LOCALIZING THE SDGS FOR MICRO, SMALL, MEDIUM ENTERPRISES

Participatory Indicators Development in Tamil Nadu - India
In 2018, the Government of Tamil Nadu - India, through the Department of Industries and Commerce, initiated the effort to align the Micro, Small and Medium Enterprises sector with the United Nations 2030 Sustainable Development Goals. This "localizing the SDGs" effort focused on SDG 8 ("Decent work and economic growth") and SDG 9 ("Industry, innovation, and infrastructure") and defined 19 indicators informed by the data needs of the department.

Later in the same year, the department engaged with the United Nations University to formulate locally relevant participatory indicators that are informed by the needs of the Micro, Small, and Medium Enterprises sector in Tamil Nadu. This report presents the work undertaken in that project and discusses the key findings, including the final list of indicators formulated in the project.

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## CONTENTS

- Introduction and Background ........................................... 5
  - Social Indicators ..................................................... 6
  - Participation ......................................................... 6
- Methodology ............................................................... 7
- Profile of MSME Associations ......................................... 9
- Engagement for Sustainable Development ............................. 11
  - UN 2030 Global Agenda ............................................. 11
  - Tamil Nadu Vision 2023 ............................................. 12
  - Challenges and Opportunities ..................................... 13
  - Role and Use of Technology ....................................... 14
  - Ecosystem Interactions ............................................. 15
- State of the MSME sector ............................................... 17
  - Governance Challenges ............................................ 17
  - Public policy Challenges .......................................... 18
  - Market Challenges .................................................. 19
- Participatory Indicators ................................................ 20
  - Objectives and Use .................................................. 20
  - Evaluation Criteria .................................................. 20
  - Elicited Indicators ................................................... 21
  - Evaluation, Ranking and Filtering ................................. 23
  - Selected Indicators .................................................. 24
- Implementation Considerations ....................................... 35
  - Voluntary Engagement .............................................. 35
  - Motivations and Incentives ....................................... 35
  - Indicators Creep and Overlaps .................................... 35
- Conclusion ........................................................................ 36
- Policy Recommendations .............................................. 37
FIGURES

Figure 1: Indicators formulation approach .................................. 7
Figure 2: Overall project design and outcomes ............................ 7
Figure 3: Types of MSME associations ........................................ 9
Figure 4: Districts of participating associations ............................ 9
Figure 5: Size of associations .................................................. 9
Figure 6: Age of associations .................................................. 9
Figure 7: Associations industry sectors ....................................... 10
Figure 8: Awareness of the SDGs .............................................. 11
Figure 9: Awareness of the Tamil Nadu Vision 2023 ....................... 12
Figure 10: Potential contribution to the Vision 2023 ...................... 12
Figure 11: Impact of challenges ............................................... 13
Figure 12: Impact of success factors .......................................... 13
Figure 13: Use of ICT by associations ......................................... 14
Figure 14: Importance of ICT for business operations .................... 14
Figure 15: Interaction dynamics within the MSME ecosystem .......... 15
Figure 16: Interest in MSME policy development .......................... 15
Figure 17: Level of cooperation with other associations .................. 16
Figure 18: Data sharing frequency between associations .................. 16
Figure 19: Sources of information for the organizations .................. 16
Figure 20: Objectives and use of indicators .................................. 20
Figure 21: Indicators evaluation criteria ...................................... 20
Figure 22: Ranking of elicited indicators ...................................... 23

BOXES

Box 1: Project foundational perspectives ................................. 5
Box 2: Do older associations have more members? ....................... 10
Box 3: The importance of the SDGs ....................................... 11
Box 4: Elements of the Tamil Nadu Vision 2023 ....................... 12
Box 5: Awareness of the global and local development plans .......... 13
Box 6: Benefits of participatory indicators monitoring .................. 20
Meeting the United Nations (UN) Sustainable Development Goals (SDGs) by 2030 requires participation from all sectors of society. Engaging such diverse stakeholders within the SDG framework requires localization of the goals and the development of rich context and meaning relevant to each of these different stakeholders within their various contexts.

Globally one of the strategic stakeholders for partnership around the SDGs is the Micro, Small, and Medium Enterprises (MSME) sector. According to the 2016 World Trade Report, MSMEs are a large percentage of firms globally, making up to 93% of enterprises in non-OECD countries and over 95% in OECD countries. Further, according to the World Trade Organization, MSMEs account for over two-thirds of employment globally and contribute to Gross Domestic Product (GDP) at 35% in developing countries and 50% in developed countries.

In India, the MSME sector comprises approximately 63 million establishments and contributes 29% towards the GDP. In the Tamil Nadu state, the number of registered MSMEs is approximately 2,013,000 employing more than 12 million people.

There is a high degree of diversity within the MSME sector and large differences between developing and developed countries, however, the MSMEs around the world play a crucial role in contributing towards the achievement of not only SDG 8 and SDG 9, which are focused on economic development and industrial innovation, but also towards other sustainable development imperatives. Giving recognition to the potential contribution of the MSME sector towards the achievement of the SDGs, it has been suggested that SDGs “can only be achieved if countries manage to build up strong SMEs”.

**Box 1
Project foundational perspectives**

The project is formulated from and informed by the following perspectives:

**Tamil Nadu Vision 2023**

This project is undertaken within the context of the Tamil Nadu Vision 2023 to support the specific aspirations related to supporting and enhancing the MSME sector.

**Localizing the SDGs**

The UN 2030 Agenda for Sustainable Development demands that the sustainable development goals are given local and contextual relevance to ensure effectiveness, impact, participation, and to support the principle of “leave no one behind.”

**SDG17: Partnership for the goals**

The SDG17 recognizes the importance of meaningful multi-stakeholder partnerships and participation towards the realization of the goals. This project focuses on the engagement of the private sector, specifically the MSME sector, with the primary goal of undertaking an intervention that empowers the individual MSME stakeholders and adds value to their business operations.

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Participation is a broad concept that has been used to mean anything from engagement through public forums, panel discussions, media briefings, surveys and polls, to community driven citizen engagement. Various typologies of participation elucidate participation by taking into consideration: who participates? in what do they participate? and who benefits? as well as the level of control and influence of the participants.

Notwithstanding these various types and attributes, the engagement of individuals and citizens facilitates a democratic legitimization of indicators, advances democratic participation in processes and decisions that could affect them, and it also leverages the synergies between the citizens and governments towards achieving both national and global sustainable development goals.

Within the UN 2030 global agenda, participation is a core principle that is not only embedded in the "Leave no one behind" principle, but also enunciated in the SDG17 "Partnership for the goals" aspirations.

This project frames participation at different levels for the different phases of the project. In the formulation of indicators phase, participation is at the level defined as "representative participation", which is characterized by giving a voice to the participants and amplifying their agency. In the development of ICT artifacts phase, the MSME firms and associations participate, as one of the key end-users, in the requirements elicitation and in informing the design of the artifacts.

Supporting the planning, monitoring, and evaluation operations of the government by proving detailed and nuanced insights from the MSME sector with regards to the development and state of the sector.

Amplifying the capabilities of MSME firms, by connecting them with relevant, timely, and meaningful insights from indicators data, to support everyday decisions.

Enhancing the linkages among the MSME firms, and between the MSME firms and the government. The former facilitates social support and social learning among the MSMEs. The latter enhances the democratic participation of MSME in relevant decision making.

Supporting the planning, monitoring, and evaluation operations of the government by proving detailed and nuanced insights from the MSME sector with regards to the development and state of the sector.

SOCIAL INDICATORS
How social indicators are developed for monitoring and evaluation

Development of social indicators is traditionally a top-down and technocratic process that is usually aimed at developing indicators to support planning, monitoring, and evaluation activities – this process typically yields quantitative aggregate indicators for macro-level analyses. This process also typically employs the services of researchers and technical experts in the development of indicators, with the final set of indicators being communicated (i.e., retrospective and passive engagement) to citizens and the public.

This project, on the other hand, focuses on and engages the MSME sector in the state of Tamil Nadu in India for substantive participation, as the key "public concerned" in the development of a set of localized MSME sector indicators. The project also aims to develop the tools to operationalize and facilitate the utilization of these indicators for everyday utility and for monitoring progress towards the SDGs and Tamil Nadu Vision 2023.

"Everyday utility" of indicators is defined in this project in terms of:

- Amplifying the capabilities of MSME firms, by connecting them with relevant, timely, and meaningful insights from indicators data, to support everyday decisions.
- Enhancing the linkages among the MSME firms, and between the MSME firms and the government. The former facilitates social support and social learning among the MSMEs. The latter enhances the democratic participation of MSME in relevant decision making.
- Supporting the planning, monitoring, and evaluation operations of the government by proving detailed and nuanced insights from the MSME sector with regards to the development and state of the sector.

The use of the “public concerned” notion is as defined in the Aarhus convention to refer to the individuals who are affected and likely to be affected or having an interest in an activity.

METHODOLOGY

This project is framed as a two-phase project. The first phase is the formulation of locally-relevant contextualized indicators for the Tamil Nadu MSME sector. The second phase is technology and data enablement for the sector through the development of information and communication technology artifacts to operationalize the indicators (see Figure 2).

Figure 1 shows the overall process flow for the project. Phase I is undertaken in steps 1 to 3, and phase II is undertaken in step 4.

An embedded design mixed-methods approach was employed in phase I of the project making use of both quantitative and qualitative research instruments.

The project employs participatory research approaches towards the engagement of the MSME sector stakeholders in the formulation of the relevant indicators.

Due to the large number of MSME firms (over 2 million in 2019), the project employed critical case sampling and expert sampling approaches in the engagement of the MSME associations.

![Figure 1: Indicators formulation approach](image)

![Figure 2: Overall project design and outcomes](image)
Further engagements were undertaken with MSME associations and the Department of Industries and Commerce for feedback on the preliminary list of identified indicators, validation of the indicators, supplementation of the indicators, as well as for filtering and ranking the preliminary indicators. The filtering of the indicators was informed by the identified indicators criteria and the strength of the pathways to impact.

Non-parametric statistical analyses were employed in the analyses due to the small sample size and the use of critical case and expert (i.e., MSME associations) sampling approach.

A semi-structured online survey was developed and utilized for initial exploration and identification of the indicators that are relevant to the MSME firms. The use of a semi-structured survey allowed for the gathering of insights on a set of pre-formulated issues related to indicators, as well as for an unrestricted surfacing of issues that are relevant to the participants through the open-ended questions. The survey, which was administered online, provided a cost-effective and scalable mechanism for collecting relevant data.

The survey consists of questions on the following issues: understanding the general profile of the firms and the level of ICT use (9 questions); exploring the awareness of the firms on the sustainable development goals and the Tamil Nadu Vision 2023 (6 questions); exploring the use of indicators by the firms, both in terms of the current practice as well as in terms of the anticipated objectives of indicators in general; formulation of an evaluation criteria for the indicators; identification of relevant indicators (6 questions); and lastly the exploration of project success factors (1 question).

The survey received 148 views, with 99 associations starting the survey and 24 associations completing it (at the 24.24% completion rate). Basic descriptive statistical analyses\(^8\) were undertaken for the quantitative data.

Stakeholder engagement meetings were conducted with the MSME associations, firms, and the Department of Industries and Commerce, employing the following instruments:

**Interviews**
Semi-structured interviews were undertaken with MSME firms. The interviews were framed along three lines of inquiry: to understand the current practice of the firms around indicators collection and monitoring, to understand the motivations and incentive towards the collection of the indicators data, and to identify a set of relevant indicators. The interviews were undertaken with the management of MSME firms.

**Group Discussions**
General group discussions were undertaken with the stakeholders. These discussions were framed around exploring the MSME sector landscape to understand the issues, concerns, and challenges facing the sector, as well as to identify relevant indicators.

**Focus Group Discussions**
Focus group discussions were undertaken with MSME associations specifically around understanding their current practice on indicators data collection, identifying indicators that are of relevance to them, as well as surfacing issues associated with the collection of the indicators data.

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\(^8\) Non-parametric statistical analyses were employed in the analyses due to the small sample size and the use of critical case and expert (i.e., MSME associations) sampling approach.
PROFILE OF ASSOCIATIONS

TYPE OF ASSOCIATIONS
Operating at the state-level or district-level

In Tamil Nadu, there are two main types of MSME associations. State-level associations operate across the whole state and district-level associations focus their operations in one of the 32 districts in Tamil Nadu. The bulk of associations that participated in the survey are district-level, at 83%, with 17% of the associations being state-level (Figure 3).

SIZE OF ASSOCIATIONS
Number of members in the association

The MSME associations act as representatives for their members and provide support towards the achievement of business goals. Most of the associations have membership in the ranges of 101 - 200 and 201 - 500 at 25% each (Figure 5). The smallest associations have membership in the range of 21 – 50. At the other end, 17% of the associations have membership of more than 1000 MSME firms.

AGE OF ASSOCIATIONS
How long the association has been operating

Most (i.e., 46%) of the associations have been operating for between 21 – 50 years; this is followed by 21% that have been in operation between 6 – 10 years. The youngest association is between a year and two years, and the oldest association has been operating for more than 100 years.
The MSME associations operate in different sectors, with some of the associations focusing exclusively on a single specific sector and others either operating in multiple sectors or not being selective of a specific sector. The Engineering goods sector has the highest number (i.e., 13%) of associations (Figure 7). 11% of the associations operate in the Auto components sectors, and a further 11% operate in all sectors. The sectors with the least association representation are the Sports good and accessories, Financial, and the Education sectors. Beyond the 16 sectors explored in the survey, some of the associations also operated in the Coir and Mat weaving sectors.

Box 2
Do the older associations have more members?
A correlation analysis undertaken between the age and the size of the associations indicates that there is no correlation (i.e., Pearson coefficient: 0.25) between how long an association has been operating for and how many MSME firms join the association.

Top Industry Sector
Represented by the associations

The MSME associations that participated in the survey represent a wide range and a diverse set of associations. While the critical case sampling approach employed in this research precludes population-wide generalizations, the diversity of the associations allows insights and considerations that are applicable to the wider population to be surfaced. The next section discusses further findings and key insights that have emanated from the analysis.
ENGAGEMENT FOR SUSTAINABLE DEVELOPMENT

The MSME sector comprises several stakeholders, including the government, MSMEs associations, the MSME firms, as well as the upstream suppliers and the downstream clients within the wider economy. Each of these stakeholders operates in pursuit of goals that are specific to their organization; however, the overall goal orientation is towards sustainable development. The survey explored the various ways through which the associations participate and are engaged towards the goals of sustainable development; it also explored the challenges that they face as well as the opportunities that can be leveraged by the MSMEs towards sustainable development.

UN 2030 GLOBAL AGENDA

UN Sustainable Development Goals

In September 2015, the United Nations General Assembly adopted the 2030 Global Agenda for Sustainable Development, a plan to achieve sustainable development across 17 goals and 169 targets by 2030. This plan was developed through extensive engagements with a broad set of stakeholders from the public sector, private sector, civil society, as well as third sector organizations. The aim of this broad participation exercise was towards the goal of "leaving no one behind", which expresses participation both as the means and end of the SDGs.

Among the participants in the survey, there is still a generally high (30%) lack of awareness of the SDGs by the associations (Figure 8). A further 17% are barely aware of the SDGs, having only heard about them. While none of the associations indicated a deep and detailed knowledge of the SDGs, 52% of the association have a general to strong awareness of the SDGs. The significance of this finding is that the awareness of the SDGs is a critical precursor to the active participation by the MSME associations towards the UN 2030 global agenda for sustainable development.

BOX 3

The importance of the SDGs.

Having established the extent of awareness of the SDGs, the survey explored the importance that the associations ascribed to the developmental goals as articulated in the SDGs. For the investigation, the short summaries of the SDG were used, e.g., "reducing poverty" for SDG1, "lowering unemployment and ensuring decent work for all" for SDG8. In general the MSME associations rate all the sustainable development goals as important with the lowest mean score of 4.3 (on a 7-point likert scale) for SDG14 “Conservation and sustainability of oceans, seas, and marine resources” and the highest mean score of 5.39 for SDG9 “Implementing infrastructure projects and improving industrial efficiencies.”

The fact that SDG9 has the highest rated relevance and importance for the MSME associations is not coincidental, as this is the SDG that is concerned with promoting inclusive and sustainable industrialization and with fostering innovation, which are the core activities for industrial stakeholders and also from which these stakeholders stand to benefit. The DIC also recognizes the significance of SDG9 in having identified both SDG8 and SDG9 as the target SGDs for localization in Tamil Nadu.
TAMIL NADU VISION 2023
Engagement with the Tamil Nadu Vision 2023

The survey explored the engagement of the associations with the Tamil Nadu Vision 2023, which is the state-level developmental plan that identifies key themes, pillars, and goals to be achieved by the year 2023.

While there is a high general awareness of the Tamil Nadu Vision 2023, there are still a number (i.e., 17%) of associations that do not know about the development plan for Tamil Nadu. However, most (i.e., 78%) of the associations have a general to very detailed knowledge of the Vision 2023.

![Figure 9: Awareness of the Tamil Nadu Vision 2023](image)

The survey also explored the importance that the associations ascribe to each of the ten themes from the Tamil Nadu Vision 2023. The associations place high importance on both the themes (mean 5.7 on 7-point likert scale) as well as on the five pillars (mean 5.5) within the Tamil Nadu development plan.

![Figure 10: Potential contribution to the Vision 2023](image)

As the state-level developmental plan to be accomplished by 2023, the associations believe they have a substantial (mean 5.55) contribution to make towards the Tamil Nadu vision 2023 (Figure 10). This hints at and suggests a willingness on the part of the associations to participate in efforts towards the achievement of, and to align their operations with the aspirations of the Tamil Nadu Vision 2023.
CHALLENGES AND OPPORTUNITIES

Challenges and opportunities experienced by MSMEs

Around the world the MSME / SME sector faces numerous challenges, including access to affordable financing, labor costs, and lack of affordable skilled staff. These challenges affect not only the health of the firms but also their viability and survival.

Having identified a priori list of challenges from literature, the survey explored the extent to which the MSME association rated the impact of these challenges on their operations as well as the operations of their member firms. Figure 11 highlights the fact that all the challenges have an impact on the associations and member firms. The highest-rated challenges include competitiveness in the market, labor costs, regulations, as well as debtors and late payments. Some of the lowest-rated challenges are red tape and bureaucracy, suitable premises, access to and obtaining finance, as well as staff recruitment challenges.

The survey also explored the impact of specific success factors on the organizations; to establish the extent to which the factors contribute to the effective operation and achievement of the goals of the organizations. Figure 12 suggests that the identified factors are generally important and have an impact on the success of both the MSME associations and member firms. The highest-rated factors are improved customer satisfaction, good staff, customer loyalty, and business location; at the other end, the lowest-rated factors include entering new markets, supportive suppliers, improved business strategy, as well as positive overall economic environment.

BOX 5
Awareness of global and local development plans

A comparison between the MSME associations’ awareness of the UN Sustainable Development Goals and the awareness of the Tamil Nadu Vision 2023 generally reveals that more associations know in detail about as well as being generally aware of the Tamil Nadu Vision 2023 than about the SDGs (Figure 8 and 9). This suggests the opportunity of advancing the 2030 global development agenda by mapping out the alignment between the SDGs and the Tamil Nadu Vision 2023 since the latter enjoys greater awareness from the associations. Further, it suggests an opportunity for awareness-raising around the SDGs among the MSME stakeholders.
Information and communication technologies (ICTs) play a critical role in the operations of MSMEs and towards the achievement of the organizational goals. Technology has not only been identified as a critical means of implementation for the UN 2030 global agenda, as articulated in SDG17; it is also one of the five pillars of the Tamil Nadu Vision 2023. The department of MSMEs makes concerted investments towards enhancing technology use by the MSME firms, for example, through instruments such as the technology upgradation funding scheme.

### ROLE AND USE OF TECHNOLOGY

Information and communication technology and MSMEs

The survey investigated technology use within the MSME associations across several activities. As noted from the results in Figure 13, the highest-ranked use of ICT is for chat applications, followed by office use of ICT, for example, for document processing and desktop applications. The associations noted an average use of social media and the use of ICT for maintaining a website for the association. Overall there is some level of ICT use across the associations both for core business operations (mean 4.29) and for other associated activities.

![Figure 13: Use of ICT by associations](image)

The recognition of the importance of ICT for the success of the organizations is shared widely across the associations, with a mean ranking of 5.77. The majority (i.e., 45%) of the respondents gave the highest-ranking to the importance of ICT (Figure 14).

![Figure 14: Importance of ICT for business operations](image)

The significance of these findings is that they point to the alignment between the perspectives of the MSME associations and those of the government on the importance of ICT towards a successful MSME sector in Tamil Nadu.
The MSME associations and firms exist within a wide ecosystem that enables their functioning and operations. The success of the organizations is influenced by their interactions with the stakeholders within the ecosystem, including other associations and firms, public sector entities, clients, suppliers, and civil society entities.

The survey investigated various MSME association engagements and interactions within their ecosystem. Among these interactions, it explored the level of their cooperation with other organizations as well as with the public sector entities. The survey also explored the frequency of data sharing with other organizations. Other ecosystem dynamics explored include the willingness and ability of the associations to shape relevant policies and programs, as well as their consumption of informational resources availed within the ecosystem.

From Figure 15, which highlights the findings from this investigation, some of the key observations include the fact the MSME associations have higher interaction with their local District Industry Centers (i.e., mean 5.86) than they do with the state-level Commissionerate of industry and commerce (i.e., mean 4.73). This is consistent with the decentralized model, which makes services available at the district level in proximity to and within easy access of the MSME associations and firms. Another important observation is that there is a strong interest (i.e., mean 6.27 and the highest-rated dynamic) on the part of the MSME associations to be engaged and to participate in the formulation of policies and programs related to the MSME sector in Tamil Nadu.

Digging deeper into this observation, as indicated in Figure 16, reveals that the majority (i.e., 64%) of the MSME associations expressed the strongest interest for this level and kind of engagement towards relevant policies and programs. The significance of this observation is that it points to the potential implicit motivation of the associations to participate and to contribute to the effort towards enhancing the MSME sector in Tamil Nadu, of which this project is part of.
A key interaction dynamic that has been investigated through the survey is the extent of the cooperation between the MSME associations and firms - where an above-average (mean 5.55) rating for “interaction with other organizations towards business goals” was noted. A more detailed spread of the evaluation of this dynamic is indicated in Figure 17, where the highest level of interaction is noted by 41% of the MSME associations. 18% of the MSME association indicated a generally low interaction with other related organizations within the ecosystem.

In line with the focus of this research, i.e., on developing participatory indicators and collecting the indicators data, the survey explored the frequency of data sharing with other associations and organizations (see Figure 18). A large fraction (i.e., 48%) of the respondents indicated that they regularly share data, followed by 35% who indicated sharing data infrequently. 17% of the associations indicated that they never share their data with other associations or organizations.

Along with exploring the participation of the MSME associations as data producers and with regards to sharing their data, the survey also investigated the dynamic of the associations as data consumers, to find out the main sources of the information and data that they consume towards supporting their operations.

The primary informational resource that the MSMEs rely on is the information from government sources (i.e., at 38%) followed by internal business reports (i.e., at 21%). The use of information from other organizations is at 8%, along with the information from business advisory services.

Overall, the exploration of the engagement of the MSME associations for sustainable development highlights a few challenges to be addressed as well as opportunities that can be leveraged to the benefit of the MSME sector in Tamil Nadu. The challenges include the common challenges that MSME/SME around the world face, e.g., lack of access to affordable funding and delayed payments. Further, with regards to the global development agenda and the Tamil Nadu Vision 2023, there is still a lack of awareness of the development plans, more for the SDGs than for Vision 2023. On the other hand, there are numerous opportunities for engaging the MSMEs in the effort around policies and programs for the MSME sector, as well as in contributing towards both the SDGs and Vision 2023. The MSME associations share the interest to participate broadly within the ecosystem.
The interviews and group discussions with the MSME firms and associations provided insights into the state of the MSME sector in Tamil Nadu, in terms of the challenges that they face as the sector, as well as the opportunities to leverage data and ICT tools to enhance their operations.

**STATE OF THE MSME SECTOR**

**GOVERNANCE CHALLENGES**

*Engagement, trust, credibility and policy impact*

Not surprisingly, the MSME representatives were interested in tangible and direct benefits that will result from participation in the formulation of localized sector specific indicators and in the collection of indicators data. The somewhat vague notion of "informing policy" was clearly not sufficient as participants sought to both understand clear policy impact pathways, and to have substantive engagement by the government.

This does not suggest that state policies have not been successful, as many participants acknowledged having benefited from various schemes and systems introduced by the government, as well as having been party to the decision making processes.

A recurring theme in the discussions was the lack of clarity on how additional indicators and ICT artifacts would change the (perceived) underlying local governance challenges such as low policy responsiveness, policy making process that is opaque to the MSMEs, and the neglect of the sector by policymakers.

The respondents were generally receptive to participatory processes and open to strategies for inclusive governance. They expressed support for a data platform that would facilitate communication of the state of affairs and needs of the MSME community. In these instances, the representatives perceived data contribution as a minimum obligation of those who wanted change. Overall respondents suggested more active involvement (beyond the status quo and beyond this specific project).

"members from our association are part of the deciding party. And so our members are present where the beneficiaries are decided"

MSME ASSOCIATION PARTICIPANT

"...you could always call a member from the association to be a part of the decision-making body, and when the government is ready with the white paper or the draft of the policy, it should probably be circulated to the associations and...the genuine feedback taken..."

MSME ASSOCIATION PARTICIPANT
PUBLIC POLICY CHALLENGES
Between policy design and policy execution

Across all the discussions, participants expressed a degree of discontent toward several public policy and administration challenges. These are generally “well understood” challenges that are ubiquitous in developing countries, and are covered extensively by developmental institutions, academics, and government reports.

Despite the existence of numerous policies, the government currently has few means to gather the situation on the ground. This lack of information can create difficulties for data driven policy, leading to dissatisfaction with the maintenance of public facilities.

Inadequate maintenance / upgradation of aging infrastructure is a problem and there is a perceived lack of coordination among government ministries. This is linked to the perception that Tier 1\(^\text{9}\) and large companies had access to superior facilities and also receive favourable treatment such as land subsidies and uninterrupted power supply.

The participants were asked for their feedback on the many schemes and initiatives that are aimed to level the playing field for MSMEs. There are over 30 national schemes and subsidies for MSMEs. The single window system for MSMEs was widely recognized and praised by participants for improving efficiency for the sector. There is additionally the NEEDS scheme that provides financial and educational assistance to new entrepreneurs, which received a lot of positive feedback from participants. Recognition was given to the fact that this scheme could be improved with detailed data on the numbers of first generation MSMEs.

While existing schemes are being utilized, there is also a perception that more could be done, especially when considering broader discussions on taxes and subsidies.

“...in an industrial estate as old as ours – our estate is almost 60 years old ... we’re having aging infrastructure. (There are) departments in the government which take care of all these things... but they should act more like a coordinated body ... which makes sure this infrastructure works without failure.”

MSME ASSOCIATION PARTICIPANT

"...the so called Tier 1 companies...and these large companies...come into the state taking so much of incentives that the small and medium industries don't get."

MSME ASSOCIATION PARTICIPANT

"Whatever the business we earn or whatever the turnover...majority of the portion goes to the rent part, so if the government could provide us with a subsidy for the land and the building..."

MSME ASSOCIATION PARTICIPANT

\(^9\)Tier 1 companies purchase parts from MSMEs and supply them to large manufacturing companies.
MARKET CHALLENGES
Delayed payments, labor attrition, pricing and financing

Although many of the issues highlighted involve market actors and financial constraints, there are several issues that are more directly related to doing business. These narratives pertain to delayed payments, labor attrition, technology / productivity, price pressures, and financing costs.

Participants acknowledged the government efforts to curb delayed payments, but evidently there are imperfections in these systems. Such incidents are often unreported out of fear for reprisal. As several respondents explained, escalating disputes to the government arbitration system is always a last resort because large corporations can simply blacklist the petitioner.

Although liquidity issues are systemic, these narratives suggest that MSMEs are pressured primarily by corporate customers. In Tamil Nadu, MSMEs number in the hundreds of thousands, all of whom supply to a concentrated number of large corporations. As such, they are price takers and do not have any collective bargaining power.

MSMEs further face labor market challenges associated with high labor attrition and lack of skilled labor. While MSMEs undertake skills development for their employees, they fail to retain them and lose them to better wage offers from large companies.

There are both endogenous and exogenous factors behind the market pressures concerning MSMEs, and there are limits to where and how government can intervene. However, several narratives were uncovered on which intervention might be possible. First, MSMEs perceived favoritism for larger enterprises, especially foreign owned companies. Second, it was the opinion of one interviewee that the authorities should have given MSMEs more representation in the policy formulation process. Third, some important informational gaps are clear: the schemes supplied do not necessarily meet demand; authorities need to better understand the current productive capabilities of industry and the investment gaps (both quantitative and qualitative) to reach both the state and global development goals.

“See as a small scale industry I have only 30 employees and I have 10 machines to work with. And my turnover is ... probably 1% of that guy's entire turn over. I don't have the muscle strength or the money strength to fight my customer. And the moment I earn his wrath, I will lose my business.”

MSME ASSOCIATION PARTICIPANT

"the charm of doing business is gone"

MSME ASSOCIATION PARTICIPANT

"There’s a huge rate of attrition of trained employees ... because these employees from the MSMEs are the good hunting group for the Tier 1 ... so we struggle a lot to train people and then they move"

MSME ASSOCIATION PARTICIPANT
Indicators are developed for operationalization within a specific theory of change on how indicators' data leads to specific outcomes and impacts. Multiple pathways to impact for indicators can be noted, including direct pathways in which the data is of immediate use and benefit to the consumers towards their organizational goals. There are also indirect pathways to impact in which indicators data effects intermediary processes that ultimately lead to intended outcomes. For example, indicators data on SDG4 can contribute to the formulation of better education policies and eventually to improved educational outcomes.

In this project, the intended outcomes and criteria for the indicators is established from and determined from the MSME association stakeholders, who are the primary beneficiaries and the key agents within the MSME ecosystem. The identified objectives and criteria are used within the filtering and validation stage of the development of the indicators.

The MSME associations indicated the current and potential use of indicators. The predominant use of indicators is for keeping a record of the current state of the organization, followed by the use to support decision making by the associations directly (Figure 20). The use for “external reporting” has been identified as the least important use of the indicators data.

Further investigation was undertaken to understand the significance of various indicators criteria as perceived by the MSME associations. While there was an indication that the various criteria were relatively significant for the MSME associations, the marginally most significant criteria is that the indicators need to be timely followed by the fact that the indicators need to make use of existing knowledge.

**BOX 6**

*Benefits of participatory indicators monitoring*

The following are the key benefits of participatory indicators monitoring*:

- It provides an **ongoing picture** of the monitored phenomenon
- It allows for problems to be **identified, and solutions to be sought early**
- It provides a **complete and nuanced picture** of the state of affairs
- It **supports community partners** with information and tools for monitoring progress
- It **promotes organizational learning**
- It **increases accountability and transparency**
- It **provides evidence**

* http://www.fao.org/docrep/x5307e/x5307e09.htm

**Figure 20: Objectives and use of indicators**

**Figure 21: Indicators evaluation criteria**
Specific indicators were elicited from the stakeholder engagements through the interviews and group discussions. The following represents a set of raw indicators before evaluation or detailed analysis. For each indicator, relevant considerations for each of the main stakeholders (i.e., MSME associations, MSME firms, and the DIC) as well as the potential value-add for their operations were discussed and analyzed.

1. **The extent of delayed payments/receivables**
   This indicator captures the extent of the delayed payments and receivables for the MSME firms. Late payments affect the cash flow and, in turn, the overall health of the firms. For a lot of the cases, the late payments are from T1 and Original Equipment Manufacturers (OEM) companies whom the firms trade and interact with.

2. **Number and age of electricity transformers**
   This indicator is associated with the goal of infrastructure availability and, in this case, with electricity infrastructure. The firms have expressed the challenge of aging and old electricity infrastructure and suggested this indicator as a metric that would assist with getting an understanding of the state of electricity infrastructure within the different localities.

3. **Labor attrition rates**
   This indicator captures a metric linked to the challenge that MSME firms struggle to retain skilled labor in their employ. Firms have expressed the concern that once they have undertaken expensive and extensive training and skilling of personnel, they lose them to the larger T1 and OEM companies.

4. **Power consumption**
   This indicator captures the amount of electricity that is consumed by the firms within their operations. This indicator is linked to the broader issue of infrastructure availability, but also to the overall health of the business.

5. **Access to quality uninterrupted power**
   One of the challenges that some of the firms face is that of old and aging infrastructure, which in turn means that firms sometimes do not have access to high-quality facilities, including electricity. This indicator has been highlighted to capture the availability and the quality of the facilities that firms utilize for their business operations.

6. **Accessibility of roads**
   Accessibility of roads is a factor of infrastructure availability and is important for the operations of the firms. This indicator and the suggested metrics capture the availability and quality of the road infrastructure that the firms utilize.

7. **Year of establishment of the organization**
   The age of the businesses was highlighted as one of the possible indicators. This was highlighted for cases where access to specific schemes have restrictions based on the age of the company.

8. **1st or 2nd year generation business operations**
   This gives an indication of whether the current business owners are first-time entrepreneurs or if they have been part of a multi-generational business. This indicator is highlighted in relation to schemes that seek to encourage entrepreneurship by focusing on first-time/first-generation business owners.
9. Skilled or unskilled labor
This indicator captures the skills levels within an MSME firm. Access to and the availability of skilled labor is a challenge that has been highlighted by several of the firms.

10. Buyer and seller meets
Buyer and seller meets are a great opportunity for facilitating business engagement among the companies. This indicator gives an idea of the buyer and seller meets that the firms have been part of and participated in.

11. Skills availability
Access to skilled human resources is a regular challenge for MSME firms. This is closely linked with the challenge of retaining skilled labor. This indicator captures the general availability of skills within the economy.

12. Training and skills development
MSME firms undertake training and skills development for their employees. This is an integral part of ensuring a productive labor force within the employ of the firms. This indicator highlights the extent of training and skills development activities within the firms.

13. Raw material availability
Raw materials feed into the product cycles of many of the manufacturing firms. The availability of raw materials has been highlighted as one of the indicators that is of relevance and interest to the MSME firms.

14. Labor availability
This indicator captures the general availability of labor within the economy.

15. Number of cases (of non-payments and delayed payments) handled at the council
This indicator captures the number of cases that have been brought before the council for arbitration and that have been dealt with. Firstly, this information roughly gives a detailed understanding of the extent of non-payment and delayed payments within the sector. Secondly, it provides a picture of the level of resolution of the non-payment and delayed payment disputes.

16. The reasons why loans have been denied by the banks
Beyond keeping track of the quantitative metrics around access (or lack thereof) to financing through bank loans, the need to understand the reasons why the bank loan applications are rejected was emphasized as one of the important indicators during the interaction with the MSME firms.

17. Machinery subsidies
This indicator reflects the level to which the firms are improving their operations either through acquiring new machinery or through upgrading their old machinery.

18. Percentage of revenue going towards rental
Access to affordable premises and infrastructure is one of the critical components of running a successful business. Some of the firms highlighted major challenges associated with this, and this indicator sheds light on the affordability of the business premises as a fraction of the revenue.

19. Access to property (renting or owning)
This indicator is linked to the challenge of lack of access to affordable premises and infrastructure, capturing whether they own or rent the space for the business operations.

20. Number of products
This indicator captures the variety and number of products that the firm produces.

21. Residential localities
This indicator captures the extent to which the firms are providing accommodation for their employees. This is closely linked to the effectiveness of human resources management within the firm.

22. Level of technology upgradation
This indicator captures the extent of technology upgradation with the organizations and corollary the extent of technology use within the business operations.
EVALUATION, RANKING AND FILTERING

Converging on a final list of indicators

The initial step in the indicators development process is the brainstorming and discovery of relevant indicators. This is followed by the evaluation, ranking and filtering steps to converge on final set of indicators. This latter process also involves indicators supplementation to fill the gaps from the former process. MSME associations engaged in group discussions and ranking exercises towards the final list of indicators. The final ranking of the indicators is shown in Figure 22.

10/22
OUT OF THE TOTAL 22 ELICITED INDICATORS, 10 WERE SELECTED INTO THE FINAL LIST OF INDICATORS

Out of the total of 22 indicators formulated from the discovery stage, 10 indicators were selected to make the final list to be operationalized in phase II of the project.

The selection of the indicators was informed by the ranking and filtering exercises which took into consideration the indicators criteria established from the survey as well as a clear theory for change for the utilization of each indicator.

Figure 22: Ranking of elicited indicators
SELECTED INDICATORS
The final inventory of indicators

- TOTAL AMOUNT OF DELAYED RECEIVABLES / LATE PAYMENTS
- ANNUAL STAFF TURNOVER RATE
- PERCENTAGES OF EMPLOYEES PER SKILL LEVEL
- ADEQUATE ROAD FACILITIES TO SUPPORT INTENDED BUSINESS OPERATIONS
- NUMBER OF POWER INTERRUPTIONS THAT AFFECT BUSINESS PRODUCTIVITY
- AVERAGE TIME TO FILL FOR PERSONNEL RECRUITMENT
- ADEQUATE ELECTRICITY SUPPLY TO SUPPORT BUSINESS OPERATIONS
- PERCENTAGE OF TRAINED EMPLOYEES
- AVAILABILITY OF RAW MATERIALS
- EXPENDITURE ON TECHNOLOGY UPGRADATION
**INDICATOR NO. 1**

**TOTAL AMOUNT OF DELAYED RECEIVABLES / LATE PAYMENTS**

Preliminary Name: The extent of delayed payments / receivables (I)

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**DEFINITION**
The total amount of money owed to the MSME firms by clients beyond the agreed payment date; this is expressed in the local currency.

**OBJECTIVE**
To identify the extent of delayed payments to inform interventions (e.g., follow-up, mediation, arbitration) by the responsible stakeholders and to ascertain the health of the MSME firms.

**UNIT OF MEASURE**
Monetary unit of account.

**DISAGGREGATED BY**
Type of debtor (e.g., T1, OEM).

**DATA SOURCE**
MSME firms.

**FREQUENCY**
Quarterly.

**JUSTIFICATION / UTILITY**
This indicator captures the extent of the delayed payments for the MSME firms. Late payments lead to negative cashflow for the MSMEs and can affect the overall health of the firms. Delayed payments which are not honoured get written off as bad debts by the firms.

**ANALYSIS AND PRESENTATION**
- Calculation of the late payments as a fraction of sales per firm, as well as comparisons and aggregate analyses across the industrial sectors.
- Relevant graphical visualizations as well as tabulation of raw data.

**DATA QUALITY ISSUES**
- The firms have this information available as part of their accounting processes. Because of the existing systems being in place, there are few concerns about the accuracy and integrity of the data.
- Collecting this indicator at a higher frequency, for example, monthly, would provide a more accurate picture of the cashflow situation of the firms.
**DEFINITION**
The percentage of employees who leave the firm within one year.

**OBJECTIVE**
To understand the labour market dynamics for the individual firms, industries, as well as across the whole MSME sector.

**UNIT OF MEASURE**
Percentage.

**DISAGGREGATED BY**
Skill level of employees, sex, scheduled caste.

**DATA SOURCE**
MSME firms.

**FREQUENCY**
Annually.

**JUSTIFICATION / UTILITY**
This indicator unpacks and illuminates the challenge that MSME firms struggle to retain skilled labour in their employ. Firms have expressed the concern that once they have undertaken expensive and extensive training and skilling of personnel, they lose them to the larger companies.

**ANALYSIS AND PRESENTATION**
- Comparative and aggregate analyses between firms and across industries respectively.
- Relevant visualization for aggregate values per skill level (e.g., pie charts) and comparison across industries (e.g., bar charts); tabulation of raw data.

**DATA QUALITY ISSUES**
- Good quality data on this indicator is readily available on the firms’ human resources systems.
- There is a need to have clearly defined criteria for different skill level categories.
- The skill levels could be defined with high granularity based on the education level and experience of the employees.
**DEFINITION**
The number of employees in each skill level as a percentage of the total number of employees. The skill levels defined are unskilled/helper, semi-skilled, and skilled.

**OBJECTIVE**
To understand the availability of skilled labour across the MSME sector and to inform interventions around skills development and training.

**UNIT OF MEASURE**
Percentage.

**DISAGGREGATED BY**
Sex, scheduled caste.

**DATA SOURCE**
MSME firms.

**FREQUENCY**
Annually.

**JUSTIFICATION / UTILITY**
Skilled labour is necessary for the effective and productive operation of the firms. The MSME firms have expressed the challenge of lack of skilled labour. This indicator concretely captures this phenomenon to understand the situation across the whole MSME sector.

**ANALYSIS AND PRESENTATION**
- Comparative and aggregate analysis between firms and across the MSME sector.
- Tabular reporting of the data as well as relevant visualizations for comparative data.

**DATA QUALITY ISSUES**
- Good quality data on this indicator already exist on the firms' human resources systems.
- Clear definition of the skill level categories is important to ensure consistent assessment across firms.
- Consistency can be improved by defining the skill levels based on the level of education and experience.
**DEFINITION**
A binary perception indicator from the MSME firms indicating whether the firms have access to good quality road infrastructure adequate for supporting all the business operations.

**OBJECTIVE**
To understand the extent to which the MSME firms have access to good quality road infrastructure; to inform infrastructure planning and investments by the government.

**UNIT OF MEASURE**
Binary metric (i.e., Yes/No).

**DISAGGREGATED BY**
Within an industrial estate or not.

**DATA SOURCE**
MSME firms; Industrial estates; Road maintenance agencies/departments.

**FREQUENCY**
Annually.

**JUSTIFICATION / UTILITY**
Accessibility of roads is a factor of infrastructure availability and is important for the operations of the firms. This indicator captures the availability and quality of the road infrastructure that the firms utilize. Ensuring that the firms have access to quality infrastructure to support their business operations is one of the core interests and activities of the government. This is aligned with one of the strategic pillars within the Tamil Nadu Vision 2023.

**ANALYSIS AND PRESENTATION**
- Clustered analysis based on MSME firms’ location to reveal problem areas and hotspots.
- Geo heatmap visualization to highlight areas with road infrastructure challenges.

**DATA QUALITY ISSUES**
- This is a very subjective perception indicator with potential reliability limitations.
- Care needs to be taken in the aggregate analyses of this indicator due to the underlying subjectivity.
- Examples that highlight different kinds of adequate and inadequate road infrastructure for different sectors should be provided.
Number of times that business operations and production was interrupted due to power interruptions per quarter.

**DEFINITION**

To understand the extent to which MSME firms have access to quality uninterrupted power and to inform interventions to resolve power disruptions.

**OBJECTIVE**

One of the challenges that the MSME firms face is that of old and aging infrastructure, which in turn means that firms sometimes do not have access to high quality facilities, including electricity. This indicator captures the availability and the quality of the facilities that firms utilize for their business operations. This indicator would also allow for an informed engagement on infrastructure planning and management in line with the government’s “infrastructure availability” plans and schemes.

**UNIT OF MEASURE**

Number of instances.

**DISAGGREGATED BY**

Length of power interruptions.

**DATA SOURCE**

MSME firms.

**FREQUENCY**

Quarterly.

**JUSTIFICATION / UTILITY**

Data on the indicator might not be systematically collected by some of the MSME firms.

**DATA QUALITY ISSUES**

- The accuracy and timeliness of the data for this indicator will need to be ensured within the firms.

**ANALYSIS AND PRESENTATION**

- Comparative and aggregate analyses of the data.
- Individual data points to be communicated to the relevant power companies for attention; tabular presentation of raw data as well as relevant visualizations for the aggregate data.
DEFINITION
The average number of days from start of recruitment to filling the vacancy. This metric is disaggregated by skill level based on unskilled, semi-skilled, and skilled categories.

OBJECTIVE
To understand the ability of firms to acquire skilled personnel; corollary to understand the availability of skills within the economy.

UNIT OF MEASURE
Number of days.

DISAGGREGATED BY
Skill level.

DATA SOURCE
MSME firms.

FREQUENCY
Annually.

JUSTIFICATION / UTILITY
Access to skilled human resources is a regular challenge for the MSME firms. This is closely linked with the challenge of retaining skilled labour. This indicator captures the general availability of skills within the economy.

ANALYSIS AND PRESENTATION
- Comparative, aggregate, and trend analysis clustered across sectors and skill levels.
- Tabular presentation of raw data as well as relevant visualization of aggregate data.

DATA QUALITY ISSUES
- The data for this indicator might not be currently collected by the firms.
- There is a need to put in place practices for the systematic collection of this data within the MSME firms.
DEFINITION
A binary perception indicator from the MSME firms indicating whether the firms have access to good power supply adequate for supporting all the intended business operations.

OBJECTIVE
To understand the extent to which the MSME firms have access to good quality power supply and to inform infrastructure planning and investments by the government.

UNIT OF MEASURE
Binary (i.e., Yes / No).

DISAGGREGATED BY
Within an industrial estate or not.

DATA SOURCE
MSME firms; Relevant DISCOMS (e.g., TANGEDCO).

FREQUENCY
Annually.

JUSTIFICATION / UTILITY
The firms have expressed the challenge of aging and old electricity infrastructure and suggested this indicator as a metric that would assist with getting an understanding of the state of electricity infrastructure within the different localities. With “infrastructure availability” as one of the core pillars of the Tamil Nadu Vision 2023, this indicator would also support action on the part of government by providing evidence to their planning processes. The indicator would allow the Department of Industries and Commerce to get a picture of the areas where the infrastructure is old and in need of upgrade.

ANALYSIS AND PRESENTATION
- Clustered analysis based on MSME firms’ location to reveal problem areas and hotspots.
- Geo heatmap visualization to highlight areas with power supply challenges.

DATA QUALITY ISSUES
- This is a perception indicator with potential reliability and accuracy challenges.
- Aggregate analyses need to be understood by taking into consideration the underlying subjectivity of the indicator.
DEFINITION
Total number of employees who have participated in training and skills development as a percentage of the total number of employees. Calculated on an annual basis.

OBJECTIVE
To understand the extent of skills development within the MSME sector.

UNIT OF MEASURE
Percentage.

DISAGGREGATED BY
Sex, scheduled caste, type of training.

DATA SOURCE
MSME firms.

FREQUENCY
Annually.

JUSTIFICATION / UTILITY
The MSME firms undertake training and skills development for their employees. This is an integral part of ensuring an effective labour force within the employ of the firms. This indicator highlights the extent of training and skills development activities within the firms. The indicator also allows the MSME associations and the government departments to have nuanced understanding of the skills development activities within the MSME labour force.

ANALYSIS AND PRESENTATION
- Comparative analysis between firms; aggregate analysis per industrial sector and district.
- Tabulation of the raw and aggregate data; relevant visualizations for the comparative results.

DATA QUALITY ISSUES
- Human resources functions have this data available within their systems.
- Clear distinctions need to be made between formal and informal training and skills development.
DEFINITION
An ordinal scale (i.e., low, normal, high) that captures the opinion of the firms on the availability of affordable raw materials.

OBJECTIVE
To understand the situation with regards to availability of affordable raw materials.

UNIT OF MEASURE
Ordinal scale (i.e., low, normal, high).

DISAGGREGATED BY
N/A.

DATA SOURCE
MSME firms.

FREQUENCY
Quarterly.

JUSTIFICATION / UTILITY
Raw materials feed into the product cycles of many of the manufacturing firms. The availability of raw materials has been highlighted as one of the indicators that is of relevance and interest to the MSME firms.

ANALYSIS AND PRESENTATION
- Aggregate analysis of the data as well as comparative analysis between firms. These should be understood with the full limitation of being based on subjective perception data.
- Trend analysis for individual firms and across industrial sectors.
- Visual presentation of the aggregate data and comparison data.

DATA QUALITY ISSUES
- This is a subjective perception indicator that assesses the MSME firms’ opinion on the availability of raw materials. This information is not collected systematically by the MSME firms.
- New practices need to be put in place towards the collection and reporting on this indicator.
- The accuracy of this indicator could be improved by using more objective metrics / indicators.
DEFINITION
The total amount, including support from relevant government schemes, that has been spent on technology upgradation as a percentage of the firms' annual revenue.

OBJECTIVE
To understand the extent of technology use within the firms as well as investments in technology upgradation. This indicator also informs the monitoring of the government schemes on technology upgradation.

UNIT OF MEASURE
Percentage.

DISAGGREGATED BY
Source of funds (internal vs. external).

DATA SOURCE
MSME firms.

FREQUENCY
Annually.

JUSTIFICATION / UTILITY
"Access to technology" is one of the core pillars of the Tamil Nadu Vision 2023 and there are government schemes geared towards facilitating technology geared towards facilitating technology upgradation. This indicator captures the extent of technology upgradation and corollary the extent of technology use within the business operations. Further, understanding the level of technology upgradation across the whole MSME sector allows for shaping of government schemes based on clear and tangible evidence on the ground.

ANALYSIS AND PRESENTATION
- Comparative analysis between firms; calculating the actual Rupee amount spent on technology upgradation based on the firm's total revenue; aggregate analyses.
- Tabulation and relevant visualizations of aggregate data.

DATA QUALITY ISSUES
- Good quality data on this indicator should be readily available on the firms' finance systems.
IMPLEMENTATION CONSIDERATIONS

Several discussions with the MSMEs centered on the operationalization of the participatory indicators including through the ICT artifacts. These were clustered around the following key issues: voluntary participation in data collection, motivation and incentives for participation, and the issue of indicators creep and overlaps.

VOLUNTARY ENGAGEMENT

Participation in the collection of indicators data

The MSMEs expressed a strong willingness to not only participate in the effort to formulate and operationalize participatory indicators for the sector, but also to have more involvement in policy development processes in general. Notwithstanding, several challenges associated with the collection of indicators data were noted.

- Data collection and reporting requires the allocation of limited MSMEs’ resources towards the task.
- In the absence of clear, concrete, and direct benefits, the level of participation may be low. This was evidenced in the case of one MSME association that had struggled to collect data from their members.
- There are also confidentiality concerns associated with sharing business data.

"...have to pull the data out of the firms."

In recognition of these challenges, one participant noted that the government would "have to pull the data out of the firms". While motivation can conceivably be created by rewarding participation with public subsidies and discounts or coerced (e.g. mandated by state law), the general consensus is that participation needs to be wholly voluntary as it gives more legitimacy and credibility.

MOTIVATIONS AND INCENTIVES

“What for? Why should I?”

Further exploration of intrinsic motivations is needed in order to get the MSME firms onboard and wanting to contribute data. This was captured succinctly and repeatedly in the utterances of one participant:

"What for? Why should I?"

While an awareness campaign and incentive strategies would contribute to increasing the participation of the MSME sector, intrinsic motivations, associated with direct utility and benefit for the MSME associations, would go a long way in sustaining engagement and participation from the sector. This was strongly asserted throughout the various discussions.

INDICATORS CREEP AND OVERLAPS

Indicators scope and linkages to other data sources

It is well recognized that there is no end to the number of indicators that can be formulated for the MSME sector - for example the UN Global Compact private sector indicator inventory contains well over 4,000 indicators. Indicators need to always be linked to a clear theory of change and to contextual utility.

There are also other potential repositories of data similar to that required for new indicators. It is necessary to exploit proxy indicators and potential transformations to leverage the existing overlaps in data requirements.
CONCLUSION

In September 2019, the United Nations Secretary General made a call for the decade of action to deliver on the sustainable development goals along three key dimensions: global action, local action and people action. Localizing the SDGs and enhancing the participation of a broad set of stakeholders is an important mechanism for accelerating action towards the global development agenda.

This report presented the work undertaken with the MSME sector in Tamil Nadu towards the localization of the SDGs, through participatory development of locally-relevant indicators. The report noted a low level of awareness of the SDGs by the sector, despite the recognition that the goals and aspirations across each of the SDGs are relevant and important to the sector. There is a higher awareness of the local development plan, Tamil Nadu Vision 2023, and of the associated themes and pillars. In general, the MSMEs recognize that they have a key role to play towards the achievement of the SDGs, and also express a strong interest to meaningfully engage and participate in relevant policy formulation processes.

While the MSMEs around the world face a number of common challenges, including lack of access to affordable financing and low liquidity, some of these challenges find specific manifestation in the Tamil Nadu context. The solutions to these challenges, likewise, have both the universal applicability as well as specificity to the Tamil Nadu context. Formulating locally-relevant indicators allows for a nuanced understanding of these challenges, and provides insights to inform relevant solutions. The 10 indicators that have been formulated in this project, along with the 19 indicators from the Department of Industries and Commerce are being operationalized in Tamil Nadu, towards accelerating action to deliver on both the Tamil Nadu Vision 2023 and the SDGs.
POLICY RECOMMENDATIONS

There is an ongoing global effort towards localizing the Sustainable Development Goals through the formulation of context-relevant participatory indicators. This effort is not only aligned with the "Leave No One Behind" principle, it is also the outworking of the SDG17 aspirations of broad stakeholder partnership for the SDGs. The following are policy recommendations towards improved localization of the SDGs around the world.

Awareness Raising
A critical precursor to broad participation in the UN 2030 Global Agenda and in the local development agenda is awareness raising. There is still a lack of awareness of the SDGs across a broad range of stakeholders, including MSMEs. There is marginally higher awareness of the local development plans, which provides an opportunity for localizing the SDGs by mapping the alignment between the local and the global agenda. Governments should undertake extensive awareness raising around the SDGs and mapping of local development plans to the SDGs.

Meaningful Participation
Participation in indicators development and data collection needs to happen within the context of a broader participatory governance posture. Without this overall posturing, the legitimacy and credibility of governments' efforts around participatory monitoring of SDGs (and local development plans) can be compromised, and the motivation for participation can be hampered. Governments should enhance their overall participatory and inclusive governance posture.

Beyond "Informing Policy"
Central to various stakeholders' participation in indicators data collection (and localizing the SDGs efforts broadly) is the question "What for? Why should I?". The notion that indicators data collection is for "informing policy" does not provide sufficient and sustained motivation for voluntary participation. More direct and immediate pathways to impact need to be defined and operationalized for different stakeholders.

Avoiding the Lure of Data Fetishization
Data in general, and indicators data specifically, plays a critical role for informing decision-making and driving policy-making. Indicators necessarily need to be linked to a clear theory of change and impact pathways, including direct and indirect as well as short-term and long-term impacts. Further, the underlying messy problems often require broad and holistic solutions that are not only data-centric. Governments should avoid the lure of data fetishization by prioritizing indicators with clear impact pathways and that contribute to specific outcomes.