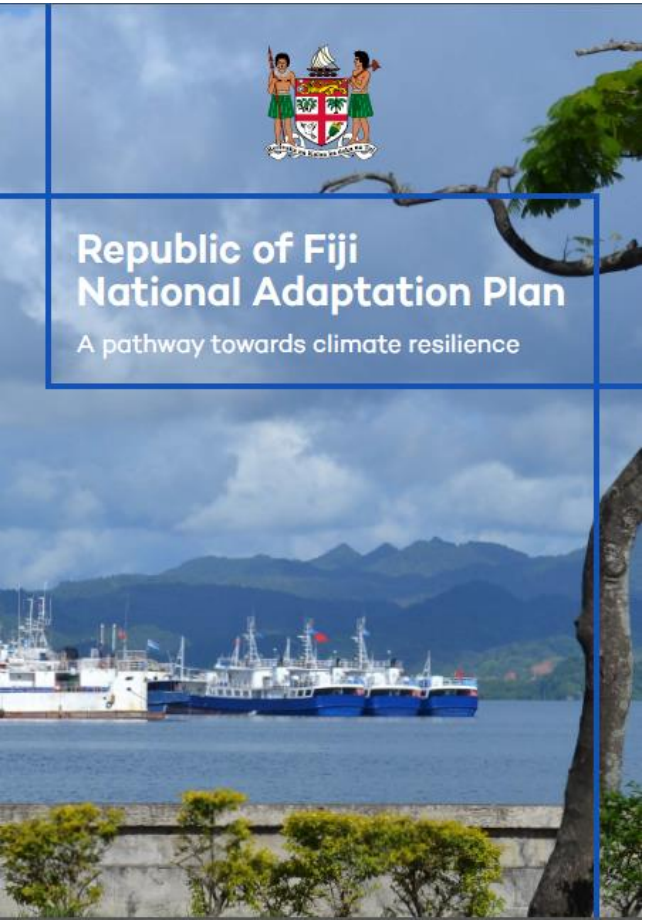
- a commitment to achieve net zero greenhouse gas emissions by 2050;
- up-front information to facilitate clarity, transparency and understanding;
- a commitment to enact its Climate Change Bill by 2021; and
- a commitment to operationalise its National Adaptation Plan.

NDC Implementation Roadmap

- provides a temporal pathway for the implementation of (short-, medium- and long-) mitigation actions needed to achieve the transformation called for under Fiji's NDC

No. and SDG [20]	E1-3	E4-6	E7-9	D1	D2	D3	D4	T1	T2	T3	T4	T5
1 No Poverty												
2 Zero Hunger												
3 Good Health and Well-Being (3.6 & 3.9)								✓	✓	✓	✓	✓
4 Quality Education (4.7)				✓			✓					
5 Gender Equality (5.5, 5.A, & 5.C)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6 Clean Water and Sanitation (6.3 & 6.A)			✓								✓	✓
7 Affordable and Clean Energy (7.1, 7.2, 7.3, 7.A & 7.B)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8 Decent Work and Economic Growth (8.4, 8.9 & 8.10)	✓	✓	✓		✓		✓	✓	✓		✓	✓
9 Industry, Innovation and Infrastructure (9.4 & 9.5)			✓	✓	✓		✓	✓	✓		✓	✓
10 Reduced Inequalities												
11 Sustainable Cities and Communities (11.2, 11.5, 11.6)	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
12 Responsible Consumption and Production (12.2, 12.5, 12.7, 12.8, 12.A & 12.B)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
13 Climate Action (13.1, 13.2, 13.3, & 13.B)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14 Life Below Water (14.1 & 14.A)											✓	✓
15 Life on Land (15.1 & 15.2)	✓	✓	✓									
16 Peace, Justice and Strong Institutions (16.6, 16.7)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17 Partnership for the Goals (17.1, 17.3, 17.7, 17.9, 17.14, 17.15, 17.16, & 17.17)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

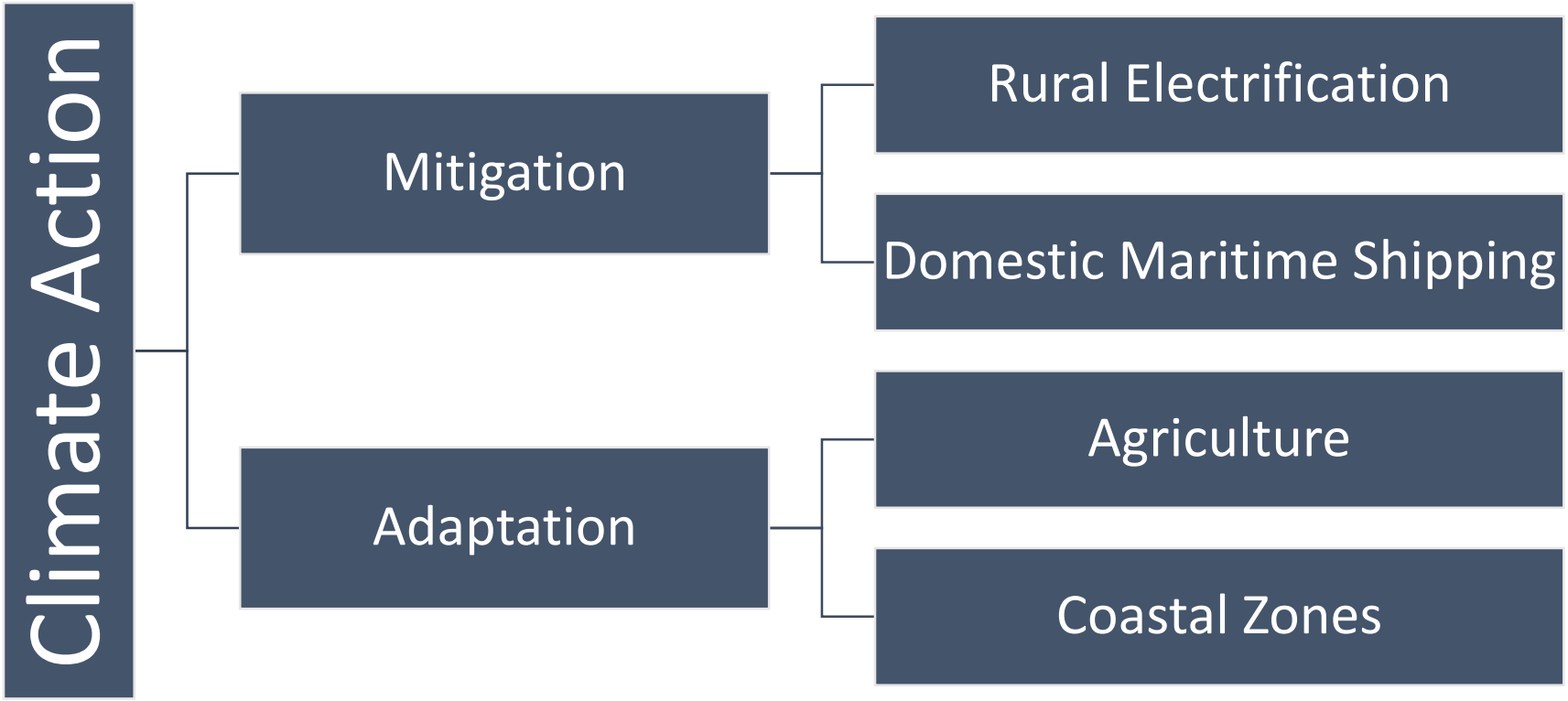
National Adaptation Plan (NAP)



System component	Description	Outcome
Climate Info. Services & Management	Improves capacity to generate, manage, disseminate, and use climate change information.	Supports stakeholders to anticipate environmental and climate events before they occur.
Horizontal integration	Mainstreams climate change issues into national-level development planning processes.	Increased robustness of planning processes and help to prevent maladaptive outcomes.
Vertical Integration	Integrates climate change issues into sub-national development planning processes which then inform national processes.	Reduces vulnerability by tackling environmental and climate risks where they are experienced.
Climate Change Awareness & Knowledge	Enhances understanding by increasing the flow of relevant information to relevant adaptation stakeholders.	Empowers stakeholders to engage in decision-making and understand relevant potential adaptation measures
Resource Mobilisation	Enhances the accumulation and coordination of resources to support the transition to a climate-resilient economy.	Improves the amount of resources available and the way available resources are utilised.

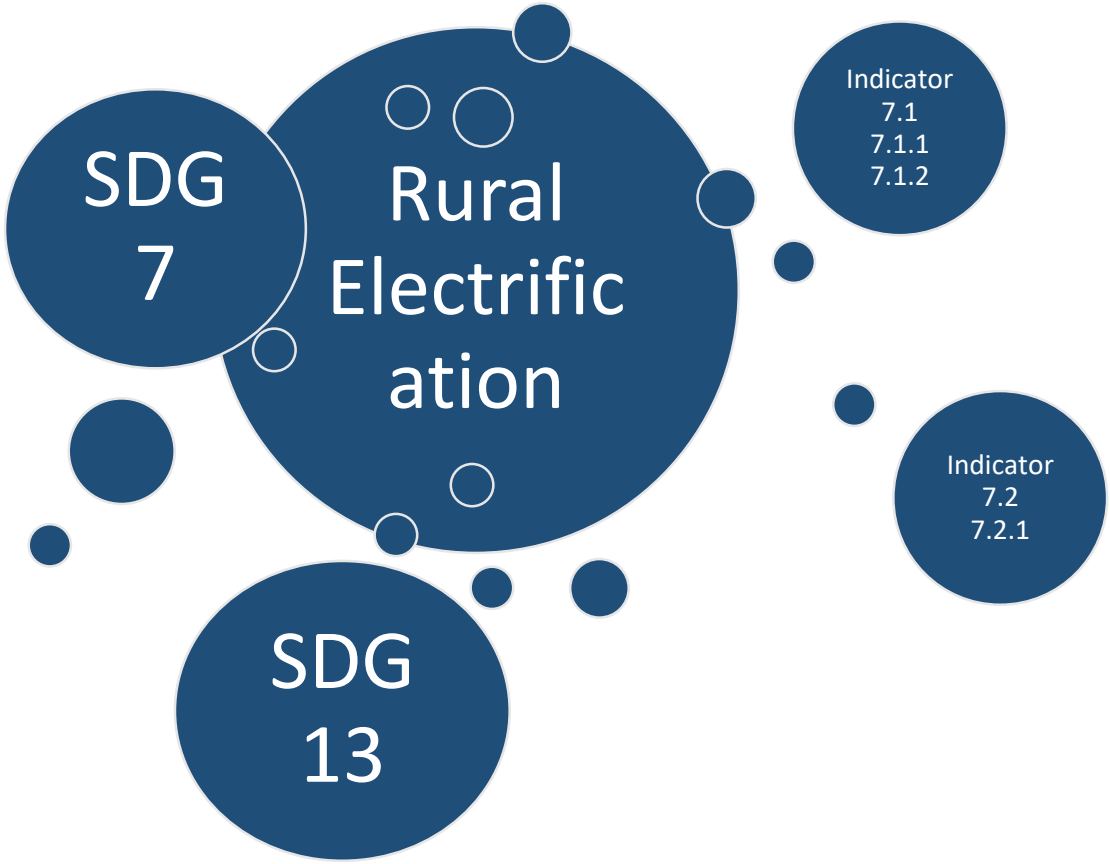
Sectoral component	Description	Outcome
Food and nutrition security	Improves capacity to anticipate and reduce environmental and climate risks and ensure sustainable food production.	Transformed and re-orientated agricultural system to support food production without degrading resources.
Health	Improves systems and infrastructure to manage the negative impacts caused by future climate variability and change.	Resilient health and medical services that can withstand future environmental and climate events.
Human settlements	Reduces vulnerability to major assets, infrastructure and population centres, providing the ingredients for growth.	Resilient population centres providing a firm basis for sustainable investments and continued economic prosperity.
Infrastructure	Helps to ensure full life span of investments are reached by reducing environmental and climate risks.	Resilient infrastructure which can operate under future conditions and meet future needs.
Biodiversity and the natural environment	Supports maintenance of biodiversity and the natural environment and the services it provides.	Supports efforts to protect, maintain, and restore natural capital that underpins society and economic growth.

The Fijian TNA



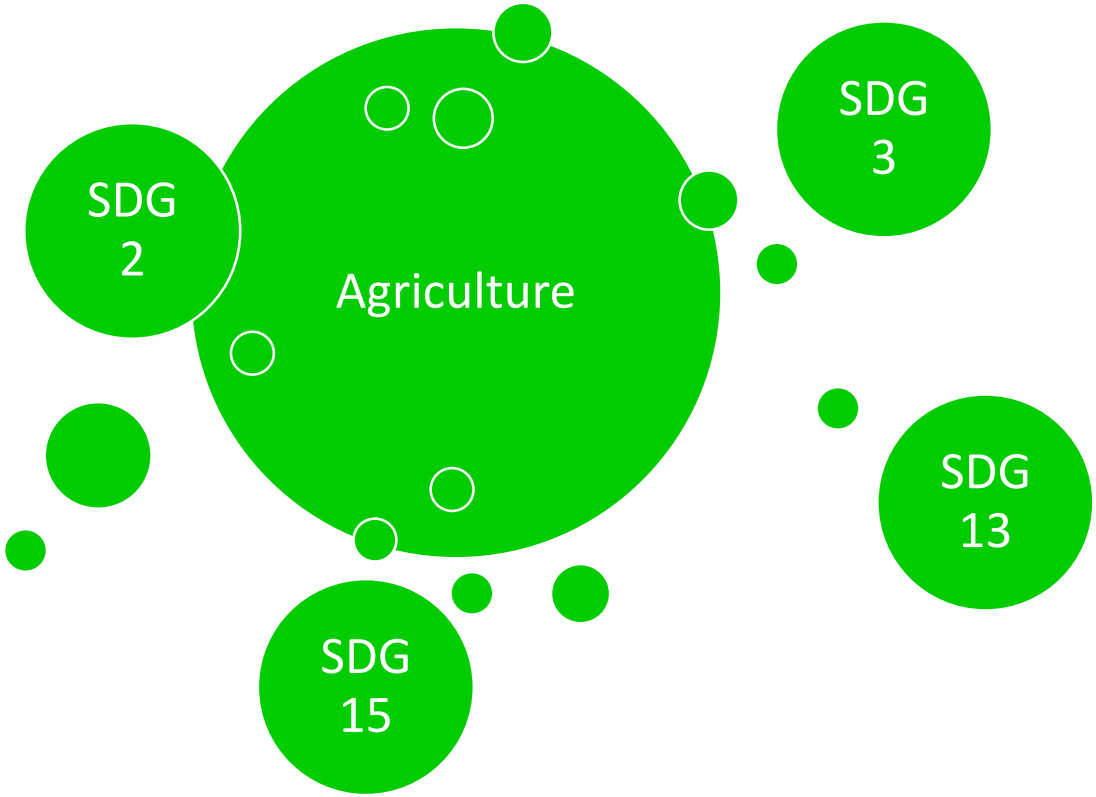
Achieving SDGs through TNA

Technologies for Mitigation

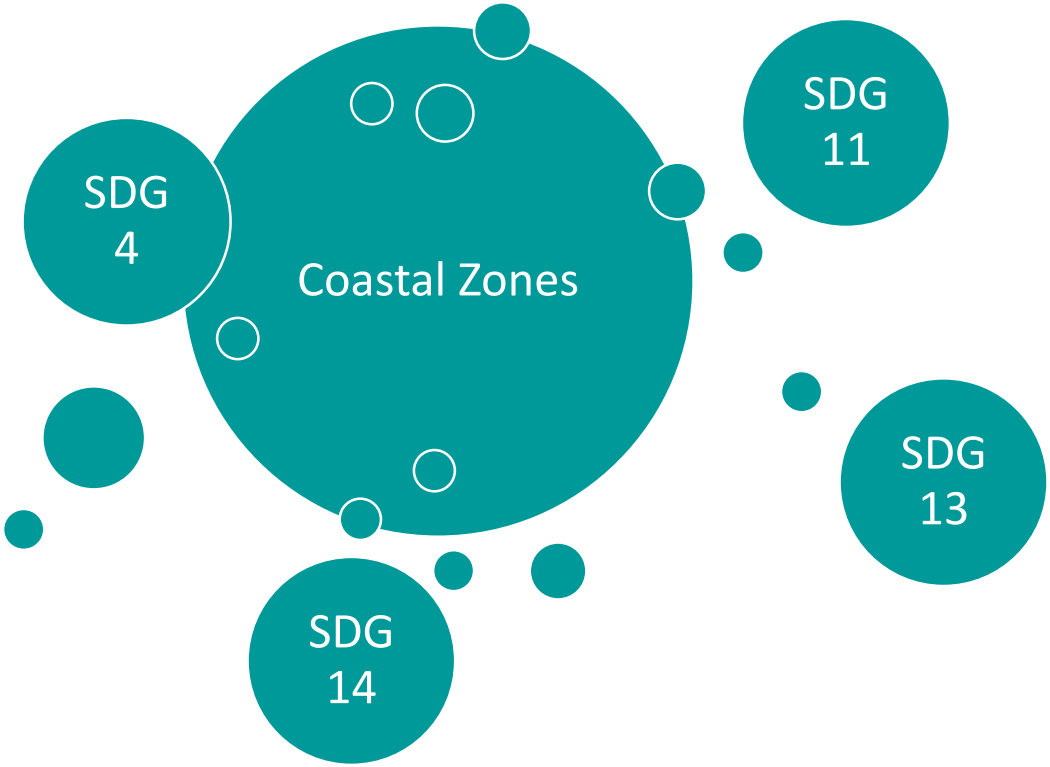


Technologies for Mitigation

Technologies for Adaptation



Technologies for Adaptation



REPUBLIC OF FIJI

CLIMATE CHANGE BILL 2020

A legal framework for a resilient and prosperous Fiji

Draft Climate Change BILL 2020

Salient Features of the Draft Climate Change Bill 2020

1. Intention to develop *World-leading* example of national climate change legislation.

2. Context Appropriate: reflects Fiji's position as a vulnerable small island nation state.

3. Premised on the principle of inter-generational equity—the bill seeks to ensure that *'the wellbeing of current and future generations is supported and protected by a socially inclusive, equitable, environmentally sustainable, net-zero emissions economy and the health, diversity and productivity of the environment is protected and enhanced for the benefit of future generations'*

4. Provides a comprehensive framework that will guide Fiji's response to climate change. As a framework, the Bill can be built on over time and will be supported and defined by the regulations, guidelines, and reporting and review cycles that it creates.

5. The current draft of the climate change bill will support enhanced cross-government efforts to manage climate change risks . Defines roles and governance arrangements for delivering Fiji's climate change objectives and increasing national resilience.

6. The bill creates new requirements that will help improve strategic collaboration and data sharing between ministries. Its provisions are focused on increasing the information required to anticipate and manage climate risks

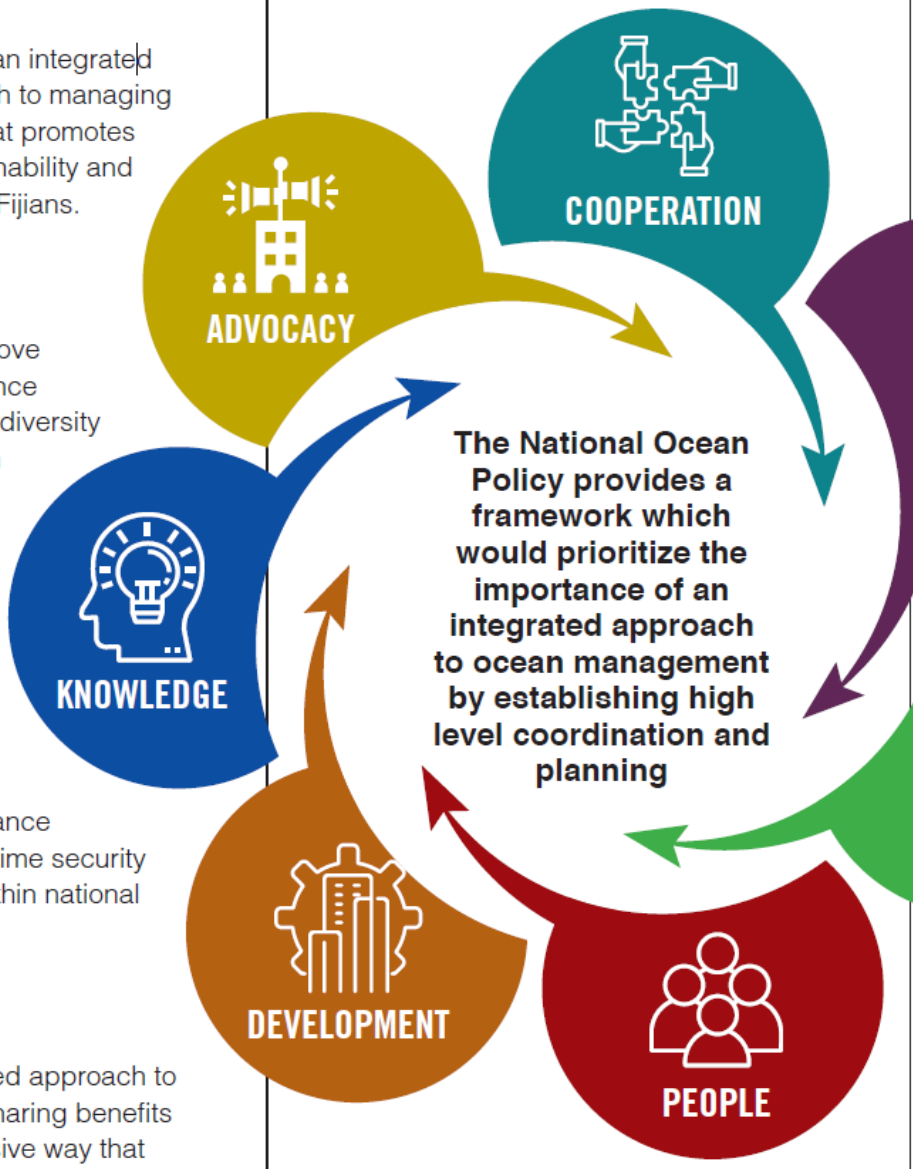
National Ocean Policy 2020-2030

Goal 1
COOPERATION
Harmonise and promote an integrated and cooperative approach to managing the ocean in a manner that promotes security, strives for sustainability and ensures prosperity for all Fijians.

Goal 2
SUSTAINABILITY
Protect, restore, and improve ocean ecosystems, enhance climate resilience and biodiversity so that these benefits can be equitably shared through the sustainable management of 100% of Fiji's ocean within national jurisdiction.

Goal 3
SECURITY
To safeguard assets and ensure regulatory compliance for multidimensional maritime security of 100% of Fiji's ocean within national jurisdiction.

Goal 4
PEOPLE
Promote a people-centered approach to ocean management by sharing benefits in an equitable and inclusive way that respects rights, traditions and culture.



Goal 5
DEVELOPMENT
Establish a solid foundation for sustainable development, which includes facilitating ocean-based opportunities and innovations to ensure healthy ecosystems and secure economic livelihoods.

Goal 6
KNOWLEDGE
Integrate traditional knowledge, heritage, and cultural practises with knowledge acquired from scientific research, to provide a holistic platform that can meet the contemporary challenges of the ocean.

Goal 7
ADVOCACY
Recognising both the interconnected nature of the ocean and the need for ambitious management of the oceans, and deepened understanding of the ocean-climate nexus, the policy lay out how Fiji can engage in regional and global advocacy that aligns with and fortifies ongoing national endeavors.

NIRAS

Consulting engineers, Technology Needs Assessment and the SDGs

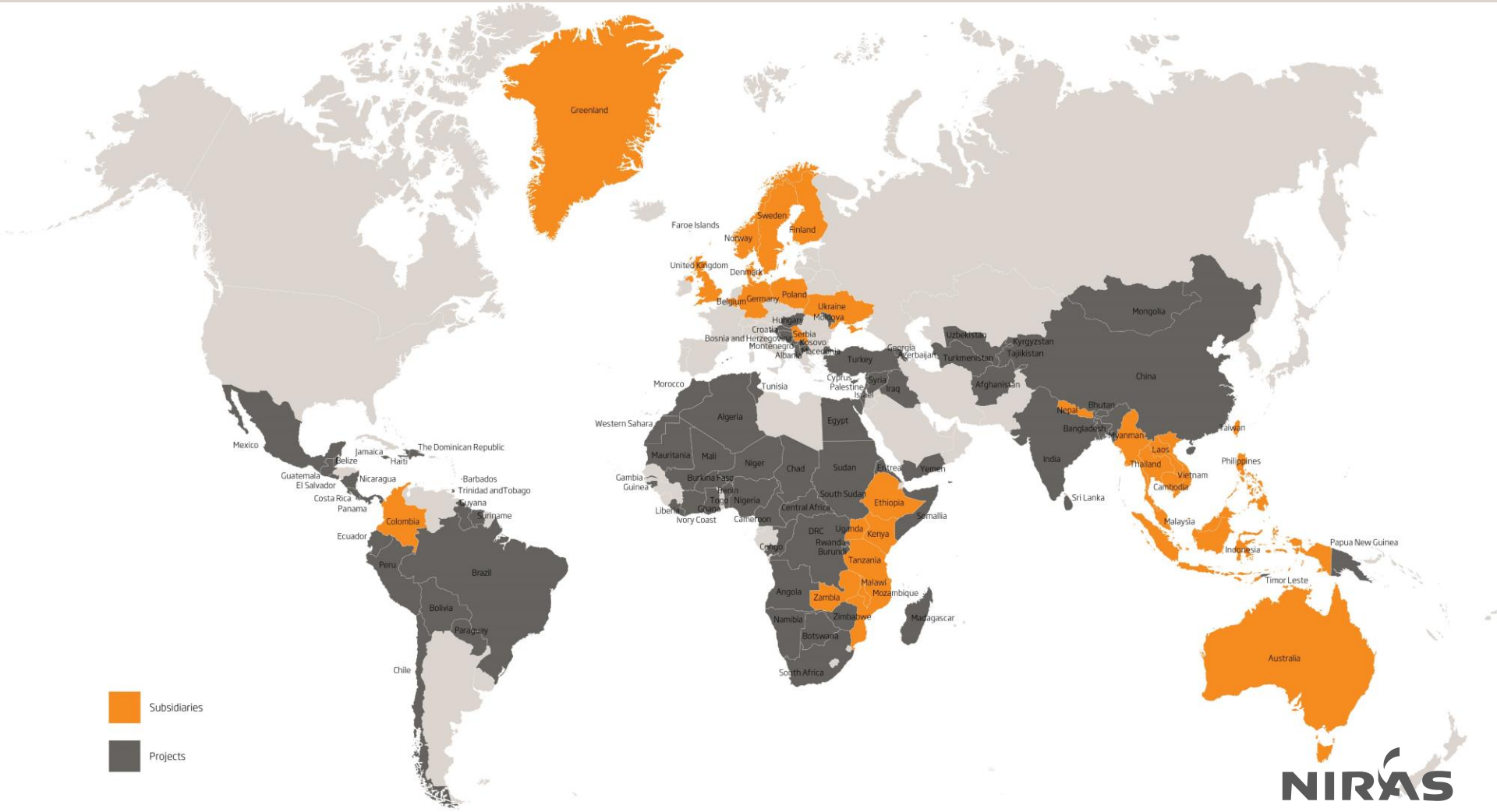
DTU-UNEP WEBINAR 17.03.2021

NIRAS for the next generation

Contributing to a better, more equal and stable world in line with the SDGs.

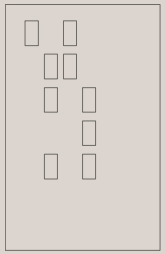
NIRAS Global Imprint

Over 7,000 ongoing projects in more than 30 countries



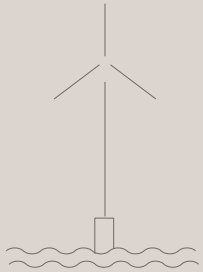
Nine solid business areas

2400 people working together to cover a broad spectrum of expertise



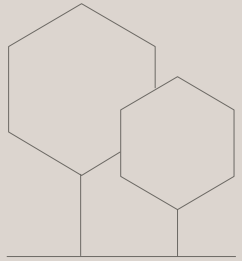
Building

Process Industry



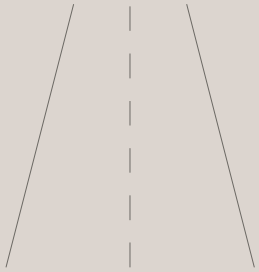
Energy

GIS, Geodata & Automation



Environment & Nature

International Consulting



Infrastructure

Water & Utilities

Analysis & Planning

NIRAS

NIRAS and our work with the SDG's

We have developed our own tools in support of the Sustainable Development Goals

- Assessing your contribution to the SDG's through the free tool SDG Capture
- How to build most sustainably. Find out through SDG Measure
- How to prioritize investments. Optimize with SDG initiator
- Assess your climate footprint with SDG Sustain.
- NIRAS also prepared the Climate Compass of the Danish Business Authority

SDG SUSTAIN SDG MEASURE

SDG INITIATOR SDG CAPTURE

NIRAS

Climate change, adaptation & mitigation

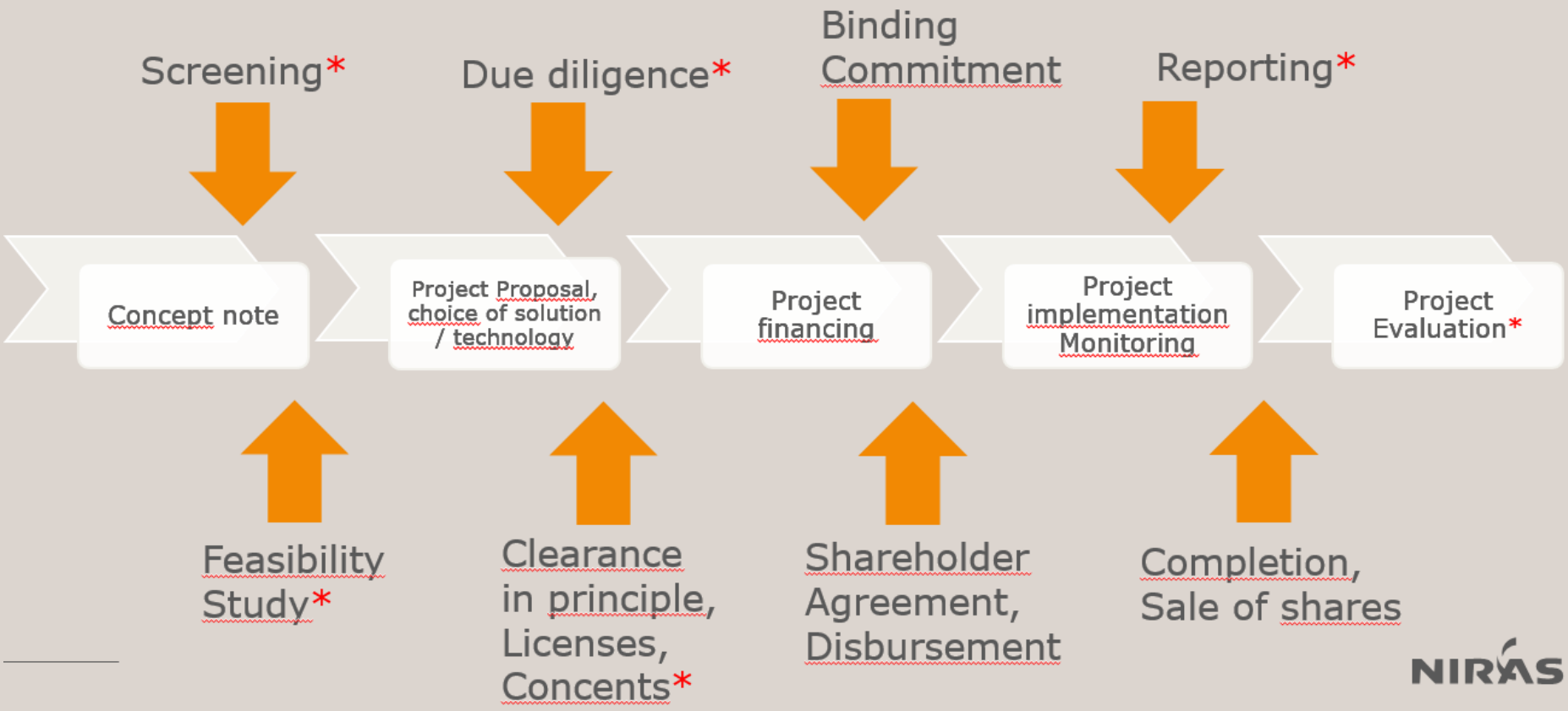
Typical green transition assignments for NIRAS

- Feasibility studies, local and regional master plans
- Engineering and technical designs
- Technical Due Diligence
- Environmental Due Diligence
- Full EIA / ESIA
- Gap analysis between local and international ESG standards
- LCA analysis, sustainable infrastructure, energy efficiency, certifications etc.
- Carbon footprint assessments, reporting, validations and audits
- Carbon Credits, emission compensations

NIRAS

Contribution to the investment process

Simplified sequence for Private Equity investments



Technology Needs Assessments (TNA)

And the way we see TNA's and TAP's role in a national investment context

- Overall development plans (typically five year plans)
- Sector plans and policies (e.g. agriculture, water, energy and industry)
- **National Appropriate Mitigation Actions (NAMAs)**
- **National Adaptation Plans (NAPAs)**
- **Nationally Determined Contributions (NDCs)**
- National **investment plans** related to all of the above

- National legislation (enabling legal framework for Power Purchase Agreements)
- Economic and financial barriers (BAEF report)
- Organisational and socio-cultural barriers
- Local regulations and site specific spatial planning context

Contact

Andreas Brogaard Buhl
Chief Consultant, Sustainability
Tel: +45 2066 7964
E-mail: anbb@niras.dk

Achieving the Sustainable Development Goals: exploring linkages with the Technology Needs Assessments

Q&A session

Do you have any question?
Feel free to ask!

www.tech-action.org/

[Achieving the Sustainable Development Goals: exploring linkages with the Technology Needs Assessments – Technology Needs Assessment (unepdtu.org)]

More information about the TNA: www.tech-action.org/ and https://unfccc.int/ttclear/tna

The webinar has been recorded and will be available on the TNA website in the coming days.

If you have any question for TNAs, please contact Global TNA Project Manager Sara Trærup slmt@dtu.dk

www.tech-action.org/