INDEPENDENT EVALUATION DIVISION
OFFICE OF EVALUATION AND INTERNAL OVERSIGHT

Thematic Review

Strengthening knowledge and institutions and policy advice

Part II – Annexes

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Foreword

This report consists of the Annexes used for the study entitled the **THEMATIC REVIEW/SYNTHESIS – STRENGTHENING KNOWLEDGE AND INSTITUTIONS AND POLICY ADVICE. T**hese annexes are contained under separate cover in this fashion so that this document may be used as a resource for further work in terms of defining programme theories and indicators for UNIDO as well as defining and measuring progress in terms of strengthened information and institutions and the scoping and understanding of policy work – as well as for scaling up.

Annex A outlines the terms of reference for this study – including the basic methodology.

Annex B shows the content analysis coding template developed and refined for the analysis and

Annex C shows a list of the evaluation studies reviewed.

Annex D shows reference documents beyond evaluations

Annex E contains the actual coding of selected studies which showed the most advanced theory of change discussion and contained relevant information contributing to the collective understanding of the results logic, assumptions and measurement/evaluation of institutional strengthening and the contribution of policy.

Annex F examines the UNDP definition of capacity as a means to interpret strengthened information and institutions for UNIDO

Annex G examines the concept of scaling up as defined by two different analytical efforts.

Annex H shows how aassumptions and pre-conditions found in select UNIDO independent evaluation Theories of Change linked to rating tool factors. (ie how the assumptions and pre-conditions in UNIDO evaluations fit with the potential factors found in the content analysis coding template in **Annex B.**

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ABBREVIATIONS AND ACRONYMS

COM – Capability (capacity), Opportunity and Motivation

IFAD – International Fund for Agricultural Development

IRPF – Integrated Results and Performance Framework

ISID – Inclusive and Sustainable Industrial Development

KASA – Knowledge, Attitude, Skills and Aspirations

MSI – Management Systems International

MTPF – Medium-Term Programme Framework

PC – Pre-conditions

PCP – Programme for Country Partnership

POPs – Persistent Organic Pollutants

SDG – Sustainable Development Goals

SEPT – These could be added in Socio-economic, Political Technological Factor

ToC – Theory of Change

UNDP – United Nations Development Programme

UNIDO – United Nations Industrial Development Organization

ANNEX A: TERMS OF REFERENCE

BACKGROUND

The Medium-term programme framework 2018-2021 elevated "Strengthening knowledge and institutions" to a stand-alone strategic priority for the Organization. It thus offers a fresh platform for UNIDO to advance and report on the results of its operations in relation, inter alia, to the policy advice it extends to its Member States within the scope of its projects and programmes. As further clarified in the Note by the Secretariat (GC.17/6, in annex), this priority has been singled out not as an end in itself but rather as an enabler to Inclusive and Sustainable Industrial Development (ISID) and a contributing factor to achieve greater "integration and scaleup". More specifically, the new strategic priority "strengthening knowledge and institutions" includes, among others, the following elements of UNIDO's work:

(a) **"Advancing the technical,** policy **and normative knowledge base for ISID**, including by extracting relevant data, knowledge and policy recommendations from technical cooperation projects and programmes;

(b) **Building** the **analytical, statistical and reporting capacity on ISID-related matters**, also in the context of the follow-up and review architecture of the SDGs, at the global, regional and national level;

(c) **Facilitating the policy dialogue** on issues **pertaining** to the advancement of ISID, particularly, but not exclusively, in developing and middle-income countries;

(d) **Strengthening** the Organization's efforts to **perform the sector-specific technical and analytical work required in the appraisal phase of large-scale country programmes**, including the PCPs;

(e) **Strengthening the institutional capacity of Member States** of UNIDO for ISID, facilitating the integration of all services delivered by UNIDO across functions and thematic areas for the provision of long-term development results."

As the Organization gears to implement such commitment, it becomes more and more urgent to better capture the policy, institutional and knowledge dimensions across UNIDO's functions and activities. The new priority highlights the outcome level results of the Organization's work with regard to strengthening the knowledge base for ISID at the project, programme, country and international level, as well as the institutional capacity at the technical, policy and normative level. The new strategic priority is thus meant to enable greater integration across UNIDO's functions and increased impact of its operations.

UNIDO is in the process of revamping its RBM framework in the context of the new Integrated Results and Performance Framework (IRPF). The Organization has adopted a new approach that is meant to facilitate the smooth transition from a project-based logframe approach to a Theory of Change (ToC) model. The latter is embedded in a seven steps results hierarchy based on the work of Claude Bennett (see PBC.34/CRP.2 in annex), which includes, inter alia, a structured detailing of the outcome level, which encompasses level 3 (engagement – which actors/institutions do we reach), level 4 (what is their reaction), level 5 (KASA – Knowledge, Attitudes, Skills and Aspirations) and ultimately level 6 (practice and behavior change, including policy and standards adoption, technology, business practices and so on). This outcome level (3-6 in the new UNIDO results hierarchy) is epitomized in the MTPF 2018-2021 by the new strategic priority "Strengthening knowledge and institutions", which is at the center of this assignment. Within this framework special attention is dedicated to the "technical knowledge and policy components of UNIDO's technical cooperation

projects" so that they can more effectively shape "policy recommendations …a larger, programmatic scale".

Policy advice to UNIDO Member States is specifically referred to in relation to:

- Advancing the technical, policy and normative knowledge base for ISID, including by extracting relevant data, knowledge and policy recommendations from technical cooperation projects and programmes;
- Facilitating the policy dialogue on issues pertaining to the advancement of ISID, particularly, but not exclusively, in developing and middle-income countries; and
- Strengthening the institutional capacity of Member States of UNIDO for ISID, facilitating the integration of all services delivered by UNIDO across functions and thematic areas for the provision of long-term development results.

PURPOSE OF THE ASSIGNMENT

In the last years, a number of independent evaluations of UNIDO projects, country programmes and themes have raised issues, recommendations and lessons related to the integration (or lack thereof) of policy advisory services at several levels and from different perspectives and contexts. The base of evidence provided in these evaluations can certainly contribute to clarifying how UNIDO institutional and knowledge strengthening and policy advice contributes to the achievement of ISID, as well as the challenges which might have hampered the intended contributions.

The Consultant will undertake a thematic review and synthesis of independent evaluations, from the past 5-6 years with a focus on "strengthening knowledge and institutions", including a special focus on policy advice. The review is expected to highlight inter alia the key actors and institutions UNIDO deals with at the programmatic level and the key behaviors and practices (including policy change, technology adoption, standards and protocols, management systems etc.) its interventions aimed at influencing.

The purpose of the assignment is to provide evidence and take stock of the aggregated findings, lessons and recommendations from past evaluations related to knowledge and institutional strengthening, including to policy or industrial policy development, in order to:

- Take stock and improve understanding of what knowledge and institutional strengthening and policy advice means in the context of UNIDO's mandate and operations;

- Identify the key actors and institutions, as well as the key behaviors and practices (including policy change, technology adoption, standards and protocols, management systems etc.), in line with the new IRPF results hierarchy and related tools and policies;

- Identify preliminary evidence on the key preconditions for policy adoption based on UNIDO support;

- Guide UNIDO in the decision making, inter alia regarding the results-driven and realistic approach for incorporating policy advice in its planning, strategies, operations and delivery of products and services, the extraction of data and evidence for knowledge products from UNIDO's projects and the targeting of key institutions and behaviors in UNIDO's interventions;

- Provide preliminary evidence on how to report on knowledge and institutional strengthening and policy advice to Member States;

- Provide preliminary evidence on how UNIDO could profile its knowledge and institutional strengthening and its policy-advisory function under the framework of the reform process launched by the Secretary-General for the development operations of the UN system.

The thematic review will encompass:

- around 10-15 past country evaluation reports;
- around 5-10 past thematic evaluations
- some specific project evaluation reports

ORGANIZATIONAL AND PROJECT CONTEXT

Under the supervision of the Chief ODG/EIO/IED, and in close cooperation with ODG/SPQ/SPC and EPR/PRS, the senior international evaluation consultant will conduct the thematic review/synthesis on strengthening knowledge and institutions and policy advice of UNIDO activities, products and services, as well as in other related cross-cutting tasks as needed.

Main Tasks	Concrete / Measurable Outputs
• Inception phase: • Familiarization with evaluation reports • Consolidation of a methodological approach, e.g. conceptualizing data analysis based on the new UNIDO results hierarchy model • Development/consolidation of the key review questions and criteria • Completion of draft review tools	Inception report and tools.
Data collection and analysis: • Review of reports, and mapping-out the different findings related to knowledge and institutional strengthening and the policy dimension. Conclusions, data, recommendations, lessons. • Internal validation of results with key stakeholders	Aggregated information related to knowledge and institutional strengthening and policy dimension
• Preparation of draft review report	Draft review report
• Further to feedback from stakeholders, preparation of final review report	Final review report

ANNEX B: EVALUATION REPORT ANALYSIS TOOL

Evaluation Report Analysis Tool (V5 UNIDO S. Montague Aug-Sept 2018)

ELEMENTS	OBSERVATIONS
Theory of Change Factors (See Annex B-1.1 for definitions)	
Benefits ☐ ISID/SDG Goals (General statements)	
☐ GHG reduction	
☐ Employment	
☐ Economic productivity	
☐ Economic growth (markets/sales)	
☐ Waste /Pollutant reduction	
☐ Other	
Technology Adoption ☐ Adopted Practices	
☐ Adopted Technologies	
☐ Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions ☐ Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	
☐ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	
☐ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	
☐ Other	
Learning ☐ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	
☐ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	
☐ Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	
☐ Other	
Reactions ☐ Changing perceptions – increasing awareness and shaping opinion.	

ELEMENTS	OBSERVATIONS
☐ Other	
Engagement ☐ Networks and partnerships built that support the delivery of change.	
☐ Dialogue promoted exchange and learning among (network) members.	
☐ Other	
Activities conducted by UNIDO	
☐ Convening	
☐ Analytical and Research Functions and Policy Advisory Services	
☐ Technical Cooperation	
☐ Normative Guidance	
☐ Other	
Useful Theory of Change Approach Components (See Annex B-1.2 for definitions) The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
☐ Reach and Reaction	
☐ Capacity changes	
☐ Behavioural changes	
☐ Direct benefits	
☐ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
☐ Economic	
☐ Political	
☐ Environmental	
☐ Technological	
☐ Other related	
Information and Education Program Factors (See Annex B-1.3 for definitions)	
☐ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	

ELEMENTS	OBSERVATIONS
☐ Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
☐ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	
Innovation Factors (See Annex B-1.4 for definitions)	
☐ Relative advantage	
☐ Compatibility	
☐ Complexity	
☐ Trialability	
☐ Observability	
☐ Other	
Management Factors[1]	
☐ Adequacy of resourcing – financial and human	
☐ Certainty and dependability of resourcing	
☐ Diversity of resource base	
☐ Flexibility permitted for use of resources	
☐ Quality and quantity of activities and service delivery	
☐ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
☐ Appropriateness of staff selection, training, and other aspects of HR management	
☐ Program leadership that is appropriate to the type of program: complex, complicated, or simple	
☐ Management strategies, accountabilities, governance incentives and systems for rewards etc.	
☐ Effectiveness of strategic planning and program design processes, including the soundness of data	
☐ Effectiveness of monitoring, evaluation and program improvement processes	
☐ Effectiveness of relationship management	

[1] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

ELEMENTS	OBSERVATIONS
☐ Effectiveness of strategies to influence external factors	
☐ Other	
Polity Factors (See Annex B-1.5 for definitions)	
☐ Planning coordination	
☐ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors (See Annex B-1.6 for definitions)	
☐ Clear roles and responsibilities	
☐ Clear performance expectations	
☐ Balanced expectations and capacities	
☐ Credible reporting	
☐ Reasonable review and adjustment	
☐ Other	
Robust Theories of Change (See Annex B-1.7 for definitions)	
Criteria for Each Assumption ☐ Well-defined: Is the assumption unambiguous?	
☐ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	
☐ Justified: What is the justification for the assumption as being necessary or likely necessary?	
☐ Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	
☐ Sustainable: Is the assumption sustainable?	
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	
☐ M&E Implications: What are the implications for monitoring and evaluation?	
☐ Other	
Criteria for Each Causal Link ☐ Independence: Are the assumptions for the link independent from each other?	
☐ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	
☐ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	
☐ Other	

Overall Observations/ Comments:

Annex B-1: Glossary

Sections **B-1.1** and **B-1.2** offer related but subtly different definitions of what have been deemed Useful theory of change models. The first section: **B-1.1**, provides a broad and generic definition of results chain levels – based on several analytical approaches including Bennett (1979), Rogers (1995), Sumner et al (2009). And Stevens (2007) to name a few.

Annex B-1.1: Theory of Change Factors

Benefits: Sometimes called 'impacts' in development contexts, this level relates to the social, economic, environmental, human health and development goals which tend to correlate with the Sustainable Development Goals and Inclusive and Sustainable Industrial Development goals of UNIDO. and Contribution to benefits.

Technology Adoption: This behavioural level of results relates to the *Level and/or extent* of adoption of new and/or specific technologies, practices, innovations and related systematic behaviours contributing to benefits.

Decisions and Actions: *Level and/or extent* of adoption of new and/or specific policy content and/or changes to policies (content), practices, protocols, processes and/or delivery of policy (Sumner et al 2009).

Learning: *Level* of changes to awareness, knowledge, understanding, attitudes, skills, aspirations, commitments and /or priorities. (Bennett 1979, Kirkpatrick 1955)

Reactions: *Type* (positive or negative) and level (extent of positive or negative) of thoughts, feelings and reactions from the experience. Satisfaction levels would be included here.(Bennett 1979)

Engagement: *Type* (e.g. network, cooperating, coordinating, collaborating – see Frey, Lohemeir et al 2006), e*xtent* (i.e. level, coverage of groups, dosage, intensity) and *quality* (degree of openness, information sharing, transparency among actors, communication directness/clarity, timeliness and 'good faith' as appropriate to the desired type). See also 'Participation' (Bennett 1979)

Activities: *Type* of support activities provided. These are behaviours within the sphere of control of UNIDO and lead to outputs – the direct product of activities.

The following section **B-1.2** provides some definitions based on the work of Mayne and his 'Useful' program theory model (2015) plus a handful of others.

Annex B-1.2: Useful Theory of Change Approach Components[2]

Reach and reaction: The target groups who are intended to receive the intervention's goods and services and their initial reaction. In the nutrition example, the reach group would be mothers with children in some geographical region. Reach is important to include as a component in causal pathways. As has been argued, "A lack of explicit thinking about reach in logic models can lead to problems such as narrow/constricted understanding of impact chains, favoring of 'narrow and efficient' initiatives over 'wide and engaging' initiatives and biased thinking against equity considerations" (Montague & Porteous, 2013, p. 177).

Capacity changes: The changes in knowledge, attitudes, skills, aspirations, and opportunities of those who have received or used the intervention's goods and services. According to the theory, all of these changes are needed for new action to be taken.

Behavioural changes: The changes in actual practices that occur, that is, those in the target reach group do things differently or use the intervention products. In our example, this could be the changes in feeding practices of mothers that occur as a result of the improved knowledge from the training. There typically is feedback between capacity and behavioural changes (such as with acquiring new knowledge and skills by doing).

Direct benefits: The improvements in the state of individual beneficiaries. These could be such things as increased income, increased use of health services, more productive farming, more empowerment, or, in the example, children consuming a more nutritious diet.

Well-being changes: The longer-term cumulative improvement in overall well-being of individual beneficiaries, such as better health, reduced poverty, and better food security. In our example, the improved diet would contribute to better nutritional and health status.

[2] Mayne, John. 2015 *Useful Theory of Change Models* Canadian Journal of Program Evaluation 30.2 (Fall), 119–142 https://evaluationcanada.ca/system/files/cjpe-entries/30-2-119_0.pdf

Annex B-1.3: Information and Education Program Factors[3]

Some key factors to consider when using advisory, public information and education programs:

- Providing information and changing knowledge skills and understanding is not enough: behavior change must follow. This can affect program design decisions such as whether to charge fees for the target audience to participate and whether the intervention needs to be complemented by carrot or stick interventions.

- Targeting of participants whose behavior most needs to be changed and engaging them in the program is important: this has implications for use of incentives to get them to participate.

- Advisory programs usually combine mass communication and one on one or group communication processes.

- Sources of information must be credible and opinion leaders are often used.

- Credibility of messages can often be enhanced by presenting both sides of the story.

- These programs will be easier to implement when there is a coincidence between the outcomes desired by the target audience and those of the program.

- Effective programs use feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages. Application of principles of diffusion theory can assist.

[3] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models. P 356

Annex B-1.4: Innovation Factors

Relative advantage: The degree to which an innovation is perceived as being better than the idea it supersedes. Rogers[4] theory suggests that innovations that have a clear, unambiguous advantage over the previous approach will be more easily adopted and implemented. Current research evidence indicates that if a potential user sees no relative advantage in using the innovation, it will not be adopted [6].

Compatibility: The degree to which an innovation fits with the existing values, past experiences, and needs of potential adopters. There is strong direct research evidence suggesting that the more compatible the innovation is, the greater the likelihood of adoption[5] [6].

Complexity: The degree to which an innovation is perceived as difficult to understand and use. Furthermore, Rogers suggested that new innovations may be categorized on a complexity-simplicity continuum with a qualification that the meaning (and therefore the relevance) of the innovation may not be clearly understood by potential adopters. When key players perceive innovations as being simple to use the innovations will be more easily adopted [6].

Trialability: The degree to which an innovation may be experimented with on a limited basis. Because new innovations require investing time, energy and resources, innovations that can be tried before being fully implemented are more readily adopted.

Observability: The degree to which the results of an innovation are visible to the adopters. If there are observable positive outcomes from the implementation of the innovation then the innovation is more adoptable.

[4] Rogers EM: Diffusion of Innovations. 1995, New York: Free Press, 4

[5] See Scott *et al* Factors influencing the adoption of an innovation: An examination of the uptake of the Canadian Heart Health Kit (HHK). Implementation Science 2008 https://doi.org/10.1186/1748-5908-3-41. See also Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O: Diffusion of innovations in service organizations: systematic review and recommendations. The Milbank Quarterly. 2004, 82 (4): 581-629. 10.1111/j.0887

Annex B-1.5: Polity Factors (Conditions)[6]

The polity conditions examined are intended to show the organization and structures of the administration that bears the main responsibility in transport policy-planning processes.

i) **Planning coordination:** Coordination within the administration can have a major influence on the planning process (Sager, 2005). While cooperation between the various competent administrative bodies (such as the construction office, the transport office, and the environment agency) can occur on a voluntary basis, it can also be mandatory, on account of external pressure, for example, from politicians, or because one of the players involved has a dominant position and is able to obligate the others to participate. However, even more important than the distinction between mandatory and voluntary negotiations is the rationality of the coordination. Whether ''the joint interest in the best possible cooperative solution or the separate interests in the respective negotiating position'' (Scharpf, 1993, p. 34) is at the fore plays an important role. The presence of coordination in the planning process is the first polity condition.

ii) **Professionalization of the administration:** A professional administration with plentiful resources in terms of staff and expert knowledge at its disposal is more likely to be able to effect a broadly supported and well-founded planning process than an administration that is less well-positioned in financial and professional terms (Sager, 2005, pp. 247–248). The degree of professionalization is thus the second polity condition.

iii) **The administration's discretion Vis-à-Vis politics:** A transport policy-planning process, which is dominated by politicians, may lack technical knowledge. The decision may, in factual political terms, not be the best solution, but it is nevertheless liable to meet with a higher degree of acceptance than a decision taken by an administration that lacks democratic legitimacy (Sager, 2007b). On the other hand, it can be argued that power-motivated considerations play a larger role in the political decision-making process. This may therefore lead to an increased incidence of conflict or the need to reach a compromise, which is not well-founded in factual terms, meaning that a project ultimately meets with only a very low level of acceptance or is rejected. For this reason, the administration's discretion—understood as autonomy vis-a`-vis political influence—is included as the third polity condition.

iv) **The influence of external experts:** In principle, the inclusion of external experts makes sense, above all in those areas where the administration does not itself possess the necessary knowledge. The experts do not, however, exert any influence merely by supplying purely technical information; nowadays, the experts' function goes far beyond this and experts are actively involved, accompanying and influencing the planning and decision-making process, for example, as mediators. Thus, a project that was developed under the influence of experts and which may, in terms of the policy issues, be correct, may nevertheless meet with only low levels of acceptance. Ultimately, it may not be implemented due to the lack of democratic legitimacy or due to the experts' ignorance of what is politically feasible (Fischer, 1990). The importance of external expertise is therefore the fourth polity condition.

[6] Sager, F. and Andereggen, C. (2012) Dealing with Complex Causality in Realist Synthesis: The Promise of Qualitative Comparative Analysis American Journal of Evaluation Vol 33 Number 1 March 2012 p60 – 78

Annex B-1.6: Principles of Effective Accountability[7]

The Office of the Auditor General of Canada accountability criteria are as follows:

Clear roles and responsibilities: The roles and responsibilities of the parties in the accountability relationship should be well understood and agreed upon.

Clear performance expectations: The objectives pursued, the accomplishments expected, and the operating constraints to be respected (including means used) should be explicit, understood, and agreed upon.
Balanced expectations and capacities: Performance expectations should be clearly linked to and balanced with each party's capacity (authorities, skills, and resources) to deliver.

Credible reporting: Credible and timely information should be reported to demonstrate what has been achieved, whether the means used were appropriate, and what has been learned.

Reasonable review and adjustment: Fair and informed review and feedback on performance should be carried out by the parties, achievements and difficulties recognized, appropriate corrections made, and appropriate consequences for individuals carried out.

[7] Report of the Auditor General of Canada, December 2002 Report—Chapter 9 http://www.oag-bvg.gc.ca/internet/English/parl_oag_200212_09_e_12403.html

Annex B-1.7: Robust Theories of Change

Robust ToCs are needed to

- Assess intervention design
- Conclude on the contribution being made by an intervention

Criteria for Analysing a Theory of Change Robustness

Overall Criteria	
Understandable	Is the logic and structure of the ToC clear?
Agreed	To what extent is the ToC agreed or contestable?
Level of effort	Are the activities and outputs of the intervention commensurate with the expected results?
Criteria for Each Result	
Well-defined	Is the results statement unambiguous?
Plausible timing	Is the time frame for the result reasonable?
Logical coherence	Does the result follow logically from the previous result? Is the sequence plausible or at least possible?
Measureable	Is there a need to measure the result? How can the results be measured? What is the likely strength or status of evidence for the result being realized?
M&E Implications	What are the implications for monitoring and evaluation?
Criteria for Each Assumption	
Well-defined	Is the assumption unambiguous?
Logical coherence	Is the assumption a pre-condition or event for the effect sought?
Justified	What is the justification for the assumption as being necessary or likely necessary?
Realized	Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?
Sustainable	Is the assumption sustainable?
Measureable	Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?
M&E Implications	What are the implications for monitoring and evaluation?
Criteria for each causal link	
Independence	Are the assumptions for the link independent from each other?
A sufficient set	Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?
Strength/Status of evidence	What is the strength or current status of evidence for the causal link being realized?

Mayne, J. (2017). "Theory of Change Analysis: Building Robust Theories of Change." *Canadian Journal of Program Evaluation* 32(2).

ANNEX C: STUDIES REVIEWED

COUNTRY EVALUATIONS

CHINA: Terminal Evaluation Report: Environmentally sound management and disposal of obsolete POPs pesticides and other POPs in China. Project ID: GF/CPR/09/006, UNIDO ID: 104147, GEF Project ID: 2926, August 2018

COLOMBIA: Draft Country Evaluation Report, Vienna, 2018.

COLOMBIA: Evaluation of the Cosmetics Sector Quality Program (SAFE +), June 2018.

COLOMBIA: Independent Country Programme Evaluation, Colombia 2018

INDIA: Independent Country Programme Evaluation, Republic of India, Vienna, 2018

THE GAMBIA. Independent terminal evaluation. Reducing greenhouse gases and ODS emissions through technology transfer in the industrial refrigeration and air conditioning sector (UNIDO project No. 120623; GEF ID: 5466). July 2018

VIET NAM. Independent terminal evaluation. Reducing greenhouse gas and ODS emissions through technology transfer in industrial refrigeration (UNIDO project No. 120621; GEF ID: 5464). July 2018

MALAYSIA. Independent terminal evaluation. Industrial energy efficiency for Malaysian manufacturing sector (IEEMMS) (UNIDO project No. 103042; GEF ID: 3908). June 2018

GLOBAL. Independent terminal evaluation. Joint UNIDO-UNEP Resource Efficient and Cleaner Production (RECP) Programme for developing and transition countries (UE/GLO/11/035 - 100050). February 2018

REGIONAL LATIN AMERICA. Independent terminal evaluation. Implementing integrated measures for minimizing mercury releases from artisanal gold mining (GF/RLA/12/003 - 100271; GEF ID: 4799). September 2017

KINGDOM OF MOROCCO. Independent terminal evaluation. Safe PCB Management Programme in Morocco, Pillar II. Environmentally sound management and disposal of PCB-contaminated transformers in Morocco (Project No. GF/MOR/09/002 - 104054; GEF ID: 3883). August 2017

PERU. Independent terminal evaluation. Environmentally Sound Management (ESM) and Disposal of Polychlorinated Biphenyls (PCBs) (Project No. GF/PER/10/001 - 104054). July 2017

GLOBAL. Independent final evaluation. Learning and Knowledge Development Facility (LKDF) (Project No. 120212). June 2017

ECUADOR. Independent terminal evaluation. Industrial energy efficiency in Ecuador (GF/ECU/11/004 - 103017; GEF ID: 4147). July 2016

UNITED REPUBLIC OF TANZANIA. Country Framework of support to the United Nations Development Assistance Plan (UNDAP) 2011-2015: Economic growth. Tanzania Industrial Upgrading and Modernization Programme (TIUMP) (FB/URT/12/G04, YA/URT/12/C04; 102175). July 2016

UNITED REPUBLIC OF TANZANIA. Independent UNIDO country evaluation. October 2016

VIET NAM. Independent terminal evaluation. Promoting Industrial Energy Efficiency through System Optimization and Energy Management Standards in Viet Nam (GF/VIE/10/003 - 103081; GEF ID: 3594). March 2016

TUNISIA. Independent terminal evaluation. Strengthening of the National Cleaner Production Centre in Tunisia, part one: Phases 1 and 2 (UE/TUN/09/001, UE/TUN/09/004 - 104107). November 2015

SOUTH AFRICA: Preliminary Impact Assessment (PIA). Industrial Energy Efficiency Improvement in South Africa (TE/SAF/11/00, SE/SAF/09/001/A01, UE/SAF/09/002 - 103097). August 2015

KINGDOMOF THAILAND: Independent mid-term review. Overcoming policy, market and technological barriers to support technical innovation and south-south technology transfer: The pilot case of ethanol production from cassava (Project No. 100264; GEF ID: 4037). August 2015

REGIONAL AFRICA: Independent terminal evaluation. Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in annexes A, B and/or C of the Stockholm Convention. Ghana and Nigeria (GF/RAF/07/024, TF/RAF/09/008). June 2015

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THEMATIC EVALUATIONS

UNIDO’s staff competency development (January 2018)

UNIDO’s Programme for Country Partnership (PCP) (December 2017)

UNIDO’s Partnerships with Donors (October 2017) – Note found to be only modestly relevant

UNIDO ozone depleting substances projects under the Montreal Protocol with emphasis on countries in the European and in the Latin American and Caribbean regions (October 2016)

UNIDO interventions in the area of enterprise development for job creation, including for women and youth (December 2015)

UNIDO procurement process (November 2015)

Independent cluster evaluation of UNIDO projects. Enabling activities to review and update the National Implementation Plans for the Stockholm Convention on POPs. April 2015

UNIDO Renewable Energy Trust Fund. March 2015

Independent strategic evaluation. Implementation of the expanded UNIDO Medium-term programme framework 2010-2013. February 2015

UNIDO's post-crisis interventions. February 2015

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ANNEX D: REFERENCES FOR KEY CONSTRUCTS

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ANNEX E: DETAILED FINDINGS FOR KEY STUDIES

The contents of this annex are as follows:

Annex E-1: Environmentally sound management and disposal of obsolete POPs pesticides and other POPs in China

E-1: Environmentally sound management and disposal of obsolete POPs pesticides and other POPs in China, August 2018	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors	High level Figure 1 Pg 17, narrative 16-18 (***See E-1.A***)
Benefits	
☑ ISID/SDG Goals (General statements)	Clear targeted goals under Stockholm Convention re: China's obligations
☐ GHG reduction	
☐ Employment	
☐ Economic productivity	
☐ Economic growth (markets/sales)	
☑ Waste /Pollutant reduction	
☑ Other	Health improvement outcome connected to pollution
Technology Adoption	
☑ Adopted Practices	Adoption beyond '13 trial' provinces (scale up?)
☑ Adopted Technologies	Compared use to 'baseline' technology fly ash treatment
☑ Changed use of products, technologies/practice	Six distinct technologies profiled, tested, piloted and promoted
☐ Other	
Decisions and Actions	
☑ Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	Regulations critical and being adapted with FECO support beyond 13 trial provinces
☑ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	Contribution to sound 'system' of management for POPs in China (high level systems outcome)
☑ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	Strengthened policy and regulatory framework by clarifying procedures and standards, to providing incentives to adopt technologies
☐ Other	
Learning	
☐ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	
☑ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	Capacity in regulation operationalized as ability to employ the techniques for POP removal
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	
☑ Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	Expertise to adopt and use waste reduction / treatment technologies

E-1: Environmentally sound management and disposal of obsolete POPs pesticides and other POPs in China, August 2018	
ELEMENTS	**OBSERVATIONS**
☐ Other	
Reactions ☑ Changing perceptions – increasing awareness and shaping opinion.	Awareness raised in communities – helped reduce resistance to approaches
☐ Other	
Engagement ☑ Networks and partnerships built that support the delivery of change.	Seen as a condition to be addressed – inter-agency / institutional capacity – involves better partnering. Reported on for mid-term as well as final.
☐ Dialogue promoted exchange and learning among (network) members.	
☐ Other	
Activities conducted by UNIDO	
☐ Convening	
☑ Analytical and Research Functions and Policy Advisory Services	
☑ Technical Cooperation	
☑ Normative Guidance	
☐ Other	
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	Pg 17 Summary Outcomes – shows project outcomes link to broader outcomes
☑ Reach and Reaction	Mentioned in the narrative
☑ Capacity changes	
☑ Behavioural changes	
☑ Direct benefits	
☑ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
☑ Economic – Cost of alternative	Cost of alternative approaches noted
☐ Political	
☑ Environmental	Environmental conditions described
☑ Technological	Different technologies extensively reviewed
☑ Other related – Health risks noted	Heath risks to population noted
Information and Education Program Factors	
☑ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	Regulatory changes noted as important – 'critical' (Pg 58)

E-1: Environmentally sound management and disposal of obsolete POPs pesticides and other POPs in China, August 2018	
ELEMENTS	**OBSERVATIONS**
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	
☐ Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
☑ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	Strong government support (ownership) but also – important support from cement companies due to many being closed down and therefore remaining factories keen to be seen as 'good actors'? Pg 58, 59.
☑ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	Successful projects cultivate country ownership Pg 59
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	
Innovation Factors	
☑ Relative advantage	Observed technical difference to 'baseline' treatments
☐ Compatibility	
☐ Complexity	
☑ Trialability	Test treatments compared to baseline
☑ Observability	Observed differences apparently clear
☐ Other	
Management Factors[8]	
☐ Adequacy of resourcing – financial and human	
☐ Certainty and dependability of resourcing	
☐ Diversity of resource base	
☐ Flexibility permitted for use of resources	
☑ Quality and quantity of activities and service delivery	Emphasized that outputs were 'over' target in 23% of cases
☐ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
☐ Appropriateness of staff selection, training, and other aspects of HR management	

[8] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

E-1: Environmentally sound management and disposal of obsolete POPs pesticides and other POPs in China, August 2018	
ELEMENTS	**OBSERVATIONS**
☑ Program leadership that is appropriate to the type of program: complex, complicated, or simple	Adaptive management mentioned Pg 58
☑ Management strategies, accountabilities, governance incentives and systems for rewards etc.	
☑ Effectiveness of strategic planning and program design processes, including the soundness of data	Early inventory was key to knowing where to focus
☐ Effectiveness of monitoring, evaluation and program improvement processes	
☑ Effectiveness of relationship management	High engagement approach
☑ Effectiveness of strategies to influence external factors	Addressed regulatory framework, testing needs and capacity groups
☐ Other	
Polity Factors	
☐ Planning coordination	
☐ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
☐ Clear roles and responsibilities	
☑ Clear performance expectations	Very clear goals set
☐ Balanced expectations and capacities	
☑ Credible reporting	Had separate and distinct independent monitors
☐ Reasonable review and adjustment	
☐ Other	
Robust Theories of Change	Theory of Change was high level
Criteria for Each Assumption	
☐ Well-defined: Is the assumption unambiguous?	Generally stated assumptions
☐ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	Pre-conditions mentioned but not targeted to specific activities or actions
☐ Justified: What is the justification for the assumption as being necessary or likely necessary?	
☐ Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	
☐ Sustainable: Is the assumption sustainable?	
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	
☐ M&E Implications: What are the implications for monitoring and evaluation?	

E-1: Environmentally sound management and disposal of obsolete POPs pesticides and other POPs in China, August 2018	
ELEMENTS	**OBSERVATIONS**
☐ Other	
Criteria for Each Causal Link ☐ Independence: Are the assumptions for the link independent from each other?	
☐ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	
☐ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	Project management assertions by 'stakeholders'
☐ Other	

Overall Observations/ Comments:

- Removal of barriers to implementation approach
- Integrated behaviour change approach
- Note high level of FECO support
- Theory of Change high level (developed during the project) – project 'immediate' outcomes relate to system behaviours in different actors which create capacities in the system and enable / create further capacities and system actions (e.g. broad adoption of sound POPs management practices) which lead to impacts / benefits
- Theory of Change identified five key conditions (Pg 16) for POP management transformation
    - Policy, regulatory and institutional framework support to POPs management
    - Inter-institutional capacities for good POPs management
    - Behaviour models for sound POPs management
    - System to transfer and replicate best available practice
    - Information on existence and location of POPs
- Institutional capacity seen as part of five important domains
    - Policy and regulatory frameworks
    - Institutional capacity
    - Business models
    - Finances
    - Information awareness raising
- Detailed log frame to outputs only (some are actually outcomes), more comprehensive links would have been preferable
- Contribution analysis mainly through expert assertions (ie not through systematically tracing the results logic and assumptions) – but none-the-less done (Pg 54)
- Adoption of reporting and registrations system deemed important

The excerpt E-1.A describes the theory of change found in the evaluation report.

Annex E-1.A: Theory of Change Extract from the Study

The theory of change (TOC) is a heuristic tool to help clarify the links between project activities and long-term objectives. As few projects under implementation have developed TOCs, evaluators typically develop a tentative TOC that is verified and amended during interviews with key project stakeholders. Key in the development of a TOC is the identification of the conditions likely to bring about the behavioural changes required to achieve the long-term goal of the project (Chen 1990; Mayne 2008), typically referred to as system transformations. Given the complex nature of the interactions of human behaviour and the environment (the social ecological system), and the unpredictability of outcomes of these interactions, it is also critical to identify the key assumptions made during project design (Folke *et al*. 2002; Levin 2003). The use of a theory of change in an evaluation does not mean that the project will be held accountable for having resulted in system change. System transformations take time, and rarely do they take place within the time span of a project. Nevertheless, the TOC can be used by the evaluator to assess the extent to which project activities correctly targeted the conditions that are likely to contribute to the long-term goals of the project. Most importantly, TOCs are an important tool that can help us better understand the processes that projects seek to influence, in order to derive lessons and provide recommendations to improve future projects.

There was no explicit TOC developed for this project. However, the project document provides sufficient information on the long-term objectives, project assumptions and root causes that the project seeks to overcome in the long run. The project document stated the overall objective of the project as the disposal of 10,000 tons of POPs waste and 1000 tons of dioxin-rich fly ash. The first sentence of the project document points towards a much broader and transformative objective by stating, "The project will enable environmentally sound management (ESM) and disposal of targeted obsolete POPs pesticides and associated wastes in fulfilment of China's commitments under the Stockholm Convention." Project preparation identified seventeen barriers preventing the sound management and safe disposal of POPs in China. These barriers pertained to issues related to legal and regulatory systems, institutional capacities, access to technology, science and information and engagement of the business. The project was designed to help China overcome these barriers and put into place a system for the sound management and safe disposal of POPs in the country.

As indicated in TOC diagram in **Figure E-1.A-1**, the project was structured to directly contribute to the conditions that would lead to the capacities and incentives to transform the way POPs are managed in China, and to ultimately to reduce the risks cause by POPs to human health and the environment. Figure 1 also indicates five key conditions needed for this transformation that can be deduced from the description in the project document. These are:

- Policy, regulatory and institutional framework supportive to sound POPs management
- Inter-institutional capacities for sound POPs management
- Business models for sound POPs management
- System to transfer and replicate best available technique (BAT)
- Information on existence and location of POPs

The project's logical framework also included 15 outputs and 76 activities. The broad reach of the project required the engagement of multiple stakeholders (including government institutions, private firms and civil society) at the national, provincial and local scales. While seeking to strengthen the country's legal and regulatory framework for POPs management and disposal, the project also included pilot activities in six provinces to test and demonstrate new technologies, approaches to institutional coordination and forms to engage the private sector that could be later replicated in other provinces. The project design also included the support of public awareness campaigns in several of its components and support to universities to develop and apply technologies and to the

mainstreaming the sound management of POPs in other endeavours (such as the Environmental Impact Assessments).

Three important assumptions in the project document are 1) that there is genuine interest at the country-level on establishing a sound system for the POPs management; 2) that stakeholders, particularly current plant operators and POP owners, will ultimately see the benefits on the sound management and disposal of POPs; and 3) The technology would be applied following necessary safety measures.

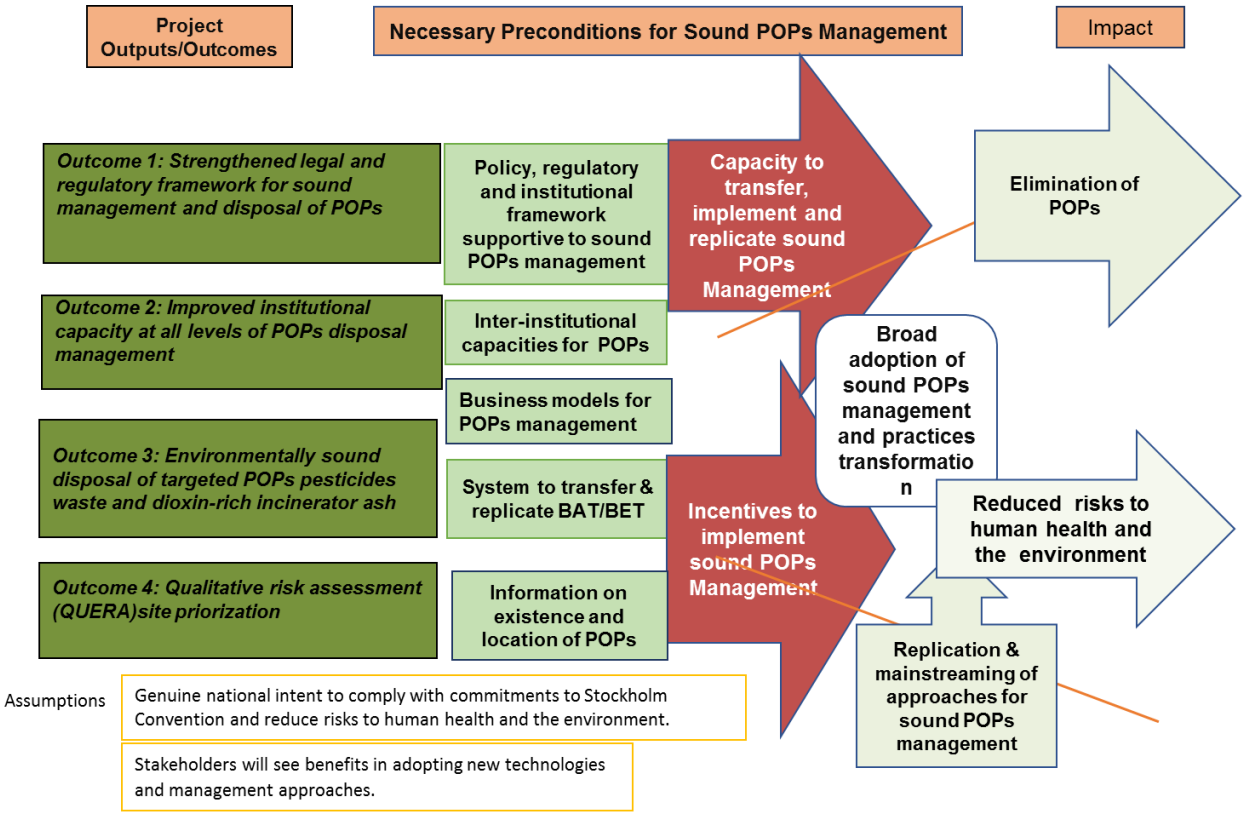


Figure E-1.A-1. Project theory of change

Project design also anticipated several operational challenges related to complex systems, including:

- The need for the project to address problems at multiple scales, including global (the Commitments to the Convention), macro (government and legal frameworks), meso (national providers of services and provincial administration) and micro (businesses and other organizations);
- The need to develop pathways to move from the successful demonstration of a technology or an approach to the broader adoption through mechanisms such as mainstreaming, replication and scaling up;
- The need to raise awareness and engage multiple stakeholders in the public sector, private sector and civil society and to promote synergy;
- The need to facilitate the transfer of information, knowledge and sharing of experiences across stakeholders, sectors and scales.

Annex E-2: UNIDO's Programme for Country Partnership

E-2: UNIDO's Programme for Country Partnership (PCP), December 2017	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors	Pg 11, 12 and Figure 2
Benefits	
☑ ISID/SDG Goals (General statements)	Safeguarding the environment (ISID/SDG)
☐ GHG reduction	
☑ Employment	
☑ Economic productivity	Competitiveness (ISID/SDG)
☑ Economic growth (markets/sales)	Competitiveness
☐ Waste /Pollutant reduction	
☑ Other	Shared prosperity (ISIS)
Technology Adoption	
☑ Adopted Practices	Outcomes of TC projects, up-scaled TC
☑ Adopted Technologies	Outcomes of TC projects
☐ Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions	
☑ Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	Intermediate 'I' level 'Policy Changes' Government of Peru recognized 'institutionalization' of policies
☐ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	
☑ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	Intermediate 'I' level 'Policy Changes' Investments / public and private resources mobilized (Pg 31, 33) Few policy changes noted in assessment (Pg 17)
☐ Other	
Learning	
☐ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	
☑ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	IN Peru recommendations accepted and 'will' be significant for future CITE strategy
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	
☐ Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc.)	
☐ Other	

E-2: UNIDO's Programme for Country Partnership (PCP), December 2017	
ELEMENTS	**OBSERVATIONS**
Reactions ☐ Changing perceptions – increasing awareness and shaping opinion.	
☐ Other	
Engagement ☑ Networks and partnerships built that support the delivery of change.	PCP succeeded in engaging and bringing together more ministries when it comes to industrial development (Ethiopia) Pg 18 Improved inter-ministerial coordination in PERU Synergies maintained as important – operationally defined as strengthened collaborations (Pg 19)
☐ Dialogue promoted exchange and learning among (network) members.	
☐ Other	
Activities conducted by UNIDO	Pg 11 and Pg 26
☑ Convening	Identifies and reaches out to partners (seen as part of 'advisor' role)
☑ Analytical and Research Functions and Policy Advisory Services	'Key' advisor to governments on industrial development
☑ Technical Cooperation / Assistance	
☐ Normative Guidance	Called technical assistance
☑ Other	Facilitates coordination (could be part of convening role?) 'Internal' coordination Pg 29 and A.2 Pg 15
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
☑ Reach and Reaction	Covered in assumptions (e.g. A.4)
☑ Capacity changes	
☑ Behavioural changes	
☑ Direct benefits	
☐ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
☑ Economic	Enabling economic environment
☑ Political	Political stability noted A.6
☐ Environmental	
☐ Technological	
☐ Other related	
Information and Education Program Factors	

E-2: UNIDO's Programme for Country Partnership (PCP), December 2017	
ELEMENTS	**OBSERVATIONS**
☐ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	
☐ Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
☑ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	See PC1 and PC2 Government ownership and commitment and wiliness, A.4 Partners in principle willing to engage and invest
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☑ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	A.5 National Industrial Strategy convincing to partners Pg 15
☐ Other	
Innovation Factors	
☐ Relative advantage	
☐ Compatibility	
☐ Complexity	
☐ Trialability	
☐ Observability	
☐ Other	
Management Factors[9]	
☑ Adequacy of resourcing – financial and human	A.1 Pg 14
☐ Certainty and dependability of resourcing	
☐ Diversity of resource base	
☐ Flexibility permitted for use of resources	
☐ Quality and quantity of activities and service delivery	
☐ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
☐ Appropriateness of staff selection, training, and other aspects of HR management	

[9] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

E-2: UNIDO's Programme for Country Partnership (PCP), December 2017	
ELEMENTS	**OBSERVATIONS**
☑ Program leadership that is appropriate to the type of program: complex, complicated, or simple	See PC1 Government ownership and commitment at highest level See PC2 Pg 14 Government is willing and has the capacity to take leadership of PCP, Ministry of Finance required to play a leadership role
☐ Management strategies, accountabilities, governance incentives and systems for rewards etc.	
☐ Effectiveness of strategic planning and program design processes, including the soundness of data	
☐ Effectiveness of monitoring, evaluation and program improvement processes	
☑ Effectiveness of roles and relationship management	Government plays appropriate roles, see above PC1, PC2
☐ Effectiveness of strategies to influence external factors	
☑ Other – Basic infrastructure in place (roads, energy, ports) PC3 Pg 14	
Polity Factors	
☑ Planning coordination	Internal coordination A.2, Pg 15
☑ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
☑ Clear roles and responsibilities	A.3 Government willing to give UNIDO facilitation role
☐ Clear performance expectations	
☐ Balanced expectations and capacities	
☐ Credible reporting	
☐ Reasonable review and adjustment	
☐ Other	
Robust Theories of Change	
Criteria for Each Assumption	
☑ Well-defined: Is the assumption unambiguous?	Some preconditions and assumptions overlap e.g. PC2 and A.4 relate to investment willingness
☐ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	
☐ Justified: What is the justification for the assumption as being necessary or likely necessary?	
☐ Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	
☐ Sustainable: Is the assumption sustainable?	NA

E-2: UNIDO's Programme for Country Partnership (PCP), December 2017	
ELEMENTS	**OBSERVATIONS**
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	Measurements varied
☐ M&E Implications: What are the implications for monitoring and evaluation?	Not addressed....some assumptions could be measured
☐ Other	
Criteria for Each Causal Link ☐ Independence: Are the assumptions for the link independent from each other?	
☐ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	
☐ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	
☐ Other	

Overall Observations/ Comments:

- Placement of pre-conditions and assumptions as prominent theory of change factors was important
- Linking the pre-conditions and factors to specific parts of the programme theory (see **Figure E-2.A-1**) is a good leading practice
- Explicit recognition of key policy changes and synergies with government and partner interventions as intermediate changes suggests an understanding of the modern concept of institutional strengthening (capacity). See Anne**x F**.

Annex E-2.A: Theory of Change Extract from the Study

PCP theory of change – concept

The evaluation team developed a theory of change (ToC) of the programme for country partnership (PCP) in order to first understand the concept behind the PCP and second to have an analytical tool to assess the PCP (**Figure E-2.A-1**). The theory of change is based on the analysis of UNIDO documents related to the PCP and discussion with UNIDO staff members.

A theory of change is an attempt to capture complex reality in a simplified manner by identifying the fundamental logic and assumptions behind a concept.

Key features of PCP

The PCP theory of change begins with the key features of the PCP as established by the Organization.[10] The five features are:

1. Focus on selected priority sectors/areas
2. Multi-stakeholder partnerships from programme design to implementation
3. Mobilization of large-scale public & private investment
4. Coordination under government leadership & ownership
5. Robust monitoring and evaluation mechanism

UNIDO interventions

Based on the key features of the PCP, UNIDO has identified four support areas to the PCP. We can call them the UNIDO interventions (or UNIDO's role in the PCP).

1. UNIDO technical assistance
2. UNIDO key advisor to governments on industrial development (e.g. PCP Diagnostic)UNIDO identifies & reaches out to partners (convening role)[11]
3. UNIDO facilitates coordination

Intermediate change I

The next level in the theory of change – the intermediate change I – is about the outcomes directly emanating from the UNIDO interventions. The expected outcomes from the UNIDO interventions are:

4. Outcomes of UNIDO TC projects
5. Policy changes
6. Enhanced private investment (FDI/ local private sector)
7. Public resources mobilized (e.g. from Development Finance Institutions (DFIs)
8. Inter-ministerial coordination enhanced

[10] Key features from document 'UNIDO's Programme for Country Partnership – An Overview', pg. 10-11; and document GC.16/ CRP.5 para.9.
[11] From document 'UNIDO's Programme for Country Partnership – An Overview', pg. 8.

Intermediate change II

The next level – the intermediate change II – is about the expected changes triggered by earlier outcomes. At the same time, this level captures the main objectives of the PCP:

9. Upscaled UNIDO TC
10. Greater synergies with government & partner interventions; partners can be companies, Development Finance Institutions, bilateral donors, etc.

Main outcomes of the PCP and development objectives

Intermediate change I and II lead – in theory - to the main outcomes of the PCP, i.e. the outcomes in the selected industrial priority areas (ToC element no. 12.) such as for example job creation which ultimately lead to the development objectives (ToC element no. 13).

Pre-conditions

A couple of pre-conditions need to be in place before a PCP can start. They can also be regarded as criteria to qualify for a PCP. These are:

PC.1 Strong Government ownership and commitment at highest national authority level (strong ministry of industry commitment is required but not sufficient pre-condition); financial resource allocation from the Government to PCP;

PC.2 Government is willing and has the capacity to take the leadership in the PCP; ministry of finance required to play a leading role in resource and partner mobilization;

PC.3 Some basic infrastructure must be in place (e.g. roads, energy, ports, airports).

There are likely to be more pre-conditions required to be in place before a PCP can start. However, above appear to be the key pre- conditions.

Assumptions

Assumptions are an important element in any theory of change. If assumptions are wrong, then the theory of change may not work or collapse entirely. The PCP theory of change is based on several fundamental assumptions:

A.1 UNIDO has the capacity and resources at HQ and at country level to play the coordination and convening role among development partners; this includes the assumption that UNIDO has the capacity to support resource mobilisation for governments;

A.2 UNIDO internal coordination between different departments is functioning (required to play a credible coordination and convening role with external partners)

A.3 Government willing to give UNIDO facilitation role (with regard to coordination and convening role)

A.4 Partners are in principle willing to engage and interested to invest

A.5 National industrial development strategy is convincing to partners

A.6 Context related assumptions: political stability in country

A.7 Context related assumptions: enabling economic environment i.e. demand for goods and services produced in priority sectors

There are likely to be more underlying assumptions. However, this ToC is trying to identify the key assumptions without which the PCP logic is likely to fall apart.

PCP theory of change - assessment

Subsequently, the evaluation team assessed the PCP theory of change (ToC). The first step was for the evaluation team to prepare a ToC assessment or each pilot country, i.e. Ethiopia, Senegal and Peru. In a second step, the evaluation team compared the three ToC assessments and aggregated the results arriving at an overall PCP ToC assessment. The results and the ratings are included in **Figure E-2.A-1** with a detailed analysis presented thereafter. At the time of the mid-term evaluation for the two pilots under implementation, assessment of results is most accurate at the level of 'UNIDO interventions (activities)'. At higher levels, e.g. intermediate changes and main outcomes, the likelihood of achieving the expected changes is assessed. For the pilot in Peru, only the likelihood of achieving all levels of expected results or changes can be assessed based on the design characteristics and in the progress with preparatory activities.

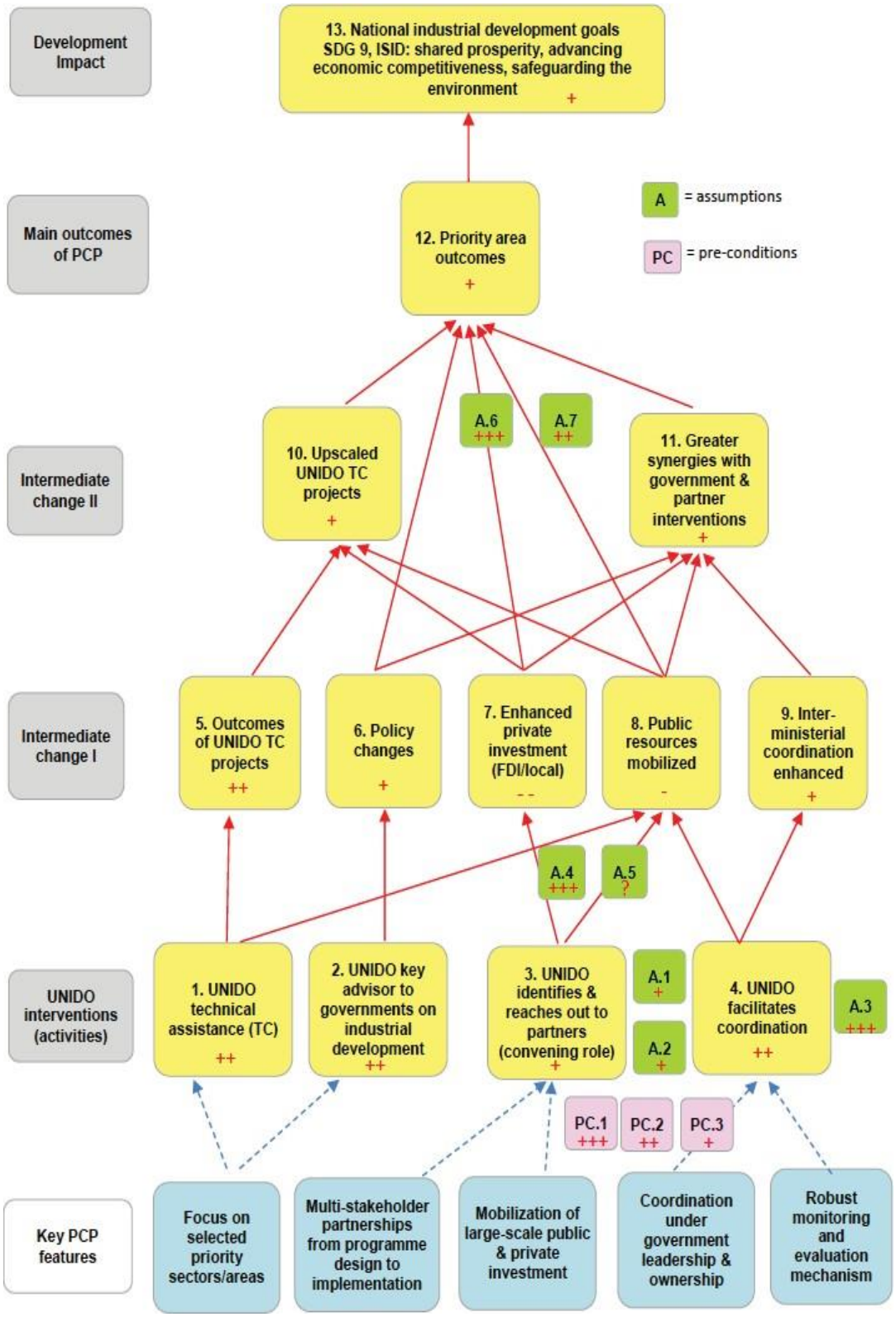


Figure E-2.A-1: PCP theory of change assessment

Source: Source: Evaluation team, based on theory of change assessments of the PCPs in the three pilot countries Ethiopia, Senegal, Peru

Rating Scale

Interventions and expected change		Assumptions		Pre-conditions	
+++	highly satisfactory	+++	highly accurate	+++	strongly in place
++	satisfactory	++	accurate	++	in place
+	moderately satisfactory	+	moderately accurate	+	moderately in place
-	moderately unsatisfactory	-	moderately inaccurate	-	moderately not in place
- -	unsatisfactory	- -	inaccurate	- -	not in place
- - -	highly unsatisfactory	- - -	highly inaccurate	- - -	strongly not in place
?	unclear/not enough evidence	?	uncertain/not enough evidence	?	uncertain/not enough evidence

Assessment of pre-conditions (PC)

PC.1: Strong Government ownership and commitment at highest national authority level; financial resource allocation from the Government to PCP.	**Rating**	+++
Analysis and evidence: In all three pilot countries, interviews with representatives from various ministries show high ownership and commitment and the highest level. Ownership is not only strong in the ministry of industries but across governments. All three governments have made financial commitments to the PCP.		
PC.2: Government is willing and has the capacity to take the leadership in the PCP; ministry of finance required to play a leading role in resource and partner mobilization.	**Rating**	++
Analysis and evidence: In all three pilot countries, governments are willing to take the leadership in the PCP. This was evident in meetings during the evaluation mission. Governments have made the PCP their own planning framework and view it as a tool to implement part of national development plans. While governments have the capacity to take the leadership, interviewees indicated a need to reinforce implementation capacity, although to a varying degree.		
PC.3: Some basic infrastructure must be in place (e.g. roads, energy, ports, airports)	**Rating**	+
Analysis and evidence: Basic infrastructure is in place in all three countries and continued investment in infrastructure is ongoing in all three pilot countries. Examples are the 780 km rail service linking Addis Abba with the port of Djibouti or the construction of the urban pole of Diamniadio in Senegal. Peru has for example an extensive system of roads and over 20 major airports. However, infrastructure needs are still significant in all three countries, being one main area of World Bank financial support.		

Assessment of assumptions (A.)

A.1: UNIDO has the capacity and resources at HQ and at country level to play the coordination and convening role among development partners; this includes the assumption that UNIDO has the capacity to support resource mobilisation for governments.	**Rating**	+
Analysis and evidence: At headquarters, the assumption is accurate. For each pilot country UNIDO established a loosely structured team of around nine experts at headquarters. At country level, the assumption is only partly accurate. While in Ethiopia a PCP coordination unit with four staff was established, in Peru only one person is in charge of PCP coordination until now (albeit PCP implementation had not yet started). While the PCP team leader for Ethiopia and Peru is located at headquarters, the coordination role for Senegal is assumed by the UNIDO Representative (UR) inSenegal who is also the UR for Cabo-Verde, Gambia, Guinea-Bissau and Mauritania. The PCP Senegal coordination team has two additional persons. Regarding the UNIDO capacity to support resource mobilisation for governments: While UNIDO can mobilize resources for'traditional' UNIDO TC projects and has the capacity to develop project documents which can help governments to approach potential donors, it is not quite clear what is meant by 'UNIDO identifies and reaches out to essential partners, with a focus on leveraging large-scale public and private investment'.[12]		
A.2: UNIDO internal coordination between different departments is functioning (required to play a credible coordination and convening role with external partners).	**Rating**	+
Analysis and evidence: This assumption is moderately accurate. At headquarters the PCP teams have – under leadership of the PCP team leader – frequent exchange across different technical branches. At the same time, UNIDO project managers appear in some instances to operate quite independently, especially during project implementation. Interviews at country level in particular in Ethiopia and Senegal, confirm a concern of limited coordination at UNIDO headquarters. This is also reflected in the limited alignment of projects to PCP priorities. For example in Ethiopia, the country office considers 16 out of 23 projects as stand-alone projects. However, UNIDO has a long history of cooperation with Ethiopia, thus, during the first PCP years ongoing projects are implemented together with new PCP projects. In Peru, the Government will prioritize the initial set of 19 project proposals and the final PCP scope will be included in the document once approved.		
A.3: Government willing to give UNIDO facilitation role (with regard to coordination and convening role).	**Rating**	+++
Analysis and evidence: Governments in the three pilot countries welcome UNIDO's facilitation role. There is very close collaboration between UNIDO and the governments also demonstrated by the fact that some UNIDO staff is located in ministries (Ethiopia, Peru).		
A.4: Partners are in principle willing to engage and interested to invest.	**Rating**	+++
Analysis and evidence: Most development partners interviewed by this evaluation showed a strong interest to engage in the PCP in all three pilot countries. The interest to invest – in principle – is also supported by recent FDI and ODA figures (annex 2). While Peru has the largest FDI, Ethiopia receives the largest ODA of the three pilot countries. Evidence shows that the World Bank has invested in areas similar to the PCP priorities (e.g. industrial parks in Ethiopia and value chain development of the aquaculture sector in Peru). A recent report by a business consultancy views Senegal as'a competitive investment destination in West Africa.'[13]		
A.5: National industrial development strategy is convincing to partners.	**Rating**	+
Analysis and evidence: The evaluation team was able to determine that industrial development strategies in the pilot countries was in general convincing to partners. However, the emphasis on agro industrial park development - a key component in two PCP pilot countries - is viewed very differently by development partners, mainly because of their large-scale and very complex nature making success dependent on many factors including the implementation capacities of governments.		
A.6: Context related assumptions: political stability in country.	**Rating**	+++
Analysis and evidence: Although the political context varies between the three pilot countries, political stability appears to exist, in spite of the current political changes in Peru. For PCPs to succeed, political stability is important.		

[12] Key feature from document 'UNIDO's Programme for Country Partnership – An Overview', p. 8.
[13] Deloitte Country Report Senegal, March 2017

A.7: Context related assumptions: enabling economic environment.	**Rating**	+++

Analysis and evidence: All three pilot countries have solid economic environments. The Ethiopian economy grew at a rate of between 8-11% annually in the decade before 2016. Ethiopia is diversifying exports and commodities such as sesame, livestock and horticulture products, which are becoming increasingly important. The Growth and Transformation Plan II (2016-2010), emphasizes developing manufacturing in sectors where Ethiopia has a comparative advantage, such as textiles and garments, leather goods, and processed agricultural products. Senegal is classified among the top three fastest- growing economies in Africa.[14] Export volumes have grown by 10 percent per year, on average over the period 2011-2015. Senegal is a relatively diversified economy, both in terms of export products and partners. The Plan Senegal Emergent (PSE) has a strong industrial development component. Peru grew at an average annual rate of 5.3%, In the first 10 years to the XXI century leading to high average income. In the last 3 years growth fell to 3-4% annually. High income led to new challenges, e.g. the country can no longer grow based on low labour costs. There is now a need to foster productivity, diversification and innovation. The PCP is fully consistent with the Government's agenda for creating the conditions for the private sector to foster creativity and competitiveness.

Assessment of UNIDO's role in the PC

1.: UNIDO technical assistance.	**Rating**	++

Analysis and evidence: UNIDO's technical assistance and backstopping is highly appreciated at all levels. UNIDO is considered to have either strong expertise in house, or to be in a position to access and deploy this to the field in the form of consultants. UNIDO's competence in preparing project proposals was particularly highlighted. The key issue raised by several stakeholders in all three countries are the limited human resource capacity of UNIDO and long response time. In Ethiopia and Senegal, the need for more support in implementation of projects[14] and implementation capacity building (e.g. going beyond feasibility studies) was stressed. This is recognized by UNIDO and currently being addressed.

2.: UNIDO key advisor to governments on industrial development.	**Rating**	++

Analysis and evidence: Overall, evidence suggests that UNIDO's role as advisor to governments on industrial development in the three PCP pilot countries is satisfactory. The importance of the advisory role varies among the pilot countries. The role is particularly strong in Peru. The Government of Peru expects UNIDO's support in providing key advice on industrial development policies and industrial parks development. UNIDO had helped in the national debate on productivity and innovation. In Ethiopia and Senegal, UNIDO's advisory role is more seen at a technical level, for example in Ethiopia with regard to integrated agro-industrial parks (IAIPs) or similarly in Senegal with regard to the integrated industrial parks (IIPs), for which UNIDO prepared a business model for the management of the park and the support of a regulatory framework for Special Economic Zones (SEZ). PCP pilot countries and UNIDO have established such close partnerships that independent advice may not always be possible ("we are together in this").

3.: UNIDO identifies & reaches out to partners (convening role).	**Rating**	+

Analysis and evidence: UNIDO has played a strong convening role through the ISID Forum held in Dakar (2016) and the Agro-Industry Investment Forum in Addis Ababa (2016) which attracted 1,200 participants, including over 400 international participants, comprising 200 representatives of business sector and 50 representatives of finance institutions. Ministries, bilateral and multilateral partners in Peru appreciate the convening role of the PCP, albeit not necessarily in fund raising. [15]The PCP Peru integrates the National Society of Industries (SNI), SME industry associations and COFIDE, the National Development Bank in its National Steering Committee. In Ethiopia, however, bilateral and multilateral development partners are of the view that UNIDO could do more to reach out and inform and involve development partners. The PCP Joint Steering Committee – in which development partners participate - only met twice in 2.5 years. In Senegal, UNIDO interacts regularly with the private sector, in particular at project level. In addition, a PCP-private sector workshop took place in 2016 Dakar. However, a meeting during this evaluation with private sector representatives suggest that UNIDO could play a stronger role in bringing the private sector and the government together. All in all, the results of UNIDO's convening role are relatively modest.

[14] An example for needed implementation support are the integrated agro-industrial parks (IAIPs) in Ethiopia. While there is experience and capacity in Ethiopia to build industrial parks, interviews and documented evidence indicate a demand for specify support for implementing the integrated agro-industrial parks (IAIPs).
[15] Some donors in Peru felt that UNIDO does not have resource mobilization "skills", especially in financial terms.

4.: UNIDO facilitates coordination.	**Rating**	++
Analysis and evidence: UNIDO facilitates coordination, mainly among different ministries involved in industrial development. This is recognized and appreciated in all three pilot countries. In Ethiopia, the coordination mechanism is particularly elaborate: a PCP management structure with a Joint Steering Committee, six task forces and a PCP Secretariat managed by UNIDO. In Senegal, the PCP Steering Committee (NSC) was established as the key PCP coordination mechanism. And although in Peru the National Steering Committee had only met once and the Private Sector Development Working Group (PDWG) had not met yet, interviews with various ministries and bilateral and multilateral donors appeared to confirm the appreciation of the facilitation / coordination function of the PCP both through the PCP Team at headquarter and the Peru National Coordination Unit.		

Assessment results achieved or the likelihood that results will be achieved (intermediate change I)

5.: Outcomes of UNIDO TC projects.	**Rating**	++
Analysis and evidence: This is about the UNIDO TC projects within the much larger PCP framework.[16] As this is a mid-term evaluation it is too early to measure the full achievement of results of UNIDO TC projects, in particular in Peru, where the PCP implementation phase has not started yet.[17] Moreover, this evaluation did not evaluate individual UNIDO projects as the focus was on the overall PCP concept. Therefore the present assessment relies on UNIDO progress reports and stakeholder feedback. It appears that UNIDO technical assistance projects in the PCP priority areas are by and large on track to achieve anticipated results. The focus of the technical assistance in the PCP priority areas during the first two years was primarily on preparatory and conceptual work such as feasibility studies, identification of project sites, diagnostic studies, master plans, the development of project documents and negotiations with potential partners. Still, there are some tangible results. In Ethiopia for example, the construction of three integrated agro-industrial parks (IAIPs) has started and the agro-investment forum attracted over 1,200 participants. In Senegal, the construction of the first part of the Integrated Industrial Part in Diamniadio is completed and the first companies are reportedly moving in soon. While some delays were reported by stakeholders in both Ethiopia and Senegal, overall stakeholders are satisfied with the technical assistance received by UNIDO. A proposed roadmap for the establishment of a strategy and a national programme for the development of industrial parks were finalized in Peru and a GEF-funded project for the development of a sustainable industrial area in Callao is currently in the final preparatory and approval phase.		
6.: Policy changes.	**Rating**	+
Analysis and evidence: While UNIDO's role as policy advisor is welcome and acknowledged (see ToC element no. 2 above), actual policy changes as of now are few. In Ethiopia, the most important contribution to industrial policy can be seen in the promotion of the integrated agro-industrial parks (IAIP). In Senegal, UNIDO contributed significantly to the reform of the Special Economic Zones (SEZ), which led to the adoption of two new laws[18] by the Government in 2017 and to the signing of three enabling decrees. In Peru one significant contribution to policy so far can be seen in the fact that the recommendations of UNIDO's CITE's assessment[19] will be significant for the future CITE strategy to be funded through public budget and an IADB[20] loan. The Government of Peru recognized that UNIDO's core role in the project is supporting the 'institutionalization' of policies.		

[16] The budget of ongoing UNIDO projects are for Ethiopia USD 23 m, for Senegal USD 10 m and for Peru USD 5 m. The planned UNIDO PCP technical assistance for Peru is estimated at USD 56-63 m.
[17] In Ethiopia the PCP started in February 2015 and in Senegal in April 2015.
[18] Loi n2017-06 dealing with the SEZ; Loi n2017-07 dealing with incentive schemes applicable in the SEZ
[19] CITE: Innovation and Technology Centres.
[20] Inter-American Development Bank.

7.: Enhanced private investment (FDI/local private sector).	**Rating**	- -
Analysis and evidence: A key features of the PCP is the mobilization of large-scale private investment.[21] There is an interest in principle (assumption 4). However, while it takes time for private investments to materialize there is currently limited evidence that point to the likelihood of enhanced private investment as a result of the PCP in spite of different outreach efforts.[22] Several stakeholders (incl. private sector) mentioned the limited follow-up to the Agro-Industrial Investment Forum in Ethiopia and the ISID Forum in Senegal. There are some indications that UNIDO and the PCP have contributed to some private sector engagement in Senegal which is likely to results in private investment in the near future.[23] However, a meeting with the local private sector representatives suggested limited national interest in the industrial park (cost reasons). In Peru, negotiations are underway for obtaining co-financing for GEF-funded sustainable industrial parks.[24]		
8.: Public resources mobilized (e.g. from DFIs).	**Rating**	-
Analysis and evidence: The most significant public resources invested in a PCP are the USD 300 m allocated by the Government of Ethiopia to the development of infrastructure for integrated-agro- industrial parks (IAIPs). In Senegal, the Government invested USD 44 m[25] in the Integrated Industrial Park of Diamniadio. In Peru, the Government had negotiated a loan with the IADB (USD 100 m) and UNIDO was contributing to shaping the implementation approach, in specific the CITE strategy. In a similar manner, UNIDO was contributing to a national programme funded by the Government (UDS 80.9 m) and the WB (40 m) on innovation of fisheries and aquaculture. In Ethiopia and Senegal, several partners have expressed an interest in the PCP.[26] It takes time to mobilize resources from DFIs and only few are at an advanced stage.[27] (Sept. 2017). The original indicative funding requirement for the PCP in Ethiopia was estimated at USD 8.25 billion.[28] Based on available documents, only a small portion has been financed as of now. In Senegal the indicative funding requirement was estimate as USD 2.82 billion of which only a fraction has been mobilized as of now. At the same time, UNIDO appears to be successful in mobilizing resources from bilateral donors for UNIDO 'traditional' technical assistance projects (similar to non-PCP countries). In Ethiopia, it is expected that UNIDO will mobilize more resources (over USD 40 m) than originally planned (USD 38 m). The Partnership Trust Fund established at UNIDO headquarters in support of the PCPs received only about USD 9 m, of which almost 90% was received from one UNIDO Member State.[29]		
9.: Inter-ministerial coordination enhanced (e.g. MoF, MoFA, MoI, etc.).	**Rating**	+
Analysis and evidence: The evaluation team found mixed evidence for enhanced inter-ministerial coordination in the three pilot countries. In Ethiopia, an enhanced inter-ministerial coordination was reported. The PCP has succeeded in engaging and bringing together more ministries when it comes to industrial development. UNIDO is now not only interacting with the Ministry of Industry (and the ministries of environment) but also with the ministries of finance, agriculture, etc. In Senegal, inter-ministerial coordination is generally accepted to be standard operational practice, which seems to have been only minimally influenced by UNIDO according to stakeholders. In Peru, while still in the inception phase, inter- ministerial coordination appears to have improved due to the PCP. However, some interviewees indicated that the Ministry of Production needs to involve other interested parties more strongly.		

[21] UNIDO's Programme for Country Partnership – An Overview', p. 11

[22] E.g. Agro-Industrial Investment Forum in Addis Ababa, a mission to Ethiopia of 20 Japanese companies organised by UNIDO ITPO Tokyo, ISID Forum in Senegal, a presentation in Peru of a project proposal to large industries of the National Aquaculture Board.

[23] The ISID Forum in Dakar may have facilitated discussions between Government of Senegal and a Mauritius based fund with whom a partnership has been established to operate the first stage of the Diamniadio Industrial Park and to finance the devel- opment and operation of the second phase. Also, the evaluation team was told that the first foreign companies are ready to sign contracts with the Diamniadio Industrial Park. In addition, the Bingtuan Group, an agricultural company from China, has signed an agreement (MoU) with the Government of Senegal which aims to facilitate the establishment of an agro-industrial park for the rice industry in the north of Senegal.

[24] Total project co-financing needs amount to 36 million US$. Private investors being approached and financing agreements negotiated.

[25] 25 billion Frank CFA

[26] In Senegal, the China Africa Development Fund signed an agreement (MoU) with the Government which aims to facilitate the joint establishment of an agro-industrial park for the rice industry in the north of Senegal.

[27] A concreted and advanced expressions of interest is available in Ethiopia for the Modjo Leather City financing from the Euro- pean Investment Bank (USD 35-50 m) and the EU (EUR 10 m).

[28] indicative funding requirement, PCP document, Dec. 2014 (2015-2020), p. 59; these are funding requirements for the industry sector of the Growth and Transformation Plan II (GTP); the GTP II midterm review this year will inform on the status of funding, gap and expenditure.

[29] China

Assessment of likelihood that higher level results will be achieved (intermediate change II, main outcomes of PCP, development impact)

10.: Upscaled UNIDO TC.	**Rating**	+
Analysis and evidence: Some of the PCP flagship projects are very large-scale. For example, the flagship project of the PCP Ethiopia - the four Integrated Agro-Industrial Parks (IAIP) – aims at creating 160,000 new jobs by 2020.[30] The PCP Senegal has envisaged investments in industrial parks of USD 1,348 m and in agro-poles of USD 980 m. In Peru the flagship project sustainable industrial zone development has a budget of USD 650 m. The flagship projects for implementing the CITEs network model and innovation in aquaculture were granted loans by the IADB and the WB and co-funding from the Government of 22 and 62,8 million US$ respectively. At this point, it is too early to know whether or not the planned PCP projects will be fully realized at the planned large scale. Based on the above theory of change assessment and two years into the PCP the situation is moderately satisfactory. As the PCP governments invest themselves the results will likely be at a larger scale compared to standard UNIDO country programmes. A positive factor is also the accuracy of assumption no. 4 that in principle, partners are interested to invest. The mobilisation of resources from development partners is overall limited until now (ToC element no. 8), although the situation in Peru looks promising. While early stage, there is currently limited evidence that point to the likelihood of significant enhanced private investment as a result of the PCP (ToC element no. 7). Most of the UNIDO technical assistance projects have a budget comparable to traditional UNIDO projects. For example, the median[31] UNIDO project budget in Ethiopia is Euro 1.5 m; in Senegal Euro 730,000; in Peru USD 1.85 m.[32]		
11.: Greater synergies with government & partner interventions; partners can be companies, Development Finance Institutions, bilateral donors, etc.	**Rating**	+
Analysis and evidence: Synergies or anticipated synergies among different actors appear to be moderately satisfactory. Possible synergies appear in Ethiopia. In 2017, the Government, China and UNIDO have agreed to strengthen collaboration on investment promotion, industrial park development and the upgrading of technical and vocational education the framework of PCP. In addition, UNIDO is currently preparing a project to provide institutional support to the Ministry of Science and Technology under a USD 50 m World Bank project on National Quality Infrastructure (NQI). A pre-PCP project with the Cooperation of the Coffee Authority (CA) and the Italian Agency for Development Cooperation Italy may offer some synergies with the agro-industrial parks in the south. In Senegal, synergies appear to be particularly promising in the context of the global GEF Sustainable Cities programme and the industrial park in Diamniadio. Also in Senegal, a youth employment initiative with UN sister organisations including ILO, UNDP and UNWomen offers synergies. In addition, Senegal signed an MOU with Malaysia including strengthening capacities in implementing complex projects with the agro-pole project as pilot. In all three PCP pilot countries, synergies with the private sector are not yet very strong.[33] Generally speaking, the fact that development partners are interested in the PCP and willing to cooperate (ToC assumption no. 4) and enhanced inter-ministerial coordination (ToC element no. 9), point to an enhanced potential for synergies. In Peru, the Ministry of Education has requested participation in the National Advisory Committee with a view to link education and the productive sector. However, the unsatisfactory situation with regard to public and private resource mobilisation reduces the potential for synergies with partner interventions at this point in time (ToC element no. 7. and 8.).		
12.: Priority area outcomes.	**Rating**	+
Analysis and evidence: While the achievement of the PCP priority area outcomes depend on many factors, based on the theory of change assessment it is likely that the achievements will be moderately satisfactory by 2020. This is based on moderately satisfactory upscaling (ToC element no.10) and moderately satisfactory synergies (ToC element no. 11). The political and economic context is assessed favourably (assumption no. 6 and 7) for the PCP to succeed.		
13.: National industrial development goals; SDG 9; ISID: shared prosperity, advancing economic competitiveness, safeguarding the environment.	**Rating**	+
Analysis and evidence: The PCP contribution to national industrial development goals are likely to be moderately satisfactory across the three pilot countries since the achievements of PCP priority area outcomes are likely to be moderately satisfactory (ToC element no. 12). The contributions to national industrial development goals are likely to vary among pilot countries.		

[30] Ethiopia PCP document, p. 58.
[31] Median: half of the projects have a larger budget than USD 1.5 m, half of the projects have a smaller budget.
[32] According to the Peru Draft PCP document.
[33] Ethiopia, there are two UNIDO projects with private sector partners, i.e. Illy Caffe and Volvo

Annex E-3: UNIDO Interventions in the Area of Enterprise Development for Job Creation, Including for Women and Youth

E-3: UNIDO Interventions in the Area of Enterprise Development for Job Creation, Including for Women and Youth, December 2015	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors	Theory of Change on page 9 - macro, meso, micro
Benefits	
☑ ISID/SDG Goals (General statements)	Competitiveness is emphasized
☐ GHG reduction	
☑ Employment	Stratified by employment, self-employment, women and youth
☑ Economic productivity	Inferred in competitiveness – thought to lead to growth
☑ Economic growth (markets/sales)	
☐ Waste /Pollutant reduction	
☑ Other – competitiveness	Noted at micro and macro levels
Technology Adoption	
☐ Adopted Practices	
☐ Adopted Technologies	
☐ Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions	
☑ Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	ECP Entrepreneurial training curriculum
☐ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	
☐ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	
☐ Other	
Learning	
☑ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	Better emphasis on entrepreneurship by institutions
☑ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	Most 'meso-level' devoted to capacity building (ECP-see above)
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	
☑ Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	A key noted goal – though hard pressed to derive a simple yet all encompassing definition
☐ Other	

E-3: UNIDO Interventions in the Area of Enterprise Development for Job Creation, Including for Women and Youth, December 2015	
ELEMENTS	**OBSERVATIONS**
Reactions	
☐ Changing perceptions – increasing awareness and shaping opinion.	
☐ Other	
Engagement	
☑ Networks and partnerships built that support the delivery of change.	Clusters noted
☐ Dialogue promoted exchange and learning among (network) members.	
☐ Other	
Activities conducted by UNIDO	
☐ Convening	
☐ Analytical and Research Functions and Policy Advisory Services	
☐ Technical Cooperation	
☐ Normative Guidance	
☐ Other – see list under Observations	Several categories of 'interventions' noted Pg 3-5, Pg 8
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
☐ Reach and Reaction	
☑ Capacity changes	
☑ Behavioural changes	
☑ Direct benefits	
☑ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
☑ Economic	These were comprehensively covered – see Pg 10-11
☐ Political	
☐ Environmental	
☑ Technological	
☐ Other related	
Information and Education Program Factors	
☐ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	

E-3: UNIDO Interventions in the Area of Enterprise Development for Job Creation, Including for Women and Youth, December 2015	
ELEMENTS	**OBSERVATIONS**
☐ Extent and fit of combined mass communication and one on one or group communication processes	
☐ Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
☐ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	
Innovation Factors	
☐ Relative advantage	
☐ Compatibility	
☐ Complexity	
☐ Trialability	
☐ Observability	
☐ Other	
Management Factors[34]	
☐ Adequacy of resourcing – financial and human	
☐ Certainty and dependability of resourcing	
☐ Diversity of resource base	
☐ Flexibility permitted for use of resources	
☐ Quality and quantity of activities and service delivery	
☐ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
☐ Appropriateness of staff selection, training, and other aspects of HR management	
☐ Program leadership that is appropriate to the type of program: complex, complicated, or simple	
☐ Management strategies, accountabilities, governance incentives and systems for rewards etc.	

[34] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

E-3: UNIDO Interventions in the Area of Enterprise Development for Job Creation, Including for Women and Youth, December 2015	
ELEMENTS	**OBSERVATIONS**
☒ Effectiveness of strategic planning and program design processes, including the soundness of data	Lack of KP1 data on employment of youth and women
☒ Effectiveness of monitoring, evaluation and program improvement processes	Lack of monitoring of participation and outcomes for youth and women
☐ Effectiveness of relationship management	
☐ Effectiveness of strategies to influence external factors	
☐ Other	
Polity Factors	
☐ Planning coordination	
☐ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
☐ Clear roles and responsibilities	
☐ Clear performance expectations	
☐ Balanced expectations and capacities	
☒ Credible reporting	KPIs on women and youth employment not well tracked
☐ Reasonable review and adjustment	
☐ Other	
Robust Theories of Change	
Criteria for Each Assumption	
☒ Well-defined: Is the assumption unambiguous?	For the most part yes
☑ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	
☑ Justified: What is the justification for the assumption as being necessary or likely necessary?	Mostly covered
☑ Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	Yes – these are mostly based on established economic theory
☑ Sustainable: Is the assumption sustainable?	As shown above
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	Not covered – but economic factors (e.g. economic growth, supply and demand, labor productivity) should be able to be estimated via natural statistical bureaus.
☑ M&E Implications: What are the implications for monitoring and evaluation?	Economic statistical trends should be considered for each group
☐ Other	

E-3: UNIDO Interventions in the Area of Enterprise Development for Job Creation, Including for Women and Youth, December 2015	
ELEMENTS	**OBSERVATIONS**
Criteria for Each Causal Link	
☐ Independence: Are the assumptions for the link independent from each other?	Yes and plotted to the chart
☐ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	No – innovation factors and other scale up factors not
☐ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	
☐ Other	

Overall Observations/ Comments:

- Describes macro, meso and micro levels (Pg 9-10) – institutional
- Shows assumptions (Pg 10-11), mostly at high levels
- Suggests 'fragility' of the theory of change – enterprises at the 'centre' of the theory of change (Pg 11)
- Types of interventions: policy advice, improve business environment, value chain support, capacity building of institutions, capacity building of enterprises, skills training, study tour, access to finance, access to other services, Industrial Upgrading and Modernization, Cluster and network development, Industrial export promotion and SME consortia, Enterprise Curriculum Programme, Entrepreneurship development, Sub-contracting and Partnership Exchange (SPX), Enterprise Development Investment Promotion and Computer Model for Feasibility Analysis and Reporting (Pg 8)
- Theory of change in Figure 2, Pg 12 – described but not fully elaborated on Pg 11
- Figure 3 shows deeper theory of change involving actors, business environment (macro), industry support (macro) and enterprise performance (micro) (Pg 17)
- Most interventions shown to be micro (Pg 16), meso (Pg 20) and then macro (Pg 5)
- Dilemma between level of interventions and measurability noted (Pg 47)
- Not UNIDO's role to scale up S7.4 Pg 48
- Enterprise Curriculum Program seen as part of institutional capacity building (skills training) (Pg 18)

Annex E-3.A: Theory of Change Extract from the Study

Introduction

A theory of change is an attempt to capture the defining elements of an intervention logic and to describe the pathway to impact.[35] Thus, it was a central task of this review to establish a generic theory of change (ToC) against which UNIDO interventions in the area of enterprise development and creation of jobs/employment, including for women and youth, would be assessed.

The following generic theory of change is an attempt to capture an overview of the most frequent/important different UNIDO interventions that should contribute to creating jobs/employment (**Figure E-3.A-1**). While this ToC is based on the analysis of the documents referred to in the report (see UNIDO Interventions in the Area of Enterprise Development for Job Creation, including for Women and Youth), it captures the essential features of any programme aiming at job creation.

Intervention logic

UNIDO interventions in the area of enterprise development for more jobs/employment, including for women and youth, are manifold. They range from policy advice to governments, to capacity building of institutions, to pilot interventions at enterprise level, to training of individuals. Broadly, UNIDO interventions can be clustered at the macro-, meso-, and micro-level.

The interventions at the *macro-level* – policy advice, sector analysis, etc. - can contribute to change with regard to conducive policies, legal frameworks and enabling business environments. This in turn can contribute to a more competitive economy in general, more competitive enterprises (or new enterprises), and which again contributes to a more competitive economy. A more competitive economy can contribute to economic growth, which can contribute to enterprises selling more goods and/or services. Given more turnover, companies may create additional jobs and employ more people.

The interventions at the *meso-level* – capacity building of institutions, cluster development, etc. – can contribute to institutions or associations providing better services to enterprises. If enterprises make use of the services and make subsequent changes, enterprises might be more competitive (or new enterprises established) contributing to enterprises selling more goods and/or services. Again, given more turnover, companies may create additional jobs and employ more people.

Interventions at the *micro-level* are for example vocational training or skill development of individuals. This can contribute to better capacitated persons which may make them more competitive on the job market. Better trained workforce can contribute to making companies more competitive. Alternatively, some individuals may be in a position to sell goods and/or services themselves thereby creating self- employment.

Interventions at the micro-level also include pilot interventions at company level. This may directly contribute to making some enterprises more competitive or to replications in other companies (scaling up). Again, this may contribute to enterprises selling more goods and/or services. Given more turnover, companies may create additional jobs and employ more people.

[35] ToCs are similar to logical frameworks as they capture results hierarchies of interventions. However, ToCs are also different in two ways. First, ToCs allow for capturing the non- linearity of change. Social or economic change is rarely the results of a linear process. Effects are complex and multi-directional. Second, ToCs give much more weight to assumptions underlying intervention logics thereby showing the uncertainty of project success. Finding a new job does for example not automatically result from a skills training received. A number of other factors have to fall in place (e.g. job vacancy).

Assumptions

The intervention logics described above are based on many assumptions showing the uncertainty – even fragility - of the results chain. Some of the fundamental assumptions are suggested below, without attempting to be comprehensive.

- A.1 *More sales lead to more employment.* Not necessarily. It depends on how labour intensive the production of goods and services is. The productivity improvements only lead to more jobs if workers are not substituted by technology/capital. Growth is necessary, but not sufficient to create jobs. More sales does not necessarily mean more employment and also not necessarily for women and youth.

- A.2 *More competitive enterprises lead to more sales.* Not necessarily. Sales depend to a large extent on local or international *demand*. More competitive enterprises may also lead to crowding out of less competitive firms, thereby reducing sales of those companies.

- A.3 *A growing economy leads to more sales of domestic products.* Not necessarily. An economy can for example also grow through imports of goods.

- A.4 *Graduates/trainees are motivated, have an incentive and an opportunity to apply learned skills.* Not necessarily. Many well trained persons, in particular youth, are unemployed as there is no opportunity to work.

- A.5 *A competitive economy leads to growth.* Not always. It depends on many other factors like for example the state of the global economy. During global recessions, even competitive economies can stagnate.

- A.6 *An enabling environment leads to a more competitive economy.* Not necessarily. The competitiveness of an economy depends on many factors. The World Economic Forum defines 12 pillars of competitiveness in the Global Competitiveness Report 2014–2015: institutions, infrastructure, macroeconomic environment, health & primary education, higher education & training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication, innovation.

- A.7 The conducive business environment depends *on government enforcing* rules and regulations. New rules and regulations can only lead to change if they are being implemented.

- A.8 Enterprises will only use services provided by institutions and/or associations, if they *meet the demand, are of good quality and affordable.*

- A.9 Demand for *'grassroots' products* (e.g. chicken, baskets) *is higher than supply.* Chances are that there are many individuals trying to sell the same products (supply) on the same market (demand). If that is the case, the better trained individuals will benefit at the cost of the less well trained and there will be no additional self-employment overall. The intervention only leads to more sales, if there is an unmet demand.

What does the theory of change tell us?

Enterprises – micro, small and medium-size enterprises – are the centrepiece of UNIDO's intervention logic for job/employment creation. Most pathways to impact will go – at some points - through enterprises. While the UNIDO interventions happen at macro-, meso-, and micro-level, change

ultimately has to happen at the micro-level, i.e. at the level of enterprises (including micro enterprises/individuals).

With the exception of some interventions mostly at the micro level, the results chains from UNIDO's intervention logics leading to more jobs/employment are quite long and mostly quite indirect, requiring four to five subsequent changes to take place.

Moreover, success in terms of more jobs/employment depends on many assumptions. It is uncertain, whether or not UNIDO interventions will ultimately contribute to more jobs/employment. In many instances, UNIDO can at best influence a few factors on the way to more employment.

It is therefore in many cases unclear to what extent UNIDO contributes to more employment. Even if the creation of more employment would be measurable, UNIDO's contribution would probably be difficult to establish.

However, this does not mean that UNIDO does not contribute to more jobs/employment. Ex-post monitoring or impact evaluations might bring more clarity.

The ToC may also suggest that parallel interventions encompassing several levels can increase the chances of contributing to more jobs/employment.

Finally, the ToC suggests that an in-depth analysis of markets and business environment in a specific country context is crucial in order to understand the assumptions and to improve the chances that the impact pathway works.

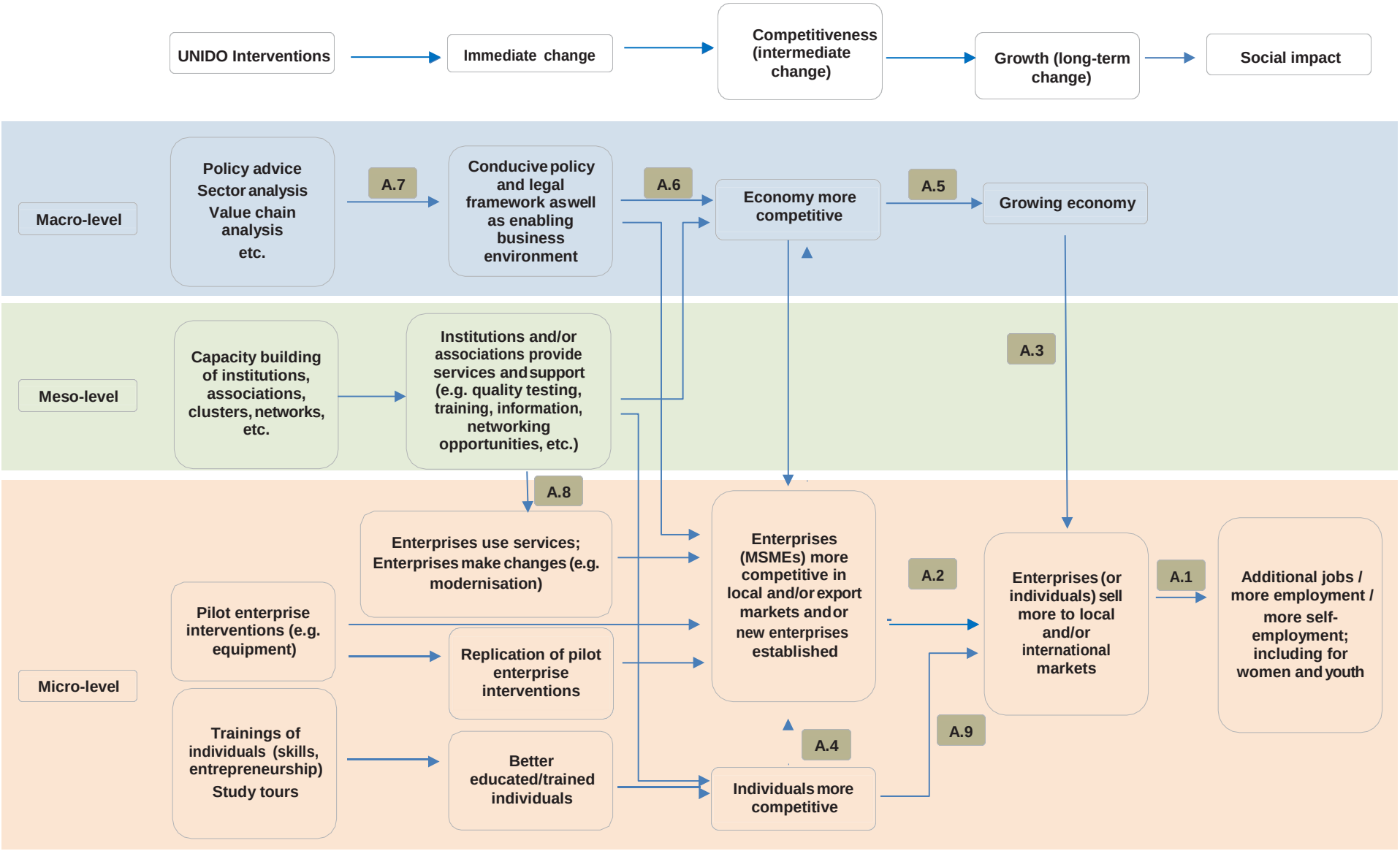


Figure E-3.A-1. Theory of change of enterprise development for job/employment creation, including for women and youth
Source: Source: Review Team, based on UNIDO documents

Annex E-4: UNIDO Ozone Depleting Substances Projects under the Montreal Protocol with Emphasis on Countries in the European and in the Latin American and Caribbean Regions

E-4: UNIDO Ozone Depleting Substances Projects under the Montreal Protocol with Emphasis on Countries in the European and in the Latin American and Caribbean Regions, October 2016	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors	No model in report
Benefits	
☑ ISID/SDG Goals (General statements)	Pg 19 all three ISID goals noted
☑ GHG reduction	Pg 19
☐ Employment	
☐ Economic productivity	
☐ Economic growth (markets/sales)	
☐ Waste /Pollutant reduction	
☐ Other	
Technology Adoption	
☑ Adopted Practices	
☐ Adopted Technologies	
☐ Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions	
☐ Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	
☑ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	
☐ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	
☐ Other	
Learning	
☑ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	ODS emphasis for policy makers and shareholders
☑ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	

E-4: UNIDO Ozone Depleting Substances Projects under the Montreal Protocol with Emphasis on Countries in the European and in the Latin American and Caribbean Regions, October 2016	
ELEMENTS	**OBSERVATIONS**
☑ Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	High emphasis, expertise improvement claimed for SMEs, improvement in technical skills for equipment
☐ Other	
Reactions	
☑ Changing perceptions – increasing awareness and shaping opinion.	Improved awareness of danger of ODS: among policy makers, stakeholders and target groups Participation of National Ozone Units in international fora has increase awareness – see xi summary
☐ Other	
Engagement	
☑ Networks and partnerships built that support the delivery of change.	See xi summary, also Pg 20
☑ Dialogue promoted exchange and learning among (network) members.	
☐ Other	
Activities conducted by UNIDO	
☑ Convening	
☐ Analytical and Research Functions and Policy Advisory Services	
☑ Technical Cooperation	
☐ Normative Guidance	
☑ Other – Capacity building to strengthen SMEs	
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
☑ Reach and Reaction	
☑ Capacity changes	Due to ODS efforts according to evaluation.
☐ Behavioural changes	
☐ Direct benefits	
☐ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
☐ Economic	
☐ Political	
☐ Environmental	

E-4: UNIDO Ozone Depleting Substances Projects under the Montreal Protocol with Emphasis on Countries in the European and in the Latin American and Caribbean Regions, October 2016	
ELEMENTS	**OBSERVATIONS**
☐ Technological	
☐ Other related	
Information and Education Program Factors	
☑ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	Level of commitment by many priorities in the process (Pg 18)
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	
☐ Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
☑ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	Pg 18 strong commitment to protect ozone layer by all parties
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	
Innovation Factors	
☐ Relative advantage	
☐ Compatibility	
☐ Complexity	
☐ Trialability	
☐ Observability	
☐ Other	
Management Factors[36]	
☑ Adequacy of resourcing – financial and human	Noted for information distribution timing etc. Pg 29
☐ Certainty and dependability of resourcing	
☑ Diversity of resource base	Diversity of investment in solutions (GEF risk issue) Pg 16

[36] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

E-4: UNIDO Ozone Depleting Substances Projects under the Montreal Protocol with Emphasis on Countries in the European and in the Latin American and Caribbean Regions, October 2016	
ELEMENTS	**OBSERVATIONS**
☐ Flexibility permitted for use of resources	
☐ Quality and quantity of activities and service delivery	
☐ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
☐ Appropriateness of staff selection, training, and other aspects of HR management	
☑ Program leadership that is appropriate to the type of program: complex, complicated, or simple	Catalytic and coordination role for UNIDO
☐ Management strategies, accountabilities, governance incentives and systems for rewards etc.	
☐ Effectiveness of strategic planning and program design processes, including the soundness of data	
☐ Effectiveness of monitoring, evaluation and program improvement processes	
☑ Effectiveness of roles and relationship management	Catalytic and coordination role for UNIDO
☐ Effectiveness of strategies to influence external factors	
☐ Other	
Polity Factors	
☑ Planning coordination	Among UNIDO organizations rated only 35% 'satisfaction'
☐ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
☐ Clear roles and responsibilities	
☐ Clear performance expectations	
☐ Balanced expectations and capacities	
☐ Credible reporting	
☐ Reasonable review and adjustment	
☐ Other	
Robust Theories of Change	NA Theory of change not explicit
Criteria for Each Assumption ☐ Well-defined: Is the assumption unambiguous?	

E-4: UNIDO Ozone Depleting Substances Projects under the Montreal Protocol with Emphasis on Countries in the European and in the Latin American and Caribbean Regions, October 2016	
ELEMENTS	**OBSERVATIONS**
☐ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	
☐ Justified: What is the justification for the assumption as being necessary or likely necessary?	
☐ Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	
☐ Sustainable: Is the assumption sustainable?	
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	
☐ M&E Implications: What are the implications for monitoring and evaluation?	
☐ Other	
Criteria for Each Causal Link ☐ Independence: Are the assumptions for the link independent from each other?	
☐ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	
☐ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	
☐ Other	

Overall Observations/ Comments:

- With no ‘model’ in the report – reporting on results is less systematic.
- UNIDO claimed to have a catalytic and coordination role.
- Attribution by self-assessed survey – not by CA or other TBE approach.

Annex E-5: UNIDO's Public Private Partnerships

E-5: UNIDO's Public Private Partnerships, March 2014	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors	No Theory of Change shown
Benefits ☐ ISID/SDG Goals (General statements)	
☐ GHG reduction	
☐ Employment	
☐ Economic productivity	
☐ Economic growth (markets/sales)	
☐ Waste /Pollutant reduction	
☒ Other	Overall development impact deemed 'modest' (xi)
Technology Adoption ☐ Adopted Practices	
☐ Adopted Technologies	
☐ Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions ☒ Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	Business Partnership Group established but deemed too small to be effective
☐ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	
☐ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	
☐ Other	
Learning ☐ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	
☐ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	
☐ Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	
☐ Other	

E-5: UNIDO's Public Private Partnerships, March 2014	
ELEMENTS	**OBSERVATIONS**
Reactions ☐ Changing perceptions – increasing awareness and shaping opinion.	
☐ Other	
Engagement ☐ Networks and partnerships built that support the delivery of change.	
☐ Dialogue promoted exchange and learning among (network) members.	
☐ Other	
Activities conducted by UNIDO	
☐ Convening	
☐ Analytical and Research Functions and Policy Advisory Services	
☐ Technical Cooperation	
☐ Normative Guidance	
☐ Other – Partnering	This was the study theme. It was suggested that impacts were modest.
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
☐ Reach and Reaction	
☐ Capacity changes	
☐ Behavioural changes	
☐ Direct benefits	
☐ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
☐ Economic	
☐ Political	
☐ Environmental	
☐ Technological ☐ Other related	
Information and Education Program Factors	
☐ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	

E-5: UNIDO's Public Private Partnerships, March 2014	
ELEMENTS	**OBSERVATIONS**
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	
☐ Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
☐ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	Noted that outputs have been helped by partnerships – likely means older definition of outputs than in more recent reports (e.g. PCP)
Innovation Factors	
☐ Relative advantage	
☐ Compatibility	
☐ Complexity	
☐ Trialability	
☐ Observability	
☐ Other	
Management Factors[37]	
☐ Adequacy of resourcing – financial and human	
☐ Certainty and dependability of resourcing	
☐ Diversity of resource base	
☐ Flexibility permitted for use of resources	
☐ Quality and quantity of activities and service delivery	
☐ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	

[37] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

E-5: UNIDO's Public Private Partnerships, March 2014	
ELEMENTS	**OBSERVATIONS**
☒ Appropriateness of staff selection, training, and other aspects of HR management	Training deemed too generic (internal training) Pg 53
☐ Program leadership that is appropriate to the type of program: complex, complicated, or simple	
☒ Management strategies, accountabilities, governance incentives and systems for rewards etc.	No clear strategy found (xiii) This was a prime recommendation
☒ Effectiveness of strategic planning and program design processes, including the soundness of data	See above, this was deemed to be weak also Pg 43-46
☐ Effectiveness of monitoring, evaluation and program improvement processes	
☐ Effectiveness of relationship management	
☐ Effectiveness of strategies to influence external factors	
☐ Other	
Polity Factors	
☐ Planning coordination	
☐ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
☒ Clear roles and responsibilities	BPG deemed not to be the appropriate unit to change partnerships
☒ Clear performance expectations	
☐ Balanced expectations and capacities	
☐ Credible reporting	
☐ Reasonable review and adjustment	
☒ Other	Lack of definition of partnerships a problem
Robust Theories of Change	
Criteria for Each Assumption ☐ Well-defined: Is the assumption unambiguous?	
☐ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	
☐ Justified: What is the justification for the assumption as being necessary or likely necessary?	
☐ Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	
☐ Sustainable: Is the assumption sustainable?	

E-5: UNIDO's Public Private Partnerships, March 2014	
ELEMENTS	**OBSERVATIONS**
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	
☐ M&E Implications: What are the implications for monitoring and evaluation?	
☐ Other	
Criteria for Each Causal Link ☐ Independence: Are the assumptions for the link independent from each other?	
☐ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	
☐ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	
☐ Other	

Overall Observations/ Comments:

- Four types of partnerships noted:
  i) Shared implementation
  ii) Partner as donor
  iii) Partnership above UNIDO has a subsidiary role
  iv) UNIDO initiatives

- Business Partnership Life Cycle (Pg 52) closest thing to a theory of partnerships and a results logic.

Annex E-6: Implementation of the expanded UNIDO Medium-Term Programme Framework

E-6: Implementation of the expanded UNIDO Medium-Term Programme Framework (MTPF) 2010-2013	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors	Pg 7 – The MTPF is 'limited' as a Theory of Change representation (see overall comments)
Benefits ☐ ISID/SDG Goals (General statements)	Millennium Development Goals (similar)
☑ GHG reduction	Low carbon
☑ Employment	Inferred by increased income by engaging in 'productive activities'
☐ Economic productivity	
☐ Economic growth (markets/sales)	
☐ Waste /Pollutant reduction	Environmental goals (inferred)
☐ Other – Income, Gender, Equity	Income and gender equity high level outcomes Trade acceptance raised to import level
Technology Adoption ☐ Adopted Practices	
☐ Adopted Technologies	
☐ Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions ☐ Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	Institutional change mentioned by 3 outcomes – though organizational changes not mentioned *per se*
☑ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	Internalizing environmental considerations – part of policy change
☑ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	Policy change prominent – 3 outcomes for country level Institutional change prominent – 3 outcomes for country level (see addendum for outcomes list)
☐ Other	
Learning ☐ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	
☐ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	

E-6: Implementation of the expanded UNIDO Medium-Term Programme Framework (MTPF) 2010-2013	
ELEMENTS	**OBSERVATIONS**
☐ Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	
☐ Other	
Reactions ☐ Changing perceptions – increasing awareness and shaping opinion.	
☐ Other	
Engagement ☐ Networks and partnerships built that support the delivery of change.	
☐ Dialogue promoted exchange and learning among (network) members.	
☐ Other	
Activities conducted by UNIDO	Inferred by thematic programme (see MTPF Pg 7)
☐ Convening	
☐ Analytical and Research Functions and Policy Advisory Services	
☐ Technical Cooperation	
☐ Normative Guidance	
☐ Other	
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
☑ Reach and Reaction	Shown in indicators (Pg 31-33)
☐ Capacity changes	
☑ Behavioural changes	Inferred from policy and institutions, directly captured in KPIs reviewed
☑ Direct benefits	Cover for policy and institutions (but not measured according to report)
☑ Well-being changes	Part of MTPF – see Pg 7
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
☐ Economic	
☐ Political	
☐ Environmental	
☐ Technological	

E-6: Implementation of the expanded UNIDO Medium-Term Programme Framework (MTPF) 2010-2013	
ELEMENTS	**OBSERVATIONS**
☐ Other related	
Information and Education Program Factors	
☐ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	
☐ Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
☐ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	
Innovation Factors	
☐ Relative advantage	
☐ Compatibility	
☐ Complexity	
☐ Trialability	
☐ Observability	
☐ Other	
Management Factors[38]	
☐ Adequacy of resourcing – financial and human	
☐ Certainty and dependability of resourcing	
☐ Diversity of resource base	
☐ Flexibility permitted for use of resources	
☐ Quality and quantity of activities and service delivery	

[38] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

E-6: Implementation of the expanded UNIDO Medium-Term Programme Framework (MTPF) 2010-2013	
ELEMENTS	**OBSERVATIONS**
☐ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
☐ Appropriateness of staff selection, training, and other aspects of HR management	
☐ Program leadership that is appropriate to the type of program: complex, complicated, or simple	
☐ Management strategies, accountabilities, governance incentives and systems for rewards etc.	
☐ Effectiveness of strategic planning and program design processes, including the soundness of data	
☐ Effectiveness of monitoring, evaluation and program improvement processes	
☐ Effectiveness of relationship management	
☐ Effectiveness of strategies to influence external factors	
☐ Other	
Polity Factors	
☐ Planning coordination	
☐ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
☐ Clear roles and responsibilities	
☐ Clear performance expectations	
☐ Balanced expectations and capacities	
☐ Credible reporting	
☐ Reasonable review and adjustment	
☐ Other	
Robust Theories of Change	
Criteria for Each Assumption ☐ Well-defined: Is the assumption unambiguous?	
☐ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	
☐ Justified: What is the justification for the assumption as being necessary or likely necessary?	

E-6: Implementation of the expanded UNIDO Medium-Term Programme Framework (MTPF) 2010-2013	
ELEMENTS	**OBSERVATIONS**
☐ Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	
☐ Sustainable: Is the assumption sustainable?	
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	
☐ M&E Implications: What are the implications for monitoring and evaluation?	
☐ Other	
Criteria for Each Causal Link ☐ Independence: Are the assumptions for the link independent from each other?	
☐ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	
☐ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	
☐ Other	

Overall Observations/ Comments:

- MTPF graphical presentation of benefits but not really Theory of Change
- Lack of performance information a major problem. Need for systematic highly synthesized overviews of progress (Pg 49)
- BUT – MTPF took a limited view of outcomes (e.g. trained consultants seen as an 'activity'. Under Bennett the hierarchy – it is engagement and reach.) (Pg 40)

Policy Outcomes

- *Equitable growth policies: Industrial strategies, policies and regulations in developing countries support equitable and inclusive industrial growth.*
- *International standards and compliance: Policies and regulations enhance opportunities for international industrial cooperation and rule-based, non-discriminatory patterns of trade.*
- *Industrial sustainability policies and practices: Industrial policies, plans and regulations internalize environmental considerations and the sustainable use of goods, services and energy.*

Institutional Outcomes

- *Market enabling and investment support institutions: National and regional institutions establish market-enabling services for industries and assist them to increase productive capacities.*
- *Standardization and trade support institutions: Support organizations adopt and diffuse international public and private industrial standards and provide assistance to enterprises seeking to supply international markets.*
- *Green industry support services: Public and private institutions support industry in complying with environmental agreements and provide services to mitigate negative industrial externalities and to adapt to climate change.*

- Noted that evaluations do not provide a comprehensive picture on the UNIDO performance with regard to the expected results of the MTPF
- Asks why policy and institutional outcomes are included in the framework if they are not measured and UNIDO is not 'responsible' for their achievement (Pg 11)

- See policy outcomes and institutional outcomes statements
- See alignment of KPIs and MTPF (Pg 31-33) – shows no clear ‘sorting’ of results levels

Annex E-7: Independent Country Programme Evaluation, Republic of India

E-7: Independent Country Programme Evaluation, Republic of India 2018	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors	
Benefits ✓ ISID/SDG Goals (General statements)	
✓ GHG reduction	
✓ Employment	trained specialist (outputs) = increased employment production
✓Economic productivity	
✓Economic growth (markets/sales)	Table 8 – strengthening market demand
☐ Waste /Pollutant reduction	
☐ Other	
Technology Adoption ✓Adopted Practices	
✓Adopted Technologies	Adapting technlologies and innovation a strength in Country Programme. Pg 16 – but face constraints due to limited guidance
✓Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions ✓ Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	Table 8: Strengthened institutions (in their motivations and commitments) – define and strengthen
☐ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	
☐ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	
☐ Other	
Learning ☐ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	
☐ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	Pg 33 – recognise need to place more attention on knowledge products, and capitalise on knowledge assets
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	
✓Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	

E-7: Independent Country Programme Evaluation, Republic of India 2018	
ELEMENTS	**OBSERVATIONS**
☐ Other	
Reactions ☐ Changing perceptions – increasing awareness and shaping opinion.	
☐ Other	
Engagement ✓ Networks and partnerships built that support the delivery of change.	Strong partnerships founds throughout the portfolio; plans to build partnerships
✓Dialogue promoted exchange and learning among (network) members.	
☐ Other	
Activities conducted by UNIDO	
✓ Convening	
✓ Analytical and Research Functions and Policy Advisory Services	
✓ Technical Cooperation	Pg 16 – value the neutral role and technical capacity of UNIDO. But tracking is not scaled 'out', causes barrier at micro and meso levels.
✓ Normative Guidance	
☐ Other	
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
✓Reach and Reaction	Dissemination is weak (pg 33), and the level of relevance was lower at the micro level (across the projects)
✓ Capacity changes	Pg 15
☐ Behavioural changes	
✓Direct benefits	
☐ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
✓Economic	
☐ Political	
✓Environmental	Pg 15 – populations access to knowledge and learning materials related to environmental sustainability
✓Technological	

E-7: Independent Country Programme Evaluation, Republic of India 2018	
ELEMENTS	**OBSERVATIONS**
☐ Other related	
Information and Education Program Factors	
☐ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	
✓ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	
✓Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
✓ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	Specific projects lacked clear focus on results which may be due to a lack of relevance of the project to these agencies. For example, the Foundry project had insufficient attention to choice of target groups.
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	
Innovation Factors	
☐ Relative advantage	
☐ Compatibility	
☐ Complexity	
✓ Trialability	Many examples of pilot programmes, and an intention to scale up, however there is limited evidence of mainstreaming and replication.
✓Observability	Table 7 on pg 24 indicates there is strong evidence of impact of investments in technology and innovation.
✓Other	Interest in pilot and scaling up activities.
Management Factors[39]	
✓Adequacy of resourcing – financial and human	
✓Certainty and dependability of resourcing	
☐ Diversity of resource base	

[39] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

E-7: Independent Country Programme Evaluation, Republic of India 2018	
ELEMENTS	**OBSERVATIONS**
☐ Flexibility permitted for use of resources	
✓Quality and quantity of activities and service delivery	
✓Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
☐ Appropriateness of staff selection, training, and other aspects of HR management	
✓Program leadership that is appropriate to the type of program: complex, complicated, or simple	
☐ Management strategies, accountabilities, governance incentives and systems for rewards etc.	
✓Effectiveness of strategic planning and program design processes, including the soundness of data	Pg 15, absence of strong data at the country programme level;
✓Effectiveness of monitoring, evaluation and program improvement processes	Concerns over clear monitoring and reporting mechanisms at micro (institution) level (pg 11) & project level (pg 13-15)
✓Effectiveness of relationship management	Pg 25 – issues around strengthening institutions and in management of some projects. There is a disconnect of communication at the project level.
☐ Effectiveness of strategies to influence external factors	
☐ Other	
Polity Factors	
✓ Planning coordination	There is lack of clear roles and responsibilities, as well as clear objectives. The evaluation indicates there are problems in the coordination at the country programme level, although are taking steps to strengthen institutions and move towards a coordinated team approach
☐ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
☐ Clear roles and responsibilities	
✓Clear performance expectations	Country team concerned over performance expectations (?)
☐ Balanced expectations and capacities	
✓Credible reporting	

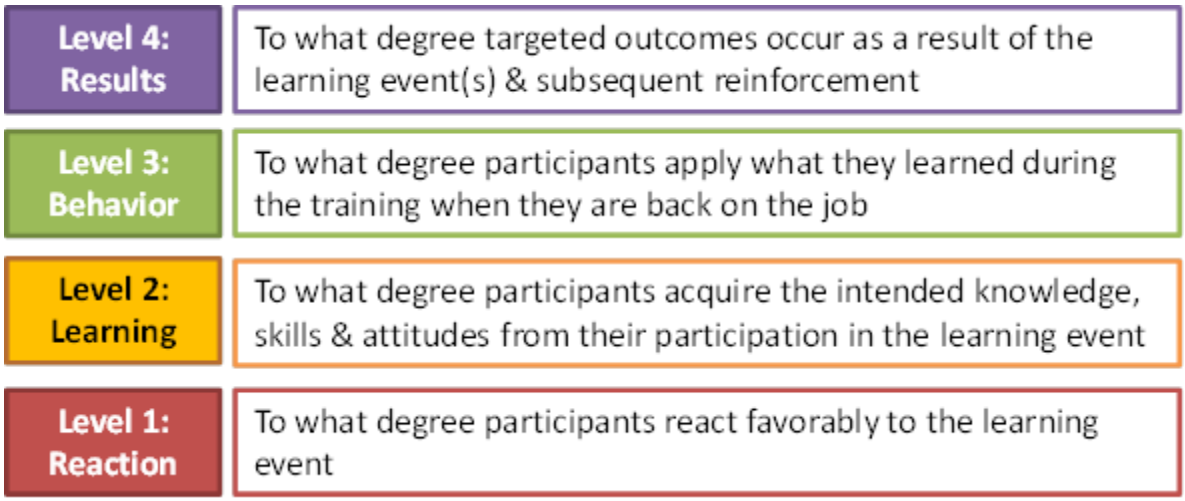
E-7: Independent Country Programme Evaluation, Republic of India 2018	
ELEMENTS	**OBSERVATIONS**
✓Reasonable review and adjustment	Clear indication the country programme team are identifying institutional problems and striving to make changes accordingly.
☐ Other	
Robust Theories of Change	
Criteria for Each Assumption ✓ Well-defined: Is the assumption unambiguous?	Pg 28; Kirkpatrick model – reinforcing theory of change Project level is not well defined
☐ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	
☐ Justified: What is the justification for the assumption as being necessary or likely necessary?	
✓ Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	
✓ Sustainable: Is the assumption sustainable?	
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	Concerns over whether data is sufficient at country programme level. For example consider the limitations of the CleanTech project in defining the pathway between the assumptions and 2 out of 4 outcomes.
☐ M&E Implications: What are the implications for monitoring and evaluation?	
☐ Other	
Criteria for Each Causal Link ✓ Independence: Are the assumptions for the link independent from each other?	Pg 11; country programme development did not guide portfolio document & 'unrealistic design'
✓ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	Pg 13; not a clear causal relationship between overarching objectives and expected outcomes.
✓ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	
☐ Other	

Overall Observations/ Comments:

Annex E-7.A: Capacity building for sustainable change

Almost all projects in the portfolio invest in some way in capacity building of firms, clusters, industry associations, research institutes and other industry partners, and Government partners. For firms and industry clusters, this typically relates to the adoption of improved practices or technologies by individuals. In relation to capacity development of institutional partners, this relates more to transformational change in that it is a mechanism by which long-term impact may be achieved. In order to assist with assessment of capacity development, the available documentation and findings from the field were assessed against the four levels of the Kirkpatrick Model (KM). In this regard, the majority of capacity development across the portfolio is delivered for increased awareness (level 1) and building of knowledge (level 2).

Figure E-7.A-1. New World Kirkpatrick Model for Evaluation of Capacity Development



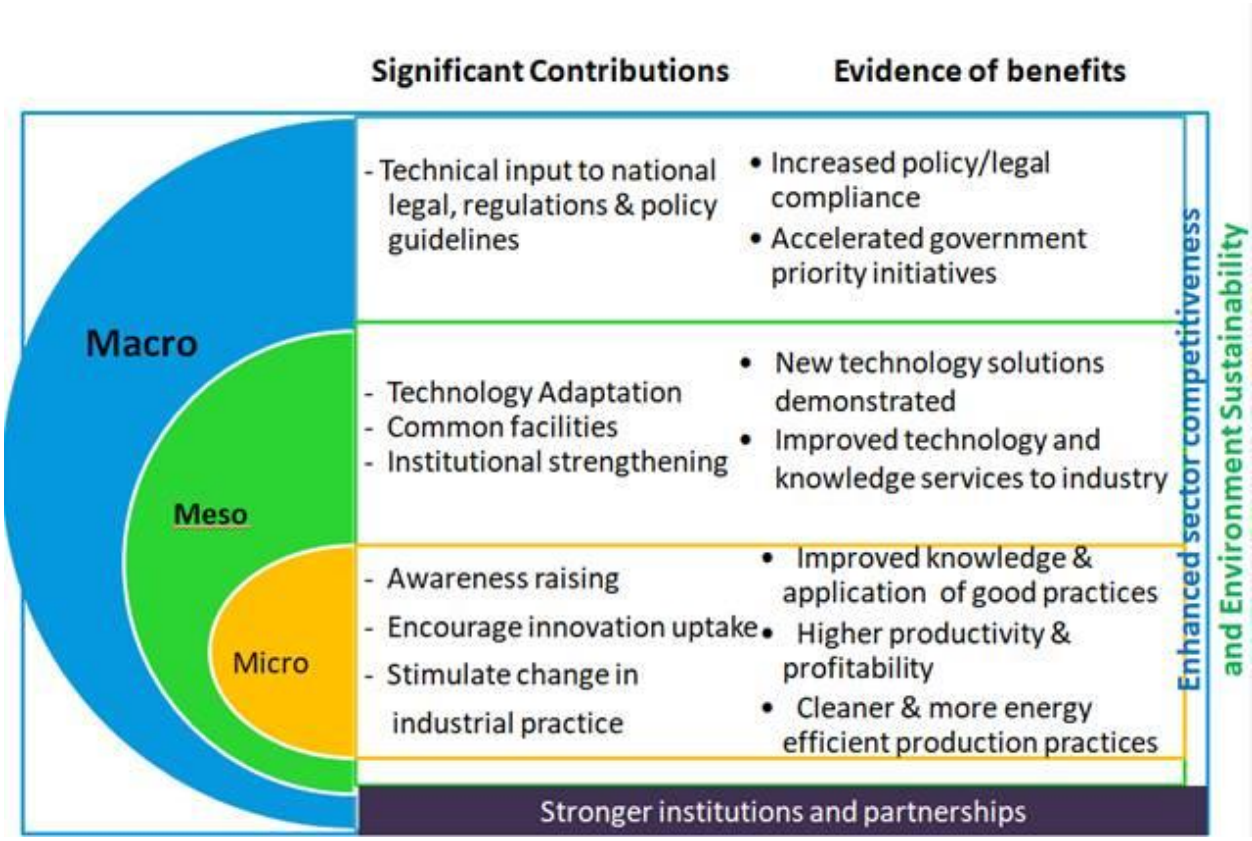
There is clear evidence that project participants in skills development have reacted favourably to the opportunities provided. Acquisition of knowledge through increased awareness of advances in technology and industry practices has been consistently seen across the portfolio, largely amongst the direct trainees (e.g. Leather, Cement, ACMA, CleanTech, Medical Waste, EE in MSMEs). There is evidence that significant change in behaviour (level 3) has occurred in terms of changed practices and demonstration of applied competence over time. A clear example is in the Medical Waste project where there are already clear examples of change in behaviour of hospital staff, where guidelines have been upgraded to reflect the improved practices, and where wider training is already in place to extend behaviour change at the institutional level. Similar examples are starting to be seen in the Cement and Automobile components sector, but there is still substantial room to improve outcomes in this aspect through a greater focus on increasing the use of professional adult learning processes and system appropriate to the Indian context. In relation to level 4 (results being delivered) there are indications that significant system changes have occurred/have potential to occur as a result of improved capacity. For instance, in the Cement, Leather and Bicycle projects there was reference to the extent that previous UNIDO-supported projects had contributed to improved practices and changes in sector approaches.

Shows policy impacts at the higher levels affecting transformation.

Enabling process in UNIDO programmes and projects towards impacts

Enabling processes	Definition	Evaluation assessment
1. Motivation & commitment	For positive change to occur at all stages, project participants need to be open to change, willing to engage and motivated to build their capacity and apply new knowledge within their own context. This requires commitment. Some projects rely on self-motivation; others offer incentives for change.	During the evaluation, particularly, in the final workshop, stakeholders particularly emphasised the importance at any level of project operations that the engagement, awareness and commitment of industry is required to ensure that the process of change will occur. Similarly, without the commitment of key partners, project results are not achieved. This underlines the importance of engaging industry and other stakeholders from the beginning of the design process and throughout implementation.
2. Upgrading policy, legal and sector guidelines	Industry practice is governed by international and national standards. For Indian industries to be more competitive, it is essential that there is greater adoption and compliance with these standards. This requires support for policy and legal review, preparation of implementation guidelines and for mechanisms to promote improved practice. It is at this macro level that transformational change towards ISID is guided.	In the GEF-supported projects in particular, there is a requirement for support for sector level policy considerations. These activities are designed, not to interfere with current country policy processes but to support existing policies or inform policy makers on the impact of current policies, law and guidelines. Positive examples of support include where projects provide a policy application demonstration effect.
3. Diagnosing market demand and function	The important of market demand for industrial development is fundamental to competitiveness and spans across the macro, meso and micro levels of support. In rapidly changing markets, assisting sector institutions at the meso level to understand and respond to market influences will improve the competitiveness, resilience and sustainability of the sector.	A number of projects included support for sector diagnostics. These have been instrumental in supporting sector level institutions and participating companies to re-position the industry within a changing market (particularly, Brass and bell, Paper and pulp, Cement, Plastic, Machine Tool Industry and Bicycle and bicycle parts). For industry to be competitive, market analysis is imperative.
4. Sector synergy and partnerships	Underpinning all these levels of support are the need for each programme interventions to build industry networks, partnerships and connections. In some cases, this may include synergy between sectors in a value-chain approach. In addition, transformational processes do not occur in isolation and strengthening linkages with other development processes has the potential to achieve multiplier effects towards positive results in ISID.	Each successful intervention has involved building of industry networks, partnerships and connections. This has been evident in many projects The importance of partnerships is covered further in section Partnerships below.

Source: Country Programme Evaluation, March 2018


Significant Contributions
Evidence of benefits
Macro
Meso
Micro
- Technical input to national legal, regulations & policy guidelines
• Increased policy/legal compliance
• Accelerated government priority initiatives
- Technology Adaptation
- Common facilities
- Institutional strengthening
• New technology solutions demonstrated
• Improved technology and knowledge services to industry
- Awareness raising
- Encourage innovation uptake
- Stimulate change in industrial practice
• Improved knowledge & application of good practices
• Higher productivity & profitability
• Cleaner & more energy efficient production practices
Enhanced sector competitiveness and Environment Sustainability
Stronger institutions and partnerships

Annex E-8: Independent Country Programme Evaluation, Colombia

E-8: Independent Country Programme Evaluation, Colombia 2018	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors)	
Benefits ✓ ISID/SDG Goals (General statements)	Attempting to integrate guidance around gender inclusion into all project categories. Country programme frameworks based in SDG goals for 2015-2019.
✓ GHG reduction	
☐ Employment	
✓ Economic productivity	
☐ Economic growth (markets/sales)	
☐ Waste /Pollutant reduction	
☐ Other	
Technology Adoption ✓Adopted Practices	
✓Adopted Technologies	
☐ Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions ✓Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	Moving forward UNIDO needs to support to ensure industrial development remains a priority in government policy making and agenda setting.
☐ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	
☐ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	
☐ Other	
Learning ☐ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	
✓Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	Expectations is to improve national govt capacity to include evidence based practices in decision making (specific to industrial sector)
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	

E-8: Independent Country Programme Evaluation, Colombia 2018	
ELEMENTS	**OBSERVATIONS**
✓Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	Expectation of country programme is to improve capacity of institutions to promote and encourage investment in industrial sector. Inclusion of value chains (section 2.2.2)
☐ Other	
Reactions ☐ Changing perceptions – increasing awareness and shaping opinion.	
☐ Other	
Engagement ✓Networks and partnerships built that support the delivery of change.	Strong partnerships but suggest that networks need to be expanded to increase UNIDO visibility. Many partnerships at macro, global level but not as high visibility for participants at micro level.
✓Dialogue promoted exchange and learning among (network) members.	Needs to be developed between UNIDO and government on industrial sector priorities.
☐ Other	
Activities conducted by UNIDO	
✓Convening	
☐ Analytical and Research Functions and Policy Advisory Services	
✓Technical Cooperation	Predominately technical cooperation projects, & TC portfolio mainly focuses on national projects, with limited participation at regional and global level.
✓Normative Guidance	Indication that commercial capacity building is improved through standardisation, but unclear if these are part of the UNIDO project or whether they have been successfully implemented (language barrier?)
☐ Other	Not only need to expand technical capabilities, but also general capabilities.
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
✓Reach and Reaction	Reach of UNIDO is not strong, need to build further alliances (e.g. with private sector)
✓Capacity changes	
☐ Behavioural changes	
✓Direct benefits	
☐ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	

E-8: Independent Country Programme Evaluation, Colombia 2018	
ELEMENTS	**OBSERVATIONS**
☐ Social	
☐ Economic	
✓ Political	Need to pay more attention to political reform, especially during a period of change to accomplish large scale reform.
✓ Environmental	
✓Technological	Need to improve technical capabilities
☐ Other related	
Information and Education Program Factors	
☐ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	
✓Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
✓Extent that credibility of messages are enhanced by presenting different perspectives	Interviewed many stakeholders
✓Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	Vision is different between UNIDO (which envisions industrial development strategy emphasises MSME's) and government policies (which focus on larger companies).
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	
Innovation Factors	
✓Relative advantage	
✓Compatibility	Possible compatibility issues due to conflicting visions
☐ Complexity	
☐ Trialability	
✓Observability	
☐ Other	

E-8: Independent Country Programme Evaluation, Colombia 2018	
ELEMENTS	**OBSERVATIONS**
Management Factors[40]	
✓Adequacy of resourcing – financial and human	Currently adequacy is fine but concerns about future.
✓Certainty and dependability of resourcing	Strengthened certainty in resources can ensure coordination activities, implementation, monitoring, measurement and follow up are stronger. Staffing has increased three-fold in operations, but HR practices are dependent on projects with timely end dates. Concerns over sustainability.
✓Diversity of resource base	Section 3.3 relevance
☐ Flexibility permitted for use of resources	unclear
✓ Quality and quantity of activities and service delivery	
✓ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
✓ Appropriateness of staff selection, training, and other aspects of HR management	Strong staffing skills and use of external contractors but concerns over sustainability (project driven & reliant on external funds).
✓ Program leadership that is appropriate to the type of program: complex, complicated, or simple	Complicated by confusion of government institutional role and management.
✓ Management strategies, accountabilities, governance incentives and systems for rewards etc.	**Need to move away from project driven framework (based on external funds) to a strategic way of thinking which is responsive to set priorities** Inadequate management structures, leading to loss of confidence amongst beneficiaries
✓ Effectiveness of strategic planning and program design processes, including the soundness of data	Stronger project design, which incorporates a sustainability plan during its formation, can optimise project resources and prevent fragmentation of projects, as well as ensure better gender inclusion across all project categories, as set out by guidelines collaborated with UN women in Colombia.
☐ Effectiveness of monitoring, evaluation and program improvement processes	
☐ Effectiveness of relationship management	The establishment of cooperative mechanisms between the office and UN team was not positive in surveying (section 3.2)
☐ Effectiveness of strategies to influence external factors	
☐ Other	
Polity Factors	

[40] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

E-8: Independent Country Programme Evaluation, Colombia 2018	
ELEMENTS	**OBSERVATIONS**
✓Planning coordination	Again, need to move away from project driven, and towards a strategic plan that incorporates a theory of change when setting priorities, allocating activities and mobilising resources.
☐ Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
☐ Clear roles and responsibilities	
✓Clear performance expectations	
✓Balanced expectations and capacities	
✓Credible reporting	Clear reporting
✓Reasonable review and adjustment	Where results have not been achieved obstacles have been identified for future adjustment. However the feedback process of lessons learn is not clear.
☐ Other	
Robust Theories of Change	
Criteria for Each Assumption ☐ Well-defined: Is the assumption unambiguous?	
✓ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	Clear indication that projects are meeting their intended results with a direct link.
✓Justified: What is the justification for the assumption as being necessary or likely necessary?	
✓Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	
✓ Sustainable: Is the assumption sustainable?	Making efforts to improve standards and ensure resources available in the future. For example the CONSORTIA program has been institutionalised to ensure projects are sustainable.
☐ Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	
✓M&E Implications: What are the implications for monitoring and evaluation?	Building monitoring at formation stage.
☐ Other	
Criteria for Each Causal Link ☐ Independence: Are the assumptions for the link independent from each other?	
☐ A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	

E-8: Independent Country Programme Evaluation, Colombia 2018	
ELEMENTS	**OBSERVATIONS**
✓Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	
☐ Other	

Overall Observations/ Comments:

- UNIDO's 'neutrality' and strong partnerships appreciated.
- **Problem with 'sustainability' of finished projects, and replication. This is likely for two reasons: 1. Sustainability and progression of impact not considered during design / planning of the initiative; 2. M&E systems are not set up to account for work beyond the determined activities, products and outputs. This may be due to a conflict between vision of UNIDO and government institutions (exec sum)**
    - The suggestion is that by implementing the theory of change during the formation of the future strategic plan one can ensure government and UNIDO priorities are addressed early on so that activities mutually benefit both and resources can be mobilised.
- Synergy between projects was a problem
- Visibility of UNIDO was a problem
- Used a theory of change as the basis of the Country Programme Evaluation. The theory of change was set out by teams to show the logical coherence to a desired change, the activities needed to be taken, given assumptions as well as setting out the preconditions and processes to achieve the intended results. It was found that projects which implemented the theory of change at the formation of the project more easily navigated the complex processes and address the various conditions to ensure the credibility of the outcomes.

    - The conditions in the figure were colour coordinated to indicate areas of achievement: green represents areas were relative success was found, red where there is a great deal of improvement needed, which should be addressed by future teams, and yellow where there are mixed levels of assessment, with little or no evidence of achievement to verify the results. The section leading to results is entirely in green, given the projects have achieved or are on their way to achieving their intended change, and the impact area remains in red due to concerns over scale up and replication which are meant to occur at the country and sector level.

E-8.A: Theory of Change Extract from the Study

The evaluation team adopted a Theory of Change (TOC) approach to explain, assess and understand the causal links between the activities, outputs and results of the UNIDO country program in Colombia; and to evaluate to what extent the projects contribute to the necessary conditions to achieve the expected transformation (Impact).

The TOC offers the evaluation a method to help clarify the links between project activities and long-term objectives. At the same time, it is a collaborative learning exercise that encourages the development of the flexible logic necessary for the analysis of complex processes of social change. The TOC is based on systemic thinking, on the opening to multiple levels of intermediate results that support the process of positive change. The TOC involves a thorough analysis of all the steps that must be taken to achieve the desired change, identifying the preconditions that will allow or inhibit each step, listing the activities that will produce those conditions, and explaining how those assumptions could work.

The evaluation team developed a program TOC to provide a clear explanation of the logic underlying the connections between the preconditions and the interventions that have taken place. The detailed and aggregated versions of the TOCs for the program are presented in **Figure E-8.A-1** and **Figure E-8.A-2** below. The general assessment on the elements of the TOC is presented in **Figure E-8.A-3.**

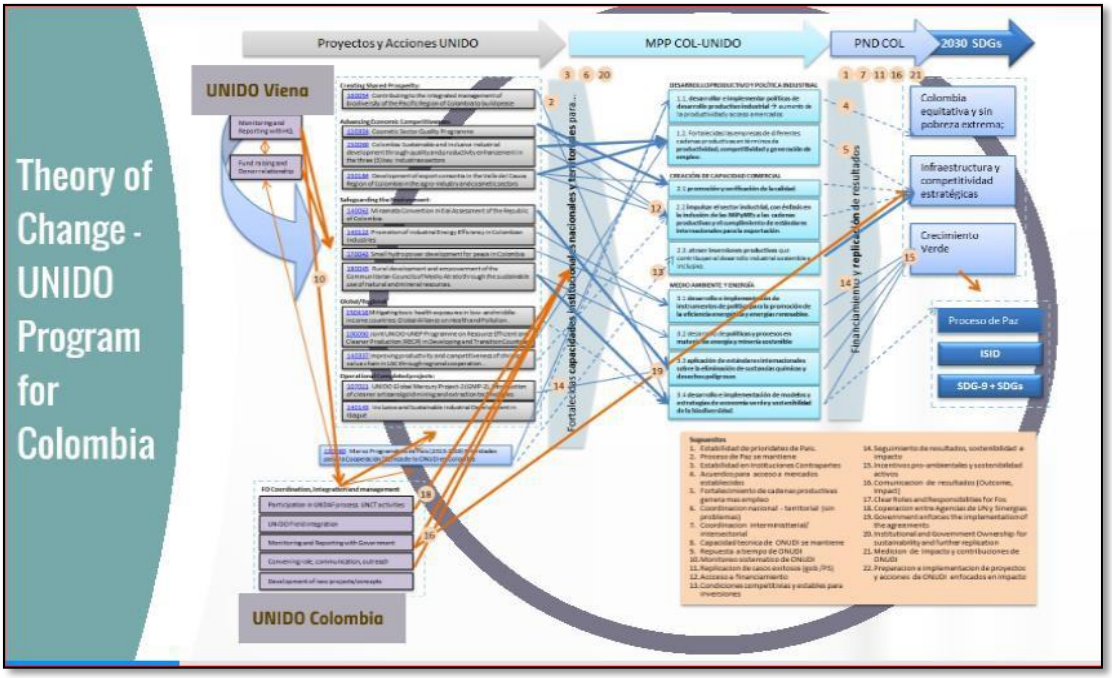


Figure E-8.A-1: Theory of Change for UNIDO Program for Colombia

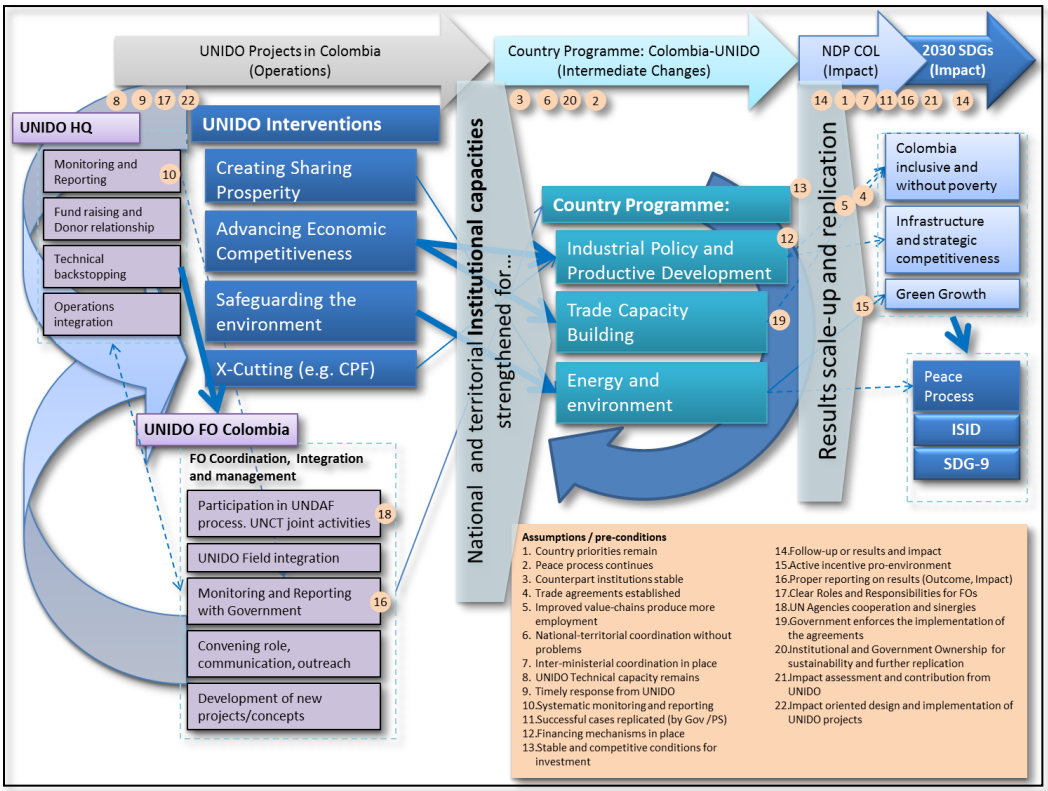


Figure E-8.A-2: Theory of Change Aggregate for the UNIDO-COLOMBIA Program

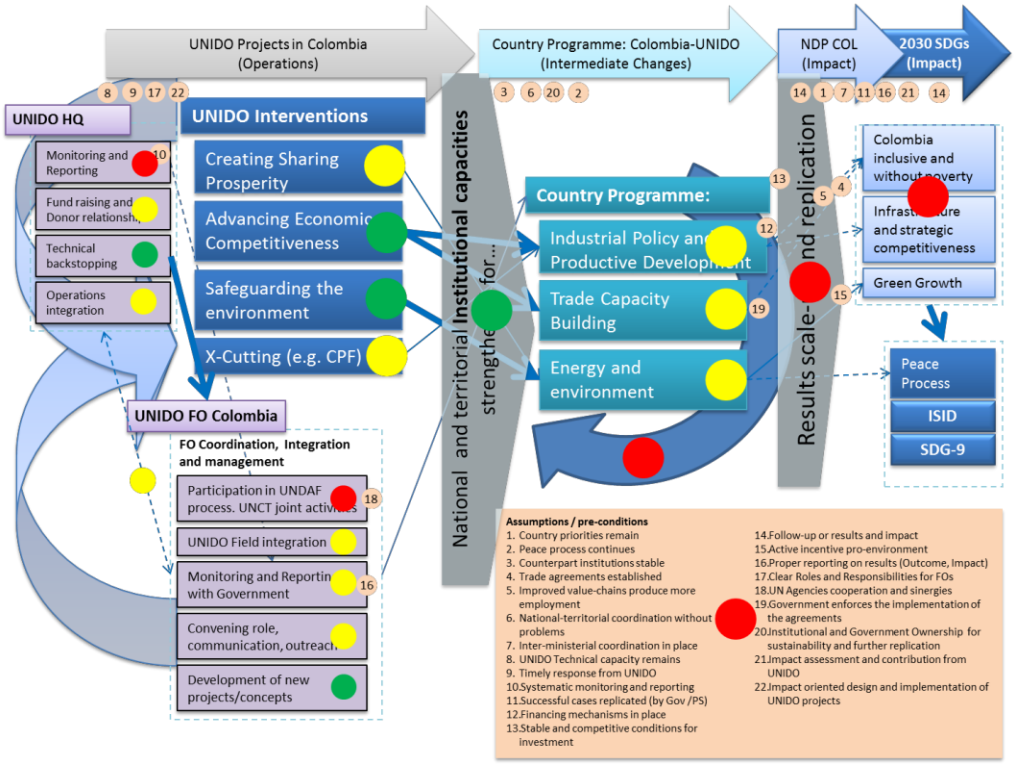


Figure E-8.A-3: General assessment on the elements of the Theory of Change

Annex E-9: Independent UNIDO country evaluation. United Republic Of Tanzania

E-9: Independent UNIDO country evaluation. United Republic of Tanzania. October 2016	
ELEMENTS	**OBSERVATIONS**
Theory of Change Factors	
Benefits ☐ ISID/SDG Goals (General statements)	
✓GHG reduction	
✓Employment	Interventions at micro and meso level
✓Economic productivity	Pg 14 – one of the stated overarching outcomes and the interventions to achieve objectives
✓ Economic growth (markets/sales)	
✓ Waste /Pollutant reduction	
☐ Other	
Technology Adoption ☐ Adopted Practices	
☐ Adopted Technologies	
☐ Changed use of products, technologies/practice	
☐ Other	
Decisions and Actions ✓Changing institutions – influencing policy, strategy and resource allocations, including developing legal, regulatory and social frameworks.	
✓ Changes in the way policy is delivered – substantive change in the way policy is implemented and/or the way policy is delivered to intended recipients.	No changes to the policy, national systems, statistics or trade (one of the main capacity changes) at the micro level indicated (pg 15)
☐ Changes in policy content – substantive changes in the content of policy (including legal and regulatory frameworks as well as voluntary policies) and/or resources allocated.	
☐ Other	
Learning ☐ Agenda change – changes in decision-makers' priorities, with attention to previously underemphasized policy issues.	
✓ Capacity developed – improving high-level understanding of an issue, and improving how decision-makers respond.	Pg 14 breakdown of programs by interventions. Cluster 3 (Enviro & Energy) not well defined.
☐ Shifts in policy framing – changes in the way that decision-makers understand a problem or the possible responses to it.	
✓ Change (improvement) in capability / capacity in institutions (Consider physical, expertise, technical, network etc)	Technical capacity of National Bureau of Statistics and MITI
☐ Other	

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ELEMENTS	**OBSERVATIONS**
Reactions ☐ Changing perceptions – increasing awareness and shaping opinion.	
☐ Other	
Engagement ✓Networks and partnerships built that support the delivery of change.	Strength in long term engagement and relationship management with partners.
☐ Dialogue promoted exchange and learning among (network) members.	Limited synergies between projects which led to isolated interventions.
☐ Other	
Activities conducted by UNIDO	
✓Convening	UNIDO recoginsed as an 'implementing agency'. Pg 41, cluster 3 found that the limited role of UNIDO in project implementation had high potential, given success of project.
✓Analytical and Research Functions and Policy Advisory Services	Pg 28, UNIDO has played the role of an expert agency to the country teams as well as in central govt policy strengthening.
✓Technical Cooperation	Though UNIDO can be seen as too technical at some points
✓Normative Guidance	Too standardised interventions
☐ Other	
Useful Theory of Change Approach Components The following criteria have been distilled from *Useful Theory of Change Models Canadian (John Mayne, 2015)*	
✓Reach and Reaction	Visibility of initiatives are limited
✓Capacity changes	The country programme works towards capacity building, though not a clear link between outputs (e.g. training) and outcomes.
☐ Behavioural changes	
☐ Direct benefits	
☐ Well-being changes	
☐ Other	
Socio-Economic, Political, Technological, Environmental Factors	
☐ Social	
✓Economic	Pg 8-12
✓Political	
✓Environmental	

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ELEMENTS	**OBSERVATIONS**
✓Technological	Some indication of technical factors on the industrialised projects
☐ Other related	
Information and Education Program Factors	
☐ Need and level of complementary carrot or stick interventions (incentives and / or deterrent penalties/sanctions)	
☐ Level of targeting of participants who most need assistance and engaging them in the program related to implications for use of incentives to get them to participate	
☐ Extent and fit of combined mass communication and one on one or group communication processes	
☐ Extent that sources (and providers) of information and advice are credible and opinion leaders are used	
☐ Extent that credibility of messages are enhanced by presenting different perspectives	
☐ Level of coincidence between the outcomes desired by the target audience and those of the policy (host organizations etc.)	
☐ Extent of use of feedback processes about successes arising from behavior changes to recruit more participants for the program or audiences for its messages	
☐ Extent of application of principles of communications, knowledge transfer, diffusion theory, knowledge translation and / or learning theory etc.	
☐ Other	
Innovation Factors	
✓ Relative advantage	Promotes competitive industrial production
☐ Compatibility	
☐ Complexity	
✓ Trialability	Some projects are piloted and then scaled up, however projects are not automatically replicated, delaying process. (pg 50)
✓ Observability	Effects are 'observed' however the outputs and benefits are not clearly defined. (pg 49)
☐ Other	

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ELEMENTS	**OBSERVATIONS**
Management Factors[41]	
✓Adequacy of resourcing – financial and human	Financial uncertainties and structural issues lead to isolated projects. UNIDO is not a funding agency in this area. This said the partnership relationships and limited 'hands-on' approach is beneficial to some initiatives (pg 41)
☐ Certainty and dependability of resourcing	Dependability of financial resources not clear and inconsistent across projects. Uncertainties exist but unclear if this is tied to the dependability of the resources.
☐ Diversity of resource base	
☐ Flexibility permitted for use of resources	
☐ Quality and quantity of activities and service delivery	
☐ Quality, quantity and timeliness of services delivered	
☐ Quality, quantity and timeliness of outputs and throughputs	
☐ Effective, efficient and economic use of available resources	
☐ Appropriateness of staff selection, training, and other aspects of HR management	
☐ Program leadership that is appropriate to the type of program: complex, complicated, or simple	
✓Management strategies, accountabilities, governance incentives and systems for rewards etc.	Not clear what strategies are used and unclear whether they are effective. There is an informal top down implementation framework perceived by country programme teams, which limits team ownership (pg 47)
✓Effectiveness of strategic planning and program design processes, including the soundness of data	Pg 18 – cluster 2 projects (Value chain development, industrial upgrading, Entrepreneurship) mainly at micro and meso level. Custer 3 projects (energy and environment) were micro, meso and macro level. Had robust project designs, Both clusters found Project details generalised, out of date, and often interventions had the same names.
☐ Effectiveness of monitoring, evaluation and program improvement processes	
✓Effectiveness of relationship management	Strong relationship management with partners and networks. Many projects are 'isolated' from the overall objectives. However pg 32 indication of differences of opinion on reasons for delays or data accountability. In certain cases there were logical relationships between projects but opportunities for 'actual synergies' were wasted and did not take place (pg 43). Found across all three clusters, with varying degrees.
✓Effectiveness of strategies to influence external factors	Not effective at influencing external influences on SME projects (pg 33).

[41] Funnell, S. and Rogers, P. (2011) Purposeful Program Theory Effective Use of Theories of Change and Logic Models

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ELEMENTS	**OBSERVATIONS**
☐ Other	
Polity Factors	
✓Planning coordination	
✓Degree of professionalization in the administration	
☐ Administrative discretion	
☐ Influence of external experts	
☐ Other	
Accountability Factors	
✓ Clear roles and responsibilities	It has emerged that while UNIDO plays many roles, it is not clear the main role of UNIDO in Tanzania, and they do not have a strong profile.
✓Clear performance expectations	The expectations are clear, but not 'realistic' for individual projects
☐ Balanced expectations and capacities	
✓Credible reporting	In many industrial and entrepreneurship projects there were no project documents available which stated the expected results, and so it was impossible to determine whether results have been achieved.
✓ Reasonable review and adjustment	Pg 32; projects in 'cluster 1' had varying results of impact, and in response the team reviewed other programme evaluation reports and documents, such as Vietnam team, to adjust accordingly.
☐ Other	
Robust Theories of Change	
Criteria for Each Assumption ☐ Well-defined: Is the assumption unambiguous?	
✓ Logical coherence: Is the assumption a pre-condition or event for the effect sought?	At the macro level there is a clear logic for capacity building, but limited information at the meso level. The logical coherence at the micro level is almost non existent. No uniform standard.
☐ Justified: What is the justification for the assumption as being necessary or likely necessary?	Not clear
✓Realized: Is it plausible that the assumption will be realized? Are there at-risk assumptions that should be addressed?	Cluster 1: varied; Cluster 2: yes with questionable data sourcing; Cluster 3: yes though perhaps because some results were a bit general.
☐ Sustainable: Is the assumption sustainable?	Not identified
✓Measureable: Is there a need to measure the assumption? How can the assumption be measured? What is the likely strength or status of evidence for the assumption being realized?	It is clear the current system does not measure impact or the 'attainment of results' effectively (pg 37).
✓M&E Implications: What are the implications for monitoring and evaluation?	It is clear there is limited robust monitoring data, which may limit M&E implications

E-9: Independent UNIDO country evaluation. United Republic of Tanzania. October 2016	
ELEMENTS	**OBSERVATIONS**
✓ Other	Three thematic clusters exist, each with their own theory of change and project design. The strength of each theory of change varies depending on how robust the data and
Criteria for Each Causal Link ☐ Independence: Are the assumptions for the link independent from each other?	
✓A sufficient set: Are the set of causal link assumptions along with the prior causal factor sufficient to bring about the effect? Is the link plausible?	While the causal link varies by project, it is unclear to the reader the strength of the causal link, or if one has been mapped out. In some cases multiplier effects were found with a clear link to existing outputs.
✓ Strength/Status of evidence: What is the strength or current status of evidence for the causal link being realized?	Industry and entrepreneurship project data unavailable
☐ Other	

Overall Observations/ Comments:

- Report feels superficial, possibly because of inadequate information at micro level, and management factors are not clearly defined.
- Outreach at the micro level was small / insignificant and the impact of UNIDO interventions are limited by the socio-economic context. The long term benefits can be 'observed' but limited unavailable data restricts the ability to verify the outputs, and confirm a causal link to the long term outcomes.
- Indication of a top-down approach inherent in the structure
- Has a small scale isolated project approach which limits synergy, which may prevent UNIDO from contributing significantly to industrialisation in Tanzania. Reason for poor synergy is the conception of projects were unrelated to interventions and based on resource availability or demand.
- Also concerns over replicating and scaling up as 'realistic', though recognise that there does need to be some scaling up.
- Could not apply 'one single theory of change' due to the diversity of the portfolio. Each project had its own theory
- Evaluation indicates that while many roles exist in Tanzania, UNIDO's role is not in fact very clear, and their profile is not strong.
- Strong in convening, engagement of stakeholders and partnerships and network management.
- In the findings there are varying degrees of results per project (pg 31) in cluster 1. In cluster 2 the projects are seemingly on target (or have reached intended target) but the data integrity is questionable. Cluster 2 projects have little to no project documentation and limited data sourcing. Cluster 3 results were appropriately matched in the design stage, and were clear. One project had more generic results which could be more focused.
- Pg 32. – there was a disagreement btw TIC and UNIDO staff over reasons for delays and data accountability. What was clear to evaluator was a lack of ownership by TIC.
- Data largely incomplete at micro and even meso level.

ANNEX F: KNOWLEDGE AND STRENGTHENING INSTITUTIONS AS CAPACITY

Measuring Capacity[42]

The UNDP essentially defines knowledge and strengthening institutions as capacity.[43]

Most institutions continuously strive to strengthen their capacities to fulfill their mandates. The UNDP sees the capture of results of these efforts through three institutional capacity measures: i) does the institution perform more effectively and efficiently in delivering on its mandate? ii) does it do so consistently over time? and iii) does it make the needed adjustments to change (or shocks)?

Capacity Measurement Factors	Components
1. Performance	Effectiveness
	Efficiency
2. Stability	Institutionalization
	Risk Mitigation
3. Adaptability	Investment for Innovation
	Continuous Improvement

1. Institutional Performance

Performance is a combination of the effectiveness and the efficiency with which an institution fulfils its intended purpose. Effectiveness is the degree to which the institution's objectives are achieved. Efficiency is a comparison of what is produced (or what has been achieved) and resources used (money, time, labour, etc.).

Effectiveness

Effectiveness is the degree to which an institution achieves its agreed objectives or mandates. For example, if a Ministry can spearhead the formulation of policies and investments (e.g., living up to Stockholm accord commitments) that contribute to a decrease in POPs, then that Ministry can be said to be effective in contributing to a national goal relating to SDG. (This is not to say that the Ministry's effectiveness is the only factor in achieving the goal, but one of many contributing factors.)

By understanding where and how it is more or less effective, an institution can design programmatic responses to develop capacities in these particular areas. Any positive change to the characteristics or orchestration of functions performed, products produced, or services provided that increases the likelihood of achieve- ment of strategic and operational objectives increases effectiveness. Indicators of increased effectiveness could be **quality** (e.g., via definition of quality standards or a quality assurance

[42] Measuring Capacity, UNDP July 2010. http://www.undp.org/content/undp/en/home/librarypage/capacity-building/undp-paper-on-measuring-capacity.html

[43] This Annex draws on the UNDP's definition of capacity to inform the UNIDO goals to improve knowledge and strengthened institutions. Examples have been adjusted to suit UNIDO's circumstances.

mechanism); or **adequacy** of output quantity (e.g., the quantity of the products and services required to meet the needs of beneficiaries). For example, programmatic responses may contribute to increased effectiveness by:

- improving the quality of policy (by better understanding beneficiaries' needs);
- improving the implementation of programmes (by having better talent management systems that attract and retain top talent).

Efficiency

Efficiency is the ratio of produced outputs (or values) to the resources used to create them. The importance of efficiency has long been recognized by private sector firms operating in a competitive market. In many cases, a slight change in efficiency can have significant consequences for a firm's market share or even survival. While it may be less common for public sector organizations and NGOs to look at efficiency to measure the value of their efforts, there is an increasing sense of responsibility to use resources in an efficient way.

The effects of improved efficiency extend beyond obvious cost-saving factors: recent research shows a direct relationship between public sector operational efficiency and economic growth.[44]6 Furthermore, higher efficiency in public sector organizations improves government image and legitimacy in public eyes. In general, an improvement in the efficiency of national institutions tends to accelerate achievement of national development goals.

Identifying and understanding the political, strategic and operational hurdles to efficiency can help define where to focus and what kinds of programmatic responses to put in place. Change in the amount of resources, whether they be time, money or people, required to perform the same or improved level of production or delivery increases efficiency. Indicators of increased efficiency could be degree of **clarity** (e.g., regarding roles and responsibilities, client needs and values, or expected outcomes); degree of **alignment** (e.g., of teams, budget allocation, or M&E systems); or acceleration in **cycle time** (e.g., reduction in the total time it takes to identify, develop, and deliver agreed outputs). Programmatic responses may contribute to increased efficiency by:

- aligning organizational structure to the mandate (to reduce overlapping roles and responsibilities);
- streamlining business processes (by reducing the number of days to complete tasks or people required to approve);
- improving the policy formulation process (by involving more stakeholders throughout the process). Also see the various 'Learning' elements in the Analysis Tool in **Annex B**.

2. Institutional Stability

While performance measures provide a good snapshot of how well an institution uses its resources, stability measures provide a moving picture of how well an institution performs over time. An improvement in an institution's performance can be a temporary enhancement which is followed by larger setbacks at a later time. Stability is the degree to which an institution can decrease volatility of performance through institutionalization of good practices and norms and identify and mitigate internal and external risks through risk management.

[44] "Does public sector efficiency matter? Revisiting the relation between fiscal size and economic growth in a world sample." Public Choice (2008) - http://www.springerlink.com/content/y63704143727164w/fulltext.pdf

Institutionalization

Institutionalization of performance standards decreases volatility and unpredictability of resource utilization. For example, production level may increase by having a manager who stays in the office long days and weekends and pushes everyone forward; once the overworked manager is removed, or simply burned out, however, the institution moves quickly back to its original state. Although this sort of manager, and these sorts of interventions in general, may make a temporary improvement or even catalyze change, they are rarely a stable solution. Expectations, procedures, and reporting mechanisms should be systemic rather than relying on temporary measures to drive improvement.

Identifying and analyzing areas that are particularly subject to variable performance, due to for instance changing political or organization leadership or high staff turnover, can provide important insight into which areas to focus programmatic responses. Possible interventions that may foster institutionalization of good practices include:

- documentation of business processes and publication in relevant languages;
- alignment of business processes, competency requirements and performance management (by hiring the right people, having them do the right things, and rewarding them for doing it well);
- development of knowledge sharing mechanism (to share good practices and retain institutional memory).

Risk Mitigation

A strong institution should be able to design and implement proper risk identification, analysis and manage- ment. Common risks include various forms of corruption, lack of stakeholder or public participation, and natural and man-made threats or disruptions. These kinds of risks limit an institution's ability to sustain high levels of performance over time.

By identifying the risks to which an institution is susceptible, programmatic responses can be targeted at vulnerable spots. Strong corruption controls, participation mechanisms, and accountability measures can all contribute to more stable institutions. An institution with an over-arching risk management strategy that addresses these risks holistically, rather than with a loose patchwork of plans from various departments or teams, is often better able to mitigate risk and less susceptible to major threats, thereby ensuring its stability.

Below are some of the main risks that can lead to instability in the performance of an institution. The flip side of each risk can become an outcome, with an associated indicator or measure of stability.

- Volatility and unpredictability of funding base;
- External fraud – including theft, robbery, reselling of services illegally or unfairly;
- Internal fraud – where losses are caused by the inappropriate behaviour of an organization's employees;
- Political interference in operational or technical processes;
- Lack of stakeholder or public participation;
- Weak or monopolistic external suppliers for various programmes or operations;
- Damage to physical assets – such as buildings, documents, computers, for example as a result of fires, natural disasters, or vandalism;
- Product and service failures;

- Process failures of all kinds;
- Lack of data for informed decision-making;
- Failures of employment practices and workplace safety measures;
- High staff turnover;
- Low staff morale.

Programmatic responses may contribute to better risk mitigation by:

- designing and putting in place participation mechanisms;
- drafting and implementing best practice procurement policies and practices;
- developing information management systems to ensure fact-based decision-making.

3. Institutional Adaptability

Adaptability is the ability to perform in future conditions and meet future needs. Institutions are under constant threat by various internal and external factors, and strong institutional performance today does not necessarily ensure high performance in the future. Changing needs and challenges require institutions to invest for innovation and continuous improvement to be able to anticipate, adapt and respond to an ever- changing environment.

Investment for Innovation

Investments in innovation seek leading-edge changes to policies, processes, practices and behaviour that will lead to better performance that is sustainable over time. Some changes can be made as a reaction to external changes when they occur. Most changes, however, require proactive planning and preparation to adapt to anticipated environmental change. For example, if the population is increasing at the rate of two percent per year, plans to deal with a potential shortage or deficit in key infrastructural components and / or direct services should look beyond this year's number and consider the change in population, forecasts of change in immigration rate of professionals, and other relevant changes. This year's shortage of services staff may be handled through hiring x number of foreign professionals (e.g. trained engineers for a certain type of approach or protocol), but this solution may not be sustainable given the high cost and the low retention rate usually associated with such a strategy. A more sustainable solution may require investment in engineering schools, wage reform for technical support practitioners, or improvements in living conditions of professional engineers and other technical specialists. In this case, the focus of capacity development responses would be the underlying mechanism for investment in the future, rather than augmentation of input resources.

Continuous Improvement

Continuous and endogenous improvement is another important factor to ensure adaptability. An institution as a whole as well as each internal component and process should continuously adapt to new needs, standards, and environments. An institution considered effective or efficient today may not be a few years from now. A programmatic response could be the design and implementation of a built-in mechanism for continuous improvement, such that an institution's effectiveness and efficiency are examined, redefined and realigned continuously in response to changing realities.

ANNEX G: DEFINING SCALE UP FOR UNIDO INTERVENTIONS

A 2014 paper by Cooley and Linn considers two of the most widely used approaches to scaling up, developed in parallel during the mid-2000s. The first approach was devised by Management Systems International (MSI), a management consulting firm focused on designing and applying policy and management solutions to common development problems, mostly in developing countries.

The second approach was initially developed in the Wolfensohn Center for Development at Brookings and published in 2008 in a Brookings working paper under the title "Scaling Up: A Framework and Lessons for Development Effectiveness from Literature and Practice," by Arntraud Hartmann and Johannes Linn.[45] This approach was then applied and further developed in the context of an institutional scaling up review of – and in collaboration with – the International Fund for Agricultural Development (IFAD), and in advisory and research undertakings with various aid agencies. In keeping with the objective of developing an institutional-level framework for IFAD, the approach aimed to provide high-level policy and operational guidance on the scaling up challenge.

1. Definition of scaling up

Scaling up is defined as "expanding, replicating, adapting and sustaining successful policies, programs or projects in geographic space and over time to reach a greater number of people."

2. The innovation-learning- scaling up process

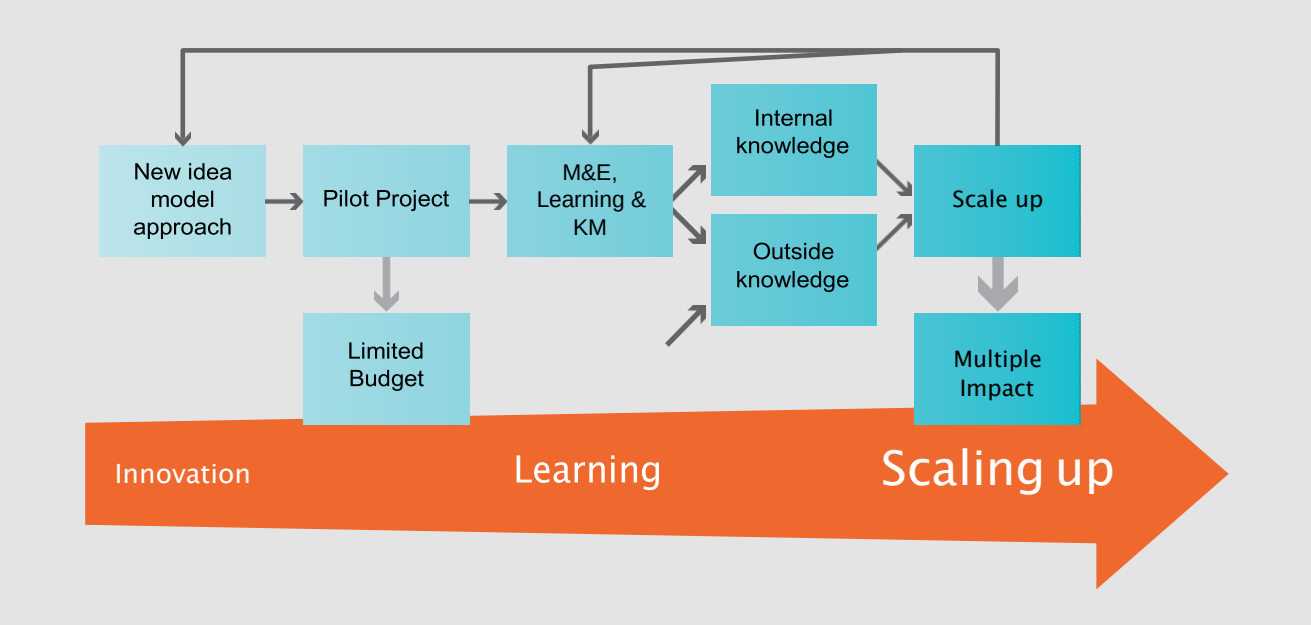
Scaling up is presented as part of a broader process of innovation, learning and scaling up (**Figure G-1**). A new idea, model or approach is typically embodied in a pilot project with limited impact. By learning from this experience with monitoring and evaluation, organization-internal knowledge is created and organization-external knowledge is disseminated. Internal and external knowledge in turn can be used to scale up the model through expansion, replication and adaptation with multiple impacts. The experience from scaling up feeds back into new ideas and learning. Outside knowledge can also feed scaling up efforts, if an organization picks up on the pilot experience and learning of another organization.

3. Pathways for scaling up

A "pathway" is the sequence of steps that needs to be taken in the innovation-learning-scaling up cycle. The pathway starts with an innovation, pilot, or practice and requires a vision of the ultimate scale judged to be appropriate if the intervention is successful. The pathway also requires a strategy for reaching that scale through intermediate steps, which may or may not involve individual "projects," and help ensure progress towards the ultimate scale goal. Normally, there are many possible pathways for scaling up a successful intervention. The challenge is to find the pathway that is most effective in a given country and sectoral context.

[45] Hartmann and Linn (2008). Their approach was critically shaped by a close reading of Santiago Levy's comprehensive account of the scaling up of the Mexican conditional cash transfer program "Progresa-Oportunidades." (Levy 2006)

Figure G-1: The links of innovation, learning and scaling up



Source: Linn

According to the IFAD framework, for each scaling up initiative, a government agency, aid organization, operating NGO, private business or other development actor needs to explore potential pathways and take proactive steps to plan and prepare for scaling up – in terms of dimensions, desired ultimate scale, drivers and spaces, the agency's operational modalities, intermediate results, and monitoring and evaluation. In practical terms, this means: 1) developing a strategic approach to the intervention by developing a country, 2) defining sector or subsector strategy in which the scaling up pathway, and 3) identifying the role of the project or intervention in helping the country move along the pathway. As a starting point, a simple questionnaire, embodying the following seven elements, can help in assuring that the main aspects of a scaling up pathway are addressed.[46]

1. **Selecting the "dimensions":** Scaling up pathways can simply expand services to more clients in a given geographical space. Alternatively, they can also involve "horizontal" replication of services from one geographic area to another "functional" expansion of services by adding additional areas of engagement, and "vertical" up-scaling, which involves moving from local or provincial engagement to nation-wide engagement, often involving policy dialogue and technical assistance to help achieve the policy and institutional conditions needed for successful scaling up at a national level.

2. **Defining the desired scale:** It is important to define up-front the ultimate scale to which an intervention should or could be taken, given the needs of the target population and the nature of the intervention. It is also important to consider realistically the time horizon over which the scaling

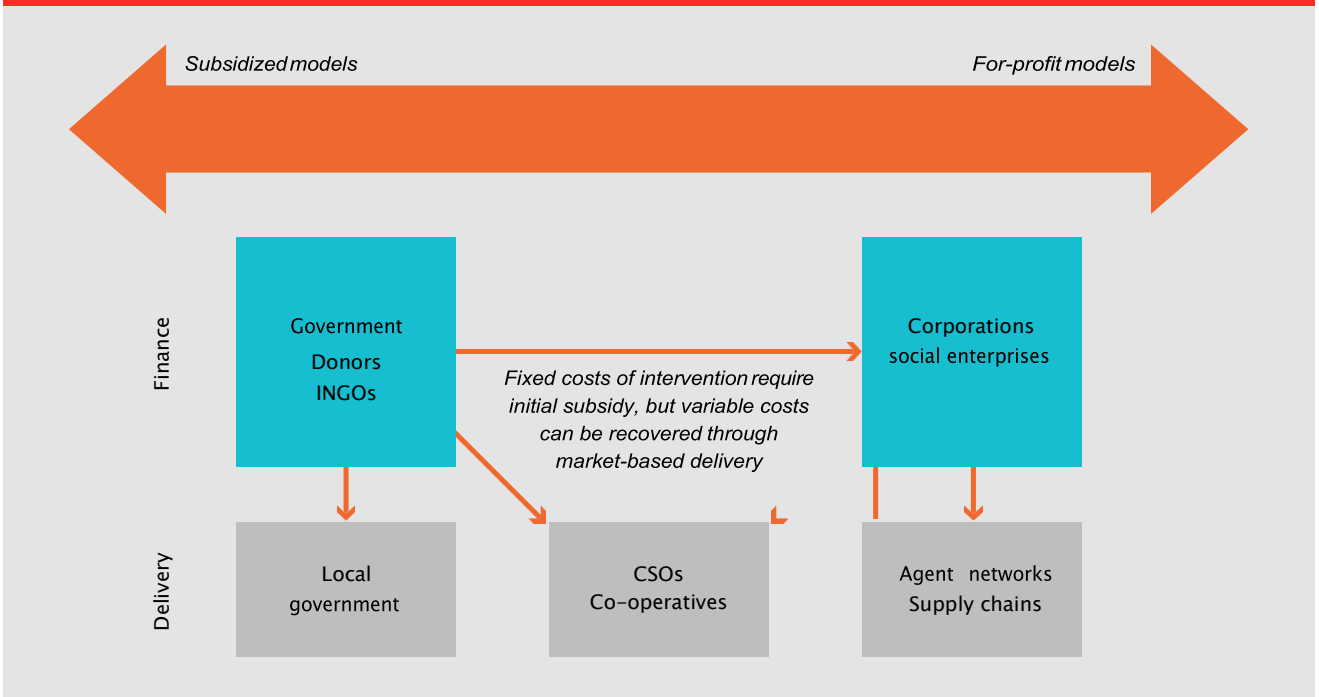
[46] 5IFAD reflected these key elements in its Guiding Questions designed to assist its staff to develop effective scaling up approaches for its country programs.

process needs to extend in order to achieve the desired ultimate scale. Hartmann and Linn found that successful scaling up of programs to national scale can take ten to fifteen years, or longer.

3. **Defining intermediate results:** Along the scaling up pathway, it is important that the program delivers intermediate results. This is necessary to allow for the testing and, where needed, adaptation of the approach. Intermediate results also help ensure the buy-in of community, government and other stakeholders.

4. **Exploring the drivers and spaces of the envisaged pathway:** Early on in the design and throughout the implementation of the innovation-learning-scaling up process, it is important to identify and actively explore the key potential drivers and enabling conditions (spaces) that will allow the initiative to grow beyond the experimental or pilot stage.

Figure G-2: The continuum of partnerships between public, private and civil society organizations



Source: Chandy et al. (2013)

5. **Selecting operational modalities for scaling up:** Governments, development agencies, foundations, and others interested in large-scale change have various options for applying their operational modalities to support scaling up pathways:
   - They can use their own resources for scaling up, work in partnership with other agencies, or hand-off resources to other donors, the government, NGOs, or the private sector.
   - They can finance investments, provide technical assistance, or engage in policy dialogue.
   - They can support scale up of an intervention within a country or across countries.

6. **Mobilizing the right partners:** Successful scaling up generally requires the development of multi-stakeholder partnerships. Chandy *et al*. (2013) have focused attention especially on the continuum of potential partnerships between private, public, and civil society organizations and how different

financing models can help make them work. (Figure 4) The benefit of private partners is that they bring the discipline of the market to the table; public agencies can provide capital financing and assure a level regulatory playing field and supportive policy environment; civil society organizations can assure community engagement and make sure the perspective of "bottom of the pyramid" consumers and beneficiaries is reflected.

7. **Putting in place monitoring and evaluation (M&E):** M&E is the key component of a successful scaling up strategy in several important ways: First, during the implementation of the pilot or experimental stage, stakeholders need to assess the efficacy and cost- effectiveness of the intervention in a variety of settings, test possible efficiencies, and learn which drivers and spaces (opportunities and constraints) may affect an eventual scaling up process. Second, during the scaling up process, monitoring provides important feedback on any unforeseen aspects of the scaling up pathway and permits the adaptation of the pathway as needed. Intermittent evaluation of the impact of the scaled up program during implementation and after completion is needed to ensure that the expected results actually materialize.

According to IFAD, these six steps can be applied retrospectively in assessing scaling up experiences, by asking whether scaling up happened, why and why not; whether there was a vision of scale, a set of intermediate targets, consideration of key factors (drivers, spaces), systematic M&E/learning, adaptation, etc.; and whether institutional strategies, policies, or processes impeded or supported scaling up. This approach is very consistent with emerging IRPF guidance. Similarly, looking forward, these six steps can be applied to assess planned programs by asking whether there is a vision of scale, intermediate targets, consideration of key factors (drivers, spaces), systematic learning, adaptation, etc.; and how to put in place the proper institutional strategies, policies, and processes to support scaling up. The future planning steps are very consistent with the results planning modelled at UNIDO under IRPF development in 2018.

According to Cooley and Linn, MSI's approach to scaling up is intended as practical guidance on the selection, design and implementation of pilot programs and on the scaling up of effective prototypes. As such, it deepens the analysis provided by certain elements of the IFAD framework in order to provide practitioners with the level of detail needed to design specific pilot projects with scale in mind, assess the scalability of specific innovations and models, and help specific interventions reach outcomes at scale.

The MSI framework is summarized in two documents: a management framework for scaling up and a toolkit linked directly to that framework.[47]

[47] Cooley and Ved (2012); Cooley, Ved and Fehlenberg (2012)

The essence of the MSI framework is embodied in a 3-Step, 10-Task approach. (**Figure G-3**)

In constructing this framework, the use of the word "task" is deliberate. Each element is conceived and presented as a task to be managed, not simply a category to be analyzed.

Figure G-3: A Management Framework for Scaling Up

Step 1: Develop a Scaling Up Plan

- Task 1: Create a Vision
- Task 2: Assess Scalability
- Task 3: Fill Information Gaps
- Task 4: Prepare a Scaling Up Plan

Step 2: Establish the Pre-Conditions for Scaling Up

- Task 5: Legitimize Change
- Task 6: Build a Constituency
- Task 7; Realign and Mobilize the Needed Resources

Step 3: Implement the Scaling Up Process

- Task 8: Modify Organizational Structures
- Task 9: Coordinate Action
- Task 10: Track Performance and

Figure G-4: IFAD Guiding Questions for Scaling UP

KENYA | Write-shop on Scaling Up Frameworks | Nairobi, 19–21 February 2013

Framing Questions

Ideas

1. What is the intervention that is to be scaled up? Is it a new idea (innovation or an idea adopted and adapted from prior practice elsewhere?
2. Whose idea is it?
3. Has it been tested/piloted/evaluated?

Vision

4. What is the appropriate ultimate scale of the intervention which the IFAD project or program supports in country X? i.e., how many people, households, districts, etc. could and should ultimately be reached, not merely by IFAD's own program and also by others (government, IFIs, etc.)?

Drivers

5. What or who are the drivers that are pushing, or are expected to push, the scaling up process ahead? Including local leaders or champions, external catalysts and incentives? (see Box 1)

Spaces

6. Space has to exist or be created so the intervention can grow to achieve the desired scale. What are the government and IFAD doing to ascertain or help create this space in its multiple dimensions? (see Box 2)

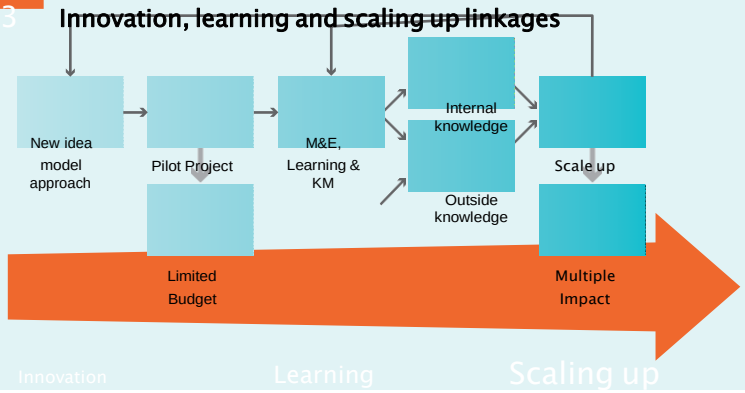
Pathways

7. What are the pathways that define the way interventions in country X are (to be) scaled up with IFAD support, moving from idea/innovation to learning to scaling up? (see Box 3)
8. What is the time horizon over which the pathways are expected to extend?
9. How do the drivers and spaces define these pathways?
10. What are the most serious likely obstacles and risks, and what can be done to mitigate them?

IFAD's Role

11. What is IFAD's specific role in promoting the scaling up process?
12. How do IFAD's policies, procedures and resources support the implementation of the scaling up process?

BOX 3 **Innovation, learning and scaling up linkages**



BOX 1 **Drivers of scaling up**

A few key factors drive forward the process of scaling up:

Ideas, Vision, Leadership: Need to recognize that scaling up of a (new) idea is necessary, desirable, feasible. Successful scaling up is usually driven by champions.

External Catalysts: Political or economic crisis, pressure from outside actors (donors, EU, etc.)

Incentives: These include rewards for actors and institutions, competitions, accountability through the political process, peer and other evaluations, etc. Incentives are key to drive behavior of actors and institutions towards scaling-up; requires accountability.

Source: Adapted from Hartmann and Linn, 2008

BOX 2 **Spaces for scaling up**

If scaling up is to succeed, space has to be created for the initiative to grow. The most important spaces are:

Fiscal/financial space: Fiscal and financial resources need to be mobilized to support the scaled up intervention, and/or the costs of the intervention need to be adapted to fit into the available fiscal/financial space.

Natural resource/environmental space: The impact of the intervention on natural resources and the environment must be considered, harmful effects mitigated or beneficial impacts promoted.

Policy space: The policy (and legal) framework has to allow or needs to be adapted to support scaling up.

Institutional/organizational/staff capacity space: The institutional and organizational capacity has to be created to carry the scaling-up process forward.

Political space: Important stakeholders, both those in support and those against the intervention need to attended to through outreach and suitable safeguards to ensure the intervention.

Cultural space: Possible cultural obstacles or support mechanisms need to be identified and the intervention suitably adapted to permit scaling up in a culturally diverse environment.

Partnership space: Partners need to be mobilized to join in the effort of scaling up.

Learning space: Knowledge about what works and doesn't work in scaling up needs to harnessed through monitoring and evaluation, knowledge sharing and training.

Source: Adapted from Hartmann and Linn, 2008

Figure: G-5 MSI Scalability Assessment Tool

Model Categories		A ☺✓	←Scaling up is easier	B 😐✓	Scaling up is harder →	C ☹
A. Is the model credible?	1		Based on sound evidence		Little or no solid evidence	
	2		Independent external evaluation		No independent external evaluation	
	3		There is evidence that the model works in diverse social contexts		There is no evidence that the model works in diverse social contexts	
	4		The model is supported by eminent individuals and institutions		The model is supported by few or no eminent individuals and institutions	
B. How observable are the model's results?	5		The impact is very visible to casual observation tangible		The impact is not very visible, not easily communicated to public	
	6		Clearly associated with the intervention		Not clearly associated with the intervention	
	7		Evidence and documentation exists with clear emotional appeal		Currently little or no evidence with clear emotional appeal	
C. How relevant is the model?	8		Addresses an objectively significant, persistent problem		Addresses a problem which affects few people or has limited impact	
	9		Addresses an issue which is currently high on the policy agenda		Addresses an issue which is low or invisible on the policy agenda	
	10		Addresses a need which is sharply felt by potential beneficiaries		Addresses a need which is not sharply felt by potential beneficiaries	
D. Does the model have relative advantage over existing practices?	11		Current solutions for this issue are considered inadequate		Current solutions are considered adequate	
	12		Superior effectiveness to other innovative models established		Little or no objective evidence of superiority to current solutions	
	13		Superior effectiveness to other innovative models established		Superior effectiveness to other innovative models not established	
E. Is the model credible?	14		Implementable within existing systems, infrastructure		Requires new or additional systems, infrastructure, or human resources	
	15		Contains a few components easily added onto existing systems		In a complete or comprehensive package of multiple components	
	16		Small departure from current practices and behaviors of *target population*		Large departure from current practices and behaviors *for target population*	
	17		Small departure from current practices and cultures of *adopting organization(s)*		Large departure from current practices and cultures of *adopting organization(s)*	
	18		Few decision makers are involved in agreeing to adoption of the model		Many decision makers are involved in agreeing to adoption	
	19		Demonstrated effectiveness in diverse organization settings		Demonstrated effectiveness in only one organization setting	
	20		The model in not particularly value or process intensive		Process and/or values are an important component of the model	
	21		Low technical sophistication of the components and activities of the model		High technical sophistication of the components and activities of the model	
	22		Key innovation is clear and easily replicated *technology*, e.g. vaccine		Focus of the model is not a *technology* or one which is not easily replicated	
	23		Low complexity; simple with few components and easily added on to existing systems		High complexity with many components; integrated package	
	24		Includes little supervision and monitoring		Includes substantial supervision and monitoring for implementation	
F. How testable is the model?	25		Able to be tested by users on a limited scale		Unable to be tested without complete adoption at a large scale	
G. Is there a sustainable source of funding?	26		Superior *cost-effectiveness* to existing or other solutions clearly established		Little evidence of superiority in terms of *cost-effectiveness*	
	27		Requires a large commitment of funds at scale		Requires a small absolute commitment of funds at scale	
	28		The model itself has its own internal funding		No internal funding; the model is dependent on	

			(e.g., user fees) or endowment		external funding source	
Total number of checks						

Figures G-4 and G-5 illustrates how IFAD and MSI approaches may be applied. **Figure G-5.A** shows how the MSI Factors can be applied retroactively to a couple of country evaluations. Emerging work world-wide suggests that such rating devices may be considered for various elements of scaling up – such as technology, markets/commercial readiness, policy , regulatory, systems (including infrastructure) and population (consumers – including both enterprises and households) readiness.

Figure G-5.A: MSI Factors Applied Retroactively

NIGERIA

Model Categories		A ☺✓	← Scaling up is easier	B 😐✓	Scaling up is harder →	C ☹✓
A. Is the model credible?	1		Based on sound evidence		Little or no solid evidence	✓
	2	✓	Independent external evaluation		No independent external evaluation	
	3		There is evidence that the model works in diverse social contexts	✓	There is no evidence that the model works in diverse social contexts	
	4		The model is supported by eminent individuals and institutions	✓	The model is supported by few or no eminent individuals and institutions	
B. How observable are the model's results?	5		The impact is very visible to casual observation tangible		The impact is not very visible, not easily communicated to public	✓
	6		Clearly associated with the intervention		Not clearly associated with the intervention	✓
	7		Evidence and documentation exists with clear emotional appeal		Currently little or no evidence with clear emotional appeal	✓
C. How relevant is the model?	8	✓	Addresses an objectively significant, persistent problem		Addresses a problem which affects few people or has limited impact	
	9		Addresses an issue which is currently high on the policy agenda	✓	Addresses an issue which is low or invisible on the policy agenda	
	10	✓	Addresses a need which is sharply felt by potential beneficiaries		Addresses a need which is not sharply felt by potential beneficiaries	
D. Does the model have relative advantage over existing practices?	11		Current solutions for this issue are considered inadequate	✓	Current solutions are considered adequate	
	12		Superior effectiveness to other innovative models established		Little or no objective evidence of superiority to current solutions	✓
	13		Superior effectiveness to other innovative models established		Superior effectiveness to other innovative models not established	✓
E. Is the model credible?	14		Implementable within existing systems, infrastructure		Requires new or additional systems, infrastructure, or human resources	✓
	15		Contains a few components easily added onto existing systems	✓	In a complete or comprehensive package of multiple components	
	16		Small departure from current practices and behaviors of *target population*	✓	Large departure from current practices and behaviors *for target population*	
	17		Small departure from current practices and cultures of *adopting organization(s)*		Large departure from current practices and cultures of *adopting organization(s)*	✓
	18		Few decision makers are involved in agreeing to adoption of the model		Many decision makers are involved in agreeing to adoption	✓
	19	✓	Demonstrated effectiveness in diverse organization settings		Demonstrated effectiveness in only one organization setting	
	20		The model in not particularly value or process intensive	✓	Process and/or values are an important component of the model	
	21		Low technical sophistication of the components and activities of the model	✓	High technical sophistication of the components and activities of the model	

	22		Key innovation is clear and easily replicated *technology*, e.g. vaccine	✓	Focus of the model is not a *technology* or one which is not easily replicated	
	23		Low complexity; simple with few components and easily added on to existing systems		High complexity with many components; integrated package	✓
	24		Includes little supervision and monitoring		Includes substantial supervision and monitoring for implementation	✓
F. How testable is the model?	25	✓	Able to be tested by users on a limited scale		Unable to be tested without complete adoption at a large scale	
G. Is there a sustainable source of funding?	26		Superior *cost-effectiveness* to existing or other solutions clearly established		Little evidence of superiority in terms of *cost- effectiveness*	✓
	27	✓	Requires a large commitment of funds at scale		Requires a small absolute commitment of funds at scale	
	28		The model itself has its own internal funding (e.g., user fees) or endowment		No internal funding; the model is dependent on external funding source	✓
Total number of checks		6		9		13
COLOMBIA						
Model Categories		A..	Scaling up is easier	B..	Scaling up is harder	C.
A. Is the model credible?	1	✓	Based on sound evidence		Little or no solid evidence	
	2	✓	Independent external evaluation		No independent external evaluation	
	3	✓	There is evidence that the model works in diverse social contexts		There is no evidence that the model works in diverse social contexts	
	4		The model is supported by eminent individuals and institutions	✓	The model is supported by few or no eminent individuals and institutions	
B. How observable are the model's results?	5	✓	The impact is very visible to casual observation tangible		The impact is not very visible, not easily communicated to public	
	6	✓	Clearly associated with the intervention		Not clearly associated with the intervention	
	7	✓	Evidence and documentation exists with clear emotional appeal		Currently little or no evidence with clear emotional appeal	
C. How relevant is the model?	8		Addresses an objectively significant, persistent problem	✓	Addresses a problem which affects few people or has limited impact	
	9		Addresses an issue which is currently high on the policy agenda	✓	Addresses an issue which is low or invisible on the policy agenda	
	10	✓	Addresses a need which is sharply felt by potential beneficiaries		Addresses a need which is not sharply felt by potential beneficiaries	
D. Does the	11	✓	Current solutions for this issue are considered inadequate		Current solutions are considered adequate	

model have relative advantage over existing practices?	12	✓	Superior effectiveness to other innovative models established		Little or no objective evidence of superiority to current solutions	
	13		Superior effectiveness to other innovative models established	✓	Superior effectiveness to other innovative models not established	
E. Is the model credible?	14	✓	Implementable within existing systems, infrastructure		Requires new or additional systems, infrastructure, or human resources	
	15	✓	Contains a few components easily added onto existing systems		In a complete or comprehensive package of multiple components	
	16	✓	Small departure from current practices and behaviors of target population		Large departure from current practices and behaviors for target population	
	17	✓	Small departure from current practices and cultures of adopting organization(s)		Large departure from current practices and cultures of adopting organization(s)	
	18		Few decision makers are involved in agreeing to adoption of the model	✓	Many decision makers are involved in agreeing to adoption	
	19	✓	Demonstrated effectiveness in diverse organization settings		Demonstrated effectiveness in only one organization setting	
	20	✓	The model in not particularly value or process intensive		Process and/or values are an important component of the model	
	21	✓	Low technical sophistication of the components and activities of the model		High technical sophistication of the components and activities of the model	
	22	✓	Key innovation is clear and easily replicated technology, e.g. vaccine		Focus of the model is not a technology or one which is not easily replicated	
	23		Low complexity; simple with few components and easily added on to existing systems		High complexity with many components; integrated package	
	24		Includes little supervision and monitoring	✓	Includes substantial supervision and monitoring for implementation	
F. How testable is the model?	25	✓	Able to be tested by users on a limited scale		Unable to be tested without complete adoption at a large scale	
G. Is there a sustainable source of funding?	26	✓	Superior cost-effectiveness to existing or other solutions clearly established		Little evidence of superiority in terms of cost- effectiveness	
	27		Requires a large commitment of funds at scale	✓	Requires a small absolute commitment of funds at scale	
	28		The model itself has its own internal funding (e.g., user fees) or endowment		No internal funding; the model is dependent on external funding source	✓
Total number of checks		19		7		1

ANNEX H: ASSUMPTIONS AND PRECONDITIONS

Assumptions and Pre-conditions in Formal Evaluation Theories of Change Linked to Rating Tool Factors	
Pre-Conditions and Assumptions	**Link to Rating Tool Factors (Annex B-1.2)**
Programme for Country Partnership	
A couple of pre-conditions need to be in place before a PCP can start. They can also be regarded as criteria to qualify for a PCP. These are: **PC.1** Strong Government ownership and commitment at highest national authority level (strong ministry of industry commitment is required but not sufficient pre-condition); financial resource allocation from the Government to PCP;	Management Factors, prominent in China, India
PC.2 Government is willing and has the capacity to take the leadership in the PCP; ministry of finance required to play a leading role in resource and partner mobilization;	China, PCP, India
PC.3 Some basic infrastructure must be in place (e.g. roads, energy, ports, airports). There are likely to be more pre-conditions required to be in place before a PCP can start. **Assumptions** are an important element in any theory of change. If assumptions are wrong, then the theory of change may not work or collapse entirely. The PCP theory of change is based on several fundamental assumptions:	These could be added in Socio-economic, Political Technological Factor (SEPT)
A.1 UNIDO has the capacity and resources at HQ and at country level to play the coordination and convening role among development partners; this includes the assumption that UNIDO has the capacity to support resource mobilisation for governments;	Most significant evaluations commented on UNIDO capacity and resources
A.2 UNIDO internal coordination between different departments is functioning (required to play a credible coordination and convening role with external partners)	Policy factors
A.3 Government willing to give UNIDO facilitation role (with regard to coordination and convening role)	Roles discussion in 'management factors'
A.4 Partners are in principle willing to engage and interested to invest	Colombia, India
A.5 National industrial development strategy is convincing to partners	Not explicitly covered in factors (part of programme theory)
A.6 Context related assumptions: political stability in country	Socio-economic, Political Technological Factor
A.7 Context related assumptions: enabling economic environment i.e. demand for goods and services produced in priority sectors	Socio-economic, Political Technological Factor
Youth and Gender	
Some of the fundamental assumptions are suggested below, without attempting to be comprehensive. **A.1** More sales lead to more employment. Not necessarily. It depends on how labour intensive the production of goods and services is. The productivity improvements only lead to more	A.1, A.2 and A.3 are highly oriented to broader impact factors

Assumptions and Pre-conditions in Formal Evaluation Theories of Change Linked to Rating Tool Factors	
Pre-Conditions and Assumptions	**Link to Rating Tool Factors (Annex B-1.2)**
jobs if workers are not substituted by technology/capital. Growth is necessary, but not sufficient to create jobs. More sales does not necessarily mean more employment and also not necessarily for women and youth.	
A.2 More competitive enterprises lead to more sales. Not necessarily. Sales depend to a large extent on local or international demand. More competitive enterprises may also lead to crowding out of less competitive firms, thereby reducing sales of those companies.	Economic sector dynamics – not a direct 'strengthened knowledge and institutions' factor per se.
A.3 A growing economy leads to more sales of domestic products. Not necessarily. An economy can for example also grow through imports of goods.	Economic factors – see above
A.4 Graduates/trainees are motivated, have an incentive and an opportunity to apply learned skills. Not necessarily. Many well trained persons, in particular youth, are unemployed as there is no opportunity to work.	Note their factor to the capability, opportunity and motivation ,
A.5 A competitive economy leads to growth. Not always. It depends on many other factors like for example the state of the global economy. During global recessions, even competitive economies can stagnate.	High level assumption – not likely a focus for many at a direct intervention level
A.6 An enabling environment leads to a more competitive economy. Not necessarily. The competitiveness of an economy depends on many factors. The World Economic Forum defines 12 pillars of competitiveness in the Global Competitiveness Report 2014–2015: institutions, infrastructure, macroeconomic environment, health & primary education, higher education & training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication, innovation.	Again a very high level factor suited to economy level debates, but not the behavioural focus of knowledge and institutional strengthening
A.7 The conducive business environment depends on government enforcing rules and regulations. New rules and regulations can only lead to change if they are being implemented.	The use of complementary programs explicitly in the assessment tool under Information, Education Program Factors – also under 'Polity factors (B-1.5)
A.8 Enterprises will only use services provided by institutions and/or associations, if they meet the demand, are of good quality and affordable.	This is not found in the rating tool. It sounds as if is part of the T of C
A.9 Demand for 'grassroots' products (e.g. chicken, baskets) is higher than supply. Chances are that there are many individuals trying to sell the same products (supply) on the same market (demand). If that is the case, the better trained individuals will benefit at the cost of the less well trained and there will be no additional self-employment overall. The intervention only leads to more sales, if there is an unmet demand.	Again economic theory being used to explain impact. The emphasis we have been seeing have related to behaviour
Colombia	
1. Country priorities remain	Similar to PCP factor – seems compelling
2. Peace process continues	Political high level factor in SEPTE
3. Counterpart institutions stable	Partially covered but explicit assumptions and key partner/ actor makes sense

Assumptions and Pre-conditions in Formal Evaluation Theories of Change Linked to Rating Tool Factors	
Pre-Conditions and Assumptions	**Link to Rating Tool Factors (Annex B-1.2)**
4. Trade agreements established	Part of the theory of change ?
5. Improved value-chains produce more employment	Once again high level SEPTE
6. National-territorial coordination without problems	Consideration covered under Management Factor (Relationship Management) and Polity (B-1.5)
7. Inter-ministerial coordination in place	See Polity (B-1.5)
8. UNIDO Technical capacity remains	Covered in Management Factors
9. Timely response from UNIDO	Management Factors
10. Systematic monitoring and reporting	Management Factors (Also accountability)
11. Successful cases replicated (by Gov/PS)	This seems like desired outcome – innovation diffusion
12. Financing mechanisms in place	Resourcing certainty covered by mgt factors
13. Stable and competitive conditions for investment	SEPT conditions
14. Follow-up or results and impact	Accountability Factors (B-1.6)
15. Active incentive pro-environment	Complementary programs covered in Information and Education Program Factors (B-1.3)
16. Proper reporting on results (Outcome, Impact)	Measurement / monitoring found in Management Factors
17. Clear Roles and Responsibilities for FOs	Directly covered in Management Factors and Accountability (B-1.6)
18. UN Agencies cooperation and synergies	Cooperation covered in Management Factors and Polity (B-1.5)
19. Government enforces the implementation of the agreements	Covered by leadership in Management Factors though could be added
20. Institutional and Government Ownership for sustainability and further replication	Level of coincidence by target group goals and UNIDO (B-1.3)
21. Impact assessment and contribution from UNIDO	Accountability Factor (B-1.6) and Management Factor – measurement of results
22. Impact oriented design and implementation of UNIDO projects	Partially covered by complementary institutions (B-1.3) and Management Factor Design could be considered distinct