



## Towards inclusive development in Myanmar

### Description of project approach, methodology, and workplan

#### **a) Technical Approach and Methodology.**

Under the UNU-WIDER approach, and in alignment with the provided TOR, a rigorous Myanmar Enterprise Monitoring System (MEMS) focused on the industrial small and medium enterprise (SME) sector will be established. The overall aim is to strengthen evidence based policy making and analysis to help underpin Myanmar's move through a challenging structural transformation and development process. Moreover, the MEMS will contribute to the on-going improvement of the quality of economic policy discussions in Myanmar, thus supporting the Government in its efforts of assessing and implementing relevant industrial policies for the future. In addition, the MEMS will foster transparency and openness in the public discussion on policy options engaging all relevant stakeholders. This incorporates (i) quantitative surveys (to be implemented in 2017 and 2019), and (ii) qualitative/experimental approaches (to be implemented in 2018 and 2020), and stands on three pillars: data collection (surveys) to be repeated in biannual intervals, data analysis, in-depth policy relevant research and preparation and dissemination of policy briefs and recommendations, and training and capacity building of CSO staff.

##### *i) Quantitative Surveys – with a “tracer” component*

A number of tentative enterprise development assessments have been carried out in the context of Myanmar, including the World Bank's 2014 implementation of a standard enterprise survey focusing on mapping constraints to doing business, and the work of the OECD, UNDP, UNESCAP and UMFCCI through their Myanmar Business Survey in 2014/15. In addition, in 2015 the German Institute for Development Evaluation (DEval), using Mekong Economics as a subcontractor for survey implementation, carried out a small and medium scale enterprise (SME) survey covering firms in a range of sectors in 11 cities through interviews of approximately 2,500 SMEs, but with a limited scope. The primary purpose of the survey was to serve as information for planning development interventions and impact monitoring after implementation, with a specific focus on utility for the German-Myanmar programme. It also suffered from questionable statistical power of estimates obtained to guide industrial (sector specific) policies.

Although interesting, these previous efforts have either not been nationally representative, or lacked the depth required for informed policy analysis of key issues in the development of the SME sector. Crucially, none capture in a systematic way activities of the informal/non-registered SME sector. This is an important consideration given that the development potential of the private business sector in contributing to inclusive growth and shared prosperity, a declared government priority, goes far beyond the potential of, for example, the formal large-scale firm sector located in major cities. This is especially so given that distributional considerations of increasing wealth generation are a central policy issue. The MEMS will address each of these concerns through a nationally representative

effort, with the overall objective of comprehensive quantitative data collection, to better understand the dynamics and constraints of the private industrial enterprises at large.

As a first step (**Step 1**) an agreement about the classification of SMEs and a reasonable sectoral focus is required. Given the TOR, MEMs will focus on the manufacturing sector (UN Statistics Division ISIC classification revision 4 category C), and specifically non-state firms. This will facilitate a focus on private sector development, and help broaden on-going policy dialogue, by exploring and shedding light on dimensions and dynamics of the business constraints not addressed by other data collection instruments. Several different definitions of manufacturing SMEs exist in Myanmar. Following information from the Central Department of Small and Medium Enterprise Development (<http://www.smedevelopmentcenter.gov.mm/>) it is planned to classify a manufacturing SME as “small” if it employs 1-50 employees or has registered capital of less than 500 Million Kyat and as “medium” if the firm employs 51-300 employees or has registered capital between 500-1000 Million Kyat. As the TOR stresses the ability of the surveys to capture both formal and informal firms, a common definition of informality will be established in collaboration with the CSO technical team.

As a second step (**Step 2**) for the quantitative survey it is important to prepare from the outset a sound basis for collecting data that is obtained in a statistically sound manner, such that the data subsequently can be used to inform policy. Sampling purposes require establishment census information, and the absence of a harmonized business register, and the de-centralized company registration process are obstacles that MEMS has several approaches to resolve. The following options are available to be developed with relevant technical staff in the CSO:

- **Central Administrative Data:** To establish a business under the Myanmar Companies Act (MCA) a firm needs to register with the Companies Registration Office (CRO) and obtain a “Permit to Trade” from the Directorate of Investment and Company Administration (DICA).<sup>1</sup> Nonetheless, since domestic businesses are not required to operate under the MCA, many smaller businesses are not registered. Firms can also obtain operating licenses at the Union level from the ministry responsible for the sector in which the business operates; the Ministry of Industry in the case of manufacturing firms. However, sufficient coverage, especially of smaller firms, is questionable using this approach. The Business Census conducted by the CSO in 2013 was compiled in this way, yielding a population of approximately 26,000 operational manufacturing firms, but all indications are that there are many more firms operating. Following an updated version of this approach would capture a large proportion of the registered manufacturing businesses.
- **Municipal Office Data:** As many smaller enterprises do not register at the central level, another option is to move to a more decentralized government level. Most “municipal offices” (*sibintharyaryay*) have closer interactions with the businesses at their jurisdiction. Although this approach is likely to improve coverage as compared to the “Central Administration Data” approach, it also requires much coordination by the CSO with municipal governmental units.
- **Labour Statistics:** The Department of Labour has the possibility through township-level officers to obtain information on the number of establishments, both formal and informal. While, the accessibility of this data is not fully transparent, it is something that could potentially be useful to pursue in order to get closer to the creation of an establishment census. According to recent estimates the total number of establishments included in these

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<sup>1</sup> Larger (international) firms also need to obtain a permit from the Myanmar Investment Commission (MIC). Since the objective of this project is to study SMEs, we do not expect this permit to be of critical relevance.

documents are more than 150,000. Working with the CSO will help shed more light on the feasibility of going down this route.

Block/cluster enumeration methods (as done for the World Bank Enterprise Surveys) can also be applied as necessary. First, we can partition areas of economic activity into blocks/clusters where we suggest using satellite maps to identify possible industrial compounds/structures and “lights-at-night” methods to identify areas of relative higher activity. Second, we apply a stratified random selection of a subset of blocks/cluster, where all eligible firms (both formal and informal small and medium scale manufacturing firms) found in the selected blocks/clusters are to be interviewed. Block/cluster enumeration will only be pursued as a “last resort” as it is usually only representative of urban clusters.

The above decisions can be taken very quickly based on our local knowledge and background, such that the survey work can be initiated according to plan. As a third step (**Step 3**) for the quantitative survey, a sampling strategy must be defined. The reference point is the suitable list of firms under step 2 from which a selection of firms to be interviewed can be drawn. Several sampling techniques are available. They will depend on the level of detail that the census data provides us with, and will be established upfront in agreement with the CSO technical team. The approach planned is to follow Cochran (1977), Levy and Lemeshow (1999) and use the following formulas for the determination of the necessary sample size  $n$  for a different combination of levels of precision, confidence, and variability:

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}} \quad (1)$$

where  $N$  is the “population” size. Assuming that a margin of error  $d$  has been specified, and  $z$  is the normal deviate corresponding to the allowable probability that the error will exceed the desired margin  $n_0$  can be expressed as follows

$$n_0 = \frac{z^2 p(1-p)}{d^2} \quad (2)$$

where  $p$  is the estimated proportion of an attribute that is present in the population. If relatively limited information is available in the census (e.g. knowledge is available about the number of non-state manufacturing firms in each Region/State but not regarding sector details), a stratified random sample can be identified by estimating the sample size for the smallest group, with assumptions about maximum variability, and suitable levels of confidence and precision. Applying proportional sampling will imply using the  $((n\{h\})/(N\{h\}))$  ratio for the estimated smallest stratified population and proportionally apply this ratio to the remaining Regions/States.

Importantly, if the census information does not include data on the population of informal firms, they should be identified on-site through snowball sampling techniques. Snowball sampling (or chain sampling) is a non-probability sampling technique where selected study subjects (in this case formal firms) form the basis of selecting initially non-sampled subjects (informal firms) from among their acquaintances. This sampling technique is often used for identifying hidden populations, in our case informal firms.

As the MEMS is designed to include quantitative surveys in both 2017 and 2019, the surveys will be designed as a 100% tracer survey without rotation, but with replacement of exiting firms according to an updated sampling frame. Moreover, the ability to trace information about exit firms in 2019,

will enable the analyst to distinguish between real closures and attrition due to firm mobility, which is often a concern when analysing potential reasons for firm exit.

During the process of selecting the appropriate sampling approach, Key Experts specialized and experienced in sampling techniques and enterprise survey implementation will conduct training on sampling methods and techniques, which will inform a joint team decision of the appropriate sampling method for the MEMS.

As **Step 4** a suitable survey instrument needs to be developed, including all the modules described in the TOR. Given the previous surveys described above, the survey instrument will go beyond traditional designs trying to identify binding constraints to firm growth. Besides including relevant constraints measures, we therefore suggest that the survey instrument is designed to include as well modules making it possible to analyse:

- (i) General trust and possible constraints along the vertical value chain
- (ii) Technology spill-overs along the supply chain
- (iii) Corporate social responsibility (CSR) as a niche development strategy for smaller firms
- (iv) Gender differences in risk attitudes
- (v) The importance of business practices and managerial capabilities for firm success

The proposed team (detailed below) has extensive work experience on issues regarding enterprise dynamics and development, and through discussions and consultations with the CSO technical team, already developed and pre-tested survey instruments will be adjusted to local context, and expanded upon (especially regarding current policy initiatives) as required. It is also planned that the quantitative survey instrument is implemented through the use of computer assisted personal interviewing (CAPI) (experience with both CSPro and KoBoCollect) with the firm manager/owners. A gradual process to the use of CAPI is advisable given the implementing staff has only limited experience with such software. However, the move into CAPI should be a central part of the technology transfer component within the project, as it generally improves the quality of the data collected.

*ii) Qualitative/Experimental approaches/designs – follow-up initiatives*

The qualitative and experimental approaches (to be carried out in 2018 and 2020, respectively) are ideally suited for following up on interesting results and insights obtained from analyzing the quantitative data. As such, it is important to keep options flexible. At the same time clear ideas about potentially applicable methodological approaches are required. Previous experience of the applicants using similar research setups have resulted in the application of three broadly defined methodologies relevant in the context of the MEMS:

*1. Semi-structured interviews using methods of triangulation:* Newman et al. (2016) study possible knowledge/technology transfers from foreign enterprises to domestic firms, by combining evidence from interviews with government authorities in charge of facilitating such knowledge transfers, foreign multinationals (MNEs) and domestic firms linked to these MNEs as suppliers, customers or competitors. By triangulating information from these three different sources of information a metric to identify whether direct relations between MNEs and domestic firms lead to direct transfers of knowledge/technology can be developed. Similar types of qualitative triangulation analysis of well-defined knowledge spill-overs, is feasible under the current MEMS setup.

*2. Framework method (content analysis):* This approach is used to identify commonalities and differences in qualitative data clustered around a theme. Using ethnographic fieldwork data, Rand and Torm (2012) use the framework method for identifying the “different shades of grey” within the content of firm level informality. The content analysis was essential for understanding the characteristics and dynamics of the informal sector, as well as the benefits associated with formalization. Given that informality is a central component of the MEMS, the qualitative component will be of central importance for the analysis of the different incentives to and effects of formalization.

*3. Experimental designs:* Field experiments are used to empirically test economic theories and identify causality between variables of interest. They work by measuring potential behavioural responses in alternative economic environments, which ultimately allows helping to design optimal policies for achieving specific objectives. Behavioural characteristics, such as risk aversion, altruism, cooperation or trust are related to firm performance and they can be detected in a series of incentivized games with randomized involvement of participants. For example, risk preferences can be measured by a choice between two risky options (lotteries A and B), which mimic typical business decision-making environment where completely certain options are rarely available (see e.g. Opper et al., 2016). Eliciting behavioural characteristics of firm owners or managers will be of central importance for the analysis of the adoption of standards, new technology and processes for firm success.

#### ***b) Work Plan.***

The MEMS 2017-2020 project aims to support an SME data generation process. Producing, maintaining, and making good use of a high-quality data base on SME development in Myanmar will be an important focus in this project together with policy development. This will range from the identification of problems facing SMEs at national and state/regional levels to analysis and elaboration of appropriate policy recommendations. While themes to be covered in detail will vary, focus will be on the potential and constraints faced by SMEs in Myanmar. Revisions will continuously be made to reflect current policy requirements following discussion and agreement among the stakeholders.

Concrete activities and outputs and their timing will be based on in-depth stakeholder consultations and will annually include (2017 and 2019 for the quantitative surveys; 2018 and 2020 for the experimental designs and/or qualitative topic specific surveys):

- Identification of a nationally representative SME sample, with the exact number of sample firms to be established with the Central Statistical Office (CSO). Since obtaining knowledge on firm level dynamics is at the core of the project efforts will be devoted to tracing firms previously interviewed in other surveys.
- Elaboration of the questionnaires and experimental designs (broad based quantitative and topics based qualitative).
- Pilot testing (only in the case of the quantitative surveys in 2017 and 2019).
- Training of enumerators.
- Implementation of surveys and experimental studies.
- Data entry, cleaning and coding.
- Elaboration of descriptive statistics and an associated report.
- Stakeholder consultation on descriptive data and report.

- Discussions of potential changes to the continued monitoring programme based on experience from the national level surveys.
- Preparation and dissemination of policy briefs and reports based on the outcome of the surveys.
- Preparation of analytical studies on enterprise development in Myanmar.
- Biannual workshops on results from the nationally representative SME survey.
- Initiation of the continued monitoring programme.

The design of the work in 2017 will build on already existing information and data of a quantitative nature. Detailed preparation for this step is therefore scheduled for the first half of 2017, with implementation in the second half of the year.

<b>Project objective</b>		The Government of Myanmar pursues sound SME manufacturing sector policies	
Impact Indicator		Employment opportunities created in both formal and informal enterprises	
Baseline	Year	2016	No systematic SME policies in place based on nationally representative data
Target	Year	2020	SME sector policies reflect conditions at firm level established through quantitative and qualitative surveys and analyses
<b>Outcome</b>		CSO's planning and analytical capacity strengthened and the increased number of policy studies are used in policy formulation	
Outcome indicator		Skill profile of key staff, training/dissemination evaluation forms, interviews with key policy makers, plus external assessment at project completion	
Baseline	Year	2016	CSO has very limited analytical capacity to carry out nationally representative SME surveys and studies
Target	Year	2020	CSO capable of planning and implementing qualitative and quantitative SME surveys and disseminating research results
<b>Output 1</b>		2 quantitative and 2 qualitative SME surveys carried out	
Output indicator		4 survey reports and associated data bases available on CSO web-site and disseminated (as demonstrated in project progress reports and from events participants lists)	
Baseline	Year	2016	Nil
Annual target	Year 1	2017	1 quantitative survey completed and disseminated
Annual target	Year 2	2018	1 qualitative survey completed and disseminated
Annual target	Year 3	2019	1 quantitative survey completed and disseminated
Target	Year 4	2020	2 qualitative and 2 quantitative surveys completed and disseminated
<b>Output 2</b>		8 in-depth research studies completed and disseminated	
Output indicator		8 studies available on CSO web-site, participants' lists from dissemination events	
Baseline	Year	2016	Nil
Annual target	Year 1	2017	2 studies completed and disseminated
Annual target	Year 2	2018	2 studies completed and disseminated
Annual target	Year 3	2019	2 studies completed and disseminated
Target	Year 4	2020	8 studies completed and disseminated
<b>Output 3</b>		CSO staff trained in qualitative and quantitative survey planning and associated methods	
Output indicator		Number of staff, who have participated in training activities, as confirmed by lists of participants	
Baseline	Year	2016	CSO staff has limited experience with SME surveys
Annual target	Year 1	2017	25 CSO staff trained
Annual target	Year 2	2018	25 CSO staff trained

Annual target	Year 3	2019	25 CSO staff trained
Target	Year 4	2020	100 CSO staff trained
<b>Output 4</b>		CSO staff trained in dissemination and policy analysis	
Output indicator		Number of staff, who have participated in training activities, as confirmed by lists of participants	
Baseline	Year	2016	CSO staff has limited experience with SME surveys
Annual target	Year 1	2017	5 CSO staff trained
Annual target	Year 2	2018	5 CSO staff trained
Annual target	Year 3	2019	5 CSO staff trained
Target	Year 4	2020	20 CSO staff trained

A comment on sample selection: The planned general sampling strategy is, as noted above, based on a random stratified sampling approach, including the compilation of lists of formal and informal firms at various levels (including municipalities) possibly combined with on-site snowball sampling of a series of informal firm entities as already noted. These lists of firms must be available for the sampling to proceed as planned, and the proposed sampling method will also take into account tracer-survey elements from existing surveys (assuming access to firm identifiers is permitted). Based on the most recent list of formal establishments active in the industrial sector (defined according to ISIC classification codes revision 4) obtained through consultations with the CSO, a stratified random sample will be selected under technical supervision by the international partner. The sampling strategy, the expected non-response rate, the sampling weights, and the sample structure will be estimated and used in the analysis.

A comment on questionnaire structure: As already described the survey instrument consists of four different questionnaires:

- A quantitative enterprise survey designed for general managers or business owners (to be implemented in 2017 and 2019).
- A quantitative exit firm module (only relevant when tracing firms over time; to be implemented in 2017 and 2019).
- A quantitative economic accounts questionnaire. This questionnaire should be sent to the firms in advance, and follow-up visits/calls to firm accountants should be included in the survey plans (to be implemented in 2017 and 2019).
- A topics-based experimental design or a qualitative semi structured survey instrument implemented in 2018 and 2020 to generate deeper understanding as regards the mechanisms that drive the relationships identified in the quantitative surveys.

In sum, the MEMS Project will (i) produce, maintain and expand a data system in time and space, (ii) contribute policy relevant analysis and dissemination, and (iii) promote appropriate science based analytical methods and general capacity building.