Making transition tangible: Approaches for MRV of NAMAs for transformational change towards a low-carbon energy future

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Making transition tangible:
Approaches for MRV of NAMAs for transformational change towards a low-carbon energy future

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Eschborn, Germany

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Outline:

- Transformational change – concepts and approaches
- URC experience with assessment of mitigation actions for sustainable development: CDM & NAMAs
- Ideas for MRV of NAMAs contribution towards transformational change

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Transformational change – concepts and approaches

Global goals for a transformation to sustainable development

- Three processes to define global goals for the *environment, development and climate* are running in parallel until 2015:
  - Sustainable Development Goals (SDGs) – Rio+20 process
  - Millennium Development Goals (MDGs) – UN Post-2015 Development Agenda
  - A New Climate Agreement – UNFCCC

- The three processes are related but institutionally separate and aim to inspire actions and targets for implementation at national level supported by international institutions

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The UN Post-2015 Development Agenda

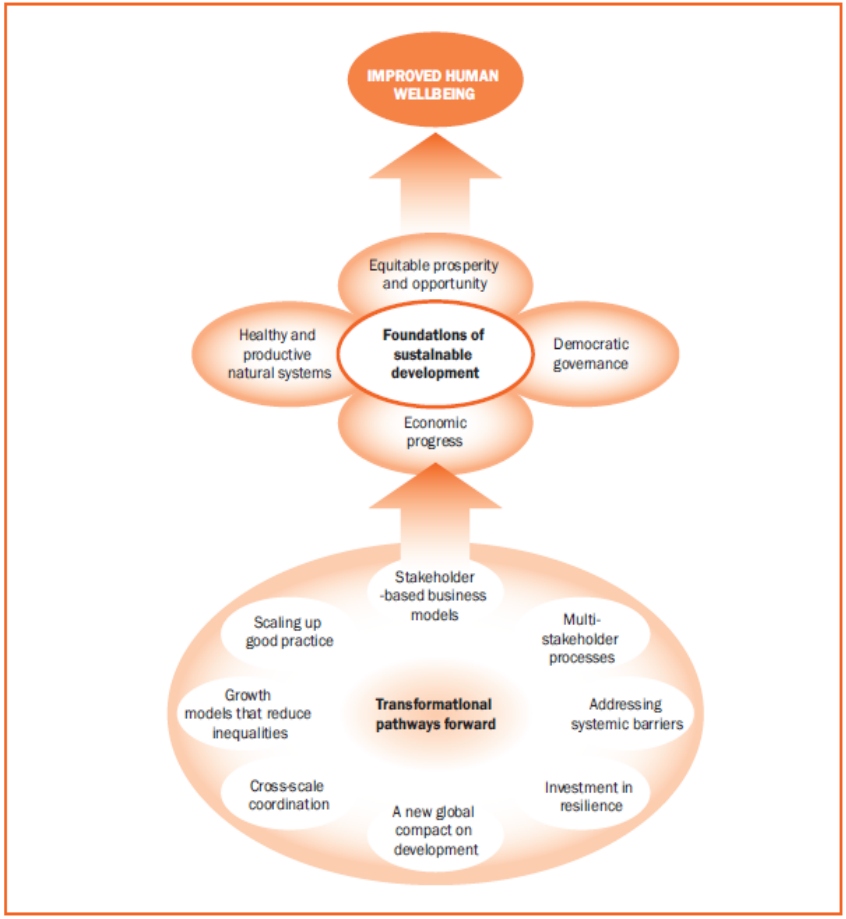
- In July 2012, Secretary-General Ban Ki-moon announced a High-level Panel to advise on the global development framework beyond 2015
- The post-2015 agenda is linked to the outcome of “Rio+20” on SD that took place in June 2012 in Rio de Janeiro, Brazil.
- The outcome document of Rio+20, “The Future We Want,” called for the creation of an intergovernmental Open Working Group (OWG) on Sustainable Development Goals (SDGs)
- The High Level Panel released a report “A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development,” in May 2013. Its sets a universal agenda to eradicate extreme poverty from the face of the earth by 2030, and deliver on the promise of sustainable development
- Ban Ki-moon is inviting Heads of State and Government along with business, finance, civil society and local leaders to a Climate Summit in September 2014, New York, one year before the 2015 agreement.

UNEP Post-2015 Proposal

- ‘Embedding the Environment in Sustainable Development Goals’ (UNEP, July 2013) – an integrated approach with six criteria:
- Approach: - environment is *integrated* through six criteria for development goals to be sustainable:
  1. Linkage with development goals
  2. Decoupling of growth from environmental degradation
  3. Avoid irreversible changes to the global environment
  4. Include current global goals and targets into SDGs
  5. Goals to be scientifically credible and verifiable
  6. Progress must be ‘trackable’ – indicators measured

Transformational change for SD

- Common to the three processes is that they aspire to achieve 'transformational change' – see figure
- The UN High-level Panel identifies five shifts:
  - Leave No One Behind
  - Put Sustainable Development at the Core
  - Transform Economies for Jobs and Inclusive Growth
  - Build Peace and Effective, Open and Accountable Institutions for All
  - Forge a New Global Partnership



Source: Independent Research Forum (IRF) on a Post-2015 Sustainable Development Agenda, March 2013

The Green Climate Fund and Transformational Change

- The GCF has a mandate to facilitate transformational change for LCD

- Working definition:

  "Transforming production processes and consumption patterns, enhancing institutional capabilities and adopting planning processes to enable low-emission (mitigation) and climate resilient development (adaptation) pathways" *(Source: Workshop on the role of the Green Climate Fund in fostering transformational change and engaging the private sector and civil society, 11 September 2011, Geneva, Switzerland)*

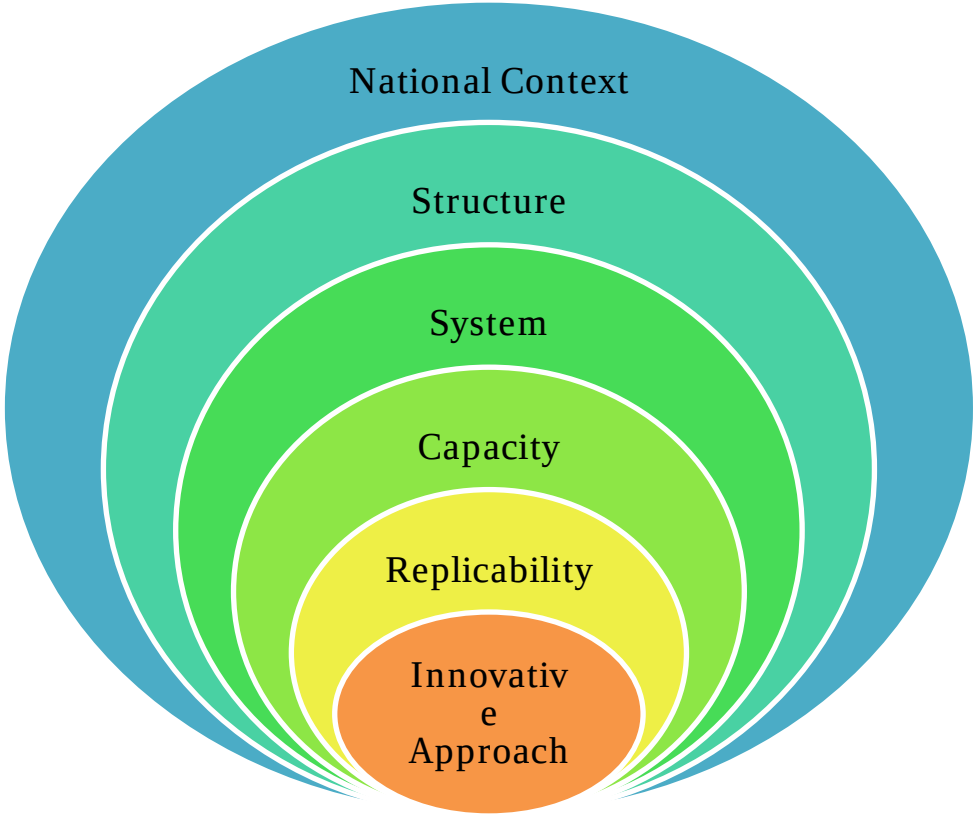
- Key elements driving transformational change:
  1. Policy Frameworks – paradigm shift to LCD and SD at national level
  2. Economy, Technology and Infrastructure – new growth models & TT
  3. Behavioural change – institutional, PPP, transparency and accountability

NAMA Facility ‘definition’

Eight questions to describe the transformational potential of NAMAs:

1. Links with sectoral or national policy targets
2. NAMAs’ contribution to sectoral mitigation activities
3. Structural changes and overcoming systemic barriers
4. Development of capacities for LCD beyond the project boundaries
5. The replicability of actions/project to other regions or countries
6. Strengthening of national systems
7. An innovative approach for emission reductions
8. Participation of private sector

At what level should transformational change be assessed?



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URC experience with SD assessment

SD assessment of CDM projects

Publications:

- Olsen, K. H. (2007). "The clean development mechanism's contribution to sustainable development: a review of the literature." Climatic Change 84(1): 59-73.
- Olsen, K. H. and J. Fenhann (2008). "Sustainable development benefits of clean development mechanism projects: A new methodology for sustainability assessment based on text analysis of the project design documents submitted for validation." Energy Policy 36(8): 2819-2830.

Analysis and data:

- CDM Pipeline, monthly updated: http://www.cdmpipeline.org/
- PoA Pipeline, monthly updated. Uses the CDM SD tool to record data on PoAs contribution to SD

Consultancy for UNFCCC 2012:

- The UNFCCC contracted URC to develop a ‘CDM SD Tool’ based on research results. The SD Tool was approved by the CDM Executive Board at COP-18 in Doha

Challenges to assess the CDM's SD contribution

- In the absence of an international acceptable definition of SD, the benefits cannot be known, nor monitored and are not monetized in the carbon market, except for voluntary standards like the GS & CCB.

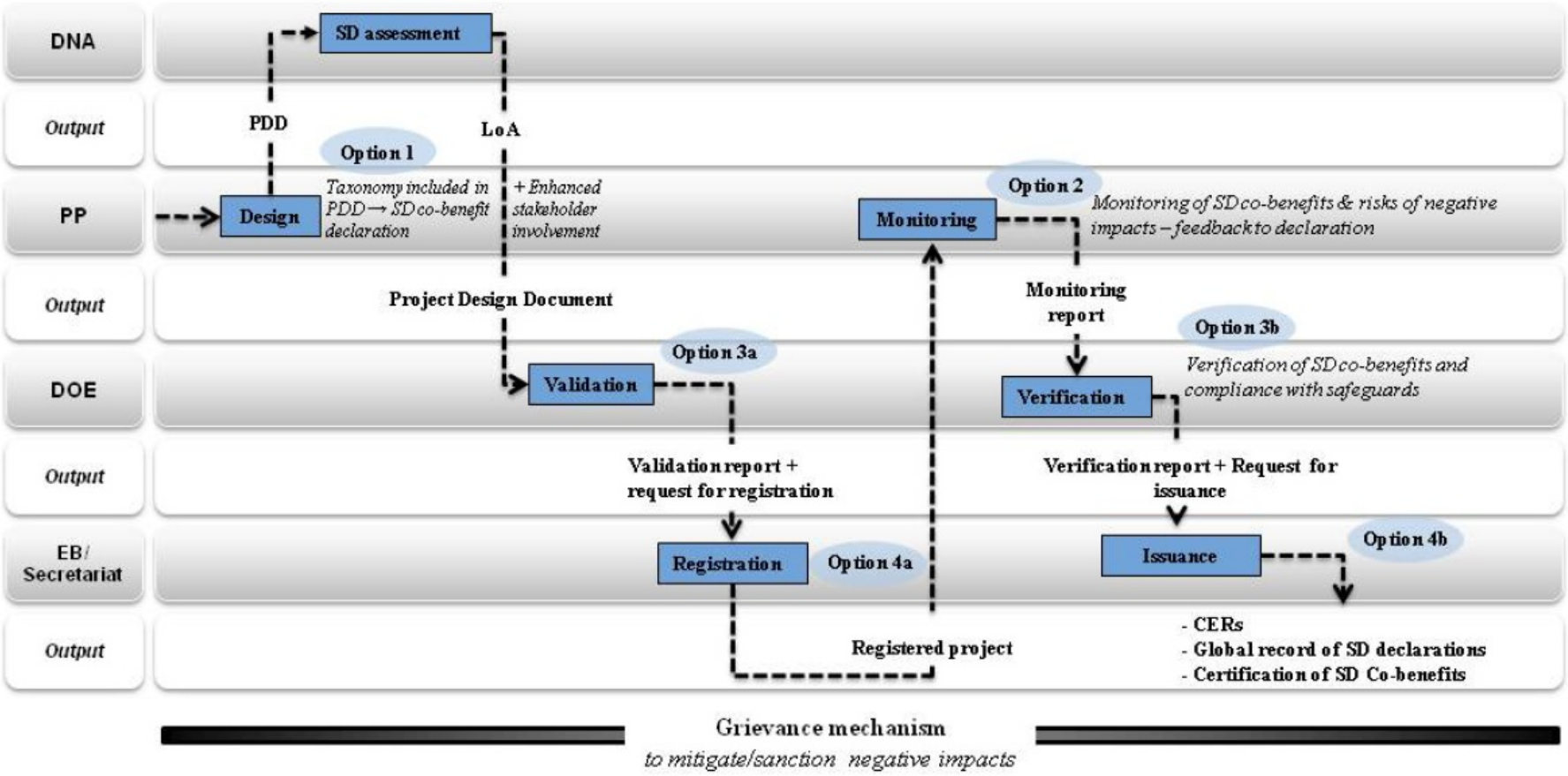
- Two main findings of a literature review (Olsen 2007) on how the CDM contributes to SD are that: 1) Left to the market forces the CDM does not significantly contribute to SD. 2) No methodology exists at global level to assess the total contribution of all CDM projects to SD.

- Challenge: An international standard for SD co-benefit indicators can enable that monitoring and reporting takes place to inform the global carbon market with the aim of directing investments towards maximising the SD benefits.

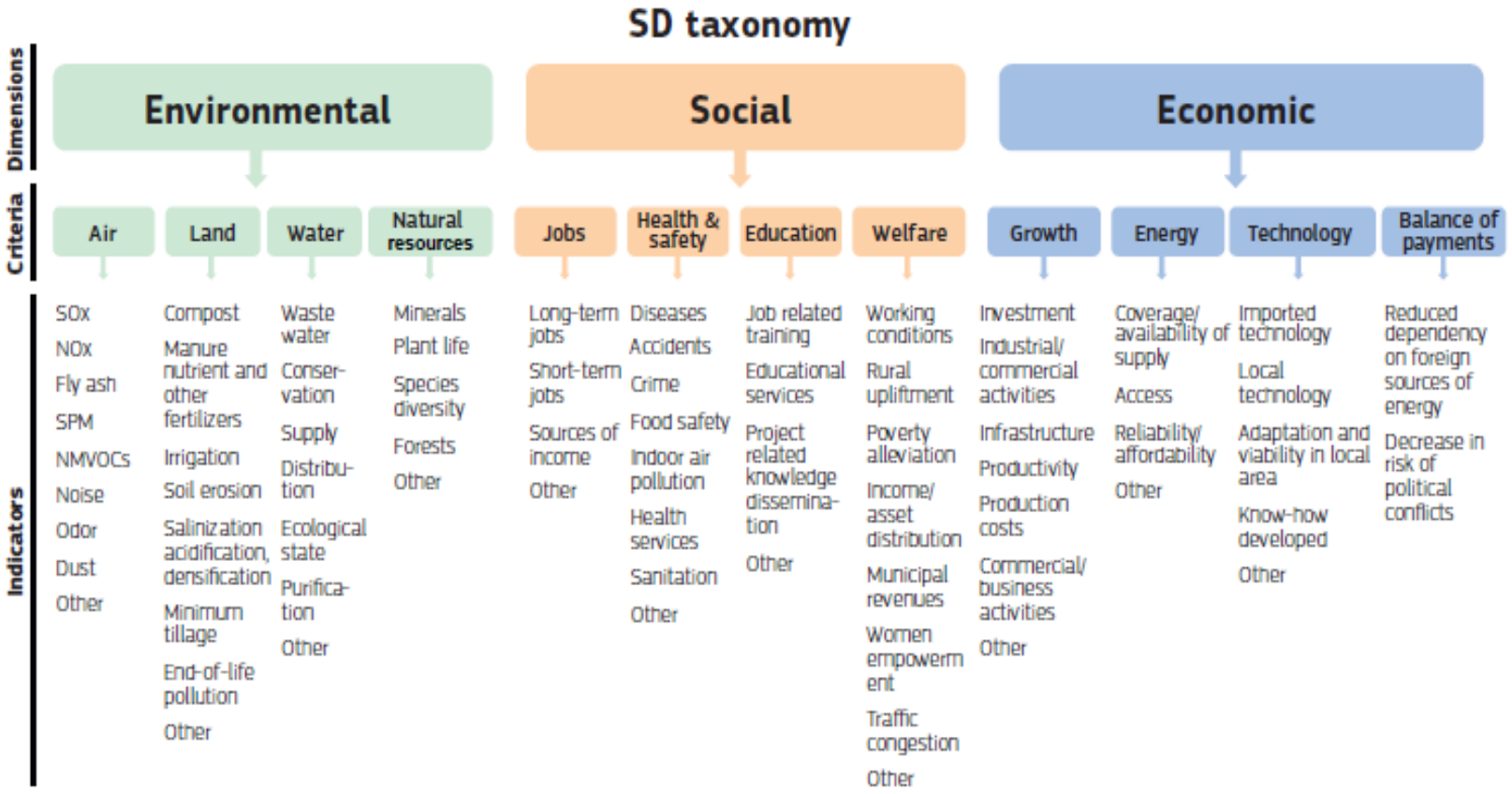
CDM Executive Board response to SD assessment

- The Board launched at its 61st meeting a Call for public inputs on sustainable development co-benefits and negative impacts of CDM project activities
- At CMP.7 (decision 8/CMP.7), the Parties requested the Board to "*continue its work and develop appropriate voluntary measures to highlight the co-benefits brought about by clean development mechanism project activities and programmes of activities, while maintaining the prerogative of Parties to define their sustainable development criteria".*
- At EB67, the Board considered a concept note on highlighting sustainable development co-benefits on a voluntary basis (EB67 Annex 13) – see slide
- At EB68 the Board considered a draft SD tool based on an integrated approach to three elements: 1) SD co-benefits, 2) No harm Safeguards and 3) Stakeholder involvement.
- At EB69 the Board requested the Secretariat to only include positive SD benefits in the SD tool, i.e. to exclude negative impacts & stakeholder involvement
- At EB70 the SD Tool was approved!

Design options for CDM SD tool



CDM sustainability assessment



Online SD tool – EB70: https://www.research.net/s/SD_tool_vers7

Online SD tool – example: air quality

6. **Does the activity improve air quality in the area?**

The activity improves air quality by reducing air pollutants such as SOx (sulphur oxides), NOx (nitrous oxides), Suspended Particulate Matter (SPM) emissions, Non Methane Volatile Organic Compounds (NMVOCs), fly ash, noise, odour or dust.
Reductions in greenhouse gasses are not included, as this defines all CDM projects.
Avoided indoor smoke is identified can be declared under "Social health and safety" section.

- ☐ Yes (and I wish to specify)
- ☐ No (the activity has no direct impact)
- ☐ N/A (the question is not relevant)

Environment – Air – specific indicators

7. **How and to what extent does the activity improve air quality in the area?**

Reducing level/frequency/time of SOx (sulphur oxides) emissions? ☐ Highly ☐ Partly ☐ Slightly ☐ N/A

Please specify

Reducing level/frequency/time of NOx (nitrous oxides) emissions? ☐ Highly ☐ Partly ☐ Slightly ☐ N/A

Please specify

Reducing level/frequency/time of fly ash emissions? ☐ Highly ☐ Partly ☐ Slightly ☐ N/A

Please specify

SD declaration report – air benefits

A. Environmental co-benefits

Water and land co-benefits were declared as N/A, which means the criteria are not relevant to the project.

The programme of activities improves air quality in the area through:			
Criteria	**Indicators**	**Specification**	**Extent**
Air	SOx	limited	Slight
	NOx	limited	Slight
	Fly ash	limited	Slight
	Suspended Particulate Matter (SPM)	limited	Slight
	Noise	substituting diesel generators	Partly
	Odours	substituting kerosene lamps	Partly
	Dust	limited, but some dust from wood waste will be reduced	Slightly
	Other air based improvements	Indoor air improved as no kerosene and paraffin lamps	Partly

The extent of the environmental co-benefits:

SD assessment of NAMAs
- learning from CDM experience

Publications:

- Olsen, K. H. (2013). "NAMAs for sustainable development." Mitigation Talks 3-4(4-1): 13-18.
- Olsen, K. H. (2013). Sustainable Development Impacts of NAMAs. An integrated approach to assessment of co-benefits based on experience with CDM. Low Carbon Development. Roskilde, UNEP Risø Centre: 24.

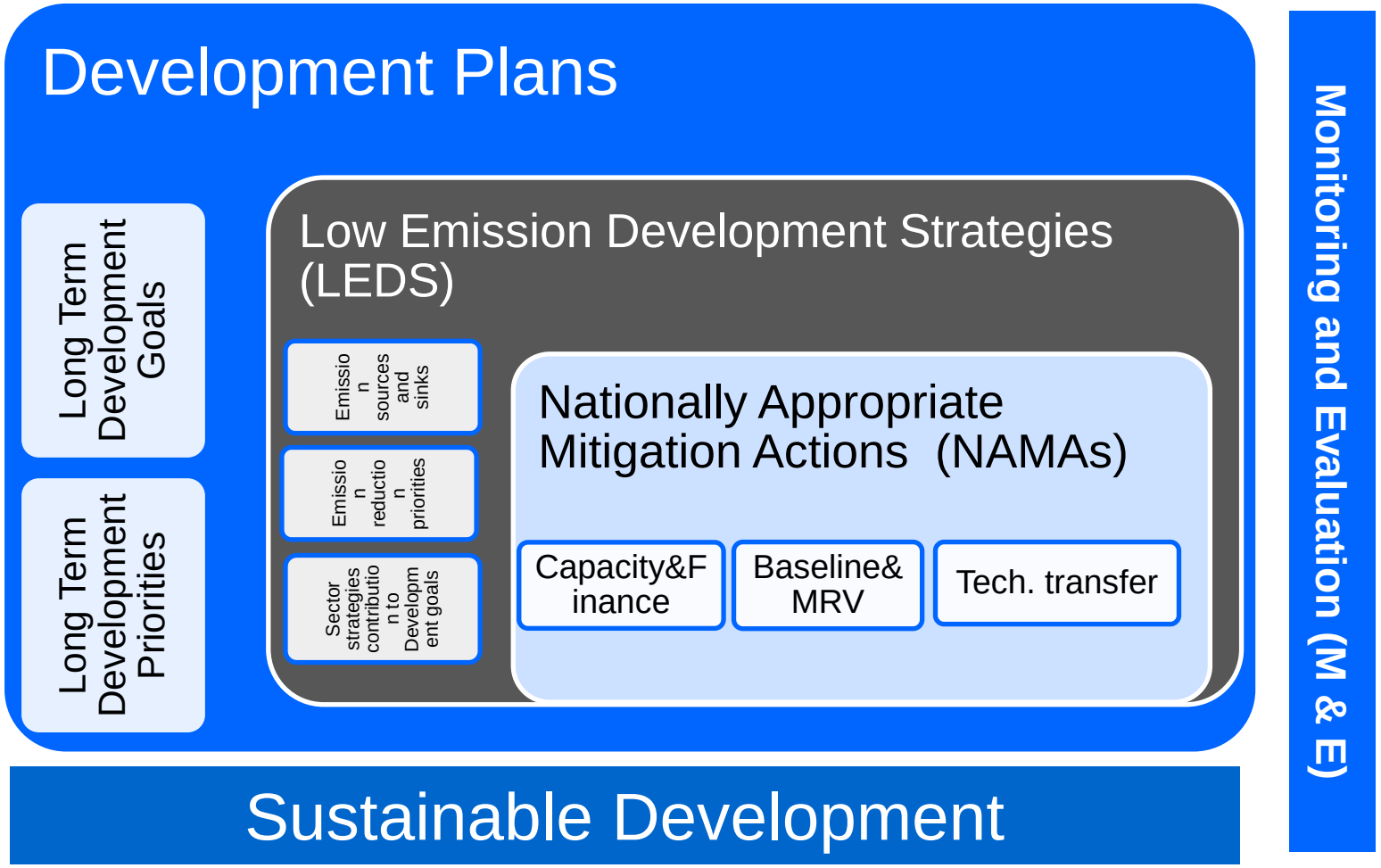
Analysis and data:

- NAMA Pipeline, monthly updated: http://namapipeline.org/
- Pledge Pipeline, monthly updated: http://unep.org/climatechange/pledgepipeline

NAMA Partnership WG-SD

- UNFCCC coordination of the NAMA Partnership: http://www.namapartnership.org/

NAMAs in the context of SD



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An integrated approach

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Three elements:

- SD indicators
- Stakeholder involvement procedures
- Safeguards against negative impacts

Action/Project cycles	**NAMAs**	**CDM**
National Development Planning	Low Carbon Development Strategy (LCDS) **Identify SD objectives to which NAMAs contribute**	-
Design of action/project	No format requirements **Include indicators/metrics for SD benefits in the design format and conduct stakeholder involvement and safeguards for no-harm-done**	Project Design Document (PDD)
National Approval	Officially Designated Entity (ODE) submit NAMAs to Registry: seek support for preparation, seek support for implementation or for recognition (unilateral)	Designated National Authority (DNA) issues Letter of Approval (LoA) for SD contribution
Validation/Registration	-	Designated Operational Entity (DOE) and Executive Board (EB)/ Registry
Financing	Supported NAMAs: bilateral, multilateral, private sector, Green Climate Fund, Foreign Direct Investment (FDI) and carbon markets. A mix of sources is possible. Unilateral NAMAs: domestic finance **Explicit SD and climate benefits can help inform investors to get the most benefits for their money**	Investors
Implementation	NAMA developer	Project owner/Coordinating Managing Entity (CME) for Programmes of Activities (PoAs)
Monitoring	Ditto **SD indicators to be monitored** along with other action & GHG metrics as specified in the BUR guidelines (see below)	Ditto
Reporting and Verification	International Consultation and Analysis (ICA) of Biennial Update Report (BUR) BURs include reporting on methodologies and assumptions, **SD objectives** and steps, progress, results, estimated GHG reductions and information about international market mechanisms. There are no requirements for MRV of individual NAMAs	Designated Operational Entity (DOE)
Issuance of CERs/units of GHG reductions	Possible links to NMMs and FVA for crediting of NAMAS **Units of GHG reductions to be *certified* for their SD co-benefits**	Executive Board (EB)/Registry

Five steps:

1. Identify national SD objectives in the context of national development planning priorities and low carbon development strategies,
2. Design of NAMAs including SD indicators, stakeholder involvement procedures and safeguards against negative impacts,
3. Financing of NAMAs to be informed by SD impacts,
4. Monitoring, reporting and verification (MRV) of an integrated approach and
5. Certification of the SD impacts of credited NAMAs possibly to be traded under a new market mechanism or a framework for various approaches.

SD benefits in NAMAs submitted to the UNFCCC Registry

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NAMA	Environmental	Social	Economical	Institutional	Transformational
Chile: Implementation of a National Forestry and Climate Change Strategy *(support for implementation)*	Forest management Biodiversity Afforestation Restoration of natural forests Generation of environmental assets	Gender equality	Economic alternative for owners of degraded land Access to participate in the forestry business and in carbon markets	Improvements in land titling processes Sub-national reference levels and MRV systems to include indicators related to adaptation Platform for the Generation and Trading of Forest Carbon Credits Social and environmental safeguards are fully considered	
Uruguay: First introduction of Photovoltaic Solar Energy in the national electrical grid *(support for implementation)*		Testing laboratories Training professionals	Strengthen the assembly and maintenance of the national solar network	Conditions for holding a competitive process for the incorporation of new plants by private companies Capacity building support in the regulator organism and the Public Electric Utility Technical regulatory framework for this resource	Goal to have at least 50% of the national energy supply mix based on renewable sources At least 90% of the electrical grid supported by renewable sources

The NAMA partnership

COP19 – Warsaw

UNEP Risø is leading the WG on SD

WG-SD work programme

Focus area	Outputs	Partner(s)	Status
1) NAMAs contribution to national mitigation goals and targets	1.1. Tools to calculate emission reductions and costs of NAMAs are made available – GACMO model	URC	Model developed and applied in Maldives and UAE
	2.1 Guidebook on how to use the tools	URC	Guidance to be developed
2) NAMAs contribution to SD and national development goals	2.1 Paper on 'An integrated approach to assessment of sustainable development impacts of NAMAs based on experience with CDM'	URC	Working paper published November 2013
	2.2 Framework and policy report for 'Measuring Sustainable Development in NAMAs'	URC + IISD	Concept note
3) Institutional frameworks for governance of NAMAs and mainstreaming into development planning frameworks	3.1 Publication on 'Institutional Challenges for NAMAs'	URC	First draft available
	3.2 Case studies of different institutional models and highlight challenges and solutions	URC	TBD
	3.3 Knowledge and best practices shared among relevant participants for enhanced national decision-making on governance of NAMAs	URC	TBD

WG-SD draft work programme – cntd.

Webinar series: - two types

Title	Host(s)	Date
Discussion and Peer-review Webinar Series		
Institutional Challenges for NAMAs	URC	January 2014
An integrated approach to assessment of SD impacts of NAMAs based on experience with CDM	URC	February 2014
NAMAs: An approach to Design, Label and Monitor	TERI	TBC
Capacity Building Webinar Series		
NAMA E-learning course	URC	May 2014 (TBC)
A methodology for SD impact assessment of NAMAs	UNDP	August 2014 (TBC)

NAMA PARTNERSHIP WEBSITE
http://www.namapartnership.org/

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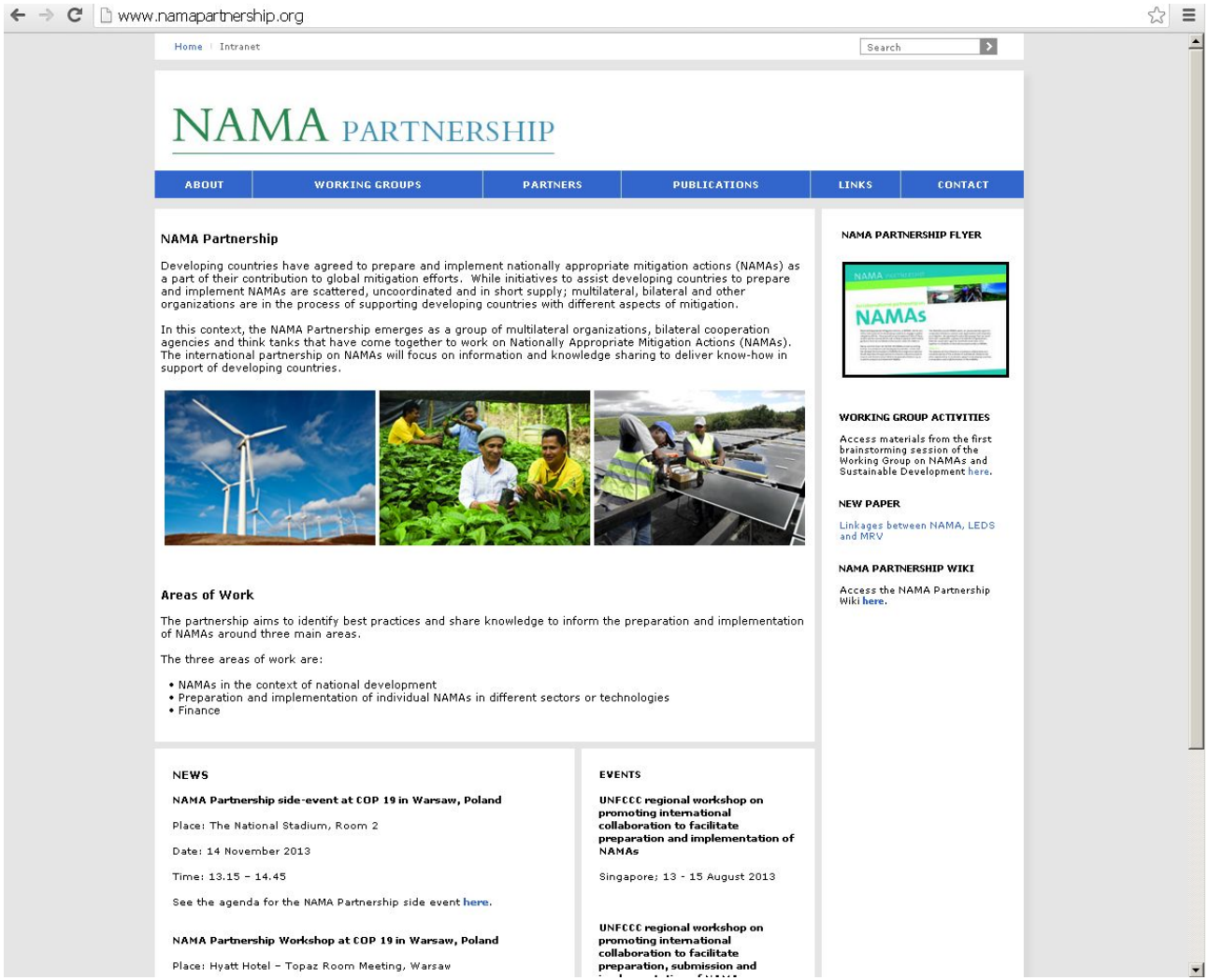

NAMA WIKI WEBSITE
http://namapartnership.wikispaces.com/

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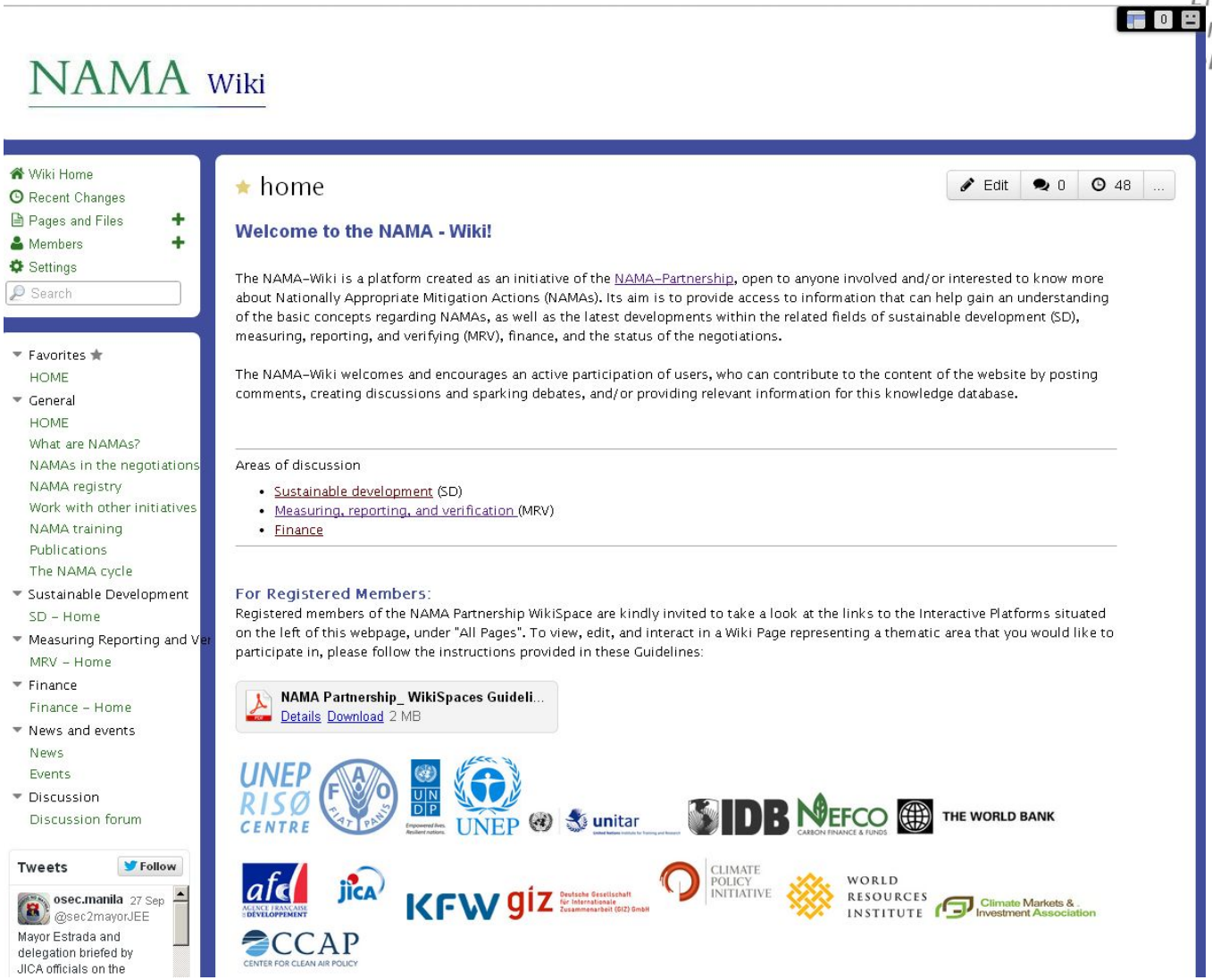

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Ideas for MRV of NAMAs contribution towards transformational change

PhD Research on "Methodologies for assessment of sustainable development impacts of Nationally Appropriate Mitigation Actions in developing countries" (2013- 2016)

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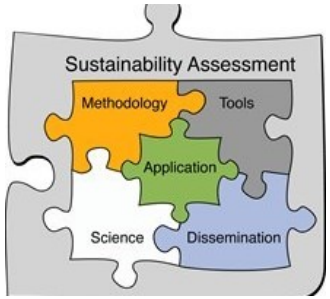
- **Research Questions: How NAMAs**
  - contribute to national SD
  - contribute to meet nationally defined mitigation goals, and
  - how institutional arrangements for governance of NAMAs can be designed/improved so as to enable mainstreaming into development planning frameworks



Co-supervised with the **Quantitative Sustainability Assessment** division of DTU

- **Approaches/Methods**
  - mixed methods on NAMA submissions and a case study in Africa
  - exploration of different SD assessment methodologies

- **Expected Results**
  - new scientific knowledge on NAMAs and sustainability assessments
  - policy-relevant to the UNFCCC process, while also guiding funders and recipients towards framing bankable projects
  - identify synergies and replication potential to process & institutional needs of developing countries – can help frame future capacity building on NAMAs
  - track successes of NAMAs while building domestic political support

Some initial thoughts

- Use of integrated approaches towards gauging the sustainable development benefits of NAMAs – including assessing transformational impacts

- Classification of NAMAs such that transformational impacts are assessed on how sector is transformed

- Flexibility for each developing country Party to define its own vision of sustainable development for each NAMA submitted, but with a bare minimum of common features prevailing for supported NAMAs (e.g. SDGs), while leaving room for flexibility to accommodate for particular national circumstances – similar conditions for transformative component

- Transformative impacts being negotiated on a case by case basis for supported NAMAs between donor/funder and recipient country

Some initial thoughts

- Envisaging transformation within the NAMA debate as dealing on a sectoral scale rather than nationwide which could feed into wider SD agendas, e.g. converging to 2015 agenda as being a component of the SDGs

- A combination of ex-ante and ex-post assessments, with appropriate corresponding administrative and institutional arrangements that could ease the process, such as a "NAMA Impact Assessment",

- “Process" line of thought
  - Additional to an outcome approach
  - Stringency of verification of transformative impacts varied for countries at different levels of development
    - "Tiered" countries similar to conditions existing in current inventories for GHG in National Communications
    - Stringency increased gradually over an agreed number of years

Exercise: Transformational Change

Step 1:

Suggest your own definition of transformational change

Step 2:

Share your definition with the person next to you and agree on a common definition

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Stakeholder perspectives:

Step 3:

Read the interview summaries and review your common definition to arrive at a generic definition

Step 4:

Share your generic definition