



SUSTAINABLE & ENVIRONMENT-FRIENDLY INDUSTRIAL PRODUCTION (SEIP)

National activities: Monthly Progress Report – April, 2017

“Sustainable and Environment-friendly Industrial Production – SEIP” is a joint project of the Ministry of Environment, Forest and Climate Change (MoEFCC) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH within the framework of Indo-German Technical Cooperation. The objective of the SEIP project is to enable Indian public and private stakeholders to jointly implement strategies for efficient, environment- friendly, and climate-friendly industrial development.

The project aims at mitigating environmental problems caused by industrial production focusing on industrial wastewater and solid waste management. During the project duration, technical solutions as well as business and management models to reduce acute environmental pollution and to improve resource efficiency in industrial production are piloted in five Indian industrial estates. Visible positive direct impacts of the solutions showcased are to improve conditions directly at the sites, and to unfold a strong signal effect leading to the replication and upscaling of solutions in industrial parks throughout India. Project activities focus on wastewater conveyance systems, the treatment, recycling and reuse of wastewater, waste management as well as the management and planning practices in the industrial areas. Solutions are piloted in 5 selected industrial areas located in the states of Delhi, Gujarat and Uttarakhand.

Further cross-cutting activities, such as the development of a market-driven training system for technicians and operators of effluent treatment plants, the development of industry-wide environmental standards, the work on a green rating system for industrial areas, and the setting up of a technology platform offering international exchange of best practice technologies target the improvement of enabling framework conditions for sustainable industrial production in India.

SEIP started in March 2015 and will run until February 2018 (with a likely extension of 12 months) and has a budget of EUR 6.5 million. A brief overview of the SEIP Project is given at Annexure 1.

National Activities

Activities implemented on a national (not state specific) level include:

- 1) Support international and national **technology transfer** through technology partnerships and the establishment of a technology platform (*Franziska*)
- 2) Outreach, upscaling and replication of **best practices** in the Indian context (*Franziska*)
- 3) Development of management and planning methods of industrial area for **promoting women** (*Anshika*)
- 4) Development and introduction of a guideline/funding scheme/policy on **online monitoring** of ETPs/CETPs (*Ashish*)
- 5) Development of a **rating/ certification system** for industrial areas in India along with a supportive scheme (*Anshika*)
- 6) Development and introduction of guideline/funding scheme/policy of **management structures** at industrial areas (*Ashish*)
- 7) Development and introduction of a **training scheme** for technicians and helpers working at ETPs and CETPs (*Franziska*)
- 8) Development and introduction of **guidelines for CETPs** (*Ashish*)
- 9) Development of a proposal for a comprehensive enforcement **directive for tannery sector** and a proposal for uniform consent format (*Ashish*)
- 10) Development of a proposal for a comprehensive enforcement **directive for textiles sector** and a proposal for uniform consent format (*Ashish*)
- 11) SEIP **Communication** (*Krithika*)
- 12) Project **management** and **monitoring** (*Anshika*)
- 13) Miscellaneous (*all*)

Activities at the national level also comprise punctual actions at the site level. For more detail, please refer to respective state-level progress reports.

1. Support international and national technology transfer through technology partnerships and the establishment of a technology platform (*Franziska*)

About the activity:

Objective of this activity is promote technology transfer within Indian as well as from abroad to India in order to reduce pollution and to increase resource efficiency in the Indian manufacturing sectors. The platform is supposed to comprise of innovative and interactive formats, such as training weeks, B2B meetings, delegation trips and virtual exchange platforms. Further, technology partnerships between Indian and German institutions are to result thereof.

Summary of progress so far:

- Adelphi to be awarded the contract
- MoEFCC expressed keen interest in the establishment of the technology platform and told SEIP to go ahead with the activity

Progress for the current month:

- Three offers were received; adelphi to be awarded with the contract for the pre-feasibility study
- Contract to be issued by GIZ HQ

2. Outreach, upscaling and replication of best practices in the Indian context (*Franziska*)

About the activity:

This activities is targeted at upscaling and replicating the solutions identified and showcased through SEIP project-level activities. Successful technical solutions (e.g. improved energy efficiency at a CETP), effective methodologies/ approaches (e.g. Environment Drives), and accompanying capacity training measures (e.g. training of CETP operators) are translated into Best Practices which provide guidelines of how to implement them. Through the targeted dissemination of these best practices, solutions have the chance to be replicated also outside of SEIP project areas.

Summary of progress so far:

This activity has not yet started.

Progress for the current month:

- Four internship applicants have been shortlisted. Phone interviews and selection to be finalized by mid-May. The intern will conduct a study identifying industrial parks within India where replication would be feasible'
- Operational Plan for Replication activities has been developed
- Development of action plan for Success Stories for replication/Best Practices have started

3. Development of management and planning methods of industrial area for promoting women (*Anshika*)

About the activity:

The SEIP project has an indicator related to demonstrating practical examples for management and planning methods of sustainable industrial zones that support women. Moreover, the SEIP project has encountered strong interest from multiple states for the provision of planning inputs for the development of new as well as the retrofitting of existing industrial parks. The project will provide technical support including the integration of quality parameters for sustainability and provisions for promoting women for the planning of 14 industrial areas in 3 states.

Summary of progress so far:

- Orientation workshop on “Industrial Parks for Women Entrepreneurs” was conducted on 18th January 2017 at Gandhinagar resulting in GIDC’s decision to initiate the retrofitting of five industrial estates (Vapi GIDC, Vatva GIDC, Naroda GIDC, Ankeleshwar GIDC and Rajkot GIDC). Further, the industrial parks for women at Sanand are to be replanned.
- A tripartite MoU worth Rs 1000 crore (~ EUR 137 million) was signed between GoAP, ALEAP and GIZ in January 2017 for the development of five (5) industrial parks for women entrepreneurs in AP.
- Andhra Pradesh Industrial Infrastructure Corporation (APIIC) has expressed its interest in receiving technical inputs in the site master planning of a pharma cluster from SEIP.
- The Telangana State Industrial Infrastructure Corporation (TSIIC) are in need of technical assistance in the master planning of a MSME cluster near Film City and Pharma City located in close proximity to Hyderabad.
- Inputs on scope of work for undertaking a pre-feasibility study and the planning of a pharma cluster was provided to APIIC in February 2017.
- Recommendations on master planning, climate change adaptation and climate risk assessment were provided to TSIIC for the Pharma City at Hyderabad in February 2017.

Progress for the current month:

- A three-day training programme on “Planning of Sustainable Industrial Areas” was organized for GIDC officials at Auroville during 20th – 22rd April 2017. An action agenda was formulated to achieve international quality benchmarks for retrofiting of Vapi industrial estate in Gujarat
- A three-day training programme on “Planning of Sustainable Industrial Areas” was organized for APIIC and entrepreneurs of ALEAP during 24th -26th April at Auroville, Tamil Nadu. Extensive training programme concluded with vision mapping and conceptual planning of one of the 5 new industrial parks under tripartite MoU between GoAP, ALEAP and GIZ.

4. Development and introduction of a guideline/funding scheme/policy on online monitoring of ETPs/CETPs (Ashish)

About the activity:

The objective of this activity is to review the existing continuous/online monitoring systems at Common Effluent Treatment Plants (CETPs) and Effluent Treatment Plants (ETPs) of industries at SEIP Project sites, and to develop improved guidelines for continuous/online monitoring systems for industrial wastewater. It also includes training for the staff of Central Pollution Control Board (CPCB), State Pollution Control Boards (SPCBs), CETPs and individual industries on theoretical and practical aspects for improving continuous/online monitoring systems for industrial waste water.

Summary of progress so far:

- Site visit of German expert (Aqua Consult) to examine existing online monitoring installations at river (Yamuna), CETPs, individual industries at Delhi & Vapi (Gujarat) in October 2016
- Further visit and half-day workshop with CPCB, 2-day trainings for CETP/ETP managers on continuous/online monitoring systems for industrial waste water in March 2017
- Reports on “Review of Existing Continuous/Online Monitoring Systems”, “Recommendations for Continuous/Online Monitoring Systems for Industrial Wastewater”, and “Suggestions on Existing CPCB Guidelines” shared with CPCB.
- Half day workshop with officials from CPCB (27th March 2017): presentation of German expert’s finding and recommendations for improving the CPCB guidelines (13 scientists from CPCB participated in the workshop)
- 2-day theoretical/practical training programme conducted on “Continuous/Online Monitoring Systems for Industrial Wastewater” (at Delhi on 28-29 Mar, 2017 with 24 participants | at Vapi (Gujarat) on 30-31 Mar, 2017 with 45 participants) with the managers/supervisors from ETPs of industries and CETPs, and officers of CPCB and SPCB (24 participants)

Progress for the current month:

- Expert about to share the final report covering the training programme conducted

5. Development of a rating/ certification system for industrial areas in India along with a supportive scheme (Anshika)

About the activity:

Currently, there are no uniform standards/benchmarks/guidelines at the national level for developing “green” industrial areas or for measuring how “green” or environment-friendly an industrial area is in India. A “green” rating and certification system for industrial areas is to be developed in partnership with the German Sustainable Building Council (DGNB) and relevant Indian organisations based on a viable

business strategy and not-for-profit approach. This shall also be supported by a scheme which can ensure the integration of this rating system in market.

Summary of progress so far:

- Preliminary guidelines for benchmarking of industrial areas submitted to CPCB in June 2016.
- Pre-feasibility study for development of a « green » rating system for industrial areas in India started in August 2016 with Buro Happold Engineering as consultants.
- A multi-stakeholder consultative workshop to discuss a locally supported green rating system applicable for industrial areas in India was held on 22nd September 2016.
- IGBC expressed interest in putting the system in place for India through a partnership with DGNB.
- A detailed matrix of parameters developed jointly with UNIDO and the World Bank provided to Buro Happold Engineering as a reference for development of the new “white label” for industrial areas in India.

Progress for the current month:

- Rating system will be finalized based on the feedback received from Buro Happold, MoEFCC, DGNB and BIS

6. Development and introduction of guideline/funding scheme/policy of management structures at industrial areas (*Ashish*)

About the activity:

The aim of this activity is to provide viable solutions / models to public agencies such as the state industrial development corporations (e.g. Gujarat Industrial Development Corporation – GIDC, Delhi State Industrial Infrastructure Development Corporation – DSIIIDC, State Industrial Infrastructure Corporation Ltd. – SIIDCUL) for establishing management structures in industrial areas in India in specific to the selected industrial areas Gujarat (Vapi IA), Uttarakhand (IIE Haridwar), and Delhi (Patparganj IA, Lawrence Road IA, Okhla IA) taking into consideration international best practice examples, legal provisions in India applicable to the selected sites, and the viability in the India situation.

Summary of progress so far:

- Information exchange on existing management structures provided to the German expert (Weber Consulting) from 5 selected sites
- In February 2017 (06-17), the German expert visited to examine the existing management structures at 5 industrial areas (Vapi IA, IIE Haridwar IA, Patparganj IA, Lawrence Road IA, Okhla IA)
- In March 2017, draft report on management structures for the five (5) selected industrial areas received
- GIZ shared feedback

Progress for the current month:

- GIZ received feedback revised draft from SIIDCUL and shared it with German expert for incorporation of comments. The expert is expected to send the final report by mid-May.

7. Development and introduction of a training scheme for technicians and helpers working at ETPs and CETPs (*Franziska*)

About the activity:

This activity aims at the introduction of a market-based training system for the technicians and helpers employed at CETPs and ETPs. Main partner in this activity is the Skill Council for Green Jobs (SCGJ) which is also responsible for affiliating training institutes to enable them to conduct trainings.

Summary of progress so far:

- Training of trainers (not market-based) took place in 2016 with experts from DWA (9 trainers were trained)
- Pilot trainings (not market-based) took place in 2016 (34 technicians and helpers were trained)
- Qualification Packages for the designations “Helper” and “Technician” have been developed and have been adopted by SCGJ
- Skill competition at IFAT 2016 took place

Progress for the current month:

- Contract with local consultant to update / complete training handbooks for participants and trainers of “technicians” has been signed and work has started
- Workshop with the consultant, SCGJ and GIZ to finalize scope and content of Handbooks envisaged on 30th / 31st of May
- Action plan for implementation of skill competition at IFAT 2017 approved by SCGJ. SCGJ agrees to take the lead.

8. Development and introduction of guidelines for CETPs (Ashish)

About the activity: Not started yet

Summary of progress so far: Not started yet

Progress for the current month: Not started yet

9. Development of a proposal for a comprehensive enforcement directive for tannery sector and a proposal for uniform consent format (Ashish)

About the activity:

This activity aims at developing a proposal for a comprehensive enforcement directive for the tannery sector and a proposal for a uniform consent format in India based on German/European experience. The proposal will be sent to MoEFCC/CPCB with the aim of it being included in central government policies in order to prevent and reduce pollution and to improve resource efficiency in industrial zones.

Summary of progress so far:

- In September 2016 (19-29), the German expert (ITG) worked jointly with CPCB and visited to tanneries in Uttar Pradesh (Kanpur, Banther, Jajmau etc.) to review the existing situation.
- Training imparted to CPCB and SPCBs based on findings and experienced gained from visits in industries
- German expert’s Report/Proposal submitted to MoEFCC & CPCB on developing “Enforcement Protocol/Ordinance for Environmental Compliance in Leather Tannery Sector in India”

- TOR (National Expert for Policy Measures) prepared and consultant appointed for translating the findings of the German expert into draft notification for MoEFCC
- The national expert has prepared the first draft notification on tannery sector for consideration of the Ministry of Environment, Forest and Climate Change (MoEFCC) and discussing with German experts for their views/feedback

Progress for the current month:

- Draft notification sent to CPCB and MoEFCC for review and consideration on 28th April 2017.

10. Development of a proposal for a comprehensive enforcement directive for textiles sector and a proposal for uniform consent format (Ashish)

About the activity: Not started yet

Summary of progress so far: Not started yet

Progress for the current month: Not started yet

11. SEIP Communication (Krithika)

About the activity:

The Sustainable and Environment-friendly Industrial Production (SEIP) Project, under Indo-German Development cooperation, aims at promoting efficient and environment & climate-friendly industrial development with a focus on improving industrial wastewater and waste management. To achieve this aim, the SEIP Project targets to 'showcase' technically innovative and financially viable solutions for significant environmental problems of national importance.

Summary of progress so far:

- Factsheet for SEIP is ready, printed and shared with partners
- SEIP website is now fully operational (<http://seip.urban-industrial.in/>)
- Regular updates on the facebook page and GIZ twitter handle.

Progress for the current month:

- Updates for events held for [Online Monitoring Systems](#) and [Auroville Workshops](#) uploaded on the SEIP webpage
- Training on Online Monitoring Systems being developed into a post/brief for the DWIH website
- Workshops conducted in Auroville for "Planning of Sustainable Industrial Areas" to be developed into a post for the DWIH website

12. Project management and monitoring (Anshika)

About the activity:

This section provides updates from project management (such as Capacity WORKS tools, result based monitoring, Operational Plans, etc.)

Summary of progress so far:

- SEIP project presented the progress during JPSC on 9th December 2016
- Result based monitoring system developed
- Capacity WORKS standards uploaded at the DMS under “F-Implementation” folder.
- An indicator-wise compilation of all the sources of verification (reports, documents etc.) was created at DMS.
- Operational planning workshops conducted and concluded at Haridwar and Vapi with partners to finalize the “operational plans” before submitting to MoEFCC for approval.
- An interim submission of all OPs (Delhi, Gujarat and Uttarakhand) submitted to MoEFCC.

Progress for the current month:

- A workshop was organised at Mayapuri CETP society to discuss and finalise the milestones and timelines in the operational plan for activities to be implemented in that area.
- During a meeting held at Patparganj industrial association office, the operational plan was discussed to determine the stakeholders of each activity.

Miscellaneous (all)

- SEIP project was invited to present work on “Women Empowerment in Industries and Entrepreneurship” at Vibrant Gujarat during Jan 2017.
- A draft document on standards for sustainable industrial parks was prepared for the SIA working group (TUEWAS)