

Independent Evaluation Division
Office of Evaluation and Internal Oversight

Independent Country Programme Evaluation **Republic of India**



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

**INDEPENDENT EVALUATION DIVISION
OFFICE OF EVALUATION AND INTERNAL OVERSIGHT**

**INDEPENDENT
COUNTRY PROGRAMME EVALUATION
REPUBLIC OF INDIA**

Volume I



**UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION**

Vienna, 2018

The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of company names and commercial products does not imply the endorsement of UNIDO.

The views and opinions of the team do not necessarily reflect the views of the Governments and of UNIDO.

This document has not been formally edited.

Distr. GENERAL | ODG/EIO/IED/17/R.25 | October 2018 | Original: English

CONTENTS

VOLUME I

ABBREVIATIONS AND ACRONYMS.....	VI
GLOSSARY OF EVALUATION-RELATED TERMS.....	VIII
EXECUTIVE SUMMARY.....	X
1 INTRODUCTION.....	1
2 CONTEXT.....	2
2.1 UNIDO COUNTRY PROGRAMME BACKGROUND.....	2
2.2 CURRENT COUNTRY PORTFOLIO PROFILE.....	3
2.3 CURRENT PORTFOLIO FUNDING.....	4
3 EVALUATION METHODOLOGY.....	7
3.1 EVALUATION PURPOSE, KEY QUESTIONS AND SCOPE.....	7
3.2 EVALUATION METHODOLOGY.....	7
3.3 EVALUATION LIMITATIONS.....	10
4 EVALUATION FINDINGS.....	12
4.1 RELEVANCE.....	12
4.2 EFFECTIVENESS.....	15
4.3 EFFICIENCY.....	22
4.4 TRANSFORMATIONAL CHANGE – PROGRESS TOWARDS IMPACT.....	26
4.5 SUSTAINABILITY.....	32
4.6 PROGRAMME MANAGEMENT, CROSS-CUTTING ISSUES AND PARTNERSHIPS.....	35
5 CONCLUSIONS, RECOMMENDATIONS AND LESSONS LEARNED.....	42
5.1 CONCLUSIONS.....	42
5.2 RECOMMENDATIONS.....	46
5.3 LESSONS LEARNED.....	49

LIST OF FIGURES

FIGURE 1. NUMBER OF PROJECTS PER GOVERNMENT MINISTRIES AND STATE DEPARTMENTS.....	4
FIGURE 2. ESTIMATED PROJECT DELAY PERIODS.....	24
FIGURE 3. EFFECT OF DELAYS ON RESULTS.....	26
FIGURE 4. PATHWAY TO TRANSFORMATION.....	28
FIGURE 5. NEW WORLD KIRKPATRICK MODEL FOR EVALUATION OF CAPACITY DEVELOPMENT.....	33
FIGURE 6. UNIDO'S CONTRIBUTION TO INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT IN INDIA.....	43

List of Tables

TABLE 1. OVERVIEW OF THE 2013-2017 UNIDO COUNTRY PROGRAMME IN INDIA.....	5
TABLE 2. FUNDING STRUCTURE OF THE COUNTRY PROGRAMME.....	5
TABLE 3. SUMMARY OF UNIDO PROJECTS 2013 - 2017.....	8
TABLE 4. EXAMPLES OF SUCCESSFUL PROJECT OUTCOMES.....	16
TABLE 5. EVIDENCE OF ADAPTATION AND POTENTIAL FOR INDUSTRY-WIDE ADOPTION.....	21
TABLE 6. RATIO BETWEEN FUNDS MOBILIZED THROUGH UNIDO AND CO-FINANCING.....	23
TABLE 7. KEY STEPS OF UNIDO PROGRAMMES AND PROJECTS TOWARDS IMPACTS.....	29
TABLE 8. ENABLING PROCESS IN UNIDO PROGRAMMES AND PROJECTS TOWARDS IMPACTS.....	31
TABLE 9. SUSTAINABILITY STRATEGIES EVIDENT IN THE UNIDO-INDIA PORTFOLIO.....	32
TABLE 10. PERFORMANCE OF PROJECTS IN THE COUNTRY PROGRAMME*.....	42

VOLUME II - ANNEXES

(Available under www.unido.org/resources/evaluation)

- ANNEX 1. TERMS OF REFERENCE (MAIN BODY)
- ANNEX 2. EVALUATION PHASES AND TOOLS
- ANNEX 3. 2011 MID-TERM EVALUATION OF INDIA COUNTRY PROGRAMME 2008-2012 -
RECOMMENDATIONS
- ANNEX 4. EVALUATION QUESTIONS
- ANNEX 5. CHECKLIST ON EVALUATION REPORT QUALITY
- ANNEX 6. UNIDO RESULTS AND PERFORMANCE FRAMEWORK
- ANNEX 7. LIST OF PROJECTS UNDER THE 2013 – 2017 COUNTRY PROGRAMME
- ANNEX 8. LIST OF PERSONS INTERVIEWED
- ANNEX 9. REFERENCES

Acknowledgements

The evaluation team acknowledges and highly values the support provided by the national stakeholders in India who made their time available and provided information, discussed and answered questions and shared their views and experience. The main findings, conclusions and recommendation contained in this report benefitted greatly from this input.

The evaluation team also benefited extensively from insights provided by UNIDO management, project managers and staff throughout the organization, in particular from the Directorate of Programme Development and Technical Cooperation (PTC) and the Department of Programme Partnerships and Field Integration, who were forthcoming in sharing information and providing valuable comments.

The evaluation team would like to particularly acknowledge the support received from the Department of Industrial Planning and Promotion (DIPP), UNIDO's nodal agency in India and UNIDO Regional Office staff in India for planning and organizing the evaluation mission agenda thereby making it possible to cover a wide range of the activities and visit a representative number of project sites in a timely manner.

We hope that the conclusions and recommendations presented in this report will be useful for the formulation and implementation of the next UNIDO India Country Programming Framework to be implemented between 2018-2023.

Ms. Thuy Thu Le, Evaluation Officer, Independent Evaluation Division, UNIDO

Ms. Dorothy Lucks, International Evaluation Consultant (Team Leader)

Mr. Ronnie MacPherson, International Evaluation Consultant

Mr. Hemant Verma, National Consultant (provided support to the evaluation team during the field mission)

Abbreviations and acronyms

ACMA	Automotive Component Manufacturers Association of India
ARTFED	Assam Apex Weavers and Artisans Co-operative Ltd.
BCDI	Bamboo and Cane Development Institute
CIF	Cost, Insurance and Freight
CII	Confederation of Indian Industries
CP	Country Programme
CPE	Country Programme Evaluation
CPPRI	Central Pulp and Paper Research Institute
CSF	Country Service Framework
DaO	Delivering as One
DDT	Dichlorodiphenyltrichloroethane
DIPP	Department of Industrial Policy and Promotion
EE	Energy Efficiency
ERP	Enterprise Resource Planning
FAO	Food and Agriculture Organisation
FDI	Foreign direct investment
FICCI	Federation of Indian Chambers of Commerce and Industry
FOB	Free on Board/ Freight on Board
GDP	Gross Domestic Product
GEF	Global Environment Facility
GII	Global Innovation Index
GoI	Government of India
HDI	Human Development Index
HQ	Head Quarters
IARPMA	Indian Agro and Recycled Paper Mills Association
ICAMT	International Centre for Advancement of Manufacturing Technology
ICGEB	International Centre for Genetic Engineering and Biotechnology
IC-ISID	International Centre for Inclusive and Sustainable Industrial Development
IED	Independent Evaluation Division
INMA	Indian Newsprint Manufacturers Association
IMF	International Monetary Fund
IRMPA	India Recycled Paper Mills Association
IPMA	Indian Paper manufacturers Association
ISID	Inclusive and Sustainable Industrial Development
M&E	Monitoring and Evaluation

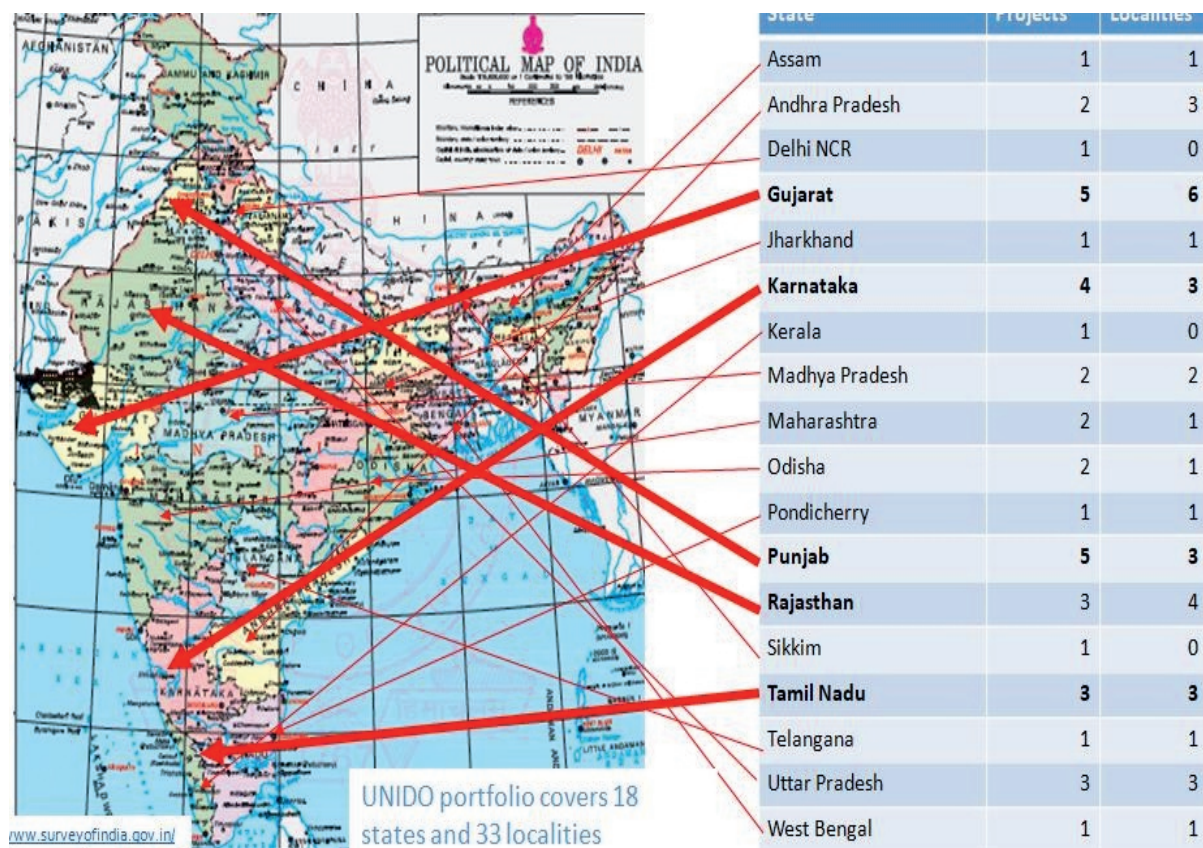
MoCF	Ministry of Chemicals and Fertilisers
MoEFCC	Ministry of Environment, Forests and Climate Change
MoHUA	Ministry of Housing and Urban Affairs
MoMSMEs	Ministry of Micro, Small and Medium Enterprises
MSMEs	Micro, Small, and Medium Enterprises
NCCBM	National Council for Cement and Building Materials
NEHHDC	North Eastern Handcrafts and Handlooms Development Corporation Ltd.
ODA	Overseas Development Assistance
OECD-DAC	Organisation for Economic Cooperation and Development - Development Assistance Committee
PCBs	Poly Chlorinated Biphenyls
POPs	Persistent Organic Pollutants
PTI	Pathway to Impact
RBM	Results-Based Management
SDG	Sustainable Development Goals
SME	Small and Medium Enterprises
SMEs	Small and medium-sized enterprises
TE	Terminal Evaluation
TOC	Theory of Change
ToR	Terms of Reference
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDP	United National Development Programme
URO	UNIDO Regional Office
USD	United States Dollar
WIPO	World Intellectual Property Organisation

GLOSSARY OF EVALUATION-RELATED TERMS

Term	Definition
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention.
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention.
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.
Lessons learned	Generalizations based on evaluation experiences that abstract from the specific circumstances to broader situations.
Logframe (logical framework approach)	Management tool used to facilitate the planning, implementation and evaluation of an intervention. It involves identifying strategic elements (activities, outputs, outcome, impact) and their causal relationships, indicators, and assumptions that may affect success or failure. Based on RBM (results based management) principles.
Outcome	The likely or achieved (short-term and/or medium-term) effects of an intervention's outputs.
Outputs	The products, capital goods and services which result from an intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.
Relevance	The extent to which the objectives of an intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donor's policies.
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken.
Theory of Change	Theory of Change is a comprehensive description and illustration of how activities are understood to produce a series of results that contribute to achieving the final intended impacts. It is also called Pathway to Impact (PTI) as used in this report

COUNTRY MAP

CURRENT UNIDO PORTFOLIO COVERED 18 STATES AND 33 LOCALITIES IN 2017 (HEAVIER LINES DENOTE PARTICULAR FOCUS LOCATIONS)



Source: UNIDO Regional Office, New Delhi, March, 2018.

EXECUTIVE SUMMARY

This independent Country Programme Evaluation (CPE) assesses the results and performance of the United Nations Industrial Development Organization (UNIDO) 2013-2017 Country Programme in India and explores whether UNIDO's contribution to industrial development results in India has initiated and/or advanced transformational change; and generates findings and recommendations to feed into the design and implementation of a new country programming framework for the period 2018-2022 between the Government of India (GoI) and UNIDO.

UNIDO has been delivering technical cooperation services in India since 1966. UNIDO interventions largely focus on technology support towards increased industry competitiveness. In recent years, interventions have aimed towards enhancing productivity and efficiency as well as environmental improvements in industry processes.

During the period 2013-2017, the country programme consisted of 24 projects with the budget of USD 96 million including Project Support Costs (PSC) and has mobilized USD 377 million in co-financing by the Government and private sector in India, making the total portfolio size of around USD 473 million. The India Country Programme (CP) represents the second largest UNIDO country portfolio. Projects were categorised into two components: (i) Green Industrial Development and (ii) Inclusive Economic Development¹. Projects under the Green Industrial Development component were mainly funded by the Global Environment Fund (GEF), with some co-financing contributions from the Government of Japan, and a wide variety of implementation partners. All projects under the Inclusive Economic Development component were funded by the GoI, mostly through the Department of Industrial Policy and Promotion (DIPP), the nodal agency for UNIDO in India.

The CPE involved drawing evidence from independent project evaluations as well as document reviews, meetings with key stakeholders and visits to sites for ten projects. Field missions related to project evaluations and the CPE took place from January to April 2018. A national stakeholder workshop was organized in New Delhi on 24 April 2018, with the participation of representatives from the Government of India, UNIDO staff, project staff and representatives from UNIDO partners, to validate the CPE findings and to feed recommendations into the new 2018-2022 UNIDO Country Programme in India.

KEY FINDINGS

Relevance

The country portfolio and its individual projects were highly relevant at macro and meso level and satisfactorily relevant at micro level. The original 2013 CP was well-aligned with GoI's priorities, and the 2016 addendum enhanced relevance even further, responding in particular to the GoI's changing strategies and to UNIDO's increased focus on inclusive and sustainable industrial development, and to the adoption of the SDGs at the global level. Projects were generally relevant to the needs of institutions/companies at the micro level, but some shortcomings were identified within a limited number of projects. Despite the

¹ In addition, UNIDO with the support of the GoI has been implementing several South-South Industrial Cooperation projects outside India, making use of expertise and best available techniques and methods from India. Whilst being part of the UNIDO footprint in India, these activities initiated by UNIDO and GoI have not been covered by this CPE.

overall strong performance regarding relevance, the Country Programme document was not a critical or even important reference for project development. Project managers invariably did not refer to the CP, rather relevance was pursued through other channels, particularly direct engagement with national and sector-level stakeholders.

Effectiveness

The projects in the portfolio were successful in delivering outputs and positive outcomes were also being achieved. Clear results are being delivered, particularly in the areas of energy efficiency, Green House Gas (GHG) emission reductions, reduced pollution, waste management, and improved production techniques. These results are evidenced across both programme components at the enterprise level. However, some projects placed a stronger emphasis on activity and output targets rather than outcome measurements; hence progress towards expected outcomes can only be inferred.

Introduction of improved technology and its improved operation, maintenance and management at the micro level is a strength of the portfolio. Sector level results are being seen through institutional capacity building. Adaptation of technology to the Indian context is occurring effectively; but more attention is required on hand-holding arrangements and on the viability of proposed technologies for Micro and Small and Medium Enterprises (MSMEs) to increase technology uptake across the targeted sectors.

Efficiency

The findings are mixed in terms of project level efficiency. Most projects are rated as satisfactory; but generally at a slightly lower rating than for relevance and effectiveness. From a financial management and compliance perspective, the CP is efficient. UNIDO's financial reporting only covers contributions in cash channelled through UNIDO accounts. Yet, the portfolio included significant proportions of co-financing (including in-kind contributions) which are not tracked or given due value in considering the efficiency of the overall programme. Notwithstanding that information gap, the stakeholders provided examples that they identified as good value for money across the portfolio in terms of outcomes achieved in relation to investment.

However, there was a high level of delays across the portfolio. Recurring efficiency problems relate both to UNIDO – procurement, human resources and contractual-related delays, and to the GoI – high staff turnover, changing fund management requirements, and new taxation (GST) regimes. This has made some projects suffer significant delay both at start-up and during implementation. This means that while investments are good value, benefits are not achieved within the expected timeframes and impact is not optimised.

Sustainability

The evaluation found that various sustainability mechanisms were embedded in most project design; with demonstration/replication and capacity development the most commonly applied strategies. Some evidence suggests that capacity development has been particularly successful in generating benefits that will continue to support development for project stakeholders. Sector-wide results being achieved on the ground can be attributed to UNIDO training/capacity development interventions. Where projects contribute to introduction of standards and guidelines, benefits continue to be seen. Lack of viability analysis for technology is a barrier to industry-wide uptake. Overall – despite the promising project designs – there was limited evidence on the extent to which the long-term, continued sustainability of sector-wide processes are actually being achieved due to the short-term objectives of some projects.

Transformational change – Progress towards impact

The evaluation found that the current portfolio demonstrates good indication of progress towards positive long-term impact. Foundational work is being carried out through the country programme in terms of technology/innovation, with some progress in customisation stage but mixed results in replication and upscaling. Some projects show positive signs towards sector shifts in competitiveness that in the long-term are likely to build beyond the project period. However, other projects have not succeeded in effectively addressing some key constraints to transformational change. Such constraints include insufficient attention to mainstreaming and replication mechanisms, weak partnership arrangements, and/or insufficient resources for on-going implementation.

Yet overall Indian industry is benefiting from the transformational impacts of previous UNIDO support that has been replicated, upscaled and is still generating long term impact. These ‘legacy’ impacts provide a great example of the catalytic role that UNIDO’s long-term support has provided to inclusive and sustainable industrial development in India.

Management and cross-cutting issues

Project management was generally effective. However, a lack of a formal line management between the UNIDO Representative in the Regional Office in India, the project managers at the Headquarters in Vienna, and the project staff in India leads to unrealised potential in sharing of knowledge and resources across the portfolio. Across the Country Programme, effectiveness in cross-cutting areas such as inclusiveness and gender mainstreaming was weak. Little effort was placed on targeting or gender-specific approaches. Monitoring and Evaluation (M&E) was not always systematic; which was partly as a result of UNIDO’s lack of guiding results-based framework for projects to align with. Further, knowledge management is not systematic and learning from the portfolio has already been, or is in danger of being lost. On the other hand, partnership development has been a key feature of the programme, with all projects establishing productive relationships. There is room to expand information sharing across partners both within and beyond the programme.

LESSONS LEARNED

Key lessons arising from the Country Programme are that:

1. To achieve long term and transformational changes, it is necessary to work at all levels: macro, meso and micro. System transformations take time and rarely do they take place within the time span of a project and therefore should be tracked by the monitoring and evaluation mechanism at the Country Programme level.
2. A Country Programme document is insufficient to achieve a well-aligned and synergistic portfolio. More effort is required to develop country systems and partnerships to create links and share resources across projects.
3. Investing in safeguarding the environment does not only contribute to industry competitiveness (through eco-efficiency, improved waste management and improved industrial practices, and etc.) but also to inclusive and sustainable industrial development in the long run.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Overall UNIDO has contributed to inclusive and sustainable industrial development in India on three levels: micro, meso and macro level. These contributions have collectively resulted in significant contributions to awareness raising and uptake of improved technologies and industrial good practices at the micro level. Significant contributions at the meso level include technology adaptation; the creation/provision of common facilities and institutional strengthening, evidenced by the demonstration of new technology solutions as well as improved technology and services to the industry. There is anecdotal evidence of higher productivity and profitability in some cases, but insufficient data are gathered on impact achieved. Particular benefits have been achieved in cleaner and more energy efficient production techniques and practices.

Of note are the longer term investments from previous programmes that are now contributing to wide transformational change in India such as the cluster development approach and chemical and waste management related to implementation of Stockholm Convention. These initiatives demonstrate the high value and future potential for the partnership between UNIDO and the GoI in ISID. Yet, there is room for improvement in relation to improving consideration of inclusiveness, in capturing and disseminating knowledge to accelerate industry-wide replication and upscaling and in addressing project risks and delays.

KEY RECOMMENDATIONS

Recommendation 1: UNIDO and GoI to plan and act for long-term impact in the Country Programme; including seizing the opportunities raised by the SDGs for transformational change.

- UNIDO to mobilize a specific partnership with GoI to support key **SDG 9-related initiatives** in an integrated way, with existing initiatives of GoI and other partners.
- UNIDO to develop a **country level results framework** to align and link project results with UNIDO's results at corporate level and GoI's priorities.
- UNIDO and GoI to apply **multiple-phased approaches** to new and follow-up projects to facilitate faster implementation, and contribute to transformational changes.
- UNIDO to establish a stronger **link with GoI funding schemes** to ensure on-going support for replication and scale up of project interventions.

Recommendation 2: UNIDO should continue to capture results, performance and learning; and communicate UNIDO Country Programme's value and results to enhance uptake and achieve wider impact.

- UNIDO to develop a **M&E system** at the country level to effectively monitor, analyse, and manage and link results at project, country and UNIDO corporate level together.
- UNIDO to establish a country-specific web-based platform/database for **knowledge building and management**.
- UNIDO to **track co-financing** during implementation, from all sources.

- UNIDO, with GoI, to **communicate the value and results** of the country programme in India to promote and increase the opportunities for uptake and spread of the results.
- UNIDO to particularly **showcase successful initiatives** that have potential for scaling up in programmes of the GoI and other development partners.

Recommendation 3: UNIDO in conjunction with the GoI should maximize synergies between country initiatives through the development of a stronger UNIDO country team.

- UNIDO should develop a **country team approach** to country programming and implementation, headed by the UR for a more responsive approach to day to day implementation and synergies between projects including:
 - ✓ Incorporate **in-country reporting responsibility** to the UR in the terms of reference of all project personnel (apart from the project managers in Vienna).
 - ✓ Pool resources from different projects **to fund personnel for common activities** across the portfolio such as knowledge building and management, advocacy, communication and media, and M&E.
- UNIDO and DIPP to analyse and decide the **role of IC-ISID** to enhance its contribution to the results of the Country Programme to take a stronger role in supporting continuity, coherence and cost-effectiveness across the whole portfolio.
- UNIDO to seek further opportunities for **synergies and industry ecosystem approaches** across projects in the Country Programme and with other partners.

Recommendation 4: UNIDO to improve commercial viability of technology and institutional solutions towards ISID; supporting activities that will accelerate innovation pathways and technology uptake across industry.

- UNIDO should place more emphasis on the **commercial viability** of the technology or institutional solutions proposed. Where required, securing necessary expertise that will contribute to more financially and environmentally appropriate solutions.
- UNIDO, with key partners, to develop **replication and scaling up mechanisms** to facilitate greater take-up within the targeted industries.
- UNIDO and implementing partners should invest more effort and resources into **in-line production analysis** in conjunction with industry to build and demonstrate successes, compliance and risk management that can be promoted across sectors.

Recommendation 5: UNIDO with implementing partners to mainstream inclusiveness in the new Country Programme, to increase positive impact on employment, diversity and gender in line with ISID principles.

- UNIDO with government and other financing partners to consider how to **embed inclusion** in the new country programme in line with UNIDO's priority for inclusive and sustainable development.

- UNIDO to take more effort to consider **potential employment outcomes, gender markers and diversity** in the project and CP design process. This may mean a focus on localised inclusion of marginalised populations or gender objectives at the programmatic level or within specific projects.
- UNIDO to proactively **discuss options for inclusion** with key industry partners during project design and implementation.
- UNIDO to increase **tracking of inclusion** in the country programme results framework and the M&E processes of each project.

Recommendation 6: UNIDO and GoI decision-makers should adopt a stronger focus and take more decisive actions on project risks, in order to minimize future delays, particularly those that affect project start-up and implementation.

- UNIDO HQ and GoI need to develop more responsive systems that **speed up decision-making** and allow for faster response to changing in-country contexts and requirements.
- UNIDO and GoI to improve processes for more **decentralised decision-making** for country programme and project managers within reasonable authority limits.
- UNIDO and GoI to consider in depth **realistic project timeframes** dictated by systems required (e.g. HR, budget processes, approvals, etc.)
- In order to **proactively address delays** before they start to affect implementation, GoI and UNIDO to agree **contingency measures** that can be activated when common challenges may compromise impact. This would include the ability to draw on high level advice to quickly identify most appropriate solutions and the mechanisms required to ensure speedy resolution.

1 Introduction

In May 2017 the Government of India (GoI) requested the United Nations Industrial Development Organization (UNIDO) to formulate a new Country Programming Framework (CPF) for the period 2018-2022. To inform and support the CPF's development, UNIDO Independent Evaluation Division (IED) was requested to undertake an evaluation of UNIDO India 2013-2017 Country Programme.

UNIDO country evaluations capture and demonstrate evidence of UNIDO's contributions to development results at the country level. They encompass an assessment of the effectiveness of Country Programme strategies, including the extent to which the portfolio and its individual projects facilitate and leverage national efforts towards achieving development results. Country evaluations are independent, carried out within the general provisions of the UNIDO Evaluation Policy². Based on the principle of national ownership, they are carried out in collaboration with national authorities.

This report documents the independent evaluation of UNIDO 2013-2017 Country Programme in India. The report commences with a summary of the evaluation's objectives and methodology; then presents the evaluation's key findings; followed by a series of conclusions and recommendations to assist the development and implementation of the next Country Programming Framework.

² See UNIDO Evaluation Policy. https://www.unido.org/sites/default/files/2015-03/UNIDO_Evaluation_Policy_UNIDO-DGB-M-98-Rev-1_150319_0.pdf [Accessed 15 January 2018]. The Country Evaluations were conducted in line with the Norms and Standards and the ethical Code of Conduct set by the United Nations Evaluation Group (www.uneval.org).

2 Context

2.1 UNIDO Country Programme background

UNIDO has been delivering technical cooperation services in India since its establishment in 1966. UNIDO initially provided such services as metrology, testing and quality control, research and development, marketing and export promotion.

In the wake of privatization and liberalization, UNIDO's interventions shifted towards enhancing productivity and efficiency, and increasing avenues of investment for small enterprises and manufacturing units. As environmental protection had come under the spotlight, UNIDO expanded its services into areas such as waste and effluent treatment, pollution control, waste minimization and cleaner production and transfer of environmentally sound technologies. In the last twenty years there have been three country strategies that provided direction for UNIDO operations in India.

The 2001-2007 Country Service Framework (CSF) covered four thematic areas: (i) strengthening the competitiveness of small and medium-sized enterprises (SMEs) through technology-led interventions; (ii) promoting foreign direct investment (FDI); (iii) promoting cleaner and environmentally friendly technologies and policies; and (iv) alleviating poverty and promoting industrial growth in less developed areas.

The 2008-2012 Country Programme (CP) was directed towards inclusive growth by strengthening the competitiveness and productivity of industrial enterprises. It aimed at raising the competitiveness of industrial enterprises through industrial policy advice, investment and technology promotion (particularly clean and environmentally sound technologies and practices) and cluster development (with a focus on productivity, quality and innovation), and complemented by outward South-South cooperation. The 2011 mid-term evaluation of the CP found that generally, UNIDO was an appreciated partner, chosen for its competence and professionalism and providing value added to a larger variety of government owned initiatives³. The high level of national commitment and ownership and the high degree of consultation at programme/project design stages had resulted in a programme aligned to national priorities and strategies. The close involvement of the Government of India (GoI) in project implementation and management was positive, yet scope remained for improved coordination with counterpart ministries and executing partners both within projects as well as within the country portfolio of projects. Moreover, opportunities remained for greater alignment with UNDAF and coordination and synergies with sister UN agencies (see Annex 2 for more detail).

The 2013-2017 Country Programme aimed at raising the competitiveness of industrial enterprises through technology-oriented initiatives to increase productivity, quality, energy efficiency, occupational health and safety and the environmental sustainability of industrial production. The Programme was comprised of three components: (1) Promotion of Green Industrial Development; (2) Inclusive Economic Development, and (3) South-South Cooperation. In late 2016, in response to a request from the Department of Industrial Policy and Promotion (DIPP), UNIDO's nodal agency in India, the CP was updated and amended to reflect the expansion of the energy and environment portfolio, largely funded by the Global Environment Facility (GEF) as well as the establishment of

³ Independent UNIDO Country Evaluation India, UNIDO, 2011

the DIPP-UNIDO International Centre for Inclusive and Sustainable Industrial Development (IC-ISID) in 2015. The updated CP maintained the two components: (1) Promotion of Green Industrial Development; and (2) Inclusive Economic Development including the IC-ISID portfolio.

2.2 Current Country Portfolio profile

During the period 2013-2017, UNIDO's 23 projects⁴ (of which 16 were on-going and 7 were completed at the time of the evaluation field mission in early March 2018) focused on: increased competitiveness, sustainable consumption and employment generation, primarily through SME growth (Cement, Pulp and Paper, Leather, Automotive Components (ACMA)); Energy Efficiency and Renewable Energy in MSMEs; CleanTech and Sustainable Cities. All projects have a clear link to ISID and SDG 9 as well as SDGs 7, 8, 11, 12 and 13 (renewable/clean energy, decent work, sustainable cities, sustainable production and consumption and climate change, respectively).

The DIPP-funded **International Centre for Inclusive and Industrial Development (IC-ISID)** provides project management support to DIPP-UNIDO projects and – as of 2015⁵ – two South-South cooperation projects: Neem (Promotion of Neem derived bio-pesticides in West Africa) and KIRDI (Strengthening the technical service capabilities of the Kenya Industrial Research and Development Institute (KIRDI) in collaboration with the framework of the Kenya Subcontracting and Partnership Exchange Programme (SPX).

During the duration of the Country Programme, the portfolio expanded beyond working exclusively with the main country partner and nodal agency (DIPP) to a wider range of national ministries and agencies, yet DIPP maintain the key role as UNIDO focal point. Figure 1 shows the spread of the current portfolio across nine different sectors and partner agencies. DIPP and the Ministry of Micro, Small and Medium Enterprises (MoMSME) have contributed to the greatest number of projects.

⁴ UNIDO's Country Programme Portfolio includes 24 projects, however Project 160018, Forum "Thinking out of the box – Innovation for industry and industry for innovation" is excluded from this evaluation as it is an event and does not have the same project structure as the other projects in the portfolio.

⁵ UNIDO, 2015. Annual Report 2015. UNIDO operations in India, p.28

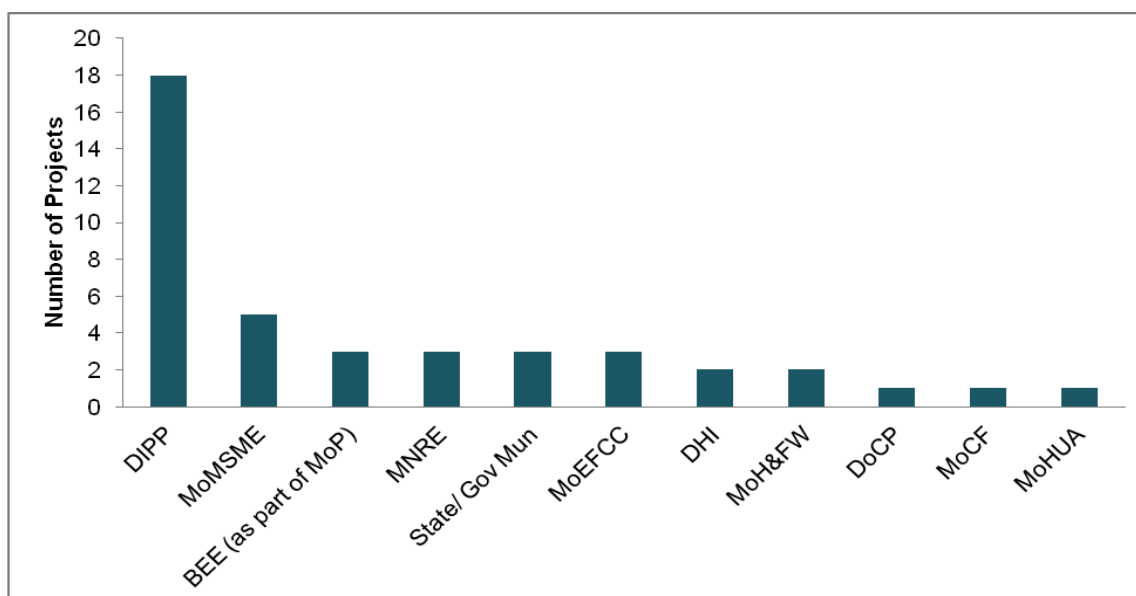


Figure 1. Number of Projects per Government Ministries and State Departments⁶

2.3 Current portfolio funding

The CP 2013-2017 has mobilized around USD87 million (excluding project support costs (PSC) or USD 96 million including PSC) in cash in terms of grants from different donors to implement projects (see table below). This fund was three times bigger than that of the 2008–2012 CP and 2003–2007 CSF, making it the second biggest UNIDO country portfolio after China. Apart from this budget, around USD 624,000 has been mobilized to develop new projects. The total expenditure of the CP is 57%⁷, indicating a ‘late maturing’ portfolio.⁸

⁶ Department of Industrial Policy and Innovation (DIPP); Ministry of Micro, Small and Medium Enterprises (MSME); Bureau of Energy Efficiency which forms part of the Ministry of Power (BEE); Ministry of Power (MoP); Ministry of New and Renewable Energy (MNRE); State or Government Municipalities other than the Government of India; Ministry of Commerce and Industry (MoCI); Ministry of Environment, Forests and Climate Change (MoEFCC); Department of Heavy Industry (DHI); Department of Chemicals and Petrochemicals (DoCP); Ministry of Chemicals and Fertilisers (MoCF).

⁷ UNIDO Open Data [accessed 14 March 2018]. <https://open.unido.org/projects/IN/overviewchange>.

⁸ Factors such as delays due to funding and administrative issues as well as the complexity in setting up some of the projects impacted on the expenditure of the CP.

Table 1. Overview of the 2013-2017 UNIDO Country Programme in India

Component	Budget*		No. of project	Average project size (USD)	Expenditures**	
	USD	%			USD	%
Green Industrial Development	75,186,613	86.4	11	6,835,147	40,072,686	53.3
Inclusive Economic Development	11,821,800	13.6	13	909,369	9,439,401	79.8
Total	87,008,413	100	24	3,625,351	49,512,086	56.9

Note: * Excluding Project Support Costs (PSC); ** includes expenditures on projects that started pre-2013

Source: UNIDO ERP system as of 28 Feb 2018

Projects are categorised into two components: (i) Green Industrial Development and (ii) Inclusive Economic Development. Projects under the Green Industrial Development component are mainly co-funded by the GEF, by the Government of India (self-financed) and by the Government of Japan, and involve a wide variety of implementation partners. All projects under the Inclusive Economic Development component are funded by the Government of India, most of them through DIPP (including co-financing and in-kind contributions).

The projects under the Green Industrial Development component account for 86.4% of the total budget, comprising 11 projects with an average budget of USD 6.8 million and a relatively long duration (9 projects of duration of more than six years). Several of the projects in this component are still at an early stage of implementation, resulting in a current average expenditure rate of 53%. Projects under the Inclusive Economic Development component account for 13.6% of the overall country budget and comprise 13 small projects with average budget of around USD 0.9 million. These are shorter duration projects (2 to maximum 3 years), with most of these approaching completion (average expenditure rate of 80%). Seven projects in this component have been completed. Following the amendment to the country programme in 2016, the South-South cooperation activities that were initially a separate programme component no longer consist of standalone projects, rather they are now incorporated into the main programme, particularly into the IC-ISID activities. Hence no separate South-South budget is allocated.

Table 2. Funding structure of the Country Programme

Component	Donors' funds channeled through UNIDO*	Co-financing not channeled through UNIDO		Contribution from UNIDO		Total budget
	In-cash	In-cash	In-kind	In-cash	In-kind	
Green Industrial Development	76,258,146	250,223,971	119,644,771	770,000	1,393,000	448,289,888
Inclusive Economic Development	19,976,785	3,705,646	750,000	294,500	-	24,726,931
Total	96,234,931	253,929,617	120,394,771	1,064,500	1,393,000	473,016,819

Note: *) Including Project Supporting Costs (PSC).

Source: UNIDO ERP system as of 28 Feb 2018, and project documents

As UNIDO is a technical cooperation organization whose financial resources for technical cooperation are limited, it has to mobilize funds from other funding partners to implement its programmes and projects (e.g. governmental donors such as Japan or Switzerland or multilateral funds such as the GEF). For the 2013-2017 Country Programme in India, UNIDO has managed to mobilize around USD96 million in cash which is channelled through UNIDO account from funding partners mainly the GEF, the Government of India and Japan. An additional amount of USD 377 million in cash and in-kind have been committed as co-financing from different governmental ministries, national implementing partners and the private sector, which do not go through UNIDO account, making the total contribution for the portfolio of around USD 473 million.

However, this data is based only on **intended and committed contributions** as stated in project documents at design. The tracking of actual receipt of funds and in-kind contributions is not documented consistently across the portfolio and therefore, analysis of the extent to which these committed resources have actually been materialized cannot be fully quantified.

3 Evaluation methodology

The evaluation was conducted in accordance with the terms of reference (TOR) in Annex 1 available online.

3.1 Evaluation purpose, key questions and scope

The objectives of the evaluation were to:

- Assess the results and performance of the UNIDO's 2013-2017 Country Programme in India;
- Strengthen learning within UNIDO and national stakeholders, donors and development partners to implement the current portfolio in an integrated and programmatic manner; and
- Generate findings and recommendations to feed into the design and implementation of a new Country Programming Framework between the Government of India and UNIDO.

The CPE covers the period between 2013 and 2017 and was guided by three key questions:

1. What is the quality of UNIDO's contribution in terms of relevance, effectiveness, efficiency, sustainability?
2. What is UNIDO's contribution to industrial development results in India?
3. How has UNIDO advanced transformational change, including consideration of cross-cutting issues such as gender, equity and evidence-based decision-making?

In terms of results and performance, the evaluation assessed the relevance of UNIDO's interventions in partnership with the GoI, in terms of their contributions, efficiency of operations, effectiveness, impact and sustainability of UNIDO interventions in partnership with the Government of India, in line with the international evaluation criteria. It also identified the key factors that have facilitated or hindered the achievement of the programme's objectives. The evaluation methodology covered six phases as described below and provided in more detail in the CPE TOR.

3.2 Evaluation methodology

Portfolio review - A systematic review of UNIDO's country portfolio of 24 projects was an important means through which the evaluation developed its evidence base. Table 3 summarises all 24 projects within the portfolio, and their associated level of evaluative evidence. The portfolio was divided into three cohorts, with each cohort defined by the strength of a project's existing and/or to-be-develop monitoring and evaluation data:

- (i) **Evaluated:** projects with full evaluative evidence available and confidence in performance ratings;
- (ii) **Non-evaluated:** completed projects with no independent evaluation. These were assessed on monitoring and other secondary data only, therefore although performance was assessed, the ratings are indicative only;

(iii) **Recent:** on-going projects which were only assessed for relevance because implementation is not sufficiently mature to allow for assessment of project performance.

Prior to commencing the CPE, the country portfolio only had limited independent evaluative evidence in place: across the 24 projects only three had benefited from independent terminal evaluations, with another three from independent mid-term reviews. To address this evidence gap – and as a precursor to the ‘main’ CPE activity – in early 2018 six additional projects were evaluated independently, in tandem with the CPE.

Table 3. Summary of UNIDO projects 2013 - 2017

#	Project Name	Short name ⁹	Main source of funds	Component	Start date	End date	Status
1.	Operational Phase of the International Centre for Advancement of Manufacturing Technology	ICAMT	India IDF	GID	2009	2014	Completed
2.	Environmentally sound management and final disposal of PCBs in India	PCB	GEF	GID	2010	2018	On-going
3.	Plastics Manufacturing Industry in India	Plastics	India IDF	IED	2010	2014	Completed
4.	Upgradation of Machine Tools Industry in India	Machine Tools	India IDF	IED	2011	2015	Completed
5.	Promoting energy efficiency and renewable energy in selected micro, small and medium enterprises (MSME) clusters in India	EE in MSMEs	GEF	GID	2011	2019	On-going
6.	Promoting livelihoods in North Eastern India: The cane and bamboo networking project	Bamboo	India IDF & UNIDO	IED	2011	2013	Completed
7.	Environmentally sound management of medical wastes in India	Medical Waste	GEF	GID	2011	2018	On-going
8.	Technology Upgradation and Productivity Enhancement of the Foundry Industry in Coimbatore	Foundry	India IDF	IED	2011	2014	Completed
9.	National Programme for Technology Upgradation of Brass and Bell Metal Industry / Artisan Enterprises in Khagra and other	Brass & Bell	India IDF	IED	2011	2014	Completed
10.	Promoting ultra-low-head micro hydropower technology to increase access to renewable energy for productive uses in rural India	Micro Hydro	Japan	GID	2012	2017	Completed
11.	GEF UNIDO Cleantech Programme for SMEs in India	Clean-Tech	GEF	GID	2013	2018	Operation complete
12.	Promoting business models for increasing penetration and scaling up of solar energy	Solar Thermal	GEF	GID	2014	2019	On-going

⁹ A shortened name for each project was used in the text to facilitate reading

#	Project Name	Short name ⁹	Main source of funds	Component	Start date	End date	Status
13.	Supporting SME Manufacturers in the Automotive Component Industry in India: Deepening and widening the Partnership Programme	ACMA	India IDF		2014	2018	Operation complete
14.	Organic waste streams for industrial renewable energy applications in India (Main Phase)	Organic Waste	GEF	GID	2015	2020	On-going
15.	International Centre for Inclusive and Sustainable Industrial Development (ICISID)	ICISID	India IDF	IED	2015	2020	On-going
16.	Development and promotion of non-POPs alternative to DDT	DDT	GEF	IED	2015	2020	On-going
17.	Promoting market transformation for energy efficiency in micro, small & medium enterprises	EE in MSME's II	GEF	GID	2015	2020	On-going
18.	Kanpur leather development project 2015-2017	Leather	India IDF	IED	2015	2018	On-going
19.	Development and adoption of appropriate technologies for enhancing productivity in the cement sector	Cement	India IDF	IED	2015	2018	Operation complete
20.	Development and adoption of appropriate technologies for enhancing productivity in the paper and pulp sector	Paper and pulp	India IDF	IED	2015	2018	Operation complete
21.	Sustainable cities, integrated approach pilot in India	Sustainable Cities	GEF	GID	2015	2022	On-going
22.	Facility for Low Carbon Technology Deployment	FLCTD	GEF	GID	2016	2020	On-going
23.	Development and adoption of appropriate technologies for enhancing productivity in the Indian bicycle and bicycle parts	Bicycle	India IDF	GID	2016	2018	On-going

KEY		Evaluated: Projects with evaluative evidence available prior to the CPE
		Evaluated: Projects evaluated during the CPE
		Non-evaluated: Projects that are completed, only monitoring data available
		Recent: On-going projects, assessed only for relevance
	GID	Green Industrial Development Component
	IED	Inclusive Economic Development Component

Field visit - The time frame for the field visit of the six project evaluations and the country programme evaluation was limited to one month and a half from January to March 2018, simultaneously by different evaluation teams; therefore visits to project sites were based on a sample only. For this reason, it was important to rely on key informant interviews and documentary review; *supplemented* by field investigations. The evaluation relied on information from a range of interviews and discussion with senior and operational government officials; project partners and implementing agencies, and project beneficiaries. On 24th April 2018, a stakeholders' workshop was organized in New Delhi to discuss the main findings and recommendations of the evaluation to feed into the development and implementation of the new CPF.

Data collection and analysis - Data was collected, analysed and processed against these criteria and questions. Each team member worked with guide questions for data collection (as outlined in Annex 4) and they also completed an Evaluation Checklist (see Annex 6 for Project Evaluations). The Evaluation Question checklist was used in the CPE analysis and was supported by analysis of each of the individual evaluation report findings. The data gathered by each team member assisted in generating early findings that were further tested, provided key evidence to support findings and responded to the key evaluation questions. The portfolio review, with stakeholder input was used to develop project 'ratings', as required by UNIDO's evaluation policy. Projects were assessed against a six-point standard rating scale, defined within the UNIDO Evaluation Manual, 2017 (see Annex 7. Ratings were based on all evidence gathered, including documentary data, key informant interviews and field visits. This process included assessment and ratings of each project's performance against the UNIDO cross-cutting issues of gender, equity (age, diversity), and quality of monitoring and evaluation (M&E) including the UNIDO results-based management (RBM) approach.

Assessment of results - The evaluation considered UNIDO's contributions to results in terms of level of intervention and expected results. In this regard, results that contribute to competitiveness and inclusive and sustainable industrial development (ISID) and SDG9 (build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation) were considered across the four levels¹⁰:

- *Micro level* - direct positive change for industry stakeholder, individual companies and strengthening of the capacity of individuals within organizations to contribute to specific changes in knowledge and capability to apply good practice in ISID.
- *Meso level* - inculcating best practice and enabling initiatives leading to impact at the sector level and in institutions responsible for sector development in ISID;
- *Macro level* - contributing knowledge and understanding to assist in national policy directions towards ISID; also, perception of value for money from stakeholders' perspectives.

The extent of results achieved was assessed at each of these levels. In support of that assessment - and given that much of UNIDO's investment is focussed on capacity development for institutions and individuals - the New World Kirkpatrick Model¹¹ was used to identify the extent of project interventions to positive change in awareness, knowledge, behaviour change and systems shift.

3.3 Evaluation limitations

The main limitation to the evaluation was the constrained timeframe to conduct six project evaluations and the country programme evaluation in the field. Visits to project sites were based on a sample of project coverage only and for a short duration. This led to a risk that all key points of programme operation could not be covered. To mitigate this risk, key stakeholders were asked to provide an indication of any concerns for areas not being covered by the evaluation visits; however, this limitation leads to a potential risk of gaps in the report findings. For this reason, the in-country stakeholder workshop and the

¹⁰ Esser, et al, Systemic Competitiveness: New Governance Patterns for Industrial Development; GDI, 2013

¹¹ <https://www.kirkpatrickpartners.com/Our-Philosophy/The-Kirkpatrick-Model> accessed 8-2-2018.

¹¹ <https://www.kirkpatrickpartners.com/Our-Philosophy/The-Kirkpatrick-Model> accessed 8-2-2018.

review of the draft report by stakeholders provided an opportunity for confirmation or revision of findings.

A main shortcoming in assessing performance of the programme was the lack of clear country programme objectives, and the lack of a country-level results framework. Also at the project level, monitoring data was invariably geared towards reporting on outputs rather than on progress towards outcomes or impact. Consequently, much of the analysis (programme and project-level) had to be imputed rather than empirically based.

4 Evaluation findings

4.1 Relevance

The extent to which the objectives of an intervention are consistent with requirements of project participants, country needs, global priorities and partners' and donor's policies.

SUMMARY OF FINDINGS

The country programme and its individual projects were highly relevant at macro and meso level and satisfactorily relevant at micro level. The original 2013 CP document was well-aligned with GOI's priorities, and the 2016 addendum enhanced relevance even further, responding in particular to the GoI's changing strategies and to UNIDO's increased focus on inclusive and sustainable industrial development, and to the adoption of the SDGs at the global level. Projects were generally relevant to the needs of institutions/companies at the micro level, but some shortcomings were identified within a limited number of projects. Yet, despite the overall strong portfolio performance regarding relevance, the Country Programme document was not a critical or even important reference for project development. Project managers invariably did not refer to the CP, rather relevance was pursued through other channels, particularly direct engagement with national and sector-level stakeholders.

High degree of relevance at the macro (national) level

At the macro level, relevance needs to be considered in relation to the development priorities of the GoI and UNIDO as well as other implementing partners. In general the initial 2013 Country Programme document responded well to GoI priorities at the time of design. The CP document centred on the GoI's thrust towards economic growth through increased competitiveness.¹² The document also noted the importance of sustainable industry practices as critical to both the protection of natural resources and export markets.¹³

The efforts of both UNIDO and DIPP to amend the CP in 2016 demonstrate that both partners recognised that there had been a major shift in context since the original CP design in 2013 and together they re-oriented the CP to fit with the "Make in India" and other relevant GoI programmes such as "Start Up India", "Stand Up India", "Skills India" and "Swatch Bharat". The addendum also reflected the launch of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) to which both UNIDO, as custodian of progress for SDG9¹⁴, and India as a signatory and leading country in the SDGs are playing important roles. At the same time, UNIDO was also in the process of launching its new organizational results framework with a focus on Inclusive and Sustainable Industrial Development (ISID). The country portfolio had also changed with the rapid increase of the GEF funding to India through UNIDO. The addendum clearly

¹² UNIDO, 2013. Country Programme of Technical Cooperation with India. Promote the Sustainable and inclusive development of India, p.10.

¹³ UNIDO, 2013. Country Programme of Technical Cooperation with India. Promote the Sustainable and inclusive development of India, p.10

¹⁴ UNIDO, 2015. Country Programme 2013-2017 of Technical Cooperation with India (Addendum). Promoting the Inclusive and Sustainable Industrial Development in India, p.6

linked these pertinent processes and provided a relevant basis for expansion and refinement of the portfolio in the CP.

In both the 2013 CP and the 2016 addendum, there is reference to the National Industrial Policy and the poverty reduction approach of the GoI, the respective sector development strategy, and a clear rationale from a policy perspective for UNIDO's role in the sector development. This suggests that UNIDO is providing a relevant added-value to the development initiatives of the GoI.

Key government stakeholders that the evaluation team met made reference to the additionality of UNIDO's distinct contribution in India. This was mentioned in terms of the organization's focus on technological good practice, its strategic global role in industrial development and global conventions such as its role with the Stockholm Convention and SDG9, as well as its neutral convening capacity with industry. It was recognized that the scale of UNIDO interventions is extremely small in the India context, yet the UNIDO-supported portfolio is believed to be catalytic in relation to competitiveness and sustainability of the economic system.

All projects in the portfolio were assessed as satisfactory in relation to alignment with broad GoI and UNIDO priorities. Of the 23 projects, 21 were assessed as having a high or very high level of relevance to the macro context for industrial development in India. Of the two remaining, they were assessed as satisfactory but were smaller projects that had less strategic significance than the rest of the portfolio. GEF-funded projects have a structured process for design. Some projects designed to progress the Stockholm Convention implementation were aligned with strategic and global national processes. Whilst DIPP projects had a strong strategic relevance as they built on previous programs as a next stage. Sustainable Cities and Micro Hydropower both had innovative designs which opened a niche area for UNIDO.

In all project documents there was clear evidence that there had been close liaison with government partners in identifying and designing the projects in line with key development priorities. Furthermore, it was clear that the projects were designed to target identified niches/gaps where the GoI did not already have major programmatic interventions, (for instance, the Bamboo project targeted the northeast provinces in line with the development policy at the time of design; the Medical Waste project targeted a specific intervention that fell in a complex niche between Department of Health mandate and the waste management industry; the Solar Power project focussed on existing technology but specifically on improving financial solutions to enhance technology adoption).

High degree of relevance at the meso (sector) level

All 23 projects demonstrated positive relevance to each specific industry being targeted. This was largely achieved at the design stage through intensive discussions with key stakeholders related to the industry, particularly industry sector bodies that were perceived to be responsible for implementing and sustaining the interventions. Of particular importance to stakeholders was the relevance of UNIDO support in customizing technology to local context and in linking multiple partners together: for instance, creating strategic links between industry stakeholders and government in supporting technology and capacity development.

Project designs also generally contained a comprehensive analysis of the context and rationale for the project, particularly for GEF funded projects where project preparation

grants (PPGs) allowed such analyses to be conducted. Project design ratings have improved during the country programme period with most recent projects having a stronger rating than earlier projects. GEF-funded project designs tended to have a more clearly articulated design ('design quality'): objectives and implementation strategies tended to be more clearly explained and linked to expected targets than the non-GEF projects'.

Projects that were strongly linked to on-going government/industry and strategic processes rated highly for relevance (Organic Waste; DDT alternatives; PCB; Market Transformation for EE in MSMEs; Sustainable Cities; EE in MSMEs; Medical Waste; and Leather). The DIPP-led projects were also satisfactory at the meso level because they invested in and supported industry associations and industry-wide initiatives (ACMA; Cement; Paper and pulp; Bicycle and bicycle parts; Machine tools). Conversely, those projects that paid less attention to mainstreaming institutional arrangements achieved a lower rating for relevance (e.g. Foundry, Bamboo). These were the older projects in the portfolio, signifying an improvement in project designs during the period of the country programme.

Interventions were generally relevant at the micro (institution) level

At the micro level, in general, it was found that project designs were appropriate to the needs of the target groups and remained relevant during project implementation. Projects rated as highly satisfactory in terms of their relevance to industry were strongly linked to industry processes (ACMA; Organic Waste; ICISID; DDT Alternatives; Market Transformation of EE in MSMEs; Sustainable Cities; EE in MSMEs; Medical Waste; and Cleantech). Across the portfolio, there were positive examples of institution-level relevance, but also areas where relevance could have been strengthened. The Low Carbon, Cleantech; and Solar projects all targeted MSMEs and were all coherent in design. For evaluated projects, anecdotal evidence of positive relevance to these groups is generally presented (e.g. ACMA, Leather, PCB Alternatives, Medical Waste, Micro Hydropower, ICAMT). However, the documentation is not systematic and is therefore inconclusive.

Unclear objectives and unrealistic designs led to lower relevance in a few projects.

Four projects were rated as moderately satisfactory and moderately unsatisfactory in terms of design. In assessing the coherence of projects' expected results (outputs, outcomes and impact), four projects were rated as satisfactory, 16 as moderately satisfactory and three as moderately unsatisfactory. Typically, lower-rated projects did not adequately articulate the link in results-chain between impact and outcomes and outputs. This led to projects that were not sufficiently focussed on clear results, on the realities of implementation, on the ability of key partners to effectively engage during the implementation, or on effective sustainability pathways with the available resources. Specific challenges were Foundry project (insufficient attention to the choice of target groups, activities, and implementation roles), Bamboo (TE found that project design faulted in choice of partners, budget, PMU, and insufficient marketing component). In addition, in the ICAMT project, the TE found that insufficient design aspects did not enable the intended international cooperation to occur. For two projects the Government funds did not fully materialize, which may be due to a lack of relevance of the project to these agencies, although the full cause is not possible to determine from the documentation alone. These were Brass and Bell project (Government support ceased during implementation) and Machine Tools Industry project (funds not fully released).

Country Programme *document* did not guide portfolio development

Despite the relatively high degree of relevance across the portfolio, UNIDO project managers all reported that the Country Programme *document* had little influence on their pursuit of project development. Instead, many of the projects seemed to have arisen through a demand-driven, opportunistic approach. Most projects in the portfolio were confirmed by both UNIDO and GoI stakeholders as being either stimulated by the availability of resources, particularly through GEF, or through a particular need brought forward by country stakeholders. So while projects were relevant (often highly relevant), this relevance was primarily driven by factors other than the overarching country programme. More recent projects have taken a strong approach to financing for technical solutions, de-risking investment in technology and in incentives for technology uptake. This was seen as being very relevant to the current situation in India.

4.2 Effectiveness

The extent to which the development intervention's objectives were achieved, or are expected to be achieved

SUMMARY OF FINDINGS

The projects in the portfolio were successful in delivering outputs and positive outcomes were also being achieved. Clear results are being delivered, particularly in the areas of energy efficiency, Green House Gas (GHG) emission reductions, reduced pollution, waste management, and improved production techniques. These results are evidenced across both programme components at the enterprise level. However, some projects placed a stronger emphasis on activity and output targets rather than outcome measurements; hence in those cases progress towards expected outcomes can only be inferred.

Introduction of improved technology and capacity to operate, maintain and manage it at the micro level is strength of the portfolio. Sector level results are being seen through institutional capacity building. Adaptation of technology to the Indian context is occurring effectively; but more attention is required on hand-holding arrangement and on the viability of proposed technologies for MSMEs to increase technology uptake across the targeted sectors.

Outputs satisfactorily delivered

The evaluation found a largely positive achievement in relation to targeted outputs. For ten projects, it was too early to assess whether most outcomes have been achieved or are on track to being achieved (PCB, Low Carbon, Medical Wastes, Bicycle and bicycle parts, Sustainable Cities, Market Transformation in EE for MSMEs, DDT Alternatives, Waste to Energy, Solar Thermal and IC-ISID).

Out of the 13 projects rated for effectiveness, eight were rated as highly effective or effective and four as moderately effective. One was rated as unsatisfactory [Bamboo, one of the oldest projects in the portfolio]. Similarly, the moderately effective projects were also older projects (Foundry, Brass and Bell, Machine Tools and Plastics). This indicates that the level of project effectiveness has risen and continues to improve over time.

For the evaluated projects, all demonstrated that targeted activities had been largely completed and, in most projects, additional outputs had also been delivered. For example, in the Cement project, implementation continued in line with planned activities but due to unforeseen and unavoidable delays in the planned professional development schedule,

additional workshops were planned that actually resulted in a *higher* level of trained participants than expected. Despite funding delays that temporarily affected operations in the Paper and Pulp project, the stated outputs were achieved and in some cases exceeded. Nevertheless, for the Bamboo project (again, one of the oldest projects in the portfolio) the level of achievement was substantially lower than for the other projects. The project faced particular funding and implementation challenges, leading to outputs not being achieved particularly in targeted institutional development results.¹⁵

Positive progress towards outcomes

Notwithstanding the tendency for projects to be output-focussed, it was possible to *infer* that the outputs achieved were making strides towards the outcomes that projects had stated or inferred (see Table 4). Feedback from key stakeholders during the CPE mission does indicate that positive progress is being achieved in those projects that have commenced substantive implementation. Furthermore, it is evident that project staff members are working closely with key stakeholders to achieve the targeted outputs as a means to prospectively achieve tangible outcomes (particularly, the EE in MSMEs, CleanTech, ACMA, Medical Waste, PCB and Solar Thermal).

Across both programme and project documentation, key objectives were found to be a mix of impact and outcome-based (such as GHG reduction in EE in MSME, Cleantech, solar thermal) and output-focussed (such as studies and action plans as in Bicycle; Bamboo; Leather; Paper and pulp; Micro Hydropower; and Cement). These projects were mainly designed to build capacity; yet the design documents did not include means of measurement to assess the extent to which capacity has been strengthened. Beyond outputs (i.e. towards outcome and impact level), strategies alluded to broad intentions rather than focussing on systematic and specific outcomes for each investment that are necessary for impact to occur. Each project included a logical framework, but not all had a clear causal relationship between the overarching objectives (impact) and the specific expected outcomes.

Table 4. Examples of successful project outcomes

Project short name ¹⁶	Status	Outputs achieved (examples to date)	Successful outcomes (examples to date)
Plastics	Completed	<ul style="list-style-type: none"> Exceeded the target of 400 specialists trained on processing technology, best manufacturing practices and quality management systems; 	<ul style="list-style-type: none"> 50.25% increase in production against baseline of 2010-2011; 60.12% increase in exports against baseline of 2010-2011; 22% increase in employment productivity against baseline of 2010-11.¹⁷
PCBs	On-going	<ul style="list-style-type: none"> Partnership discussions under Stockholm Convention resulted in guidelines for PCB disposal Construction and installation of 	<ul style="list-style-type: none"> “Regulation of Polychlorinated Biphenyls (PCB) Order” issued by the GoI on regulating PCB on April 6, 2016¹⁸

¹⁵ UNIDO, 2014. Terminal Evaluation. Promoting livelihoods in North Eastern India: The cane and bamboo networking project, p.16 & 35.

¹⁶ A shortened name for each project was used in the text to facilitate reading

¹⁷ UNIDO-ICAMT, 2014. National Programme for Developing Plastic Manufacturing Industry in India. End of Project Report.

¹⁸ United Nations Industrial Development Organization, 2016. Annual Report 2016. UNIDO Operations in India.

Project short name ¹⁶	Status	Outputs achieved (examples to date)	Successful outcomes (examples to date)
		facility for sound management and disposal of PCB commenced <ul style="list-style-type: none"> • Mobile facility for PCB disposal commissioned 	
ICAMT	Completed	<ul style="list-style-type: none"> • 150 training programmes with 4,920 participants (target 3,000); • More than 50 model units were provided in each identified sector as part of the push to upgrade technology 	<ul style="list-style-type: none"> • Training results in improved capacity for participants • Model units stimulate replication of good practices
Machine Tools	Completed	<ul style="list-style-type: none"> • 3811 man days of training, exceeding the set target of 400; • 670 specialists trained on design, technology, productivity, quality, etc; 	<ul style="list-style-type: none"> • 268% increase in exports of participating units; • 38.5% increase in Cumulative Annual Growth Rate (CAGR); • 24 new products/technologies developed.¹⁹
Bamboo	Completed	<ul style="list-style-type: none"> • The training, equipment, tools and exhibition parts of the project were implemented at large. 	<ul style="list-style-type: none"> • Economic empowerment amongst the most disadvantaged, including women, were achieved on a small scale.
Foundry	Completed	<ul style="list-style-type: none"> • 841 man days of training provided; • ISO consulting in process for 15 units. 	<ul style="list-style-type: none"> • Progress has been made towards an increase in exports (iron exports grew by 25%)²⁰; • Reduction of cost of energy for units via energy audits and energy advisory services; • Casting rejection reduced to 8.1% in 2012-2013 from initial 9.5% in 2011-12
Brass & Bell	Completed		<ul style="list-style-type: none"> • An increase in turnover from Rs.2 Crores to Rs. 16 Crores which exceeded the target of Rs.10 Crores; • Exceeded the waste reduction target of 20% to almost nil.
Micro Hydro	Completed	<ul style="list-style-type: none"> • 3 Technology of Ultra Low Head Micro Hydro Power (ULH-MHP) systems installed & demonstration sites established; 	<ul style="list-style-type: none"> • 2 ULH deployed and operated and maintained by local operators

¹⁹ UNIDO ICAMT, 2014. Technology Upgrading and Productivity Enhancement of Machine Tool Industry in India. End of Project Report. 2009-2014.

²⁰ UNIDO Evaluation Group, 2014. Independent final evaluation: Operational phase of the International Centre for Advancement of Manufacturing Technology (ICAMT). UNIDO project numbers: SF/GLO/08/009, US/GLO/08/010.

Project short name ¹⁶	Status	Outputs achieved (examples to date)	Successful outcomes (examples to date)
Clean-Tech	On-going	<ul style="list-style-type: none"> Four rounds of Clean-Tech competition completed 	<ul style="list-style-type: none"> 89 clean technologies/business models identified directly through GCIP India competition Several investments secured as a direct or indirect result of GCIP India Several identified technologies have clear potential to deliver significant GHG reductions
ACMA	On-going		<ul style="list-style-type: none"> Improved quality of automotive components in participating clusters; Reduction in customer complaints and customer rejections; Improvement of cost competitiveness profile of ACMA firms.²¹
ICISID	On-going	<ul style="list-style-type: none"> Establishment of linkages with various international organisations, including R&D institutions, industry associations and promotional agencies; Satisfactory performance for implementation of projects supported through the Centre 	<ul style="list-style-type: none"> Improved efficiency of project support through establishment of the Centre.
Leather	On-going	<ul style="list-style-type: none"> Target exceeded for the development of modern learning material for an online course "Sustainable & Cleaner Leather Processing"; 27 training programmes completed including 2 international missions (1269 people trained); LWG training provided to 13 tanneries; 2 Pilot demonstration units (PDUs) technology packages on Cleaner Tanning Technologies issued;²² 	<ul style="list-style-type: none"> Project achieved results in its targets related to environmental sustainability.²³ First ever Innovation Award has been instituted for the promotion of cleaner technologies; First ever carbon footprint study conducted;
Cement	Completed	<ul style="list-style-type: none"> Development of curricula for NCCBM (National Council for Cement and Building Material) skills development; technical 	<ul style="list-style-type: none"> Skills and technical capacity and capability of NCCBM has been upgraded Development and dissemination of

²¹ B&M Analysts, 2016. UNIDO-ACMA-MOHI Supplier Development Programme: Preliminary Impact Assessment Report.

²² UNIDO, 2017. Presentation to the 4th Steering Committee Meeting of IC-ISID. 24 October 2017, New Delhi.

²³ UNIDO, 2017. Project SAP ID: 100230 Kanpur Leather Development Project (KLDP) Technical Report: Mid Term Evaluation. April 2017.

Project short name ¹⁶	Status	Outputs achieved (examples to date)	Successful outcomes (examples to date)
		workshops on relevant topics; training of trainers; international fellowship and study tours; and the). ²⁴	new standards for the cement sector
Paper and pulp	Completed	<ul style="list-style-type: none"> • Report on the Pulp and paper sector published; • Diagnostic studies of CPPRI, IPMA, IARPMA, INMA, IRPMA and selected units completed; • Action plan for CPPRI developed 	<ul style="list-style-type: none"> • Skills and technical capacity of CPPRI, IPMA, IARPMA, INMA, and IRPMA upgraded.
Medical Waste	On-going	<ul style="list-style-type: none"> • Improved policies and procedure documents for medical waste transportation • Demonstration of participatory funded and integrated disposal systems 	<ul style="list-style-type: none"> • Revision of Biomedical waste Management Rules of 1998 that include the Stockholm Convention requirements. • Implementation of the revised Rules of 2016 is being done in 144 healthcare facilities participating in the project.

Source: Project progress reports and evaluations

Progress towards programme results has been achieved but is not well documented

The Country Programme aimed at raising the competitiveness of industrial enterprises, defined as increased productivity, quality, energy efficiency, occupational health and safety and/or the environmental sustainability of industrial production. Outcomes contributing to improved competitiveness are not well demonstrated across the portfolio. A higher level of exported products was reported anecdotally in several projects but without conclusive sales data to substantiate the qualitative reports (e.g. Plastics, Foundry). Yet, there were not clear monitoring and reporting mechanisms for increased profitability at the business level or other evidence of improved competitiveness.

On the other hand, during the CPE process, there was evidence of results from previous programme periods that are contributing towards improved competitiveness at the national scale (e.g. cluster development approach, Stockholm Convention implementation, cleaner production and south-south cooperation in environmentally sound pesticides). In the absence of strong data to substantiate results at the country programme level, the CPE examined whether there was evidence of results at an intermediate level that contributed towards the achievement of increased competitiveness. This examination looked at; (i) improved technology/innovation (mainly micro and meso level); (ii) adaptation of technology/practices (micro and meso level); (iii) industry replication and mainstreaming (meso and macro level); (iv) sector shift and upscaling (meso/macro level).

Programme strength in technology and innovation support

The strength of the country programme relates to its role in promoting technological improvements and innovations, particularly in terms of productivity, product quality and in improved environmental sustainability. The entry level for most of the projects is at the sector level through industry associations or with lead institutions; with an expectation that benefits will trickle down to industry members and be adopted widely across the

²⁴ UNIDO, 2017. Presentation to the 4th Steering Committee Meeting of IC-ISID. 24 October 2017, New Delhi.

industry through demonstration approaches. Some projects have been able to clearly demonstrate improved practices. This particularly includes projects with incentives for adoption of known good practices such as the Leather, EE in MSME and ACMA projects. Improved practices translate to direct benefits for individual MSMEs such as improved product quality and efficiency of production, lower cost of production, reduced material waste, resulting in higher average turnover and new business opportunities for participating enterprises. This demonstrates that the programme is effective at both the meso and the micro level.

Adaption of technology/practices at industry level positive but constrained by viability assessment and insufficient hand-holding

Several projects have focussed on adapting technology to the Indian context or in progressing new innovations. This includes initiatives in projects related to the Stockholm Convention (Medical waste, PCB and DDT alternatives), foundry and leather, as well as, EE in MSMEs. This requires the support of experts in the specific technology to ensure that the improvements will be appropriate to industry requirements. It also requires high levels of engagement and commitment from the participating industry and enterprises. The neutral role and technical capacity of UNIDO in connecting expertise and industry leaders for adaptation processes is highly valued and has resulted in a number of demonstration sites that show how new or improved technologies and processes can be applied in Indian context (e.g. medical waste; energy audits in cement industry, energy efficiency in MSMEs).

However, the extent of success is only tracked in a few projects, for instance, the ICAMT project reported the establishment of 50 model units as an important output; yet there is no information on the level of uptake from these demonstrations. It was noted by some industry stakeholders during the CPE visits and the stakeholder workshop that insufficient attention had been paid across the portfolio to the financial viability of the technological solutions proposed or of the ability of institutions to generate sufficient resources to continue support services (hand-holding) to help MSMEs to adapt the technology to their specific context. These aspects act as a barrier to technology uptake at the micro and meso level.

Industry mainstreaming and replication targeted but not tracked

Industry-wide adoption of good practices and institutional capacity development is responsible for sector development in ISID. Most projects signalled the intention to achieve sector-wide impact. For instance, both the Cement and Paper and pulp sector projects envisaged sector-wide improvement in competitiveness. The GEF-supported projects were targeted towards mainstreaming, replication and upscaling of results. However, so far these expectations have not yet been achieved to their full potential. At the institutional and firm level, stakeholders confirmed that good levels of capacity building have occurred (e.g. ACMA, Medical Waste, Cement, Paper and Pulp). However, at present, the extent of capacity building is mainly at the level of increasing awareness of new practices and strengthening technical knowledge amongst a few participating industry leaders. There is an expectation in most projects that the knowledge would be disseminated widely across the industry. Yet most projects were weak in knowledge dissemination and/or did not track the extent to which knowledge was being adapted to industry purposes or adopted beyond direct project participants.

Table 5. Evidence of adaptation and potential for industry-wide adoption

Project	Evidence of Replication
Paper and pulp	<ul style="list-style-type: none"> • There is potential for replication of advanced technical solutions presently piloted by CPPRIs for the paper and pulp industry. • It is likely that some SMEs will come forward to get technical solutions from CPPRI but CPPRI outreach is low due to remote location, few technical staff and low budgets so replication may be too slow for industry needs.
Cement	<ul style="list-style-type: none"> • Scope for replication is very likely as result of success of pilots such as the pilot on Alternative Fuels and CO2 audits; and training through NCCBM.
CleanTech	<ul style="list-style-type: none"> • Evidence of stronger business models that contribute to the probability that entrepreneurs will develop sustainable, commercially viable CleanTech businesses. • Several identified technologies have clear potential to deliver significant GHG reductions.
EE and RE in MSMEs	<ul style="list-style-type: none"> • The project structure (4 ministries as main stakeholders) is a strong base for mainstreaming EE/RE into national policies. The project management is located in BEE and therefore directly influences and informs BEE activities. • The project has created a successful show case of low-cost solutions which are likely to result in a spread of similar actions across the cluster through Local Service Providers (LSPs). However there is insufficient willingness to pay for LSP services so uptake and sustainability is not assured.
Bamboo	<ul style="list-style-type: none"> • The project itself involves replication of activities already performed by other organizations such as Cane and Bamboo Technology Centre (CBTC), North Eastern Handicrafts & Handlooms Development Corporation Ltd. (NEHHDC), and Assam Apex Weavers & Artisans Co-operative Federation Ltd. (ARTFED). • There is concern for replication and mainstreaming of this project as only some short term economic changes or impact were realized at the artisanal level and no indication of on-going benefit.

Source: India CPE Portfolio documents, reviewed March 2018

The reliance on industry associations and links with state governments for mainstreaming is an effective approach as demonstrated by the documented improvement of operating guidelines and sector training materials, for example in the cement sector and in the Ministry of Health for the treatment of hospital waste. Strong government policy, standard and guidelines as well as clear enforcement of rules and regulations provide strong incentives for uptake of proven technologies. Yet, in addition, without sufficient, effective and sustained support to enable the targeted institutions to develop required leadership, training, management and social marketing expertise to ensure effective uptake and spread of technologies beyond the project period, the potential of these initiatives is not optimised.

Programme integration contributes to higher outcomes

Crucially, at the country level, the Country Programme document neither articulated country-level outcomes and impacts, nor defined a guiding results framework that individual projects could align with or link to UNIDO's results at the corporate level. The CP document was neither designed nor considered as a guiding framework for project

design, nor did it provide an opportunity to increase synergies and cost-efficiencies among projects in the portfolio. Instead projects were largely designed and implemented on an opportunistic and demand-driven basis, tending to be stand-alone, discrete initiatives rather than part of a greater whole. Partly due to the absence of a 'guiding' results framework at the country level, there was a tendency for these projects' expected results and targets to be unrealistic within the timeframe and resources available (e.g. 'eliminate pollutants' or 'increase sector global competitiveness').

There were several sets of projects that were connected such as: the Stockholm Convention related projects for PCB phase-out, medical waste and DDT alternatives; the ICAMT/IC-ISID-managed projects; and follow-up projects such as ACMA, that did follow a programmatic approach i.e. building on previous knowledge and experience and seeking opportunities for shared resources. These projects demonstrated that learning from previous projects had occurred and that this had improved effectiveness and focus of implementation at the national level. However, this approach was not evident across the whole programme.

4.3 Efficiency

A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results

SUMMARY OF FINDINGS

The findings are mixed in terms of project level efficiency. Most projects are rated as satisfactory; but generally at a slightly lower level than for relevance and effectiveness. From a financial management and compliance perspective, the portfolio is efficient. UNIDO's financial reporting only covers contributions in cash channelled through UNIDO accounts. Yet, the portfolio included significant proportions of co-financing (including in-kind contributions) which are not tracked or given due value in considering the efficiency of the overall programme. Notwithstanding that information gap, the evaluation identified examples of efficient use of funds across the portfolio in terms of outcomes achieved in relation to investment.

However, there was a high level of delays across the portfolio. Recurring efficiency problems relate both to UNIDO – procurement, human resources and contractual-related delays, and to the GoI – high staff turnover, changing fund management requirements, and new taxation (GST) regimes. This has made some projects suffer significant delay both at start-up and during implementation. This means that while investments are good value, benefits are not achieved within the expected timeframes and impact is not optimised.

Efficient operations at the project level

Of the 13 projects rated for efficiency, seven were rated as satisfactory or highly satisfactory in terms of efficient use of funds and resources. A further three projects were assessed as moderately satisfactory. The remaining three were rated as moderately unsatisfactory or unsatisfactory. These were the older projects, suffering from design gaps and a lack of focus on sustainable outcomes, in hindsight from evaluations. However, it was often difficult to assess performance in terms of efficiency from the available documentation alone as project reporting is largely confined to outputs and UNIDO financial reporting records only cash contributions channelled through UNIDO.

High level co-financing commitment, uncertain actual allocation

As mandated by the requirements of the GEF, the initial budgets for all GEF projects included substantial levels of co-financing from both government and the private sector, whereas for non-GEF projects on some occasions more indicative assessments were included of likely investments to be triggered by the project activities. Anticipated co-financing contributions varied between projects and included both in-kind contributions (e.g. access to land for facilities, access to staff and coordination) and cash contributions. The projects funded by GEF often have substantial amount of co-financing which is a requisite for the GEF to fund any interventions. As indicated from the table below, on average for one dollar that UNIDO manages to bring in from donors' resources in cash, at least four additional dollars are mobilized from the national stakeholders. This ratio is indeed quite high, reflecting UNIDO's ability to mobilize funds to broaden the projects results. Recently the GoI has been attempting to introduce clearer tracking of project funds, including the extent to which in-kind commitments are mobilised. At the same time, key stakeholders indicated that there is more potential for resource leverage from private sector in particular if flexible mechanisms are implemented.

Table 6. Ratio between funds mobilized through UNIDO and co-financing

Component	Donors' funds channeled through UNIDO*	Co-financing from GoI, private sector & others, not channeled through UNIDO	Total budget	Co-financing ratio
	USD	USD	USD	
Green Industrial Development	76,258,146	372,031,742	448,289,888	1:5.88
Inclusive Economic Development	19,976,785	4,750,146	24,726,931	1:1.24
Total	96,234,931	376,781,888	473,016,819	1:4.92

Note: * Including project support costs (PSC).

Source: UNIDO ERP system as of 28 Feb 2018, and project documents

The actual contribution of the national partners has not been systematically tracked and recorded at UNIDO, therefore it is difficult to assess the extent to which the envisaged contributions have actually materialized. Co-financing (particularly in-kind co-financing) was monitored from neither government nor private sector. However, those projects that *did* report on co-financing showed positive indications. Both the MTE for the Kanpur leather development project and the TE of the ICAMT found funds leveraged from firms exceeded expectations; yet the targets were set low. In another word, where co-financing was reported at the project level, performance was inconclusive; yet overall performance appears to be strong.

Efficiency in service delivery

Evaluations of a number of projects (e.g. the PCB (MTE), the Micro Hydropower (TE), Clean Tech (TE) and EE in MSMEs (MTE)) concluded that expenditure was generally on a least cost basis and that value for money was achieved. However, in the case of the Bamboo project, the TE found that implementation was not efficient, due to poor operations of the implementing partner (Cane and Bamboo Technology Centre). Regarding the IC-ISID project, increasing allocations to the administrative operations of

the center were questioned by DIPP, but on further investigation, the IC-ISID operations were found to provide substantial savings from the combination of two previous centres and economies of scale through cost-sharing between projects managed through the Centre. Interviews with project managers and stakeholders indicated that there were substantial efforts within projects to use funds on a “least cost” basis –i.e. using available funds efficiently by seeking lowest cost, or best value for money solutions. Feedback from stakeholders generally that they considered the projects to provide good value for the level of funds invested.

Delays in project start-up and implementation undermine efficiency

Delays have been common across the portfolio, ranging from minor (less than one year) to major (up to four years), see Figure 2. The cause of delays is not always identified, but where specified they typically related to pre-implementation negotiations between partners (e.g. funds management/flow, implementation arrangements, contractual arrangements). Other sources of delay included project fund management requirements, release of funds, decision-making, project staff/PMU appointment once approved (e.g. FLCTD, EE in MSMEs) and other delays that arise during implementation (DDT Alternatives, EE in MSMEs, Micro Hydropower, ACMA).

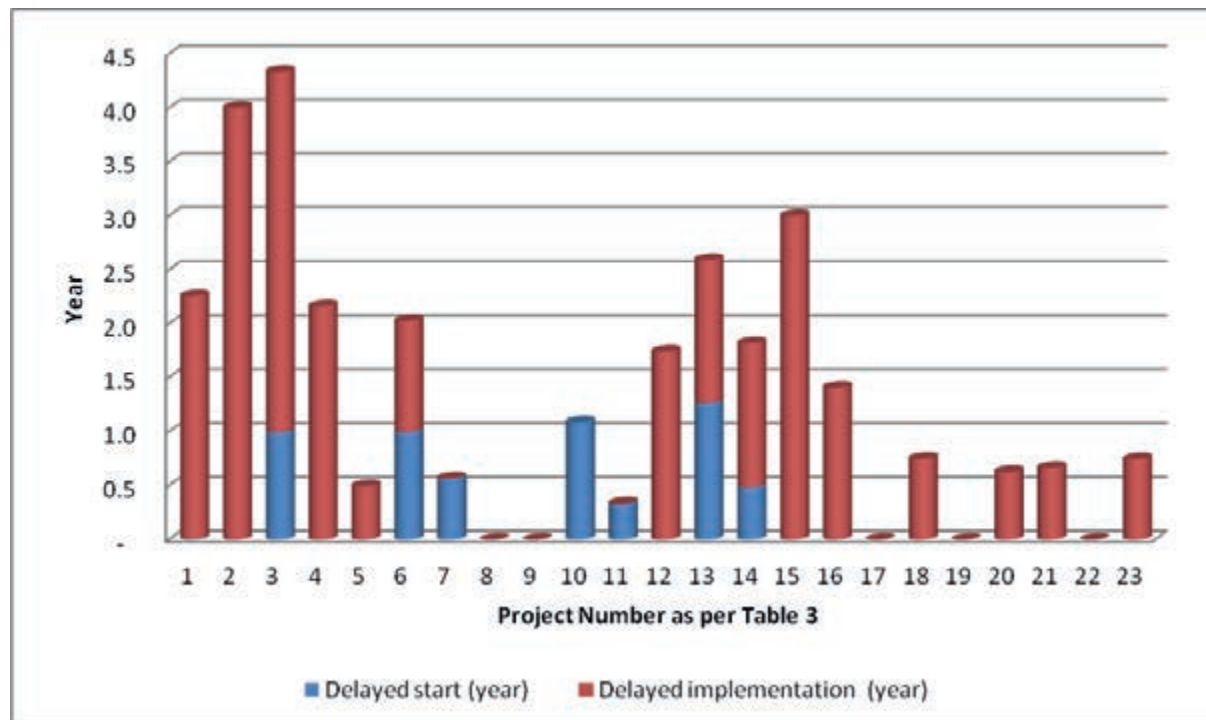


Figure 2. Estimated project delay periods

Source: India Country Portfolio data, based on Prodoc committed funding and project status reports. For several delayed projects which are still on-going, the full length of delay will not be known. An estimate was used based on stakeholder input to generate the data. Note: The bar-project numbers correspond to the project numbers in table 3.

Operational delays affect implementation schedules, budgets and credibility

A number of common delays originated with UNIDO HQ, particularly processes relating to procurement, human resources, and slow responses to approvals/legal issues. Funding approval delays significantly affected implementation schedules. On the GoI side, many delays tended to occur as a result of high staff mobility and, related thereto, break-periods in appointments at senior decision-making levels. GoI officials face frequent staff

rotations, which in turn creates challenges for the URO and project staff. The frequent changes are time-consuming and unpredictable because new officials tend to come with different perspectives and priorities and require updating until they became familiar with projects. This has been a constraint on project management being able to effectively plan and execute schedules as expected. When there are frequent changes in key officials, projects are often left “on-hold” awaiting signatures or approvals for actions. In this regard, there have also been requirements for the signature of key officials even for minor amounts of budget variations²⁵. Strategic and operational relationships are also hard to build and maintain as the frequent staffing changes necessitate continuous briefing and re-justification of previous agreements. This is currently being addressed but whilst in place, will continue to delay project management.

The introduction of a Goods and Services Tax (GST) on 1 July 2017 resulted in a cost escalation for procurement of goods and services for projects of between 8-28%, depending on respective tariffs for different goods²⁶. These costs are likely to be eventually reimbursed, yet this will take time and may only materialise after project completion (hence the project will not have funds to operate and money will be ‘lost’ to the project). Application for GST waivers can be made (for example, already being actioned for the medical waste and PCB project) and need to be pursued by project partners. Meanwhile project implementation is put on hold due to the lack of necessary equipment for demonstration and training purpose.

In some cases, delays were also documented as adversely affecting stakeholder relationships e.g. with industry associations who had invested their time and efforts into the project, and were dissatisfied with a halt in implementation (e.g. ICAMT projects – especially Machine Tools Industry, Foundry). In combination, the delays do impact on credibility for both UNIDO and GoI and do contribute to sub-optimal results: slow project start up (often 1-2 years, especially recent projects) represents a lost opportunity for achieving timely impact. At the same time, the level of efficiency is still overall considered to be satisfactory.

Delays affect results

Overall, there is concern that the extents of delays have negatively affected – and continue to negatively affect – the achievement of results and ultimately longer term impact and industry transformation towards ISID. Figure 3 provides an illustration of how delays can affect project results. The top two lines demonstrate the expected pathway for a typical project: actual progress tends to lag during the early period but picks up during implementation to attain, and in some cases, exceed project expectations.

²⁵ This was being actively addressed during the period that the CPE was conducted and is expected to be resolved soon.

²⁶ The Controller of Aid Accounts and Audit of the Ministry of Finance Department of Economic Affairs.

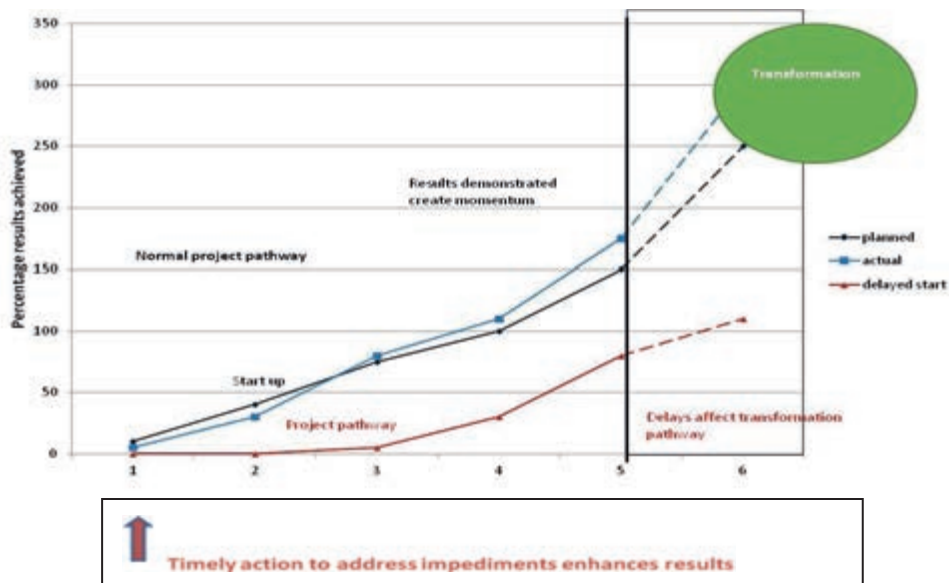


Figure 3. Effect of delays on results

When delays occur, particularly in shorter projects (illustrated by the lower line), results can become limited; progress is constrained; and, potential towards transformation is not achieved. The implication is that timely action to address delays is critical to achieving the extent of results expected of the Indian country portfolio where UNIDO support is designed to catalyse and multiply results swiftly across targeted industries. At the same time, some delays relate to the need to address implementation hurdles e.g. in awaiting the availability of key expertise or of receiving a critical technology (e.g. PCB, Medical Waste). In these circumstances, delay may be unavoidable. Nonetheless, there is a case for UNIDO and the GoI to pay attention to likely risks and constraints and to consider realistic timeframes given the level of complexity and expected approval processes required for innovative projects.

4.4 Transformational change – Progress towards impact

Impact: Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention

SUMMARY OF FINDINGS

The evaluation found that the current portfolio demonstrates good indication of progress towards positive long-term impact. Foundational work is being carried out through the country programme in terms of technology/innovation, with some progress in customisation stage but mixed results in replication and upscaling. Some projects show positive signs towards sector shifts in competitiveness that in the long-term are likely to build beyond the project period. However, other projects have not succeeded in effectively addressing some key constraints to transformational change. Such constraints include insufficient attention to mainstreaming and replication mechanisms, weak partnership arrangements, and/or insufficient resources for on-going implementation.

Yet overall Indian industry is benefiting from the transformational impacts of previous UNIDO support that has been replicated, upscaled and is still generating long term impact. These ‘legacy’ impacts provide a great example of the catalytic role that UNIDO’s long-term support has provided to inclusive and sustainable industrial development in India.

Assessing progress towards impact: overview

Assessing the long-term, high-level effects of an intervention is often the most challenging component of evaluation. Ordinarily, impacts associated with an intervention have multiple influences, and it is often not possible to isolate whether a given impact was achieved as a direct, solely attributable result of a specific intervention. Particularly in complex contexts, it may only be realistic to measure the *contributions* that an intervention has made to a given impact.

Given the complexity of the industrial context within India, it was important to understand the scope and scale of the country programme as well as the causal pathways towards impacts through the macro, meso and micro linkages of the industrial sector and their respective systems and value chains. In this regard, the CPE team used a Pathway to Impact²⁷ illustration to highlight important factors in the Indian Country Programme. A Pathway to Impact diagram (see Figure 4) helped develop a systematic approach to data gathering and analysis and enabled the evaluators to identify whether – and *how* – investments and activities have achieved a *contribution* to the targeted changes.

The diagram illustrates that to achieve positive impact and a substantial contribution towards transformational change for Indian industry and competitiveness, there were four key steps and four main enablers that the CPE process identified as being important. The illustration also helped to identify where the project investments were focused along the pathway impact; indicating the importance of understanding the contribution of the project to the overall CP. The impact identified relies heavily on the policy and sector context, effective partnerships and the motivation and commitment of industry sector actors to combine in achieving transformational change, and to UNIDO Country Programme.

²⁷ As there is no explicit Theory of Change (TOC) developed for the Country Programme, and the CP document does not provide sufficient information on the root causes that the CP seeks to overcome in the long run and the causal assumptions behind the links in the casual pathway towards long-term objectives, it was not possible for the evaluation team to reconstruct the TOC for the CP. Instead the Pathway to Impact, which describes causal pathways showing the linkages between the sequence of steps in getting from outputs to impact, is used (Mayne J. 2015).

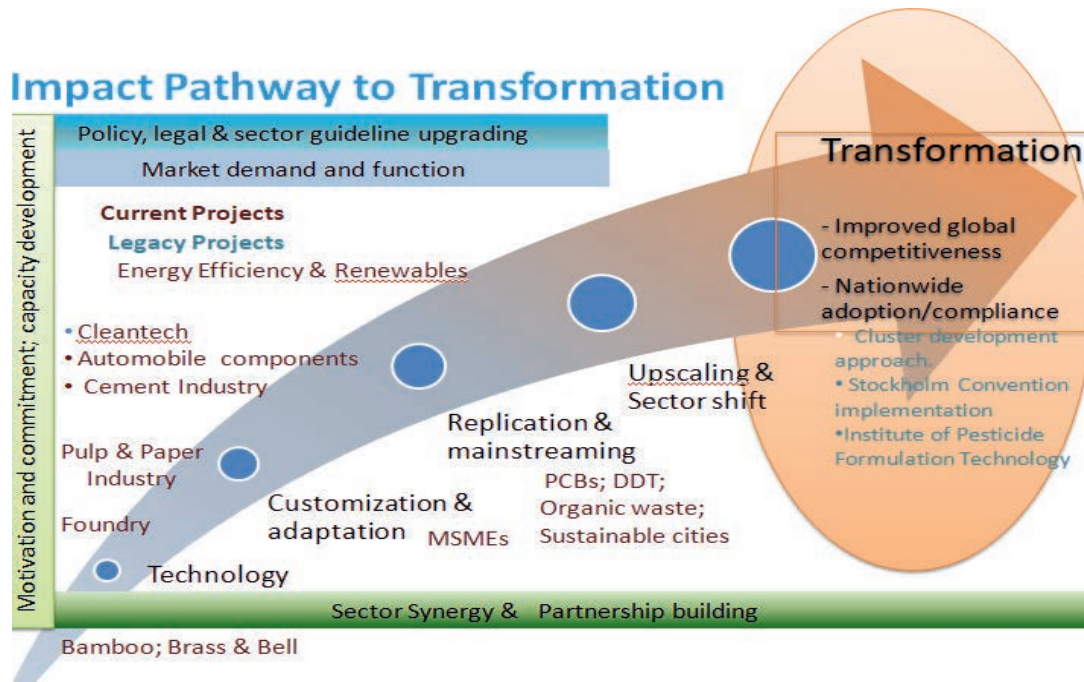


Figure 4. Pathway to transformation

The following tables provide an assessment of level of impact of the country programme at each step and provide some respective examples from the portfolio as evidence for the assessment. It is important to note that these steps are illustrative to assist with analysis only and it is recognized that there are complexities in each industry and projects that are not fully reflected by this analysis.

Table 7. Key steps of UNIDO programmes and projects towards impacts

Key steps	Definition	Assessment of impact
<p>1. Technology & innovation</p>	<p>This support involves the introduction of known new or improved technologies (including techniques, concepts, practices, tools, processes etc). They were mainly designed to improve resource or energy efficiency, waste management or other eco-industrial management that also would contribute towards enhanced business productivity, competitiveness and ultimately profitability at the micro level. At the same time, they could encourage local innovations with potential to demonstrate improved outcomes in ISID.</p>	<p>Strong evidence of impact</p> <p>Progress to impact: UNIDO has established a strong reputation for its technical expertise and this is leading to technological improvements in the selected industries. This was well-noted across all stakeholders met during the CPE and is an aspect of the portfolio that appears to have achieved the greatest results. All projects in the portfolio invested in improved technologies. Most of the technologies introduced had been identified specifically on the basis of their potential to improve competitiveness, often through a diagnostic process, either with the objective of reduced cost of production to allow for more competitive price structures, or in improved quality of production for international markets or import substitution.</p> <p>Examples: <i>Typical technologies for the evaluated projects included improved kilns in the foundry industry, and membrane filtration technologies for waste water in the paper and pulp industry. The projects use a variety of technological approaches to improve energy efficiency of industrial processes and the adoption of existing renewable energy options. Good results from technology improvements have been reported in energy efficiency gains (EE & RE in MSMEs, ACMA, Foundry).</i></p>
<p>2. Customization & adaptation</p>	<p>These technologies are tested and adapted to the Indian context. It may involve sending technical specialists to advise or coach on how technologies can be applied in specific industries or pilot testing of new technologies, often to develop new processes and guidelines that have the potential for wider adoption and application, that is, moving from micro to meso level activity.</p>	<p>Moderate evidence of impact</p> <p>Progress to impact: Most projects in the portfolio across both components seek to contribute to competitiveness and wider development results by adapting technologies to the specific Indian context and demonstrating that they can work in India. Many concepts/technologies have been proven and customized to the local context and ‘good models’ of how implement the adapted technologies in India have been demonstrated and proven to the national project stakeholders.</p> <p>Examples: <i>Particular examples include in terms of environmental and human health (Leather, PCB, DDT Alternatives, Medical Wastes, Cement, Pulp and Paper, Micro Hydropower), applying known technologies but also introducing improved processes that link with the technologies introduced. The stakeholder workshop input emphasised the need for industry ‘hand-holding’ support at this stage to address specific issues that arise in particular businesses and to ensure that the processes are being applied and maintained in the correct manner.</i></p>
<p>3. Mainstreaming & replication</p>	<p>This support may be to increase the adoption of a new, known or adapted technology to wider</p>	<p>Limited evidence of impact</p> <p>Progress to impact: Most projects in the portfolio signalled an intention to achieve sector-wide impact.</p>

Key steps	Definition	Assessment of impact
	<p>groups of companies. This intervention is most likely to be at the meso level where there is potential for uptake across the industry. These processes are designed to increase the scope of change and of return on investment.</p>	<p>However, in general these expectations have not yet been achieved to their full potential. The reliance on industry associations and links with state governments for replication of results is an effective approach as demonstrated by the documented improvement of operating guidelines and sector training materials, for example in the cement sector and in the Ministry of Health for the treatment of hospital waste. Yet, without sufficient, effective and sustained support to enable the targeted institutions to develop required leadership, training, management and social marketing expertise to ensure effective uptake and spread of technologies beyond the project period, the potential of these initiatives is not optimised.</p> <p>Examples: <i>Mainstreaming new processes and guidelines into standard industry practises (e.g. Cement and Medical Waste). GEF-supported projects were more targeted in their objectives towards incentives as a means to encourage replication. Both the Cement and Paper and Pulp projects envisaged sector-wide improvement in competitiveness and developed pilots but these have not yet gained industry-wide traction and the process for replication is unclear. The leather project and the energy efficiency projects are beginning to generate a range of on-line training and promotional materials to demonstrate good practice and mainstream wider application of improved practices across the industry.</i></p>
<p>4. Upscaling & sector shift</p>	<p>This support largely focuses on known technologies and the process in introducing them but seeks to catalyse a major change in sector-wide competitiveness and sustainability. This is more likely to focus at the macro level, although needs to be based on sound technologies and industry practices.</p>	<p>Positive evidence of impact from long-term investments with national strategic alignment</p> <p>Progress to impact: The current portfolio is mixed in relation to extent of evidence towards broader reach of impact in terms of mechanisms for scaling up project benefits to the whole sector, beyond participating enterprises. Most project objectives indicate an expectation that sector impact will occur yet provide few mechanisms to make this happen. However, some projects do link to broader funding schemes of national government where specific technical assistance is provided within a context of national mainstream support. These projects are generally larger and more complex, involving multiple stakeholders across the several ministries, private sector and in some cases state and local government and other support organisations.</p> <p>Examples: <i>Interventions at this scale include the PCB, Medical Waste, DDT and the Sustainable Cities project. These are macro-level project that aims to support the GOI in eradicating PCBs across all industries. All of these projects have been subject to delays due to implementation issues. Yet, other previous “legacy” projects in earlier UNIDO programmes. These include the work in pesticides through the Institute of Pesticide Formulation Technology, activities to support the implementation of the Stockholm Convention²⁸ and the Cluster approach within the Ministry of MSME that was initially supported in India by UNIDO in 1996.²⁹ These examples indicate the potential of mainstreaming and upscaling of ISID-related initiatives within industry.</i></p>

²⁸ http://www.wipo.int/edocs/trtdocs/en/unep-pop/irt_unep_pop_2.pdf accessed April 2018

²⁹ <http://www.dcmsme.gov.in/clusters/unido/method.htm> accessed March 2018

The approach also identifies four important enablers across the Country Programme that facilitate success. There is evidence of programme results in relation to the UNIDO working with partners in these areas that have been demonstrated to strengthen competitiveness.

Table 8. Enabling process in UNIDO programmes and projects towards impacts

Enabling processes	Definition	Evaluation assessment
<p>1. Motivation & commitment</p>	<p>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.</p>	<p>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.</p>
<p>2. Upgrading policy, legal and sector guidelines</p>	<p>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.</p>	<p>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 support activities that demonstrate how policies can be enacted and applied at the specific industry level.</p>
<p>3. Diagnosing market demand and function</p>	<p>The importance 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.</p>	<p>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.</p>
<p>4. Sector synergy and partnerships</p>	<p>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.</p>	<p>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.</p>

Source: Country Programme Evaluation, March 2018

4.5 Sustainability

The continuation of benefits from an intervention, after the development assistance has been completed

SUMMARY OF FINDINGS

The evaluation found that various sustainability mechanisms were embedded in most project designs; with demonstration/replication and capacity development the most commonly applied strategies. Some evidence suggests that capacity development has been particularly successful, with examples identified of projects reaching level 4, the highest level of the Kirkpatrick Model, whereby positive, sector-wide results being achieved on the ground can be attributed to UNIDO training/capacity development interventions. More broadly though – and despite the promising project designs – there was limited evidence on the extent to which the long-term, continued sustainability of project benefits are actually being achieved.

Various sustainability strategies employed

A range of different sustainability mechanisms have been embedded in the design of the projects, with most projects including at least some consideration of sustainability of benefits at the design stage. For example, many of the projects in the portfolio adopt a demonstration-effect approach for introduction of new technologies and practices, with an expectation that these demonstrations will form a basis for natural spread of knowledge and expertise across the sector to achieve sustainable results. Model replication of demonstration units in targeted clusters was the main sustainability mechanism for ICAMT. The ICAMT terminal evaluation found that this was not yet possible/likely without further support and coordination.

Table 9. Sustainability strategies evident in the UNIDO-India portfolio

Demonstration & replication approach (n=15 projects)	Policy/regulatory support (n=9 projects)	National ownership by Govt, industry (n=8 projects)	Capacity building of partners/trainees (n=5 projects)	Establishment physical facility (n=2 projects)
<ul style="list-style-type: none"> • PCBs • Hydropower • RE & EE in MSMEs • ESM of medical waste • Solar • Leather • Brass and bell metal • Automotive components • IC-ISID • Hydropower • DDT • ICAMT including projects: <ul style="list-style-type: none"> ○ Machine tools, ○ Foundry & ○ Plastics 	<ul style="list-style-type: none"> • Solar • Organic wastes for RE • PCBs • Cement • Paper & pulp • Automobile components • CleanTech • Cane and bamboo • Machine tools 	<ul style="list-style-type: none"> • Sustainable Cities • DDTs • Plastics • CleanTech • Paper & pulp • Cement • Automobile components 	<ul style="list-style-type: none"> • EE for MSMEs • Paper & pulp • Cement • Solar • Organic wastes for RE 	<ul style="list-style-type: none"> • Brass & bell metal
				Finance mechanism (n=2 projects)
				<ul style="list-style-type: none"> • EE for MSMEs • Solar • Waste

Source: India CPE Portfolio Review Synthesis, March 2018

Contribution to sector policies/guidelines or regulatory support is noted as an expected approach in around one third of the projects. Embedding project activities within government organizations, industry associations and networks is another of the main mechanisms by which projects are expected to become sustainable. For the plastics project specifically, the terminal evaluation found that steps had been taken towards handover to industry organizations post-project, yet sustainability of adoption at the industry level is not clear from the available evidence.

In addition, some projects are follow-on programs (e.g. ACMA, Brass and bell, IC-ISID), or projects that have started and envisage scaling up at a later time to national level. As evident from Table 5, some projects anticipate applying only one sustainability strategy, while others (e.g. Waste to Energy, Solar Thermal) consider sustainability globally across each component and across the various levels of project activity. Where finance mechanisms are being developed, this can occur in several forms, some relating to savings (waste to energy), and some to leveraging finance from banking or other industry sources.

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 5. New World Kirkpatrick Model for Evaluation of Capacity Development

Level 4 System/institutional change	The degree to which outcomes such as process change or institutional systems; or diffusion of knowledge through sharing of knowledge are evident from the benefits of the increased capacity
Level 3 Behaviour change/adoption	The degree to which there is evidence of the extent to which the knowledge is actually applied within the workplace to benefit the institution.
Level 2 Learning	The degree to which participants acquire the intended knowledge, skills and attitudes and are able to apply these in their context
Level 1 Reaction	The degree to which participants are more aware of the topic of capacity development and react favourably.

There is clear evidence that project participants in skills development have reacted favourably to the opportunities provided and awareness of improved technologies and processes has been achieved. 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 that were interviewed during the project evaluations (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. (e.g. cement and paper and pulp participants articulated how they are applying their knowledge in the institutional context. Another 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 at the institutional or system level) 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. Nonetheless, industry partners do suffer challenges such as sector and cluster associations that have election of new presidents so continuity is lost or research institutes that have to respond to available funding rather than industry needs, etc. Consequently, although individual capacity development is positive, there is still progress to be made on how to build and consolidate whole-of-institution capacity development.

Sustainability is not adequately considered across the portfolio

Sustainability was not directly addressed in design or implementation in four of the 23 projects (Bicycle and Bicycle Parts Sector, IC-ISID, Foundry, Machine Tools Industry). While the design for these projects did not consider or name 'sustainability' *explicitly*, they nevertheless included some of the common design elements in sustainability sections of other projects e.g. intentions for demonstrations to be replicated, or policy support. In some projects, the initial expectations of developing sustainability mechanisms were not eventually realised. For instance, in the EE in MSME project it transpired that so far there was an unwillingness to pay for services that had been provided through the project: if these services (monitoring of energy consumption, identification of ways to increase energy efficiency) are not continued, this will represent a major risk for project sustainability.³⁰

The evaluation of the Bamboo project concluded that current results will not be sustainable due to the missing marketing link, especially for the new designs that artisans were trained on. Most of the artisans met within the villages stated that they went back to previous methods of work and old products since no marketing was available for the new products. This experience implies that risk management gaps are not fully examined and safeguarded either in project design or in implementation. This is important where there are heightened risks, for instance when large investments are made and/or the project focus is on hazardous chemicals management. Any lack of maintenance or inadequate consideration of long-term safety factors could not only represent a reputational risk and result in loss of project benefits, but could also represent a health and safety hazard.

³⁰ UNIDO, 2018, Draft Independent Mid-term Evaluation. Promoting energy efficiency and renewable energy in selected micro, small and medium enterprises (MSME) clusters in India, p.24.

The extent of overall sustainability is difficult to determine

The sustainability of benefits actually achieved for those projects that are completed or have already achieved results is difficult to assess from the documentation. The MTE for PCB project assessed likelihood of sustainability as likely to highly likely due to the project's demonstration approach and its support for a regulatory framework, though the MTE also recommended greater private sector participation.

The TE finding for Hydropower was largely positive regarding sustainability, though replication was dependent on financial viability of technology for communities. The Medical Wastes MTE assessed sustainability likelihood as likely to highly likely due to high level stakeholder support for continuation of activities and results. In the Brass and Bell Metal project the sustainability strategy related to establishment of a Common Services Facility, which was not achieved. Some (small scale) examples of replication occurring were documented in the MTE for the Leather project, though it also identified that promotion needed to be enhanced to ensure that replication would occur. While there were some examples of early success in replication (e.g. Leather, ACMA), longer term information is not available to assess the extent that replication occurs and contributes to sustainability of benefits. Yet, the examples of sustainable change from previous portfolio investments, for example the cluster approach, pesticides alternatives and Stockholm Convention implementation demonstrates that the UNIDO support does have strong likelihood of sustainability for some investments.

4.6 Programme management, cross-cutting issues and partnerships

The extent to which programme management objectives and objectives set for cross-cutting issues have been achieved.

SUMMARY OF FINDINGS

Project management was generally effective, although the lack of a formal line management relationship between the UNIDO Representative and the project managers and staff can lead to unrealised potential. Across the portfolio, effectiveness in cross-cutting areas such as inclusiveness and gender mainstreaming was weak. M&E was not always systematic; which was partly as a result of UNIDO not setting a guiding and results-based framework for projects to align with. Further, knowledge management is not systematic and learning from the portfolio has already been, or is in danger of being lost. On the other hand, partnership development has been a key feature of the programme, with all projects establishing productive relationships.

The CPE assessment also considered the project management systems and processes that supported delivery of the projects and the overall programme. This also encompassed the extent to which UNIDO's cross-cutting issues (such as gender mainstreaming and RBM) were embedded within project and programme management processes.

Country programme has been fragmented but efforts are being made towards a team-based approach

UNIDO Regional Office (URO) in India is provided with limited human resources (one international expert – UNIDO Representative – and three support staff) and even more limited operating budget³¹, against a complex and expanding portfolio and high demand

³¹ For example, the travel budget for the UNIDO Representative in 2017 was USD 2000, to cover more than a dozen of on-going projects in India and other six countries under the URO.

for UNIDO support. As a result, staff time and specific expertise have been unable to fully attend important work at country programme level: strategic dialogue with partners, knowledge management, media and communication and monitoring and evaluation of the CP's results and performance. This concern is also shared by the 2015 Audit of the URO by UNIDO Office of Internal Oversight, and as yet no solution has been found.

The 2013-2017 country programme is approximately three times bigger than the previous two country programmes in India. India has now the second biggest portfolio at UNIDO. This has brought both challenges and opportunities to the UNIDO country team. The already heavy workload has become heavier; the pressure to manage the country portfolio for results and demonstrate higher results and performance has mounted. The increasing projects mean that more staff in the country have been recruited to run projects. During the period of the country programme, the projects have had a complement of approximately 46 staff (35 full time & 11 part time; 36 male and 10 female); although the average number of project staff is around 30-40 at any one time.

This is a valuable resource that is in some cases under-utilized. At present, emerging yet still incomplete intra-project awareness was observed within the country programme. The UR has neither direct line management function with project staff based in the country nor with project managers in Vienna. This leads to fragmentation of knowledge and effort, and ultimately lowers optimal results and impact of UNIDO work at country level. Recently joint management meetings among staff from different projects have been called in New Delhi. These have been much appreciated by staff and have led to an improvement in information sharing, which is critical to enhance synergy and results among projects in the country portfolio. Furthermore, there is bigger potential to capitalize on the knowledge and expertise of some staff. Sharing staff in common functions across the projects such as knowledge management, media and communications, and monitoring and evaluation could potentially create a more cohesive team, a stronger and more coherent programme and stronger effectiveness.

IC-ISID Role in Coordination

The International Centre for Inclusive and Sustainable Industrial Development (IC-ISID), commenced as a project in 2015. It amalgamated the previous roles of the USSIC³² and the ICAMT³³. One of the IC-ISID's direct roles is to provide project management support for four projects in the UNIDO-India portfolio: (i) Cement (ii) Paper and pulp (iii) Leather (iv) and Bicycle and bicycle parts. The IC-ISID plays a direct role in project coordination across these four projects by hosting steering committee meetings and in engaging key stakeholders in project activities. In addition, the IC-ISID has played a wider coordination role, particularly between DIPP and the broader UNIDO portfolio. The latest status update of the IC-ISID provides evidence that the center participates in a range of international networks, though there is no information available on the outcomes of participation: in particular outbound South-South cooperation through the projects of the IC-ISID on neem-based bio pesticides in West Africa and the upgradation of the Kenya Industrial Research and Development Institute (KIRDI) in Kenya.

³² The objective of UCSSIS was to facilitate the transfer of Indian developed industrial technology-led solutions to Least Developed Countries (LCDs) and to assist with the replication of such solutions, skill training and capacity building in those nations.

³³ The objective of ICAMT was to act as a tool and mechanism for the development and implementation of projects in India to strengthen the productivity and competitiveness of micro, small and medium enterprises (MSMEs) through technology led interventions.

The evaluation of the preceding ICAMT, concluded that there was a lack of clarity with respect to roles and responsibilities in coordination between ICAMT and the URO; and also that financial disbursement procedures were cumbersome as all non-local expenditure was administered via UNIDO HQ. It is evident that coordination in IC-ISID has also been challenging and that the broad scope of expected activities given the limited resources made the achievement of results difficult. Nonetheless, the IC-ISID has demonstrated good progress, particularly in project management support and in contributing to wider knowledge of the industry sector. However, at present, the Centre does not have sufficient or a confirmation of continuing resources to act as a sustainable centre that can continue operations in India.

Inclusiveness, employment and human resource development (skilling) receive little attention in the country programme

Inclusiveness is an important consideration for UNIDO, especially because of its importance to ISID and the SDGs. For instance, the UNIDO policy on gender equality and the empowerment of women³⁴ provides guidelines for establishing a gender mainstreaming strategy and action plans for all interventions. Increasing employment outcomes including human resource development and decent work is of high interest to the GoI in term of poverty reduction and is a potential strategy for ensuring that the project benefits reach a wide target group. Targeting for employment or diversity outcomes is not strongly considered in the project designs (e.g. relating to gender, socio-economic status, ethnicity, age, ability, etc.). Some industries have been targeted based on their relevance to low income households (e.g. hydropower, bamboo), though this is uncommon in the portfolio. Consideration of age diversity has been incorporated into some programmes to provide capacity development support to younger workers (e.g. CleanTech).

Increasing, but still insufficient attention to gender mainstreaming and benefits

There have been a number of key changes in gender equity and mainstreaming³⁵ in projects during the period 2013-2017 of the CPE. As a result of the approval of the UNIDO Gender Policy in 2015, all UNIDO technical cooperation projects post-2015 are to be assigned a gender marker and should go through a gender mainstreaming check-list before design approval. So far, gender has not typically been a strong focus in project evaluations and project completion reports for those projects that have been completed. Some projects (21%) included gender mainstreaming in some form at design, but there was no evidence to verify that they were followed through in implementation. However, more recent projects in the portfolio do tend to include greater consideration of gender, but not all projects designed after 2015 include gender mainstreaming measures. Only one project (Micro Hydropower) reported gender disaggregated data – this was for participation in various capacity development activities (participation was 26% women across the project). Two other projects (PCB and Medical Waste) reported 11.8% of training participants female in the latest progress report (PCB), despite the projects being designed earlier than the introduction of the UNIDO Gender Policy. One project (Medical Wastes) was included in a study by the Stockholm Convention Division in 2017 to seek way to mainstream better gender into its projects³⁶. This project potentially could have

³⁴ UNIDO Gender Policy was issued initially in April 2009, and revised March 2015 (UNIDO/DGB/(M).110/Rev.)

³⁵ Gender mainstreaming is defined in the UNIDO Evaluation Manual as “The extent to which UNIDO interventions have contributed to better gender equality and gender related dimensions were considered in an intervention”.

³⁶ UNIDO 2017, Report on the Stockholm Convention Division Gender Mainstreaming.

positive impacts on women (as a large number of hospital workers, patients and waste recycling works are female and at the age of child-bearing), but gender issues and indicators were not included in the project design as it had not been required at that time. During the implementation, sex-disaggregated data has been collected on training participants yet training materials are not specific on gender-related impacts of chemical/medical waste. This gender study made a series of recommendations for the project management to improve gender mainstreaming during the remaining period of the project implementation.

Variable performance in Results-Based Management and M&E at project level

Most projects do consider a RBM³⁷ approach through the development of a logical framework and setting of Key Performance Indicators (KPIs). Mention of the importance of M&E is made in design documents and budgets are allocated for the preparation and implementation of M&E plans along with mid-term and terminal evaluations. Project designs typically refer to M&E requirements/guidelines of UNIDO (and GEF where applicable) and reports relate to outputs achieved.

However, developing and putting into practice appropriate M&E systems is not comprehensive across the portfolio. Only seven of the 23 projects reported satisfactorily on quantified KPIs or outcomes indicators. Results for technical improvements such as energy efficiency have specific metrics but measurement of improved outcomes for other interventions such as capacity development is less rigorous. Industry clusters that conduct diagnostic assessments typically undertake baseline assessments and have some form of reporting towards outcome achievements but there is still opportunity to improve measurement of benefits to direct participants and to the wider industry in line with project objectives. Some projects are starting to or planning to conduct benchmarking studies and impact assessments (PCB and ACMA).

Results and performance at country programme level are largely hidden

The country programme was monitored through the Annual Report of UNIDO's Operations in India prepared by the URO. This report which only presents data related to the expenditure and budget of closed, on-going and pipeline projects and progress of individual projects (mostly on activities, instead of results in terms of outputs, outcomes or impact) is presented yearly to the National Steering Committee which is chaired by the Secretary of DIPP with members from all the ministries working with UNIDO projects. This annual meeting provides a central and collaborative monitoring oversight for the country portfolio implementation. However there is no clear results framework articulating country-level outcomes and impacts either in the Country Programme document at design or in any documentation during implementation. As a result, it is challenging for the country team to effectively monitor, report and eventually manage by results. This has led to a situation where UNIDO's results and performance at country level are largely hidden from both national and international stakeholders in India, in spite of the fact confirmed by this evaluation that the performance is satisfactory and results are good and some have led to or could potentially lead to transformational changes if more widely reported and promoted.

It must be noted that this situation is partly a result of UNIDO as an organization being insufficiently able to link results at project level to those at country and corporate level. In

³⁷ Results Based Management (RBM) is defined in the UNIDO Evaluation Manual as “*The extent to which a development intervention is managed based on results, instead of activities.*”

this respect, the on-going initiative at the HQ to connect project and country results to UNIDO's Integrated Results and Performance Framework could facilitate the India country team's effort to manage the next country programme for results.

Knowledge generation, management and dissemination is weak

There is no systematic approach to capture institutional knowledge and to capitalize on knowledge assets generated through the country programme. Each project includes the generation of knowledge for targeted industries. This knowledge has potential to be shared more widely to other industries. In some recent projects (e.g. EE in MSMEs and leather), greater attention is being placed on knowledge products that will be available to industry beyond the project period. These assets could be used to expand and accelerate results within India, given UNIDO's catalytic role in the country. In legacy projects, UNIDO has promoted clear messages that have been picked up and widely used e.g. Cluster Development and Cleaner Production. This is an aspect where the Country Programme has potential to improve. When the IC-ISID was established, part of the expectation was for the Centre to become a knowledge repository on ISID and to become a Centre of Excellence to support industry in India. Yet, the IC-ISID did not have financial and human resources allocated within its budget for knowledge collection and dissemination; although there is potential to consider a more prominent role for the IC-ISID in this regard. This would require a specifically designed knowledge building and communication programme.

Partnerships

Strong partnerships are evident across the portfolio

All projects are implemented in partnerships of some form, often with both Government and industry partners during the project implementation. Based on feedback from the field missions, UNIDO has demonstrated the ability to build very positive relationships with the majority of stakeholders. UNIDO is held in high regard with both project and strategic partners. Nonetheless, the extent of its partnerships is largely limited to direct project implementation. Partners are relatively unaware of other UNIDO projects, even where there is potential to engage in cross-promotion, awareness raising and even replication of results between projects. Several strategic (non-implementing) partners met during the evaluation expressed interest and willingness to know, understand and act as an information sharing channel to spread knowledge about UNIDO's work. In general, UNIDO's analytical and policy advisory services, standard-setting, and convening power as a neutral facilitator is recognised by many partners.

The UNIDO Regional Office (URO) plays an important role in building partnerships

Some projects, based on the design documents, envisage a strong role for the URO in coordination and M&E (Leather, EE in MSMEs, Brass & bell), and periodic project supervision (PCB, EE in MSMEs, Medical Waste). Other URO's expected roles include assistance to specific project activities such as study tours (Cement). In addition, some projects envisage a role of the URO as a conduit for sharing UNIDO's knowledge and lessons from similar projects globally, or linking projects to specific technical expertise (Waste to Energy, machine tools). In the PCB project, there were positive findings from the MTE relating to the performance of the URO (timely assistance, responding to challenges). In the EE in MSMEs project, the UNIDO Representative's personal involvement in strategic brainstorming workshops in clusters was well received. In the DDT Alternatives project, minutes of meetings indicate that the URO has played an important role in liaising between the project partners, for instance linking the DDT manufacturer HIL with other project partners such as CIPET (research institute). The URO also engages in wider technical and strategic partnership events to represent UNIDO and present programme work. This role is highly valued by partners.

Relationships with UNIDO HQ have mixed results

The TE for the Micro Hydropower project found that the “UNIDO Vienna office managed the project well through regular visits to the sites and through progress reports.” In the Medical Waste project, the MTE found that “UNIDO HQ and field-based management and coordination are provided in a timely and effective manner” and that “The project greatly benefits from the extensive support and network of contacts of the RENPAP team (Regional Network for Pesticides Asia and the Pacific)”. Yet, in feedback from other projects, there was concern regarding the responsiveness of HQ to operational matters, particularly in human resource, procurement and other contractual and financial matters. These issues appear to arise when there are complex issues that involve several UNIDO HQ departments and a need for systemic and strategic solutions rather than standard solutions.

Other partnership activities

The partnership between UNIDO and India extends beyond the national technical cooperation activities and also includes the following mechanisms.

Regional networks UNIDO engages with regional networks where India is also a key partner. These activities are of strategic importance and do support portfolio development activities. Of particular relevance is the Regional Network on Pesticides for Asia and Pacific (RENPAP) which aims at promoting development and production of safe pesticides and crop management practices, through exchange, workshops and related cooperation among technical institutes in member countries. RENPAP started in early 1980s, is still at operations, and is funded by the member countries: Afghanistan; Bangladesh; P.R of China; India; Indonesia; Iran; Lao PDR; Malaysia; Myanmar; Nepal; Pakistan; Republic of Korea; Pakistan; Sri Lanka; Thailand; and Viet Nam. The Secretariat is established at UNIDO in India and liaises with eight technical coordination units in areas as diverse as environment, safety, production technology, etc. RENPAP Secretariat is instrumental in the design and implementation of the three current projects related to Stockholm Conventions: Medical Waste, PCB and DDT Alternatives.

Global Projects Some elements of the country programme have connection to wider global initiatives. Of particular relevance are the activities under the global Resource Efficient and Cleaner Production (RECP) programme, under which a global network has been established of RECP service providers, with three members from India, respectively the Confederation of Indian Industries – Godrej Green Business Centre (CII-GGBC); Gujarat Cleaner Production Centre (GCPC); and the Foundation of MSME Clusters (FMC). In addition to global capacity building and networking activities, UNIDO works under the global RECP programme on the development and trial of innovative RECP methods and tools (with GGBC) and on development of eco-industrial parks in Gujarat, Telangana and Andhra Pradesh (with GCPC and GGBC respectively). The RECP has been also integrated and tested in around 10 companies in ACMA project which promotes continuous improvement in SMEs in automotive component industry.

BRICS Of further relevance to India are the UNIDO activities for business forum and exchange among business membership organizations of the BRICS (Brazil, Russia, India, China and South Africa). These meetings are a good opportunity for exchange of information and knowledge.

Global Forums UNIDO convened global forums of relevance to inclusive and sustainable industrial development in which Indian government and business delegates have participated, both in India as well as elsewhere. For example, in connection with the Make

in India fair in Mumbai in 2016, UNIDO organized a Forum on Thinking out of the Box: innovation for industry and industry for innovation. At the international level, India has been participating among others in the Vienna Energy Forums (biennial since 2009), the UNIDO Green Industry Conferences (held in Philippines in 2009, Japan in 2011, China in 2013 and the Republic of Korea in 2016) and in the 50 years anniversary celebration of UNIDO (held in Vienna in 2016), and Vienna Energy Forums (May 2018) where several start-up winners of the CleanTech Awards from the CleanTech project participated and presented how their businesses help reducing pollution and benefit from the project.

5 Conclusions, recommendations and lessons learned

5.1 Conclusions

The CPE conclusions are presented in response to the three key evaluation questions and summarise the main findings that lead to the recommendations for the future country programme.

What is the quality of UNIDO's contribution: relevance, effectiveness, efficiency, sustainability, facilitating and hindering factors?

The projects in the CP portfolio have demonstrated satisfactory performance overall, with some of highly satisfactory. Table 10 presents the assessment for each of the evaluation criteria across the portfolio. In general, the projects with lower performance were older projects started under the previous programme. The improvements focus largely on industry needs assessment through diagnostic processes and institutional strengthening.

Table 10. Performance of projects in the Country Programme*

Assessment	Highly unsatisfactory	Unsatisfactory	Moderately unsatisfactory	Moderately satisfactory	Satisfactory	Highly satisfactory	Total Projects
Relevance	0	0	0	3	10	10	23
Effectiveness	0	1	0	4	7	2	14
Efficiency	0	1	2	4	5	2	14
Impact	0	0	0	7	5	2	14
Cross cutting issues	0	0	4	8	2		14
RBM & M&E	0	0	4	6	4		14
Partnerships	0	0	1	3	5	5	14

Source: Country Programme Evaluation, based on evaluation report ratings, March 2018

Note: *) Of the 24 projects, only 23 were assessed for relevance as one was support for an event not a project. Nine projects are still under implementation and not sufficiently advanced for assessment of the other criteria.

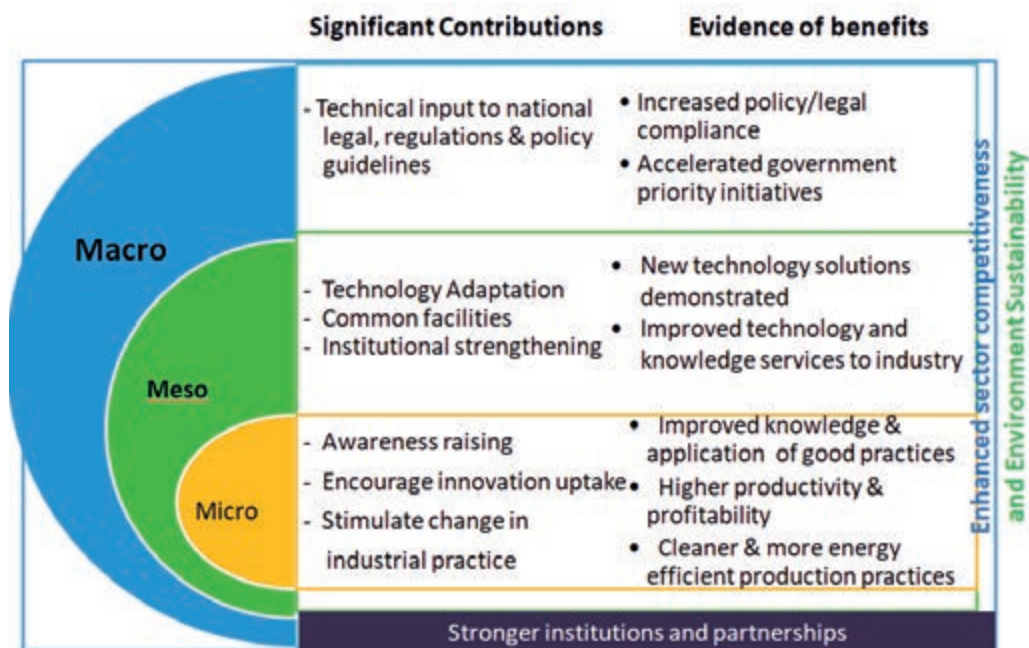
What is UNIDO's contribution to industrial development results in India?

Overall UNIDO has contributed positively to inclusive and sustainable industrial development in India on three levels: micro, meso and macro. These contributions have collectively resulted in significant awareness raising and uptake of improved technologies and industrial good practices at the micro level. Significant contributions at the meso level include technology adaptation; the creation/provision of common facilities and

institutional strengthening, evidenced by the demonstration of new technology solutions as well as improved technology and services to the industry. Significant contributions on macro level include UNIDO's technical input to national legal, regulatory and policy guidelines, which is evidenced in an increase in policy/legal compliance and accelerated government priority initiatives.

Particular benefits have been achieved in cleaner and more energy efficient production practices; such that the country portfolio now focuses on improved competitiveness in the global market place, as well as environmental sustainability across all projects in the portfolio, not only in the green industry component as envisaged at design stage. This new direction aligns well with both GoI and UNIDO, as well as GEF strategic objectives in relation to ISID.

Figure 6. UNIDO's contribution to Inclusive and Sustainable Industrial Development in India



Source: India CPE, March 2018

How has UNIDO advanced transformational change, including consideration of cross-cutting issues such as gender, equity and evidence-based decision-making?

Given its limited resources, UNIDO aims at playing a catalytic role in industrial development in India. It seeks to contribute through technical expertise and projects to influence national policy directions, through adoption of best practices in industries, and through partnerships and enabling initiatives to attract investments by others. This means that while the projects across the portfolio make significant contributions for the specific targeted industry, the most significant results are where a long term, holistic package of support is implemented with all relevant industry stakeholders.

UNIDO has had a major role in initiatives that have had transformation impact in India. The projects are in general extremely relevant and align with country demand. Most fulfil a critical gap in the current national industrial development agenda. Some current projects have a similar long term potential but many projects are output-focused, without

sufficient consideration of outcomes and contribution to transformational change. Yet, the country programme document has played a small role in guiding of project investments; rather the portfolio has arisen from opportunity and demand. This is positive in that the projects are in line with interests and demand of the GoI but it has led to a level of fragmentation and unrealised potential for synergistic effect. There is little sharing of knowledge or experience across the UNIDO portfolio, despite good opportunities to do so. There is anecdotal evidence of higher productivity and profitability in some cases, but there is insufficient data gathering on impact achieved and the extent to which achieved benefits are being sustained.

UNIDO's most important results are long-run, building on interventions that commenced years, sometimes decades ago. There is good evidence of UNIDO delivering transformational change in some areas, and the pieces are in place for delivering more transformational change. However, UNIDO's results and performance, added-value and role are not well expressed by UNIDO. Monitoring, measurement and knowledge management are not systematic enough to support a rounded understanding of UNIDO's performance and results, or to identify potential synergies. India is poised for massive efforts to address the SDGs and is investing in accelerated development efforts in key priorities. It is expected that around 50% of the results achieved towards the SDGs globally would be realized in India. The GoI is taking rapid and large-scale steps forward through its large-scale programmes and specific schemes that are designed to accelerate progress. UNIDO's programme as currently designed has some potential to align with and contribute to this massive effort. This will require huge efforts, innovative approaches and strong partnerships.

For future consideration

1. Transformation as an opportunity

The pace of change in India is rapid on one hand; yet on the other, there are impediments to industry change towards ISID. This is a period of opportunity for both UNIDO and the GoI as they jointly work on the SDGs and towards inclusive and sustainable industrial development. The current distinction between components in the country programme – Inclusive Economic Development, Green Industry and South-South cooperation – are no longer relevant. The thrust for the country program has now merged across the three country programme components towards the combined concept of ISID. At the same time, S-S cooperation is no longer considered most relevant (instead it is global connections between countries in line with the universality approach of the SDGs). The CP evaluation found that the country programme in India is valuable but does not fully harness the opportunities for a coherent programme with an integrated portfolio. In the current shape, it is a collection of separate projects. The CPE found that transformation change requires long term investment in successive stages. However, the monitoring that occurs is largely project based and does not include outcome monitoring or 'storytelling' to showcase UNIDO's key results and impact at project and country levels.

2. Partnership building underpins success and is increasingly important

UNIDO has a strong reputation in India, largely based on trusted, added-value technical expertise, and doing relevant work related to ISID and Make in India and meeting commitments under multilateral environmental agreements. It helps to establish, effective partnerships with both Government and industry. External partners represent an

untapped resource for communicating UNIDO's value and identifying new opportunities. UNIDO has demonstrated the ability to have very positive relationships with the majority of stakeholders. It is held in high regard with project and strategic partners. Nonetheless, the extent of its partnerships is fairly contained to project implementation. Partners also are relatively unaware of other UNIDO projects, even though they have the potential to engage in cross-promotion, awareness raising and even replication of UNIDO project results. Several strategic (non-implementing) partners met during the evaluation expressed interest and willingness to know, understand and act as an information sharing channel to spread knowledge about UNIDO's work. Even across the portfolio, there is room for enhanced partnership through resource and knowledge sharing. This would improve the spread of knowledge and contribute to enhanced efficiency.

3. Valuable knowledge generated through the projects is being lost or eroded

There is no system across the UNIDO country programme to capture institutional knowledge, to capitalize on knowledge assets, and to monitor and report on results and performance. These assets could be used to expand and accelerate results beyond project completion. In some exceptional cases, UNIDO has promoted clear messages that have been picked up and widely used e.g. Cluster Development and Cleaner Production. URO does prepare an Annual Report specific to India and several projects have generated some dynamic materials to engage partners and stakeholders, yet, government websites contain more and more useful information about UNIDO than UNIDO's own website.

4. There is unrealized potential for replication and scaling up

UNIDO has established a strong reputation for its technical expertise. This is well-noted across all stakeholders; in particular, efforts to customize technical solution to local contexts and to address specific constraints to replication and scaling-up. Important considerations raised were ensuring that project designs include resources or mechanism for replication, beyond setting up demonstrations; and in ways to investigate and demonstrate financial viability of successful technical solutions. However, there are also expertise gaps identified as being important to achieving larger and more sustainable results. These related to the reliance of industry associations for replication of results without effective support to enable them to develop required leadership, training, management and social marketing expertise to ensure effective uptake and spread of technologies beyond the project completion.

5. Country Programme performs well but pays insufficient attention to inclusiveness and vulnerability

There has been a strong and conclusive shift within the portfolio towards greening of industrial development, largely as a result of the resources available through the GEF, and the high-level influence of global and national commitments to environmentally responsible production. At the same time, there has also been an enhanced focus of the GoI on job creation and quality of life improvements for workers. There have been some indirect benefits in this regard as a result of the UNIDO country programme implementation. However, the evaluation findings suggest that while the context does not enable major strides in areas of inclusion such as gender equity or greater diversity in the workforce, there are still rooms for UNIDO to strengthen its role in this regard. Particularly, the new gender markers that are required in line with UNIDO policy and GEF procedures could be applied across the portfolio. Better gender and diversity disaggregated data could be collected and analysed. A more detailed and insightful consideration during project design would be of benefit.

6. The India portfolio is seriously affected by delays across the majority of projects, risking achievement of results

Both UNIDO and GoI have contributed to substantial project delays, mainly during project start up and implementation. These are largely bureaucratic issues that can be addressed with collective and concerted efforts, for example when staff changes occur, when rules and regulations change, leading to amended processes. Effectiveness and impact are being compromised and therefore persistent operational challenges and risks need to be addressed quickly, rather than normalized. Furthermore, a robust risk management at the commencement of projects could strengthen the assessment of potential vulnerabilities and risks across the portfolio. Stakeholder input emphasised the importance of project processes being flexible to allow for projects to respond to local needs and opportunities; yet the current processes are too rigid and decision-making too cumbersome to facilitate effective responses. This approach is at odds with the current push within India to accelerate development. There are opportunities to proactively address these concerns in the next country programmed.

5.2 Recommendations

Recommendation 1: UNIDO and GoI to plan and act for long-term impact in the Country Programme; including seizing the opportunities raised by the SDGs for transformational change.

- The Country Programme should focus on potential synergies with the SDGs and other long-term goals.
- UNIDO to develop a country level results framework to align and link project results with UNIDO's results at corporate level and GoI's priorities, and to provide the basis for tracking the Country Programme's overall results and performance.
- UNIDO to mobilize a specific partnership with GoI to support key SDG 9-related initiatives in an integrated way, with existing initiatives of GoI and other partners.
- UNIDO and GoI to apply multiple-phased approaches to new and follow-up projects to facilitate faster and efficient implementation, and to contribute to long term transformational changes.
- UNIDO to establish a stronger link with GoI funding schemes in project design and early implementation to ensure on-going support for replication and scale up of project interventions.

Recommendation 2: UNIDO should continue to capture results, performance and learning; and communicate UNIDO Country Programme's value and results to enhance uptake and achieve wider impact in India.

- Based on the country level results framework in Recommendation 1, UNIDO to develop a M&E system at the country level to effectively monitor, analyse, report and eventually manage by results, linking results and performance at project, country and UNIDO corporate level together.
- UNIDO to build on UNIDO open-access platform and also establish a common country-specific web-based platform/database for knowledge building and management including storage and easy access of key information. This system should capture institutional knowledge and knowledge assets at project and

country level (e.g. successful show cases, learning and experience for higher impact, etc.)

- UNIDO to track co-financing committed at design and materialized during implementation, from all sources including the government, implementing partners and the private sector.
- UNIDO, with GoI, to communicate the value and results of the country programme in India. The improved collection of information should be packaged to promote and increase the opportunities for uptake and spread of the results. Promotional materials or products aiming at increasing uptake and investment in the proposed solutions should be disseminated widely (e.g. short technical notes, blog articles, short case studies, and etc. for each project).
- UNIDO to particularly showcase successful initiatives that have potential for scaling up in programmes of the GoI and other development partners.

Recommendation 3: To overcome problems associated with management, UNIDO in conjunction with the GoI should maximize synergies between projects and other country initiatives through the development of a stronger UNIDO country team.

- UNIDO should develop a country team approach to country programming and implementation, headed by the UR. This would provide a basis for a more responsive approach to day to day country operations as well as opportunities for improve efficiency. It should include consideration of the following:
 - ✓ Incorporate **in-country reporting responsibility** to the UR in the terms of reference of all project personnel (apart from the project managers in Vienna).
 - ✓ Pool resources from different projects **to fund personnel for common activities** across the portfolio such as knowledge building and management, advocacy, communication and media, and M&E. This approach would be more efficient than each project having dedicated resources; similar to the approach already applied through the IC-ISID. It would also enable the Country Team to address strategic and systematic issues affecting more than one project in an integrated manner (e.g. managing project-at-risk; conducting policy, normative and convening work; and building strategic partnerships beyond projects).
- UNIDO and DIPP to analyse and decide the role of IC-ISID to enhance its contribution to the results of the Country Programme. The Centre has the potential to take a stronger role in supporting continuity, coherence and cost-effectiveness across the whole portfolio.
- Based on the knowledge generated through the common platform, UNIDO to seek further opportunities for synergies and industry ecosystem approaches within and between projects in the Country Programme and with other partners.

Recommendation 4: UNIDO to improve commercial viability of technology and institutional solutions towards ISID in India; supporting activities that will accelerate innovation pathways and technology uptake across industry.

- UNIDO should place more emphasis on the **commercial viability** of the technology or institutional solutions proposed. Where required, project designs need to include an allowance to secure necessary financial or marketing expertise that will contribute to more financially appropriate solutions.
- UNIDO, with key partners, to develop **replication and scaling up mechanisms** in design and early implementation of projects that demonstrate new/improved technologies to facilitate greater take-up within the targeted industries.
- UNIDO project management and implementing partners should invest more effort and resources into in-line production analysis in conjunction with industry. Specifically, this investment should occur in project design and early implementation phases, in order to build and demonstrate successes that can be promoted both within the industry and across sectors, wherever possible.

Recommendation 5: UNIDO with implementing partners to mainstream inclusiveness in the new Country Programme for India, to increase positive impact on employment, diversity and gender in line with ISID principles.

- UNIDO with government and other financing partners to consider how to **embed inclusion** in the new country programme in line with UNIDO's priority for inclusive and sustainable development.
- UNIDO to take more effort to consider **potential employment outcomes, gender markers and diversity** in the project and CP design process. This may mean a focus on localised inclusion of marginalised populations or gender objectives at the programmatic level or within specific projects.
- UNIDO to proactively **discuss options for inclusion** with key industry partners during project design and implementation.
- UNIDO to increase **tracking of inclusion** in the country programme results framework and the M&E processes of each project.

Recommendation 6: UNIDO and GoI decision-makers should adopt a stronger focus and take more decisive actions on project risks, in order to prevent minimize future delays, particularly those that affect project start-up and implementation.

- UNIDO HQ and GoI need to develop more responsive systems that **speed up decision-making** and allow for faster response to changing in-country contexts and requirements.
- UNIDO and GoI to improve processes for more **decentralised decision-making** for country programme and project managers within reasonable authority limits.
- UNIDO and GoI to consider in depth **realistic project timeframes** dictated by systems required (e.g. HR, budget processes, approvals, etc).
- In order to **proactively address delays** before they start to affect implementation, GoI and UNIDO to agree **contingency measures** that can be activated when common challenges may compromise impact. This would include

the ability to draw on high level advice to quickly identify most appropriate solutions and the mechanisms required to ensure speedy resolution.

5.3 Lessons learned

The Country Programme in India is a large and complex portfolio. Consequently there are many lessons that can be learned. However, drawing out the major lessons that can be transferred to other programmes and portfolios, the following points are highlighted.

1. To achieve long term and transformational changes, it is necessary to work at all levels: macro, meso and micro. System transformations take time and rarely do they take place within the time span of a project and therefore should be tracked by the monitoring and evaluation mechanism at the Country Programme level.

This CPE has enabled UNIDO and the GoI to consider the development contribution of the partnership over a ten year period. In the process of this evaluation, it became apparent that there were legacy projects that have contributed to long term sustainable benefits. Some of the current portfolio was further contributing to these strategic and transformational results; whilst others were taking a shorter-term viewpoint. Overall, the lesson from the CPE was that where there have been strategic long term investment at macro, meso and micro levels, more comprehensive and sustainable results were achieved. This requires a long term relationship between strategic partners and a progressive series of investments over a prolonged period.

2. A Country Programme document is insufficient to achieve a well-aligned and synergistic portfolio. More effort is required to develop country systems and partnerships to create links and share resources across projects.

UNIDO has a process of generating Country Programme Strategy documents. In the case of India, this process had insufficient value and ownership of both UNIDO and the GoI. It is apparent that there is more engagement in the current Country Programme Strategy 2018-2022, but in order to gain greater traction for the strategic approaches proposed in the strategy, UNIDO needs to take a more serious approach to project design and investment in line with the strategies proposed. In this regard, more effort is required to have country systems and partnerships to create links and share resources across projects in the portfolio to create synergy and traction towards the agreed Country Programme objectives.

3. Investing in safeguarding the environment does not only contribute to industry competitiveness (through eco-efficiency, improved waste management and improved industrial practices, and etc.) but also to inclusive and sustainable industrial development in the long run.

The detailed data at project level regarding outcomes in competitiveness is sparse; yet the overwhelming feedback from stakeholders across the projects was that improved technology, environmental good practices and improved energy and waste management is good business that contributes to the global competitiveness of Indian enterprises. The CPE consistently heard from stakeholders that global industry is demanding improved processes, certification and better documentation of environmentally sound practices. The

UNIDO support is assisting in this regard that does bring about greater actual and potential benefit to industry and contribute to inclusive and sustainable industrial development in the long run.



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Further information:
Independent Evaluation Division
evaluation@unido.org
<http://www.unido.org/evaluation>