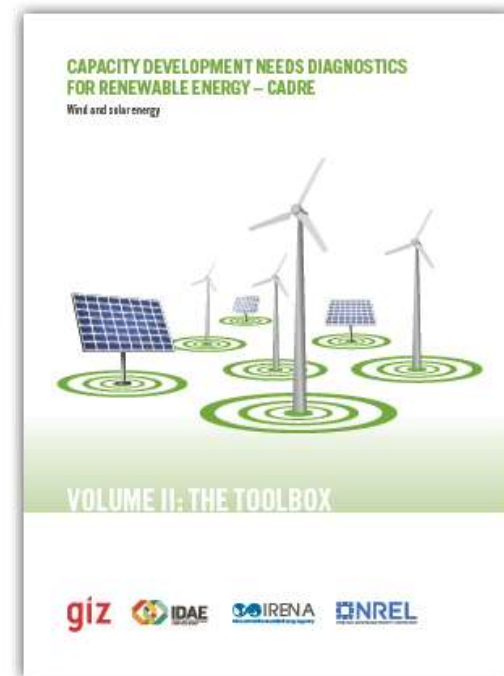
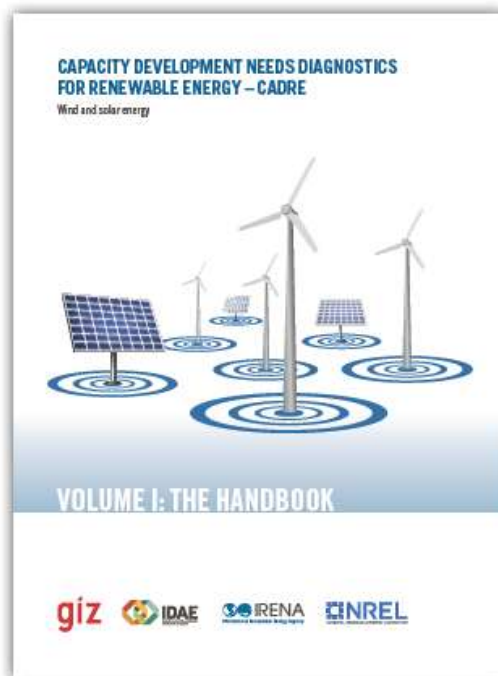




Capacity Development Needs Diagnostics for Renewable Energy - CaDRE

Practitioners Handbook and Toolbox





CaDRE - cases and contributions

IRENA

- RRA Renewable Readiness Assessments Pilots

IDEA

- Methodologies and results of capacity assessment in the context of several cooperation programmes, mainly in LAC

NREL

- Methodologies and results from capacity assessments conducted in the context of Low Emissions Development Strategies (LEDS)

GIZ

- Assessment for bilateral and multilateral cooperation programmes



Capacity development – changing actions, procedures and structures

System level

- enabling environment and framework conditions

Organisational level

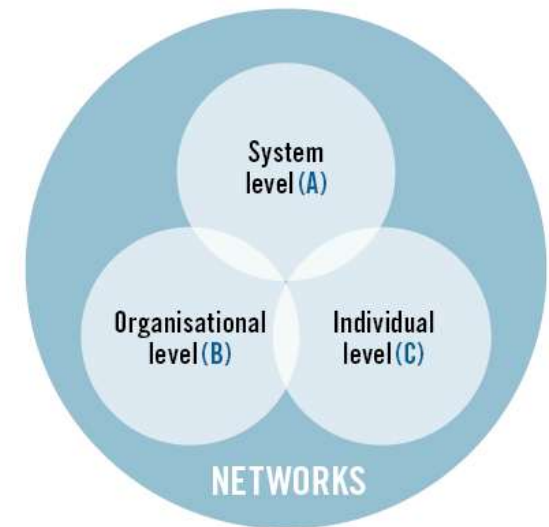
- performance capability
- governmental institutions, regulatory authorities, service providers, front line agencies, research, educational, training and finance institutions, NGO, private sector

Individual level

- awareness, knowledge and technical and managerial skills

Networks

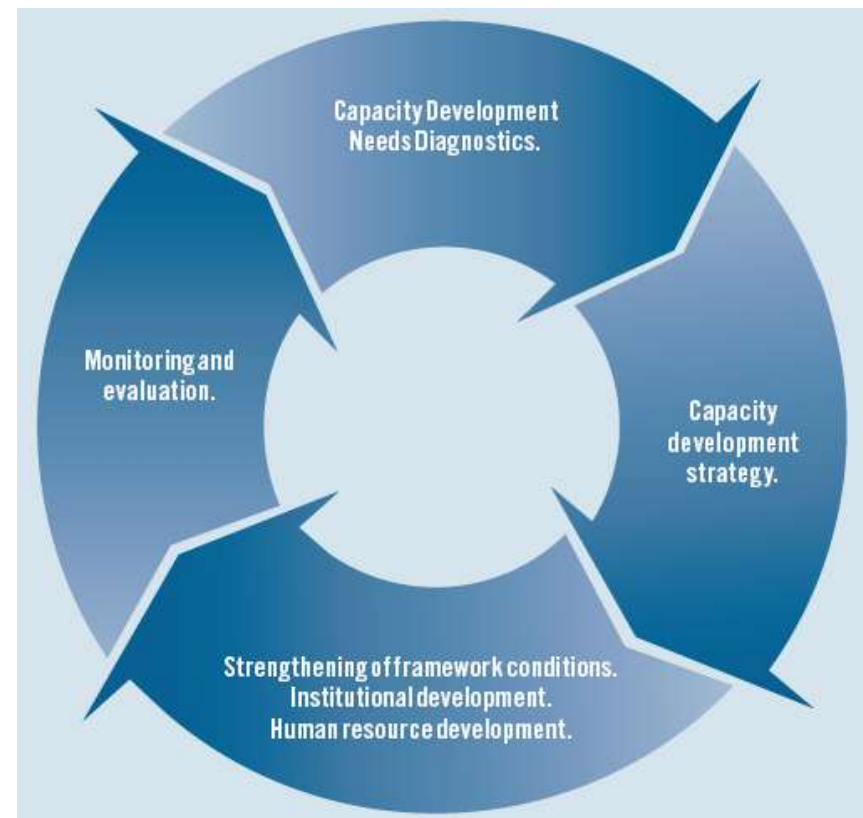
- communication and negotiation platforms between stakeholders
- joint vision, goals and values, increase knowledge exchange





Capacity Development for Renewables

- Complex capacity needs
- Strategic decisions for capacity development
- Capacities for what?
target: challenges of the sector
- Aim: define „capacity needs“
building on existing capacity





CaDRE – main features

Flexibility

- Quick / partial / full
- Qualitative / quantitative

Inclusive

- Stakeholder participation
- Dialogue

Systematic and comprehensive

- System, organisational and individual level
- Networks
- Related policy fields

County driven

- Ownership



Use of CaDRE results

- Prioritized recommendations for CD strategy and measures
- Political communication instrument
- Orientation for stakeholders
- Coordination of external support
- Baseline for monitoring

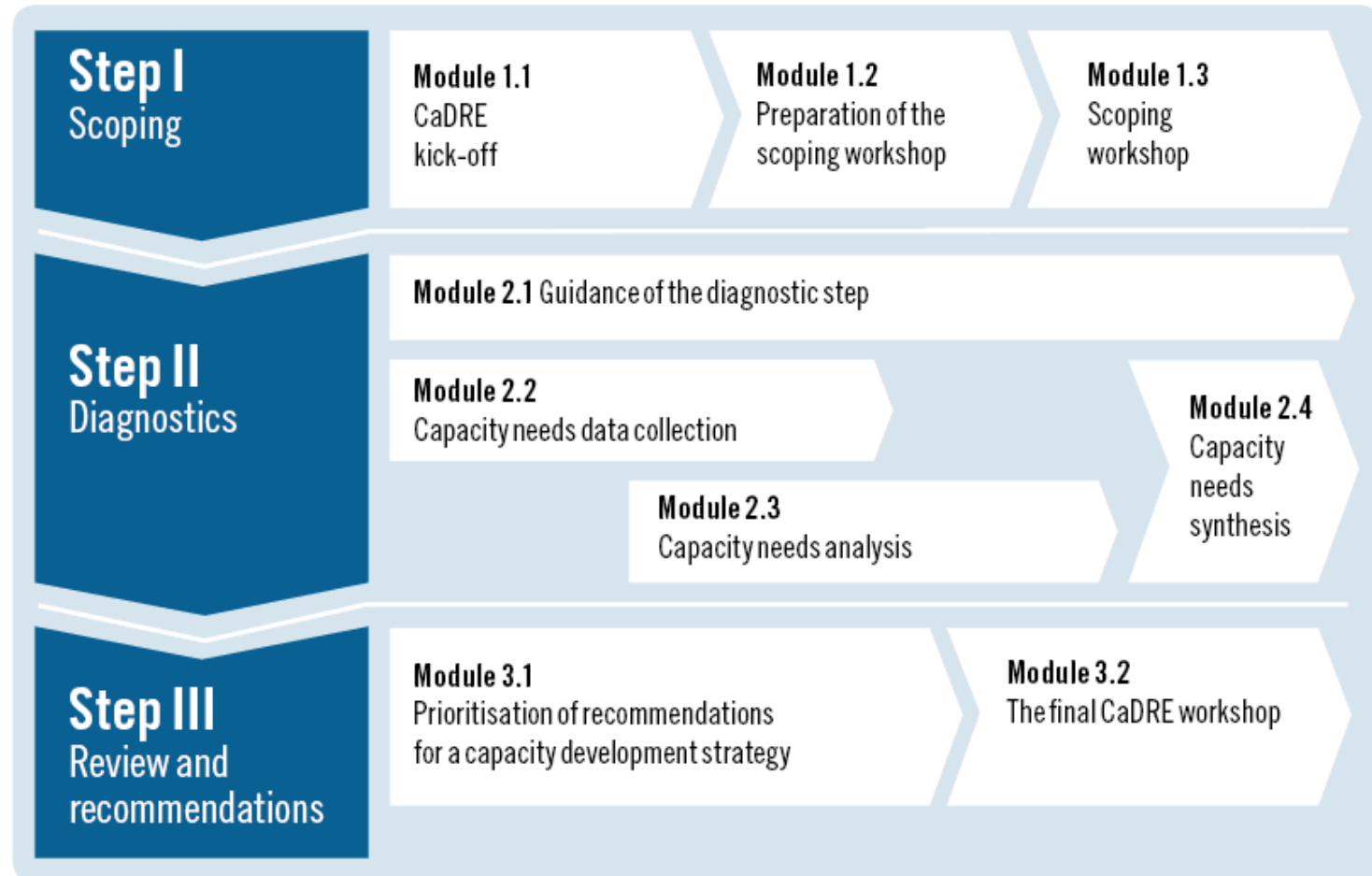
User of CaDRE results

- Government / authorities / organisations
- Universities and training provider
- International donors / agencies





CaDRE Process





How to use HB and TB



Modules describing the stages and tasks necessary to achieve the desired results.



Task sequences which are explained briefly and include a reference to supportive tools, checklists and likely results. The task sequences do not need to be followed in a strict, linear timeline but should be understood as an iterative process. Activities can be carried out in parallel, rather than one by one.

A detailed description of each task outlined in the sequence. Practical checklists and references to tools available in the CaDRE *Toolbox* support the completion of each task.



Checklists that help to understand the tasks in more detail and provide guidance through the diagnostic process.



Tools that give practical support for collecting and analysing data and/or visualising results. The tools are compiled in the CaDRE *Toolbox*.



CaDRE principal element: Tool 6 “Target Model”

- Reference throughout the CaDRE process
- Core areas of the wind and solar sector
- Systematic compilation of targets and the capacity analysis

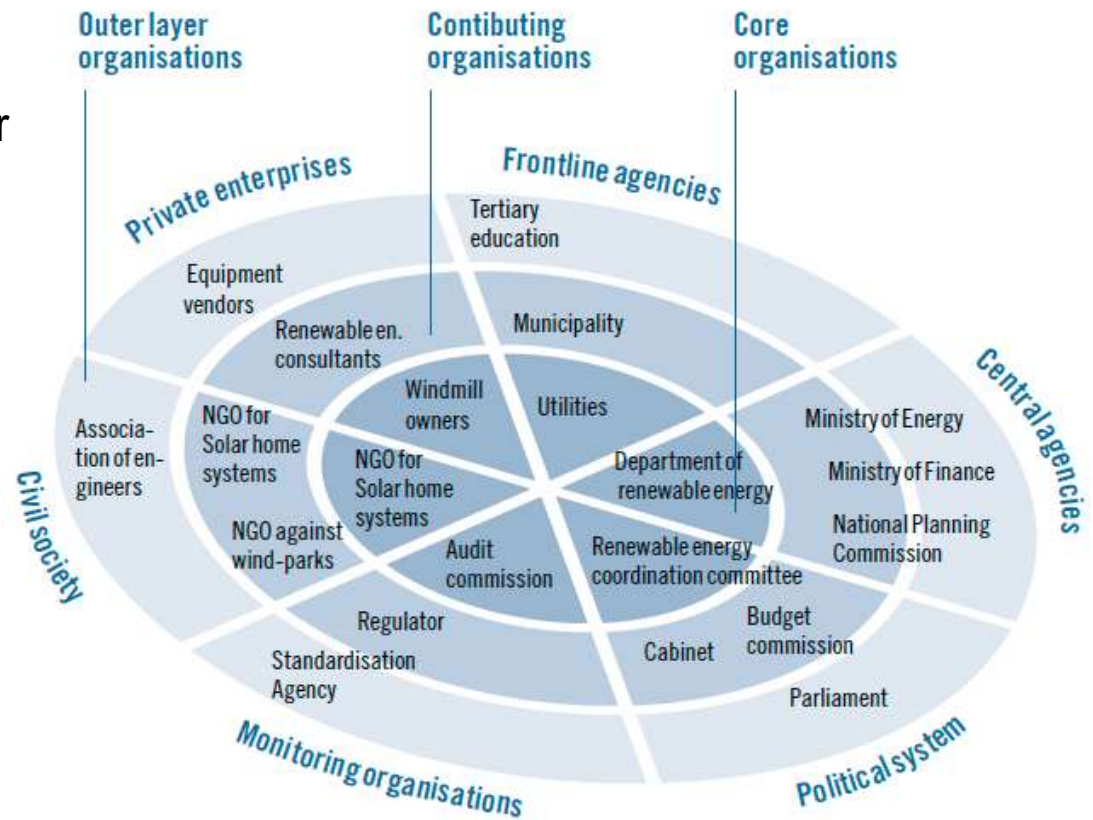
Table 2.2 Template for a Target Model

	Target	Required capacities	Existing capacities	Capacity gap	
Core area 1					
Applications & processes	Primary schools	
	Universities	Establish an MSc programme for engineers to specialise in wind farm development.	<p>System level Government support to cope with larger numbers of students and develop the programme (€ 2 m /year).</p> <p>Organisational level Ability to work out a curriculum. Networks to adapt to technological developments.</p> <p>Individual level At least three professors who teach relevant topics: wind turbine design, wind park development and resource mapping.</p>	<p>System level Government supplies same budget to university every year. Public budget for universities limited.</p> <p>Organisational level University has two partnerships for research on wind turbines.</p> <p>Individual level The engineering institute has two professors who research wind turbines.</p>	<p>System level Lack of finance options. Government not able or willing to invest.</p> <p>Organisational level Existing networks may be inadequate for the appropriate curriculum.</p> <p>Individual level Further staff needed to cover wind park development and resource mapping.</p>
	Vocational training providers	
	Core area 2				
	



CaDRE Tool 7 „Stakeholder Landscape“

- Identify key stakeholder for CaDRE
- Capacity analysis: mandates, performance, relationships and interaction





GIZ CaDRE in Algeria: quick diagnostics

Aim

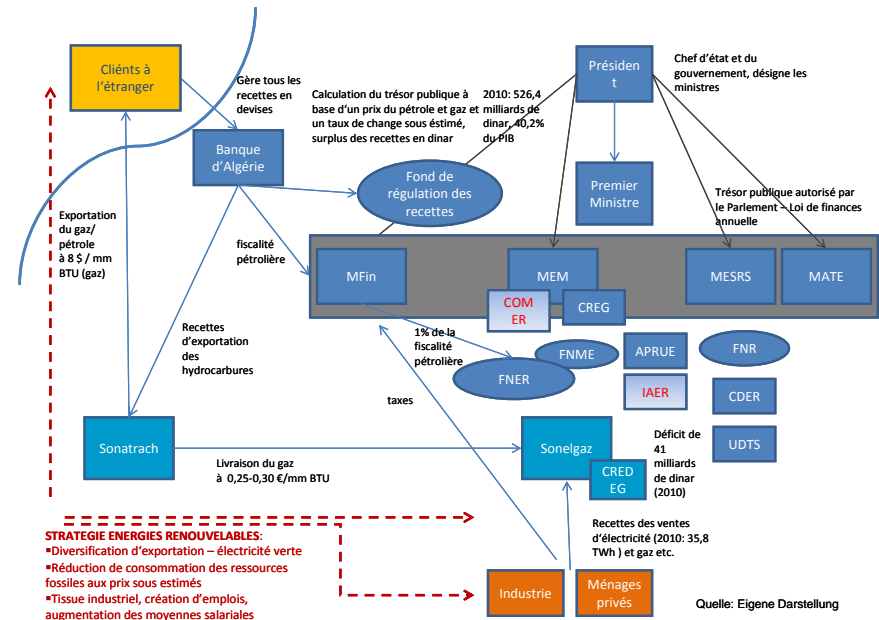
- Baseline for decisions: opportunities for further cooperation between Algeria and Germany

Focus

- Governmental institutions and agencies
- Investment climate

Results

- Possible fields of action
- Interventions and measures





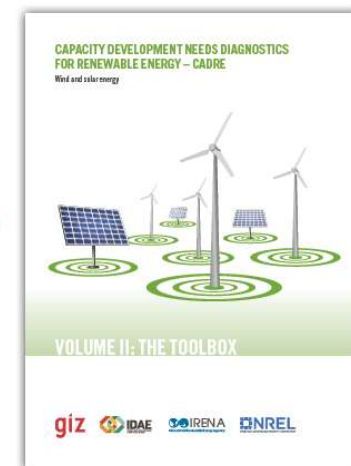
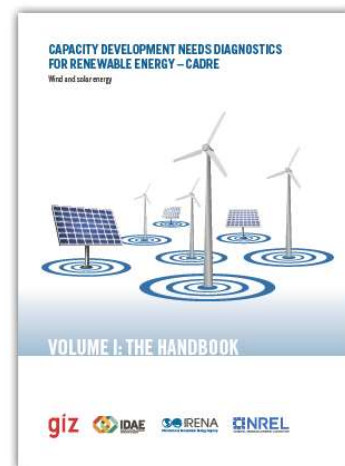
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➤ Methods and Tools





Systematic Assessment of capacity development needs - GIZ examples of application

Planning <ul style="list-style-type: none"> ▪ bilateral cooperation programmms 	ESRA Afghanistan Endeav II Indonesia MHPP NEEP Nepal
(Mid-Term) Evaluations	
(Rapid) Sector Appraisal <ul style="list-style-type: none"> ▪ Strategic orientation ▪ Project appraisals in priority areas 	Algeria (BMZ / BMU) IGEN-RE India
Regional Level	East African Community (EAC): Regional Strategy on Scaling up Access to Modern Energy Services
Donor Coordination (service of GIZ) <ul style="list-style-type: none"> ▪ SWAps, TA-Pool, ... 	



Capacity Development for Renewables

Specificities of the sector

- Several distinct value chains
- Complex private-public interactions and externalities
- Strong interaction with other sectors
- Conflicting interests, economic- political power

Complex capacity needs with which CD strategies have to deal

- private and public sector actors and organisations
- small decentralised organisations as well as the large national energy utilities
- formal and informal actors
- technical, financial, management and administrative skills.