

# IGES-TERI efforts to promote environmental technologies and better operational practices in India





## Contents of Today's Presentation

- 1. Japan-India Technology Matchmaking Platform (JITMAP).
- 2. Examples of outcomes of JITMAP activities.
- 3. Lesson learned and Way forward of JITMAP activities.



#### Japan-India Technology Matchmaking Platform (JITMAP)

- In order to promote low-carbon technology (LCT) transfer and diffusion in India, IGES and TERI jointly launched the Japan-India Technology Matchmaking Platform (JITMAP) in July 2016 with the support of the Ministry of the Environment of Japan.
- JITMAP is a multi-stakeholder platform to match Japanese manufacturers of Environmental Technologies (ETs) including LCTs with Indian companies that are looking for such technologies.



Japanese companies

Technology transfer

Indian companies

**Meeting with** stakeholders for policy and regulation, etc.

Indian

**Stakeholders** 



**Training of Trainers** 

Seminar.

Workshop

Feasibility study

Training of trainers for energy auditors

Supports through JITMAP activities



**Feasibility Study** 

**Japanese IGES Stakeholders** (Supporting Agencies, etc.)

Secretariat

TERI

(Government Agencies, Supporting Agencies, Business Associations, etc.)

Structure of JITMAP



Meeting with stakeholders

#### JITMAP Activities (FY2016~FY2021)



#### **Seminars and workshops:**

#### Total: 13

Compressed air system: 5 EHP/Refrigeration system: 2 Steam management system: 4

Energy-efficient belt: 1

CEMS: 2



#### Feasibility study (preliminary energy audit):

#### Total: 54

Compressed air system: 21 EHP/Refrigeration system: 13 Steam management system: 14

Energy-efficient belt: 6

#### Step 1

**Matchmaking of** supply with demand for technology

> Identification of Indian companies, matchmaking with Japanese companies

Support activities for technology transfer

Seminar. Workshop

trainers for energy

#### Step 2

**Feasibility** 

study

Meeting with

stakeholders

and

regulation, etc.

for policy

**Training of** auditors

#### Step 3 Application of

technologies

Analysis of economic and environmental improvements of applications

#### Step 4

Dissemination and expansion of applied technology

Dissemination of economic and environmental improvements of applications



#### **Training of trainers:**

#### Total: 5

Compressed air system: 5 Steam management system: 1



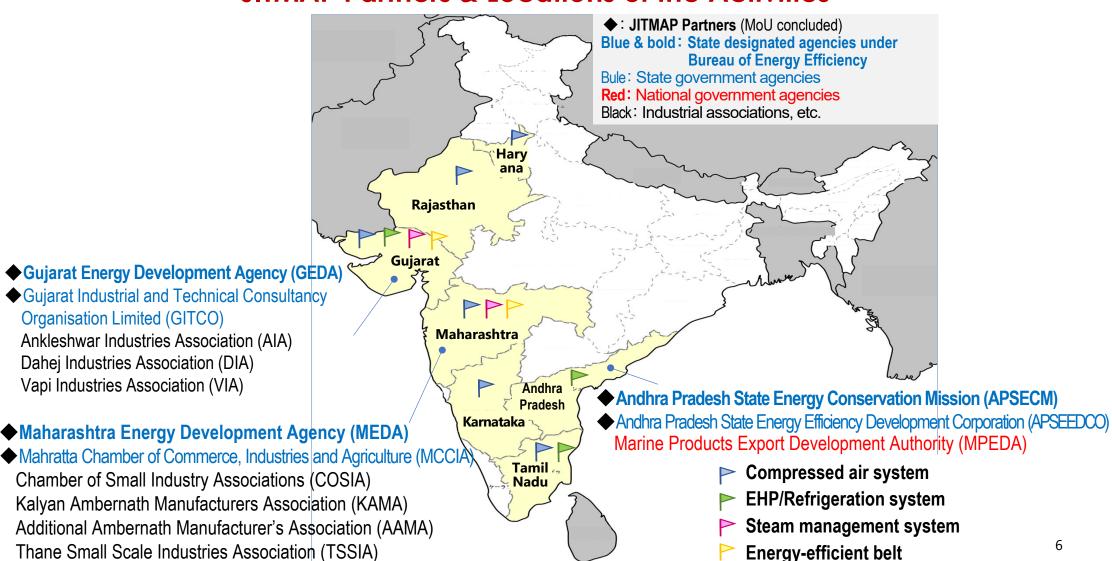
#### **Meeting with stakeholders:**

#### Total: 5

Compressed air system: 2 EHP/Refrigeration system: 2

Energy-efficient belt: 1

#### JITMAP Partners & Locations of the Activities



2. Examples of outcomes of JITMAP activities.

#### Examples of outcomes of JITMAP activities

## [Example 1] Electric heat pump (EHP), & Refrigeration System (RS) (In cooperation with Mayekawa Mfg. Co., Ltd.)

·Date: December 2018 ·Location: Vijayawada, Andhra Pradesh

#### ·Activities:

- 1) **Feasibility Studies** on the target technologies at 10 seafood processing companies.
- 2) Consultative meetings on results of the Activity 1) with Andhra Pradesh State Energy Conservation Mission (APSECM) and Andhra Pradesh State Energy Efficiency Development Corporation (APSEEDCO).
- 3) Awareness raising workshops on the target technologies for 7 seafood processing companies.

#### · Outcomes:

- 1) As results of the FSs that <u>energy-saving potentials by adopting the target technologies were identified in most of those companies</u>, while Awareness of the APSECM, the APSEEDCO and those companies on the target technologies was raised.
- 2) <u>Awareness of the APSECM and the APSEEDCO on necessity of regulatory measures to promote energy efficient and environmentally safer refrigeration technologies, was raised.</u>

#### Examples of outcomes of JITMAP activities

## [Example 2] Energy efficient transmission belt (EETB) (In cooperation with Bando Chemical Industries, Ltd.)

- · Period: August-September 2018 · Location: Ankleshwar, Gujarat
- · Target industries: Pharmaceutical, glass and comprehensive chemical

#### ·Activities:

- 1) Introductory seminar on the EETB for the Ankelshwar Industries Association in Gujarat, preliminary
- 2) FSs at selected companies which-expressed an interest in its application.



#### ·Outcomes:

- 1) As a result of the seminar, awareness of about 110 local stakeholders on the EETB was raised, and 5 local companies adopted the EETB.
- 2) As results of the FSs, energy-saving potentials of about 5 to 15% were identified, while it was also found that much of the equipment used at these companies is up to European standards, which differ from the standards of the company's products. Therefore, the company proposed to replace both the belt and pulley in such a case, and two companies adopted it on a trial basis.
- 3) As a result of a follow-up survey in FY2020, it was confirmed the EETBs were introduced in 6 local SMEs and 5 large enterprises.



#### Lessons learned and Way forward of JITMAP activities

Lessons learned	Way forward
1. Necessity of JITMAP activities to enhance the understanding of various Indian stakeholders, especially SMEs on Japanese Low Carbon and Environmental Technologies.	Continuous implementation of JITMAP activities especially for SMEs in cooperation with the Japanese & Indian stakeholders including the MOEJ, the Embassy of Japan in India and private companies.
2. Necessity of strengthening the organization and activities of the JITMAP.	2-1. Expansion of target technologies including environmental technologies and collaborations with Japan Platform for Redesign: Sustainable Infrastructure (JPRSI), the Blue Sky Initiatives, Japan Environmental Technology Association (JETA), The Energy Conservation Center, Japan (ECCJ), etc.

### Lessons learned and Way forward of JITMAP activities

Lessons learned	Way forward
2. Necessity of strengthening the organization and activities of the JITMAP.	2-2. <b>Technology Needs Assessment</b> to identify new target technologies and Implementing Partners in textile and foundry industries (On-going).
3. Improving the sustainability of JITMAP activities.	3-1. Formation of model clusters for technology transfer through intensive implementation of JITMAP activities.  3-2. Seeking and establishing deeper cooperation with the local JITMAP Partners in implementing the JITMAP activities for their own energy efficient programs (e.g. Demonstration Projects, Training for Energy Auditors and Managers).

## Thank you for your kind attention

