Terms of Reference

Hazard identification and risk assessment for specific working positions in the electronics industry in Viet Nam

Type of contract	**Consultancy – External**
Duration of the contract	**25 February 2024 – 15 Jun 2024**
Total value of assignment	As per determined upon selection

I. Background & Rationale

With USD 113,5 billion in exports in 2022, Viet Nam is one of the largest electronics exporters in the world. The industry continues to grow, accounting for one-third of the total national export. In addition to its major role in overall economic growth, the electronics industry has also been one of the biggest job creators in Viet Nam in the last decade, employing more than one million workers. The growth of the electronics sector has taken place in the context of Viet Nam's development strategy of deeper global economic integration, pursued primarily through FDI and free trade agreements, including the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the EU-Viet Nam Free Trade Agreement (EVFTA). The COVID-19 crisis negatively affected the national economy in general and the electronics supply chains in particular with a slow recovery expected. From the first outbreak in early 2020, the COVID-19 pandemic accentuated decent work deficits in global electronics supply chains due to movement restrictions, a loss of working hours and wages, suspension of collective bargaining agreements and cancellation of wage increases, along with health and safety risks[1]. Thus, there emerges a strong need for improvement of decent work in the sector with efforts from governments, employers, workers, and their associations.

Occupational hazards in the electronics industry have been extensively considered in various studies and reports. Recent reports by the ILO and other stakeholders highlighted that in light of the similarity in the nature of production throughout the electronics industry supply chain, OSH hazards can be expected to be similar in different production locations, including Viet Nam[2]. Final product assembly work involves the exposure to certain types of chemicals, including cleaning solvents (Koh et al. 2004). A study of chemical use in the electronics industry in Viet Nam noted the use of alcohol and corrosive detergents as well as sulfuric acid (IPEN 2017), which are common chemical substances used in assembly processes throughout the industry. Assembly work can also lead to musculoskeletal disorders due to repetitive motion and eyestrain from prolonged visual inspection work involving microscopes. Also, there can be exposure to high

[1] Sustainable supply chains to build forward better: Viet Nam's electronics supply chain: Decent work challenges and opportunities (ilo.org)

[2] Sustainable supply chains to build forward better: Viet Nam's electronics supply chain: Decent work challenges and opportunities (ilo.org)

levels of noise from machinery with motors, cutting equipment and packaging machines (Koh et al. 2004). A report by Electronics Watch on Viet Nam (2019) raised several issues concerning OSH in the electronics industry, including worker exposure to hazardous chemicals and harmful levels of noise.

Data and information about hazards identification and risk assessments associated with working conditions in the electronics industry in Vietnam is still limited. The lack of information about hazardous and dangerous occupations and jobs/tasks in the electronics industry might be rooted in the specific characteristics of the industry. Electronics manufacturing in Viet Nam is labour intensive and known for its use of sophisticated technology. It is further characterized by a closed production environment (for example, clean rooms), high specialization, and strict confidentiality. Nevertheless, access to information about the industry, including hazard identification and risk assessment, is still limited, even for labour administration authorities. The lack of data and information about the industry likely leads to inaccurate or insufficient hazard identification at both policy and enterprise levels. As the first step of risk assessment process, the inaccurate hazard identification means incomplete risk assessment and hence threats to health, safety as well as benefits of employees.

In order to establish a more effective risk management system in the electronics industry, there is a need for tripartite partners to obtain data and information including hazard identification and risk assessment to develop evidence-based policies and programmes. Under the ILO's technical assistance in the development of a preventative safety and health culture as well as for compliance with national law and respect for fundamental principles and rights at work in the electronics sector of Viet Nam, a study is being conducted to support the Department of Safe Work of MOLISA (DSW) in comprehensively identifying common occupational hazards attributed to typical working positions in electronics manufacturing factories and measure the impacts of high-risk work/tasks. To this end, it intends to engage a 2-member team of consultants to deliver the assignment.

II. Objective/purposes

The assignment aims to:

- Study the nature of work/tasks and working conditions in the electronics industry in general, analysed/disaggregated by age, gender and other demographic indicators;
- Select 10 typical jobs/working positions and identify common occupational hazards attributable to and impacting electronics workers' safety, health, and well-being;
  - Identify common hazards/risk factors attributable to and impacting electronics workers' safety, health, and well-being, including but not limited to chemicals, musculo-skeletal/ergonomic factors, repetitive work, noise, biological factors, restricting access to toilets, and other psycho-social factors like monotony, limited influence, harassment and violence, etc.
- Identification of effective preventative methods used in the industry (good examples)
- Develop a quantitative survey for direct interviews with workers and managers to verify potential hazards, the level of workers' exposure to hazards and risk assessment, as well as their awareness on hazards they may be exposed to.

Develop recommendations to establish a more effective risk management system in the electronics industry, including policy recommendations to to ensure the comprehensiveness and practicality of legal regulations.

III. Scope of work and methodology

Methodology

Step 1: Desk review

List of primary materials

+ Vietnamese Legal Documents:
  - *Labour Code 2029*
  - *Circular 11/2020/TT-BLDTBXH3 on the List of, heavy, hazardous and dangerous jobs*
  - *Circular 29/2021/TT-BLĐTBXH on Standards on works classification based on working conditions.* Relevant reports and research of ILO and agencies in Vietnam

+ Additional report and research conducted by ILO and Vietnamese agencies

+ Relevant ILO International Hazard Datasheets on Occupations (HDO)International Hazard Datasheets on Occupations (HDO) (ilo.org)

+ Existing literature on hazards in the electronics sector

Step 2: Analyzing the work/tasks of 10 typical jobs

- Study and suggest 10 jobs/working positions in electronics industry of Vietnam, which meets one or both of the following criteria: (i) employing large number of workers; and/or (ii) material elements of work are considered more hazardous than other working positions. It is noted that the list of 10 working positions will be finalized based on discussions and agreements with ILO and MOLISA representatives.
- Study the nature of work/tasks of 10 typical jobs and working conditions in the electronics industry in general, analysed/disaggregated by age, gender and other demographic indicators; Identify common occupational hazards attributable to and impacting electronics workers' safety, health, and well-being, including but not limited to chemicals, musculo-skeletal/ergonomic factors, repetitive work, noise, biological factors, restricting access to toilets, and other psycho-social factors like monotony, limited influence, harassment and violence, etc.
- Distinguish if there are different risk factors for men and women; for workers of different ages; and for labour dispatched workers

Step 3: Developing Quantitative survey

- List of questions to management
- List of questions to workers
- List of questions to the union representatives
- Interviews methodology

[3] Circular No. 11/2020/TT-BLDTBXH List of heavy, hazardous, dangerous jobs (luatvietnam.vn)

Step 4: In-depth interviews/Field survey

The in-depth interviews will be conducted at electronics factories in 3 regions (North, Central and South) of Vietnam. Tentatively, the consultant (local) will participate in at least 6 factory visits. Depending on discussions and agreements with the Department of Safe Work of MOLISA (DSW), the interview may include risk assessment exercise with selected workers and factory's managers.

Step 5: Data analysis

The analysis and conclusions will be based on both primary and secondary data collected.

Step 6: Report Drafting

The draft report will be developed based on an analysis of primary data collected through the in-depth interview and field visits and secondary data collected from desk review. A summary of key findings will be presented in a tripartite consultation meeting (the participants may include the tripartite partners, key stakeholders, electronics businesses, ILO and other experts). Based on feedback received during the consultation meeting, the consultant will finalize the research report and policy recommendation.

VI. Specific tasks and expected output

Activities	To completed by	# of working days	Deliverables
Meeting with the representatives of the project and DSW to get agreements about the purpose, scope of the research and the list of 10 working positions for the exercise of hazard identification and risk assessment	By 4 March 2024	Team leader: 2 days Team member: 1 day	- Draft Research Proposal - List of 10 jobs/working positions for the exercise of hazard identification and risk assessment (with detailed explanation why these working positions should be selected)
Meeting with tripartite partners about research proposal	By 12 March 2024	Team leader: 1 day Team member: 1 day	- Final Research proposal

Research Design	By 15 March 2024	Team leader: 2 days Team member: 1 day	- Final Research questions and survey methods - An overall research approach and strategy
Desk review	By 8 April 2024	Team leader: 2 days Team member: 1 day	Literature Review and Research Methodology
Design the Quantitative Survey	By 10 April 2024	Team leader: 4 days Team member: 2 days	Quantitative Survey(s) finalized based on the MOLISA and ILO's comments
Field-trips and in-depth interviews	By 25 April 2024	Team member: 6 days	Transcripts of interviews with management, workers and the unions of all factories visited
Data processing and draft report	By 6 May 2024	Team leader: 3 days Team member: 2 days	Draft report developed based on ILO and MOLISA's comments
2nd tripartite technical meeting about the draft report	By 15 May 2024	Team leaders: 2 days Team member: 1 day	Presentation on key results of the draft report in the consultation meeting
Report Finalizing	By 22 May 2024	Team leaders: 4 days	Completed report, including: + Hazard Data Sheets for 10 working positions (1 sheet/position) according to the ILO template (International Hazard Datasheets on Occupations (HDO) (ilo.org)

			+ A comprehensive risk assessment for high-risk tasks/works of each working position. + Appropriate policy recommendations with comments from stakeholders incorporated

V. Timeline

- Tentatively from 25 February until 15 Jun 2024

VI. Qualifications of the consultants

Generally, the consultant team is expected to: (i) demonstrate commitment to the ILO's mandates and value, (ii) possess understanding of the ILO's key instruments on OSH, and the OSH frameworks and context in Viet Nam, (iii) possess excellent skills in communicating OSH concepts and issues to audience particularly targeted under this assignment, and OSH skills including risk assessment.

Specifically, the requirements for the consultants are as follows:

Team leader – international

Roles and Responsibilities

- Lead the preparation of the research proposal and the list of 10 jobs/working positions which should be selected for the exercise of hazard identification and risk assessment under this TOR.
- Lead the development of an overall research approach and strategy in accordance with the research purpose and scope, including 3 - 5 learning questions to guide the research and report focus
- Be responsible for the design of qualitative survey(s) to collect primary data for the research.
- Lead data analysis and elaboration of research findings.
- Lead the development of a series of overarching outcomes / recommendations based on the research findings.
- Be responsible for presenting research key-findings in the tripartite consultation meeting and designing discussions questions to collect comments and feedbacks from tripartite partners
- Be responsible for the final research collation and writing.

Required qualifications

- An advanced university degree, in , occupational safety and health, environmental health, labour law, labour administration social science or another relevant background.
- Solid knowledge about hazards identification and risk assessment
- At least 10 years of working experience in the area of OSH, such as OSH management, hazards identification and risk assessment. developing and implementing OSH programmes,
- Practical understanding of OSH in the electronics sector and hazards involved.

Team member – local

Roles and Responsibilities

- Support the Team leader with recommendations on the research proposal and the list of 10 working positions which should be selected for the exercise of hazard identification and risk assessment under this TOR
- Provide notes taken from the 1st consultation meetings for the Team leader to develop an overall research approach and strategy
- Support the Team leader with inputs into the design qualitative survey(s) to collect primary data for the research, particularly related to the Vietnamese legal frameworks and characteristics the local electronics sector.
- On behalf of the research team, coordinate with the MOLISA to conduct fieldtrips and in-depth interviews to collect primary data for the research
- Prepare initial analysis of data collected from the fieldtrips and in-depth interviews for the Team leader's review
- Provide inputs and comments on a series of overarching outcomes / recommendations developed by the Team leader to ensure that it is practical and context-specific.
- Co-facilitate group discussions during the 2nd tripartite consultation meeting to collect comments on the draft research

Required qualifications

- A university degree, preferably in, occupational safety and health, environmental health, labour law, labour administration, social science or another relevant background.
- Proven performance in organizing and coordinating research work, especially those pertinent to labour issues and working conditions
- Previous experience working with the government OSH agencies and electronics enterprises is considered an advantage.
- Knowledge and experience on OSH in the electronics sector is an advantage

- Fluent English and Vietnamese user

VII. Application Process

Application must be submitted in English to the ILO Project Team in charge at Dung, Nguyen Thi My <dungn@ilo.org> and/or Thao, Nguyen Thi Thanh <thanhthao@ilo.org> by 18.00, 14 February 2024. Proposals submitted after the deadline will not be accepted.

The applicant can apply either as a team or individually should they so choose. In case of the latter, the applicant should clearly state which post of the team s/he is applying to and that once selected, s/he agrees to team up with the other post holder appointed from the selection process.

The screening and shortlisting process is expected to complete within one month from the date of closing for application. *We regret that only short-listed candidates will be contacted.*

VIII. Source of fund & financial agreement

Source of fund: ILO

Financial agreement (in conjunction with above-mentioned expected deliverables)

Payment will be made into two instalments upon submission of deliverables as specified and to the satisfaction of the ILO and MoLISA Bureau for Work Safety.

Annex – Outline for the review report

Upon discussion and agreement with the Project team and its corresponding national implementing partner for the assignment.