

The background is a stylized illustration of a city street. On the left, there is a yellow building with a dark roof, a water tank, and a yellow cross symbol. To its right is a taller blue building with multiple windows. The ground is dark grey with some puddles and litter. The sky is light blue with a few clouds. The overall style is flat and modern.

Best Available Techniques in India

Chirag Bhimani , J. S. Kamyotra and Manoranjan Hota

Agenda

01

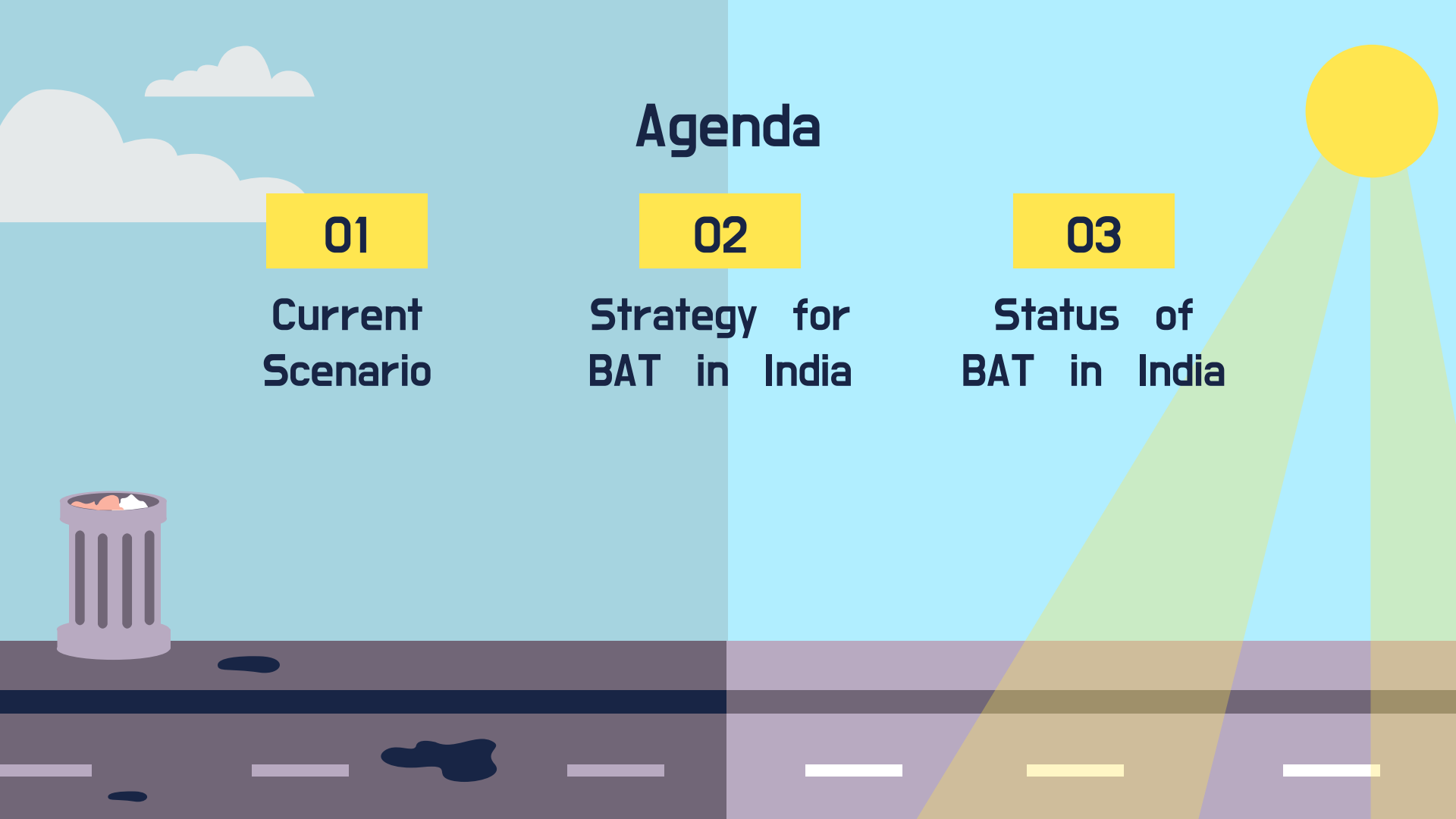
Current
Scenario

02

Strategy for
BAT in India

03

Status of
BAT in India





01

Current Scenario

Current Scenario

- India doesn't operate with a BAT concept like that of European Union
- Several rules, notifications and guidelines for the control and prevention of industrial pollution exists
- This includes legally binding emission standards or discharge limit values specific to each industrial sector
- Industrial facilities must comply in order to obtain permission from the State Pollution Control Boards
- The industry-specific emission standards or discharge limits are called Minimal National Standards (MINAS)

About MINAS

- MINAS, by definition, are techno-economical norms achievable by the industry
- They constitute quantitative limit values for the emission of pollutants into the environment
- These include air pollutants emitted from stacks, fugitive emissions and water pollutants in wastewater
- Techniques for prevention and control of chemical pollution from industries are considered as part of the development of the MINAS

About MINAS

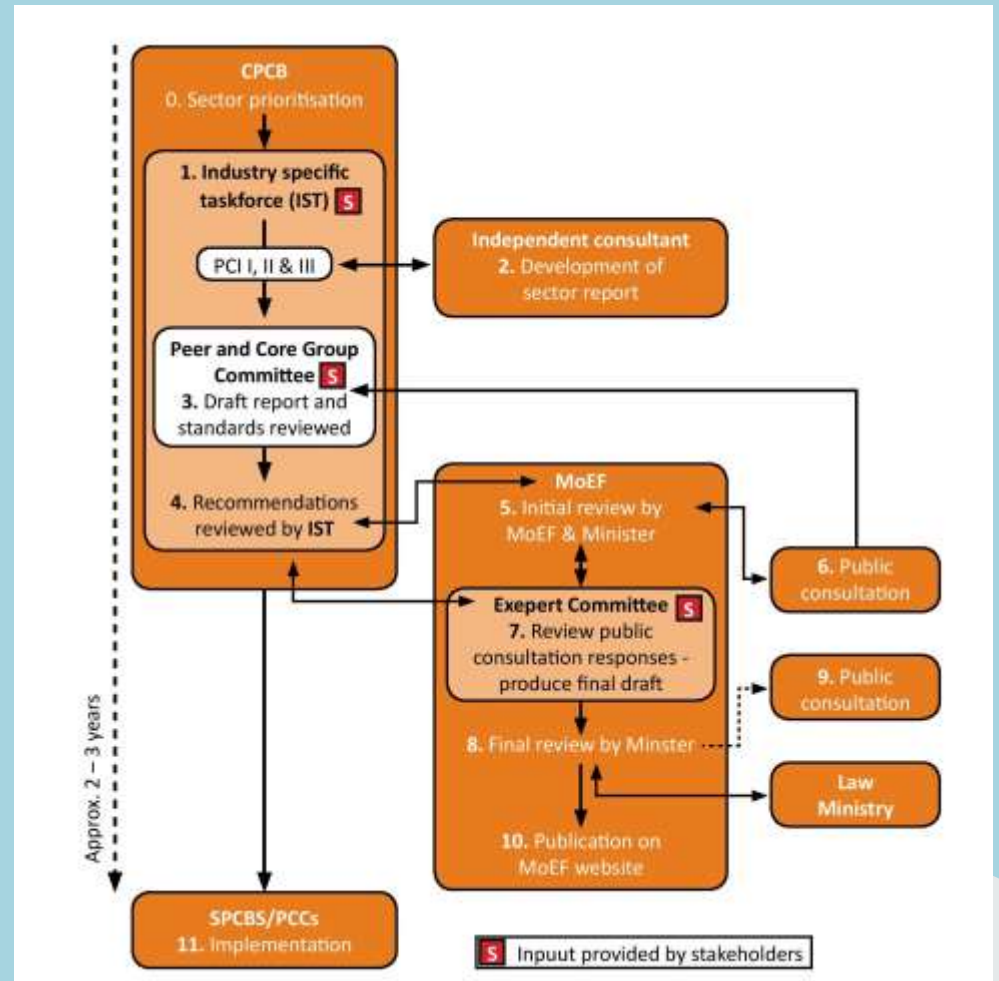
- These are Best Techno-Economically Available Techniques (BTEAT) rather than BAT
- Exchange of information during the process between all stakeholders is absent and missing
- No improvement of competence in the applied industrial processes in the authorities
- Does not consider cross-media effect and fails to address environment as a whole
- Provides end of the pipe treatment options and solutions



About MINAS

- Developing a MINAS normally takes two to three years.
- The driving force behind the development of a new MINAS or the revision of an existing one can be the availability of new technologies for improvement in prevention, control, and abatement of pollution.

Process for emissions standard development





About COINDS

- Techniques for prevention and control of chemical pollution from industries are considered as part of the development of the MINAS, and in many cases presented in the accompanying Comprehensive Industry Documents Series (COINDS), which constitutes a set of sector-specific guidelines.
- The COINDS are a series of comprehensive documents designed to summarize the status of specific industrial sectors in the country, and make reference to the MINAS applicable to each sector.
- The CPCB has published COINDS for 37 sectors.



About COINDS


- The COINDS generally include information on manufacturing plants of a specific type of industry being operated in the country, with information on the location and manufacturing capacity of each plant.
- Furthermore, the COINDS include a description of the type of products manufactured in the sector, the raw materials used, existing manufacturing processes, an estimation of the quantity of pollutants generated by the industry and a description of the techniques and measures used for prevention and control of pollution including waste generation.

About COINDS

- The technologies and processes for prevention, control, and abatement of pollution presented and discussed in the COINDS constitute guidelines; they are not legally binding for industry operators.
- Industry operators are free to use any technologies in the manufacturing process as well as for prevention, control, and abatement of pollution, provided they meet the MINAS or other norms or standards prescribed by the SPCBs or UTPCCs.
- However, industry operators are obliged to inform the State Pollution Control Board (SPCB) whenever they change manufacturing processes or technologies, including pollution control technology or equipment.



Limitations of COINDS

- MINAS are legally binding, while the COINDS simply constitute guidelines, allowing industrial facilities to choose the pollution abatement techniques that are best suited to their conditions.
 - As a result of the focus on emission/discharge standards, rather than on abatement techniques, industrial facilities primarily have an end-of-pipe approach to emissions reduction, and that process-integrated techniques often are neglected.
 - Challenges include inadequate and poor data, lack of intensive monitoring and little information about new techniques is available to industry operators.
- 

Why BAT Reference Document (BREF)?

- MINAS is not BAT but BTEAT
- Core issues associated with environmental improvements are addressed beforehand in BREF
- Identifying actions needed for enabling improved performance in the sector taken into account
- Addresses issues of pollution control and mitigation and also includes resource conservation, performance efficiency etc.

Why BAT Reference Document?

- All the key stakeholders like industrial units, experts from industries etc. are included in the process leading to successful implementation
- Meetings are held to draw important conclusions from the group giving a meaningful input to BREF
- Sector Specific and Product Specific standards are possible using BAT
- Addresses applicability issue and cross-media effects
- Focusses more on process integrated prevention of pollution instead of end of pipe treatment

India's Approach for BREF

India : One of the most industrialized countries

Comparatively Larger Industrial Estates

Increasing Environmental Issues

Indian Environmental Standards different from European Standards

Hence - need of BREF customised for India

BREF Document to be prepared in the context of Indian Industrial Scenario

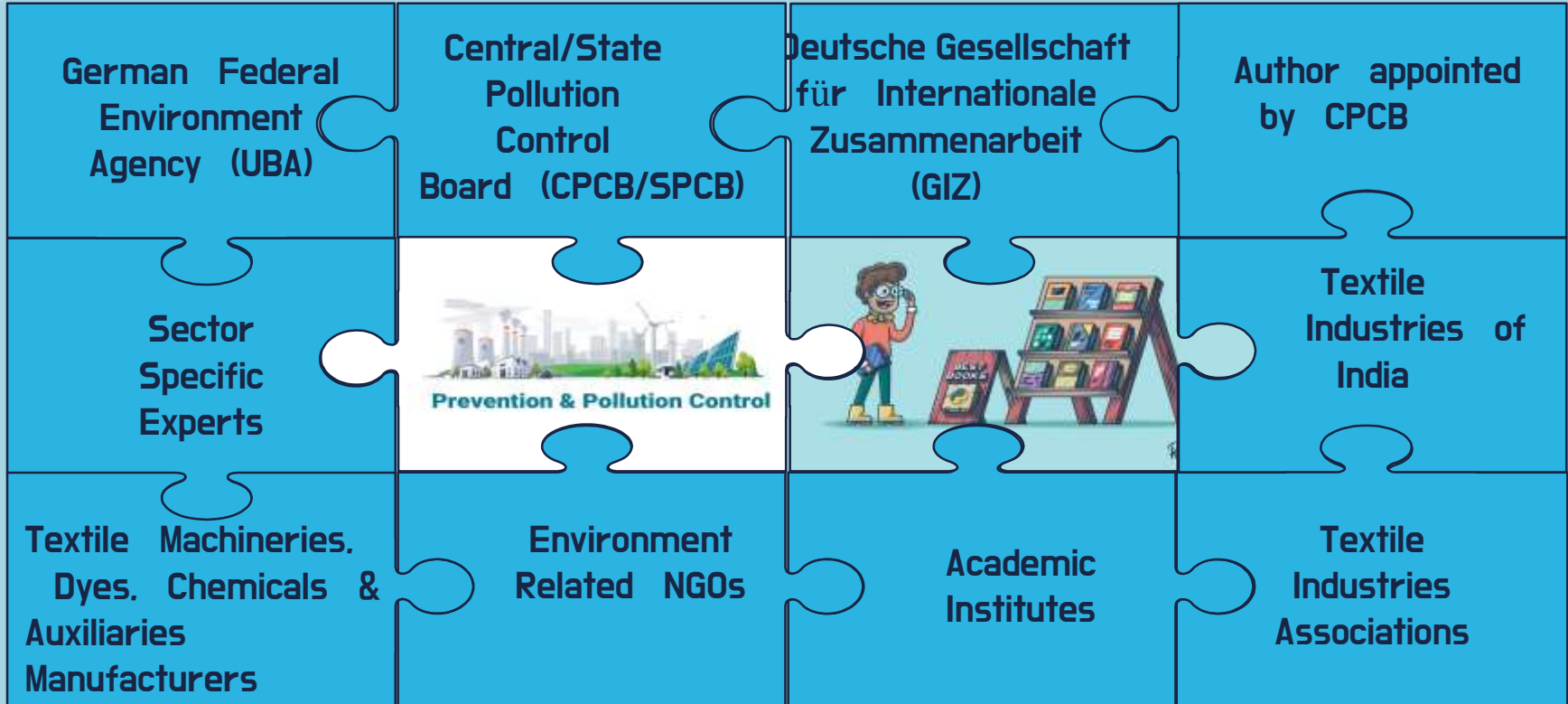
Textile sector - first sector for BREF in India



02

Strategy for BAT in India

Organisations Involved



Methodology



Role of CPCB / SPCB

Preparation of Guidance document for drawing up of BREF document.

Selection of a competent author

Defining TOR for the author

Search for possible competent TWG Members

Orientation & Capacity building of TWG members and Author

Support & supervision of the process

Role of CPCB / SPCB

Activates the TWG

(calling for confirmation of membership and contact details)

Give feedback to MoEFCC & take further consent from appropriate authority

Publication of the document

Implementation of BREF document in the State

Role of Core Team of CPCB / SPCB

Understanding the European BREF document

Develop / Formulate Guidance document for preparation of BREF document

Selection & formulation of TWG committee in consultation with MS, CPCB & UBA Officials

Finalization of Time frame for Preparation of BREF Document

Sensitize the respective SPCBs, Textile Industries Associations and Member Industries about the process

Role of Core Team of CPCB / SPCB

Arrange kick-off meetings

Finalization of Questionnaire under guidance of UBA officials

Arrange TWG Meetings

Disseminate the information & getting comments on BIS

Scrutinize & verify the data collected

Overall supervision of BREF Process

Follow the timeline

Role of Author

Information collection and drafting the BREF document

Leads technical discussions in plenary and subgroup TWG meetings

Prepare background paper for TWG meetings

Checks & verifies the information submitted & asks for complements & clarifications

Role of Author

Ensures the overall management of the Knowledge exchange Platform collaborative tool to ensure the transparency of the exchange of information

Presents the final draft BREF (approved by DFBARC) at Board meeting of CPCB / SPCB

Technical Working Group (TWG)

▪UBA

Core Team Members

Author

Concerned SPCBs

Textile industries associations in India

Sector specific experts

Academic Institutes

Textile research institutes (ATIRA, MANTRA)

Environment related Non – Government Organizations

Textile machinery, Dyes, Chemical & Auxiliary manufacturers



03

Status of BAT in India

Current Status of BREF in India

Currently BREF Document preparation for Textile Sector in progress at :

- › National Level by Central Pollution Control Board (CPCB)
- › State Level by Gujarat Pollution Control Board (GPCB)

At National Level :

- Author appointed by CPCB
- Draft Guidance Document being finalised
- TWG members being finalised

At State Level :

- Data Collection completed by Author
- Draft of First Four Chapters completed by Author & under review
- BAT Candidates being finalised

First Results

- Preparation of Guidance document for drawing up of BREF documents
- Questionnaires for data collection for BAT
- Identification of the key environmental issues for the Textile sector
- Primary identification of the best environmental performance levels, on the basis of the available data in the European Union and world-wide
- Examination of the conditions under which these performance levels were achieved
- Such as costs, cross-media effects, main driving forces involved in implementation of the techniques

Challenges and Way Forward

New Process and Procedure

New Concept - No previous precedence

Industry never involved in policy making earlier

Data Collection - accuracy and authenticity

Lack of knowledge - could not share details

Data Compilation and Data Gaps

Convincing and explaining the stakeholders - first of its kind effort in India

Industries unsupportive - Novel Initiative never implemented before

Thanks!

Do you have any questions?

Chirag Bhimani

chirag@bhimani.in

J. S. Kamyotra

kamyotra@yahoo.co.in

Manoranjan Hota

hota_m@yahoo.com