AN OVERVIEW TO BREF OF GUJARAT, INDIA
AGENDA

- Need of BAT in Gujarat, India
- German Co-operation and Role of UBA
- Stakeholders and Their Roles
- Methodology Adopted
- First Results
- Challenges Faced
1. NEED OF BAT IN GUJARAT, INDIA
GUJARAT’s APPROACH FOR BREF

- Gujarat: One of the most industrialized states of India
- Comparatively Larger Industrial Estates
- Increasing Environmental Issues
- Indian Environmental Standards different from European Standards
- Hence - need of BREF customised for Gujarat
- BREF Document to be prepared in the context of Gujarat Industrial Scenario
- Textile sector - first sector for BREF in Gujarat
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)
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.
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
WHY 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 BREF?

- 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.
1. Prioritisation of Sector for MINAS Development

2. Task Force

3. Draft Development by Concerned Division of CPCB considering recommendations from the P&CGC

4. Assistance by Independent External Expert

5. Recommendation by CPCB
A

6. Draft Review by Expert Committee

8. Draft Review by MoEFCC and Publication on Website

9. Final Review by MoEFCC

10. Notification of MINAS

B

7. Public Consultation

11. Implementation by CPCB / SPCBs / PCCs
2. GERMAN CO-OPERATION AND ROLE OF UBA
The Indo-German Environment Partnership (IGEP) initiated a BAT programme in the state of Gujarat

Result of a collaboration between Gujarat Pollution Control Board (GPCB), German Federal Environment Agency (UBA) and GIZ

Joint Declaration of Intent manifests for Promotion of Best Available Techniques (BAT) not Entailing Excessive Cost

In Vibrant Gujarat Summit - 2013, MoU and JDI were signed between GPCB, UBA and GIZ and the process was kicked off
ROLE OF UBA

UBA is the important stakeholder in the BAT process in Gujarat

They are the subject experts guiding GPCB for BAT process

Initial hand holding for formulating of Guidance Document

Important roles in various phases of BAT Document preparation

Guiding Core Team, TWG, Author etc. & steer for successful preparation of BREF
3. STAKEHOLDERS AND THEIR ROLES
ORGANIZATIONS INVOLVED

- German Federal Environment Agency (UBA)
- Sector Specific Experts
- Textile Machineries, Dyes, Chemicals & Auxiliaries Manufacturers
- Gujarat Pollution Control Board (GPCB)
- Environment Related NGOs
- Academic Institutes
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- Textile Industries of Gujarat
- Textile Industries Associations
- Gujarat Cleaner Production Centre (GCPC)
4.

METHODOLOGY ADOPTED
Step 1
- Identifying textile cluster based on type of industry

Step 2
- Wish List from TWG

Step 3
- Information Collection at cluster level

Step 4
- Information Collection at Industry level

Step 5
- Check / verify the data / information submitted

Step 6
- Detailing of different techniques used

Step 7
- Scrutiny and analysis of data

Step 8
- Dissemination on BIS

Step 9
- Elaboration of the first and second formal draft

Step 10
- Review & Finalization by DFBARC

Step 11
- Submission of draft final BREF

Step 12
- Draft BREF Recommended To Govt. By Board For Publication
5. FIRST RESULTS
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
6.

CHALLENGES FACED
CHALLENGES

- New Process and Procedure
- New Concept - No previous precedence
- Industries never involved in policy making earlier
- Data Collection, its accuracy and authenticity
- Lack of knowledge – could not share details
- Data Compilation and addressing the data gaps
- Convincing and explaining the stakeholders – first of its kind effort in India
- Industries unsupportive due to novel idea and never before implemented
Thanks!

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STAKEHOLDERS AND THEIR ROLES
(Back Up)
ROLE OF GPCB

- 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
- Support & supervision of the process
ROLE OF GPCB

- Orientation & Capacity building of TWG members and Author
- Activates the TWG (calling for confirmation of membership and contact details)
- Give feedback to State Government & take further consent from appropriate authority
- Publication of the document
- Implementation of BREF document in the State
## GPCB – CORE TEAM MEMBERS

<table>
<thead>
<tr>
<th>Role</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>Member Secretary, GPCB</td>
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<tr>
<td>Member</td>
<td>Senior Environment Engineer, GPCB</td>
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<tr>
<td>Member</td>
<td>Environment Engineer, GPCB</td>
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<tr>
<td>Member</td>
<td>Invited Expert</td>
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<tr>
<td>Invitee Members</td>
<td>Concerned Dealing Hands, GPCB</td>
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<tr>
<td>Convener</td>
<td>Deputy Environment Engineer, GPCB</td>
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</table>
## ROLE OF CORE TEAM

- **Understanding the European BREF document**
- **Develop / Formulate Guidance document for preparation of BREF document**
- **Selection & formulation of TWG committee in consultation with MS, GPCB & UBA Officials**
- **Finalization of Time frame for Preparation of BREF Document**
- **Sensitize the respective GPCB ROs, Textile Industries Associations and Member Industries about the process**
ROLE OF CORE TEAM

- 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**  
**GCPC FOR TEXTILE SECTOR**

GCPC is appointed as the Author for BREF document  
GCPC in consultation with GPCB carries out following tasks:

<table>
<thead>
<tr>
<th>Task</th>
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<tbody>
<tr>
<td>Information collection and drafting the BREF document</td>
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<tr>
<td>Leads technical discussions in plenary and subgroup TWG meetings</td>
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<tr>
<td>Prepare background paper for TWG meetings</td>
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<tr>
<td>Checks &amp; verifies the information submitted &amp; asks for complements &amp; clarifications</td>
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</tbody>
</table>
ROLE OF AUTHOR  
(GCPC FOR TEXTILE SECTOR)

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 GPCB
TECHNICAL WORKING GROUP (TWG)

Technical Work Group (TWG) consists of:

<table>
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<tr>
<td>UBA</td>
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<tr>
<td>Core Team Members</td>
</tr>
<tr>
<td>Author</td>
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<tr>
<td>Concerned ROs, GPCB</td>
</tr>
<tr>
<td>Textile industries associations in Gujarat</td>
</tr>
<tr>
<td>Sector specific experts</td>
</tr>
<tr>
<td>Academic Institutes</td>
</tr>
<tr>
<td>Textile research institutes (ATIRA, MANTRA)</td>
</tr>
<tr>
<td>Environment related Non – Government Organizations</td>
</tr>
<tr>
<td>Textile machinery, Dyes, Chemical &amp; Auxiliary manufacturers</td>
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</table>
ROLE OF DFBARC

‘Draft Final BREF Assessment & Review Committee (DFBARC)’ is headed by MS, GPCB and two independent committee members (to be nominated by TWG)

In case of split views not resolved unanimously, then the same will be resolved by this committee during TWG meeting

The draft final BREF will be assessed and reviewed by DFBARC before final approval by Board
METHODOLOGY ADOPTED
DETAILS
(Back Up)
STEP 1
IDENTIFYING DIFFERENT TEXTILE CLUSTERS

Textile Cluster

Jetpur (Cotton)  Ahmedabad (Cotton)  Surat (Polyester)
Wish list was invited from TWG members wherein their inputs were asked for the preparation of BREF document.

A questionnaire format was prepared for detail collection from the industry for the study of fabric processing in the industry.
STEP 3
INFORMATION COLLECTION AT CLUSTER LEVEL
Finalising the reference plants and questionnaire

Textile Cluster

Description of cluster

No. and size of Installations (Small/Medium/Large)

Major Environmental Issues
STEP 3
INFORMATION COLLECTION AT CLUSTER LEVEL

Textile Industry

- Natural (cotton, silk etc.)
- Synthetic (polyester, nylon etc.)
- Denim
- Blends
STEP 4
INFORMATION COLLECTION AT INDUSTRY LEVEL

Listing out sample industries among the selected clusters

Ahmedabad 20
- Dyeing & Printing Units
- Denim Manufacturing
- Table Printing Units

Surat 12
- Dyeing Units
- Dyeing & Printing Units

Jetpur 15
- Pre-treatment Units
- Table Printing Units
- Washing ghats
Details from reference plants in each cluster collected by Author as per the questionnaire format designed under guidance of UBA officials and GPCB.

Author in consultation with GPCB will assess / check / verify the information submitted and provide feedback to the TWG.
**STEP 6**

**DETAILING OF DIFFERENT TECHNIQUES USED**

<table>
<thead>
<tr>
<th>Description</th>
<th>Technical Description</th>
<th>Environmental Benefits Achieved</th>
<th>Environmental Performance And Operational Data</th>
<th>Cross-media Effects</th>
<th>Technical Considerations Relevant To Applicability</th>
<th>Economics</th>
<th>Driving Force For Implementation</th>
<th>Example Plants</th>
<th>Reference Literature And Literature Survey For Emerging Technologies</th>
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</thead>
</table>


Author in consultation with GPCB, will steer the work on determining BAT, guided by the principles of technical expertise, transparency and neutrality.

Its work entails the independent verification and analysis of the information collected to derive BAT conclusions.
Author will disseminate the draft BREF on BIS for review and comments.

Elaboration of the drafts prepared among TWG and asking for their comments.
BIS-BREF

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<td>Guidance Document on draw...</td>
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<td>Kick Off Meeting 16th January 2017</td>
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<td>Minutes of Meeting</td>
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<td>Wishlist for BREF</td>
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<td>16</td>
<td>Revised Wish List</td>
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STEP 10
REVIEW & FINALIZATION BY DFBARC

Author will finalise the BREF document draft and submit to Draft Final BREF Assessment and Review Committee (DFBARC) for review.

STEP 11
SUBMISSION OF DRAFT FINAL BREF TO BOARD
STEP 12
DRAFT BREF RECOMMENDED TO GOVERNMENT BY BOARD FOR PUBLICATION

BEST AVAILABLE TECHNIQUES REFERENCE DOCUMENT PUBLISHED AND AVAILABLE IN PUBLIC DOMAIN