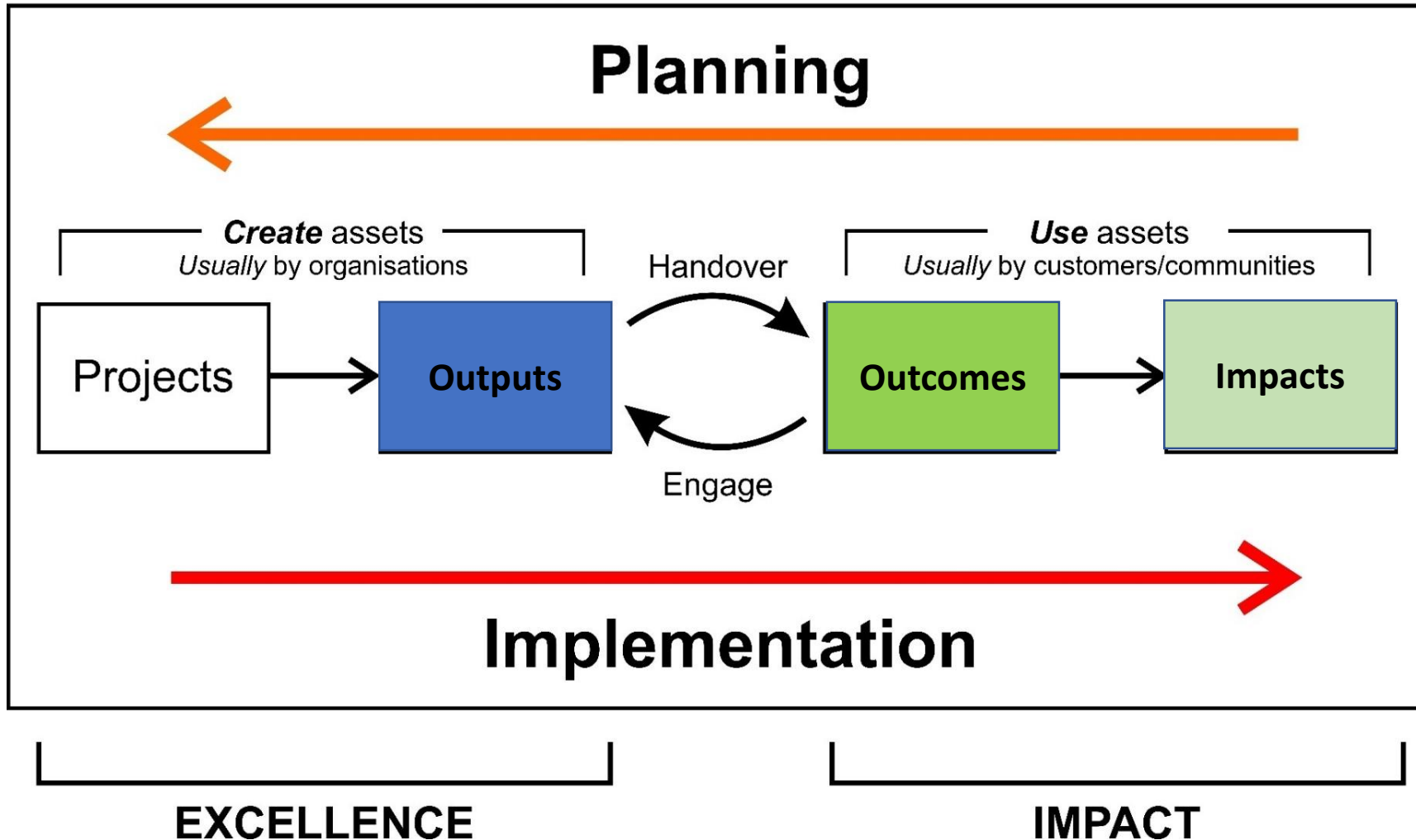# RCA Outcome and Impact Evaluation

9th Meeting of the Working Group on

Coordination of the RCA Medium Term Strategy

July 21-23, 2021

Outcome/impact monitoring

- Recap of what we mean by outputs, outcomes, impacts
- Approaches we can use and are using for Outcome/Impact assessment
  - IAEA Socio-Economic Impact Evaluations of Thematic Areas
  - Project Outcome Harvesting
  - Alternatives
- Performance indicators and criteria for Final MTS Review

Outputs vs Outcomes vs Impacts

Outputs vs Outcomes vs Impacts

Outputs are products and deliverables that are usually created by the Project Team, e.g.
- Papers and reports published
- Databases created
- Training courses delivered
- Improved methods, models, etc.

An **Outcome** is a change or benefit to:
- the behaviour, activity, capacity, performance,
- of an organisation, community, individual, or constituency
- in any geographic or political locale whether local, national, regional or global.

Examples of Outcomes include:
- modifications to policies,
- adoption of new or modified organisational procedures,
- commercialisation of a new product or service, improved sustainability or efficiency of an organisation, etc.

Impacts are longer-term social, cultural, environmental and/or economic benefits, e.g.
- which could lead to the longer-term Impact of reduced mortality from air particulate matter pollution

Recognised challenges in impact evaluation

- Project outputs need to be adopted to create impact
  - The people that drive the intervention are not the same people who create the impact
- Long time from intervention to impact, i.e. from output to outcome
- Achievement of one outcome or impact may have required many different outputs
- One output may lead to many different impacts

RCA Outcome/Impact monitoring (1)

- **Changes to the GOR to implement regular outcome/impact monitoring**
  - Clarified that MTS should include measurable Performance Indicators (Part 1, 1.8.c.v)
  - Added requirement to undertake systematic evaluation of MTS at least once within its duration (Part 1, 1.8.d)
  - Other Cooperative Activities (Part 2, 1.2) now states that OCAs can be used for "evaluation of project effectiveness"
  - Clarified that "After a two-year period following the completion of the project funding, NRs should coordinate with the LCC to prepare and submit a detailed project achievement report"
  - Changed Report Templates for Project Kick-off, Mid-Term and Final Review Meetings to clarify requirement to monitor and report outcomes
  - Added Annex to explain how to do the above.

RCA Outcome/Impact monitoring (1)

- **Changes to the GOR to implement regular outcome/impact monitoring (Observations)**
  - GOR defines a recommendation to evaluate the entire MTS, and a strong suggestion to evaluate individual projects two years post-completion – presumably considering their outcomes/impacts
  - GOR does not presently encode a recommendation to evaluate outcomes in thematic areas.
  - Regardless of what the GOR does or doesn't say, this doesn't guarantee that it will actually be followed and implemented
  - Even if there is an attempt to review the MTS, a project or a thematic area, it doesn't guarantee that the required data will be available.

RCA Outcome/Impact monitoring (2)

- **IAEA Socio-economic impact evaluations**
  - Mutation breeding thematic area report completed
  - Two additional thematic areas are being assessed: Radiotherapy and NDT

- Observations
  - Mixed evaluation methodology has been developed and shown to work for RCA project
  - Positive results for benefits from RCA obtained for Mutation Breeding
  - This approach is suited to long-running thematic areas
  - This approach is not a routine component of RCA operations (but could become so – GOR alteration

RCA Outcome/Impact monitoring (3)

- **Outcome harvesting**
  - We have undertaken a pilot the final coordination meeting for a series of long-running Air Pollution projects

- Observations
  - Instruction was required to help participants understand the difference between outputs, outcomes and impacts.
  - But once that instruction was delivered, the participants were able to list many outcomes and even some longer-term impacts from this series of projects.
  - To date these reported outcomes have not been carefully reviewed and compared to the initial objectives of the project(s).
  - We have not had an opportunity to trial this method for other thematic areas.

| A | B | C | D if possible |

[**Time Period**], [**Organisation(s)**] has [**Action or Change**], in part because of [**Project Contribution**]

A
- In 2001,
- Since 1998,
- From 2003 to 2006,

B
- the New Zealand Ministry for the Environment
- the Gunman Prefecture Environmental Protection Agency

has/have

C
- Started to consider using NATs for monitoring APM.
- Contributed funding to operate 5 APM monitoring stations.
- Set a new standard of X for APM for PM2.5 in Dhaka.
- Adopted a new methodology for measuring APM.

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'One sentence' outcome examples from Air Pollution pilot

- From 2016-2018, the Ministry of Environment and Forestry, Indonesia, has now developed an Air Pollution Index using the data provided by the project

- During 2016-2018, the Bangladesh Department of Environment and Forest has started to use ambient source apportionment data from this RCA project for policy decisions to assess possible reduction of indoor air pollution.

- During 2016-18, the Chinese Ministry of Environment and the Chinese Ministry of Science and Technology for APM research have provided increased funding from the Prime Minister's Fund for air pollution research and monitoring, and air pollution research is now a national priority

RCA Outcome/Impact monitoring (3)

- **Outcome harvesting**
  - We have undertaken a pilot the final coordination meeting for a series of long-running Air Pollution projects

- I do not know if any project meetings have been held since our last WG meeting
- If yes, I do not know if they have used the new report templates from the GOR
- If yes, the information reported in the templates should be assessed in terms of the quality of outcome reporting and the significance and breadth of those outcomes
- Note that such semi-quantitative reporting of outcomes per project is also undertaken through RCARO Success Stories

Outputs vs Outcomes vs Impacts

Project Design Meeting and PI 2.3 are meant to ensure that projects are designed to have potential outcomes and impacts
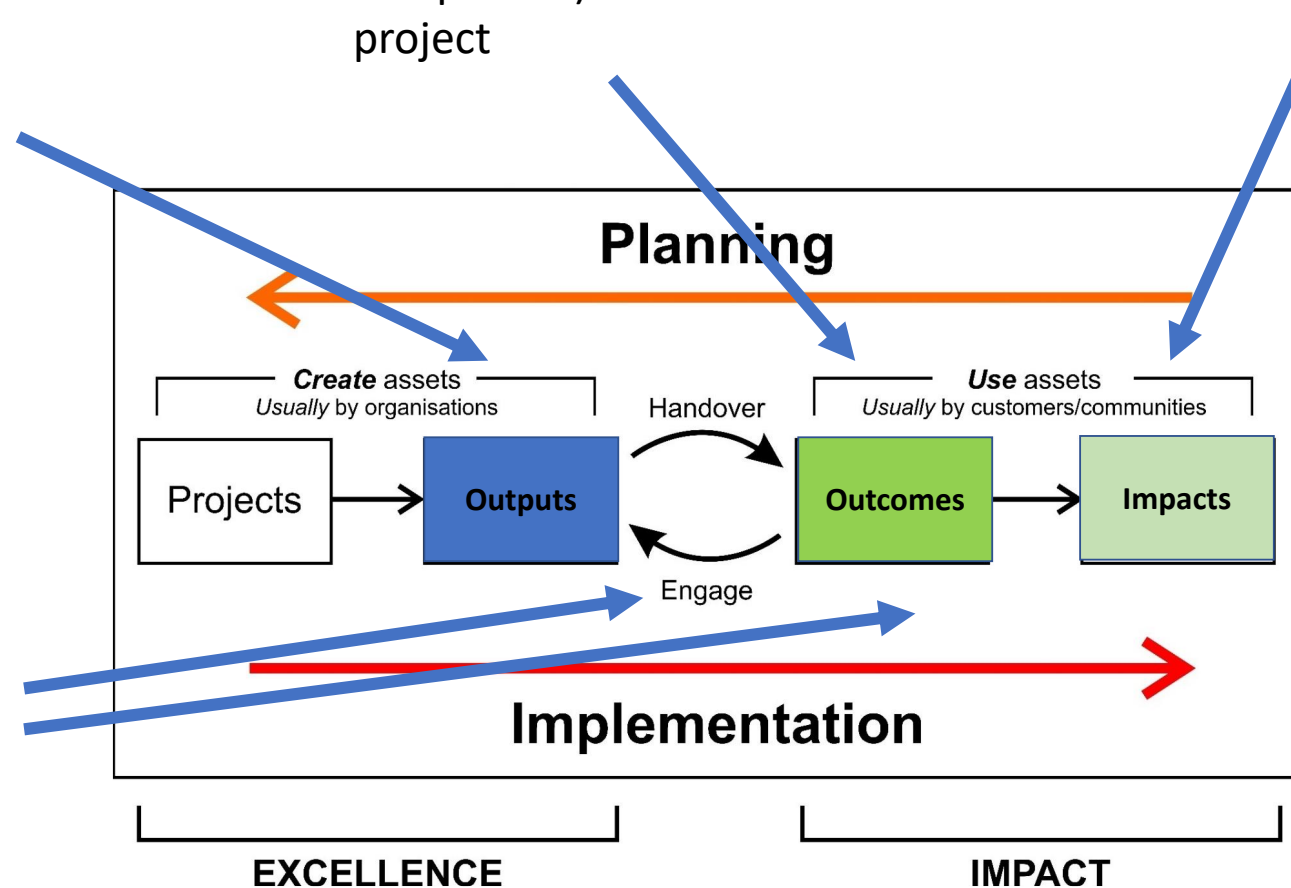BUT
This does not necessarily take account of opportunities to deliver outcomes by building on outputs of previous, similar projects.

OCAs and/or RCARO projects can be used to undertake additional ad hoc project or thematic area evaluations,
And/or to promote handover activities that could lead to better outcomes from projects e.g. post-completion

Outcome Harvesting should be performed at end (or 2 years after completion) of each project

Longer-term impacts an be assessed using thematic area socio-economic impact evaluations conducted every 10 years or so.

Planning

Create assets
Usually by organisations

Handover

Use assets
Usually by customers/communities

| Projects | → | **Outputs** | | **Outcomes** | → | **Impacts** |

Engage

Implementation

EXCELLENCE

IMPACT

PI 4.1 – Projects Contribute to Sustainable Development in the Region

- Criteria 1 – Baseline known to measure any improvements over time

- Our Initial Assessment in Guidance to PAC: Insufficient Data
  - Further work is required to evaluate the outcomes reported for the air pollution projects, but initial indications suggest a performance level of Good or Very Good.

- MTR Result: Insufficient Data

- Mark's suggested revisions (WG 8th meeting) :
  - Possible recommendations to NRs:
    - Authorise the Secretariat to continue thematic outcome monitoring assessments
    - Replace three new criteria:
      - *Number of thematic reviews undertaken by Secretariat*
      - *Approved projects have clearly defined SMART outcomes at commencement*
      - *Completed projects report against SMART outcomes in each PPAR*
  - Possible changes of methodology for FR:
    - Replace subject to NR endorsement

What is important, that reports are provided, or the nature of the outcomes they list?

Already in PI 2.3

PI 4.2 – RCA Recognised as an Effective Partner

- Criteria 1 – Baseline known to measure any improvements over time

- Our Initial Assessment in Guidance to PAC: Insufficient Data
  - Noted that a survey of RCA stakeholders could be helpful.

- MTR Result: Insufficient Data

What is important, that reports are provided, or the nature of the outcomes they list?

- Mark's suggested revisions (WG 8th meeting) :
  - Replace with a new criteria:
    - *Projects conduct surveys of effectiveness with next and end user organisations*
  - Possible changes of methodology for FR:
    - Replace subject to NR endorsement

Should we add criterion about the protection and/or use of IP from RCA projects?

PIs 4.1 and 4.2 – observations

- When PIs were first established, we understood that
    - outcomes and impacts have not traditionally been assessed in the RCA,
    - and that therefore data would be hard to find
    - And in any case, outcome/impact evaluation is difficult
- It was for this reason that the assessment criteria are focused on
    - Understanding of baseline
    - The creation of an ability to measure improvements against it
- However, the MTR actually focussed on trying to measure the actual impact of the RCA
    - This was appropriate and should be our ultimate goal, but wasn't the intent of the original PI criteria

PI 4.3 – Improved ability to measure outcomes/impacts of RCA projects/programme

- Criterion 1 – Increase in number of evaluations of RCA at a programme level, using a standardised framework.

- Criterion 2 – Increase in number of long-running thematic areas that have completed socio-economic impact evaluations using a standardised framework

- Criterion 3 – Increase in number of projects that have completed outcome harvesting assessments within 2 years of project completion using a standardised framework

- Criterion 4 – Increase in number of projects or thematic areas that have conducted surveys of next and end-user organisations to understand their perceptions of RCA's value, using a standardised framework.

Note that Baseline for all of the above is probably essentially zero.

Note also that assessing the above would require evaluation methodologies to be developed and standardised – some of which we have already developed.

Recommendations to pose to NRs for WG work plan

- Review the reports produced by IAEA socio-economic impact evaluation two additional thematic areas, once available

- Undertake assessment of the outcomes reported in the Air Pollution pilot

- Obtain any Project Reports for meetings held since last meeting of WG MTSC, and review them for the quality of outcomes they plan or have achieved

- Introduce mechanism for formal requirement for outcome evaluation for each project or area two years after project completion, as per expectation in GOR

- Retain PI 4.1 and 4.2, and their criteria and performance levels, and introduce new PI 4.3 to measure improvement in ability of RCA to evaluate its outcomes and impacts.