



On behalf of:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany

Towards a climate-friendly textile and garment industry in Viet Nam

Sascha Oppowa
Technical Advisor,
GIZ Viet Nam

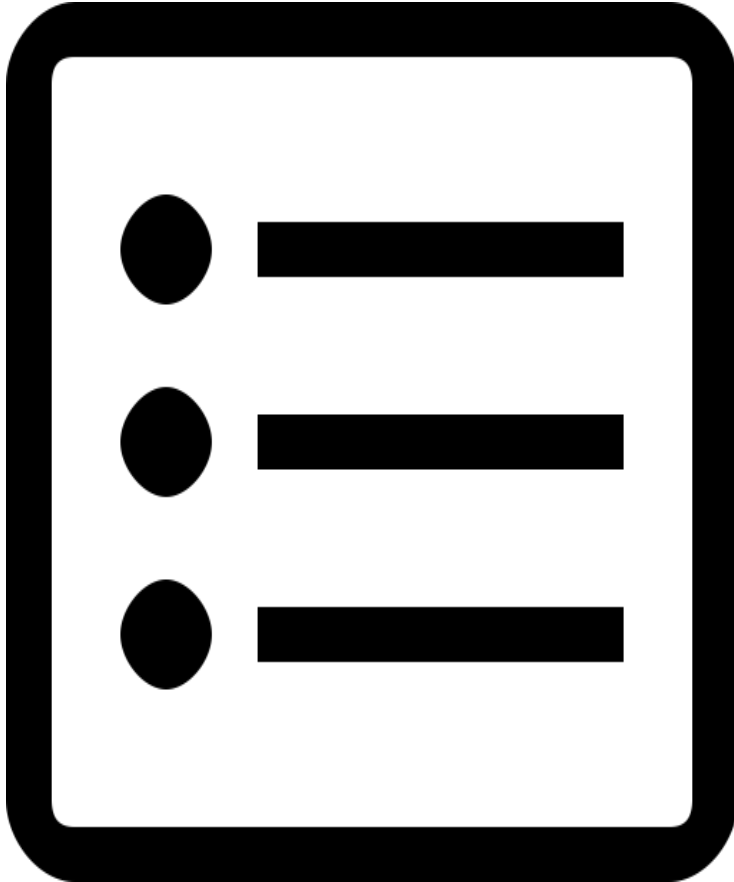
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Implemented by

giz Deutsche Gesellschaft
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Background

Joint initiative by Gov of Viet Nam and GIZ

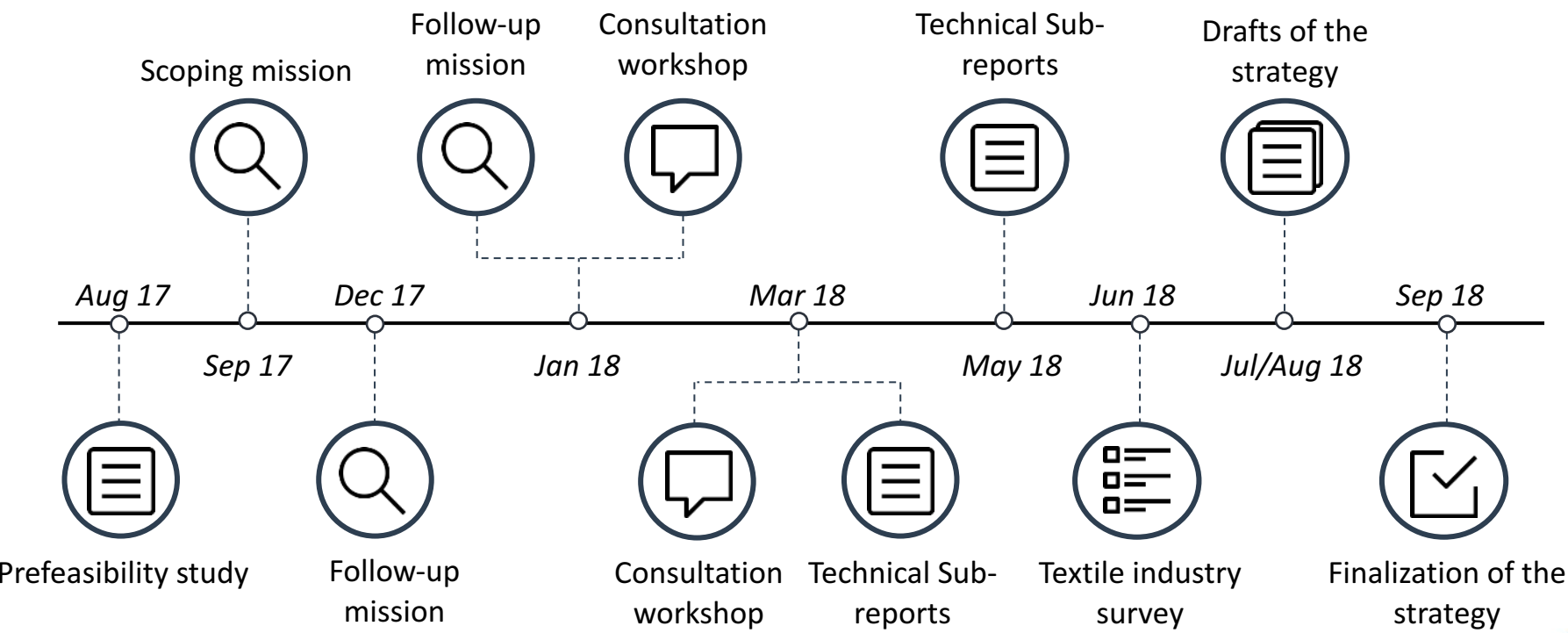
- Climate Strategy for the Textile Sector in Viet Nam
- Part of Viet Nam's efforts under its NDC

NDC:
Nationally Determined
Contribution

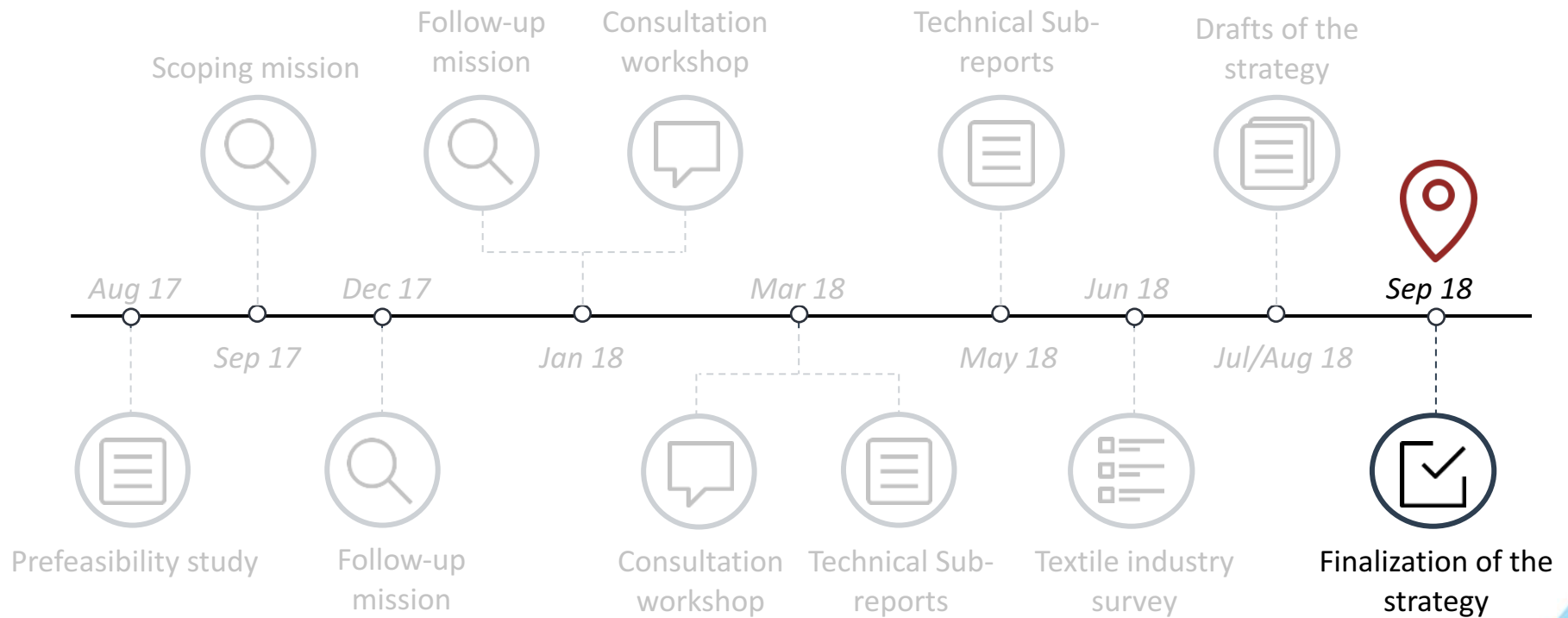
Objective

- Reduce energy consumption from the grid through a combination of energy efficiency (EE) measures, with the use of rooftop photovoltaic (solar PV) systems

Milestones



Milestones



Objectives and main benefits

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Economic benefits

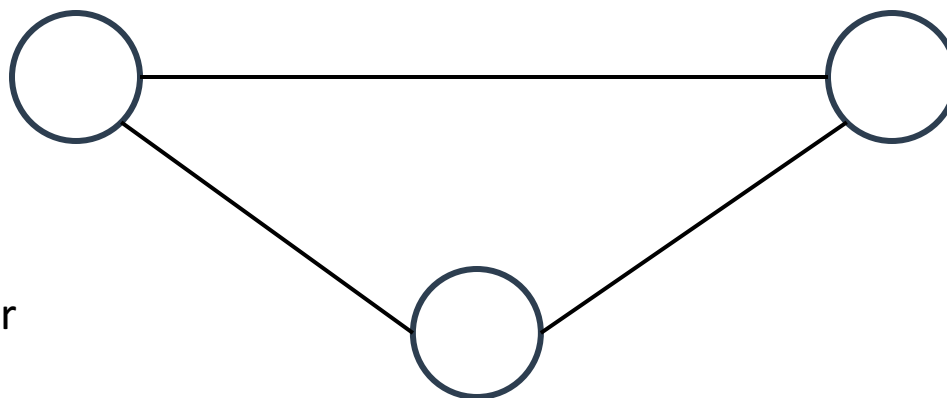
- Reduced production costs due to energy savings
- Response to consumer calls for enhanced sustainability along the textile value chain

Environmental benefits

- Cumulative mitigation potential of 7.1 MtCO_{2e} (2020-2030)

Additional benefits

- Enhanced energy management and process control
- Creation of skilled jobs in the field of EE and PV
- Reduction of fossil fuel imports



Current barriers of energy efficiency uptake

Technological

- Difficulties in quantifying the potential saving of EE measures

Economic & Financial

- Low price of energy
- High investment cost

Institutional & Political

- Insufficient institutional coordination among stakeholders
- Lack of minimum efficiency standards for key technologies
- Lack of legal basis for effective ESCO or third party financing

Capacity & Awareness

- Perception of EE/RE as risky and not a priority

Technology selection: Energy Management Systems

Description

- No cost/low cost energy saving measures
- Requires commitment (from management) to implement and sustain
- Framework for additional EE measures
- Reduction potential: 1 – 10% of total electricity consumption



Proposed actions

- EMS demonstration projects in textile plants
- EMS bureau service for SMEs
- Good practice guide for implementation
- Simplified, cost effective EM standard for VN industry
- Awareness-raising

Technology selection: Variable Speed Drives (VSDs)

Description

- Change the rotation speed of motors
- Only the amount of power is drawn that is needed to drive motor
- Reduction potential: 10 – 50 % of electricity consumption of motor saving compare to the one without VSD



Proposed actions

- VSD implementation guidelines for the industry
- VSD application assessment tools
- Energy savings quantification protocols (ex-ante and ex-post)
- Energy performance contracting solutions through ESCOs
- De-risking instruments for third party finance solution (e.g. first loss guarantee)

Technology selection: High energy-efficient motors

Description

- Long-term benefits of using high EE motors: rewinding motors tends to reduce their efficiency
- Reduction potential: 5 – 10 % of less electricity consumption for electric motors (IE3 and IE4)



Proposed actions

- Development of MEPS (at IE2 level)
- Motor management plan and implementation guide
- Energy performance contracting solutions through ESCOs
- De-risking instruments for third party finance solution (e.g. first loss guarantee)
- Performance standards in conjunction with financing mechanism

Technology selection: Energy-efficient lighting

Description

- LEDs: more efficient (in lumens/watt) than conventional lamps
- Reduction potential: 20 – 50% saving (depending on the type of lamp substituted and actual usage)



Proposed actions

- Quality standards for imported and domestically produced LEDs
- Energy labels for LEDs
- Policy for phasing out inefficient lamps
- Energy performance contracting solutions through ESCOs
- De-risking instruments for third party finance solution (e.g. first loss guarantee)

Technology selection: Rooftop solar PV

Description

- Substantial availability of surface area on roofs of textile factories
- Considerable potential for PV power generation



Proposed actions

- Demonstration projects
- Awareness-raising about Government support mechanisms for solar projects (Decision11/2017/QD-TTg)
- Energy performance contracting solutions through ESCOs
- Guarantee schemes

Implementation plan and GHG mitigation potential

Timeframe: 2020 – 2030

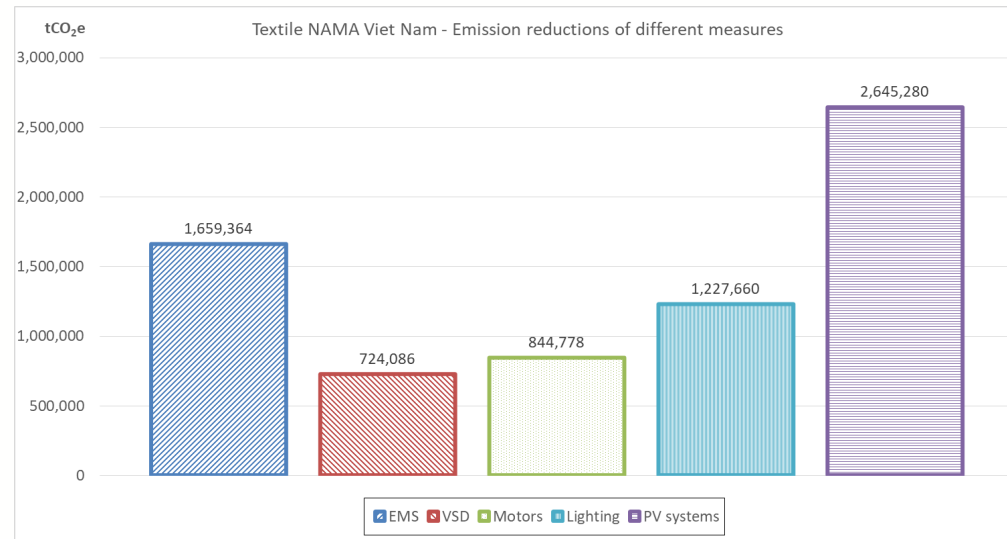
Estimated funding to implement the whole Textile Climate Strategy: up to USD 471.9m

Total emission reductions:

- approximately **7.1 MtCO_{2e}**

By measure:

- EMS: 1.6 MtCO_{2e}
- LEDs : 1.2 MtCO_{2e}
- Motors: 0.84 MtCO_{2e}
- VSDs: 0.72 MtCO_{2e}
- Solar PV systems: 2.6 MtCO_{2e}



Pilot activities

Training series (end of 2018)

Three 1-day trainings on EMS (both in Hanoi and HCMC)

Strengthen climate actions in textile and garment industry VN (end of 2018 - late 2019)

Support to 5 factories in VN for



1. Drafting climate targets at company level



2. Defining action plans with concrete GHG emission reduction measures

Conclusions

- Comprehensive climate strategy for textile sector
- Wide-spread uptake of energy efficiency measures:
twin-benefits and more



Economic and financial

- Minimizing energy costs, thereby reducing production costs
- Increased sustainable supply chains

Climate and environment

- Reduced GHG emissions and lower carbon footprint



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Thank you!

GLZ Climate Change Mitigation Support Project
sascha.oppowa@giz.de



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