



## Seminar on

**“Lean Manufacturing in Garments  
Accessories & Packaging Industry of Bangladesh”**

**under Bangladesh INSPIRED Project Component 2b  
SME Competitiveness Grant Scheme Project of BGAPMEA**

**18th August, 2016 at 11:00 am at CIRDAP Auditorium, Dhaka.**

**Presented by :**

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**Organized by :**

**Bangladesh Garments Accessories & Packaging Manufacturers & Exporters Association (BGAPMEA)**

**Funded by :**

**The European Union & Ministry of Industries, Govt. of the People's Republic of Bangladesh**

**Bangladesh INSPIRED**  
**Developing SMEs**



# LEAN MANUFACTURING IN GARMENTS ACCESSORIES AND PACKAGING INDUSTRY OF BANGLADESH



**A seminar paper for  
Bangladesh Garments Accessories & Packaging Manufacturers &  
Exporters Association (BGAPMEA)**

**INSPIRED Project Funded by the European Union**

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**August 18, 2016**

**Bangladesh INSPIRED**  
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## ***WHAT IS?***

**Green Industry:**

**Green Commitment:**

**Green Activity:**

**Green System:**

**Green Culture:**

**Green Networking:**

**Environmental Ethics:**

**Sustainable Development:**

**Continuous Improvement:**

**Green Economy:**

**Certified Organization:**

### **5 Tips for Efficient Goal-Setting in the Green Industry:**

**Set SMART goals:** Specific, Measurable, Attainable, Realistic, Timely





## ***AREAS TO BE AVOIDED***

With a view to protecting such an industrial sites shall maintain the following distances from the areas listed:

- Ecologically and/or otherwise sensitive areas: at least 25 km; depending on the geo-climatic conditions the requisite distance shall have to be increased by the appropriate agency.
- Coastal areas: at least 1/2 km from High Tide Line.
- Flood Plain of the Riverine Systems: at least 1/2 km from flood plain or modified flood plain affected by dam in the upstream or by flood control systems.
- Transport/Communication System: at least 1/2 km from highway and railway.
- Major settlements (3,00,000 population): distance from settlements is difficult to maintain because of urban sprawl. At the time of siting of the industry if any major settlement's notified limit is within 50 km and the industry shall be sited at least 25 km from the projected growth boundary of the settlement.



## *SITING CRITERIA*

- No forest land shall be converted into non-forest activity.
- No prime agricultural land shall be converted into industrial site.
- Land acquired shall be sufficiently large to provide space for appropriate treatment plants.
- Reclaimed (treated) wastewater shall be used to raise green belt and to create water body. The green belt shall be 1/2 km wide around the battery limit of the industry. For industry having odour problem it shall be a kilometer wide.
- The green belt between two adjoining large scale industries shall be one kilometer.
- Enough space should be provided for storage of solid wastes so that these could be available for possible reuse.
- Each industry is required to maintain three ambient air quality measuring stations within 120 degree angle between stations.



# Environmental Management Plan (EMP)

- Liquid Effluents
- Air Pollution
- Solid Wastes
- Noise and Vibration
- Occupational Safety and Health
- Prevention, maintenance and operation of Environment Control Systems
- House-Keeping
- Human Settlements
- Transport Systems
- Recovery - reuse of waste products
- Vegetal Cover
- Disaster Planning
- Environment Management Cell







## A Green Globe

1. Implement a Sustainability Management System
2. Legal Compliance
3. Employee Training
4. Customer Satisfaction
5. Accuracy of Promotional Materials
6. Local Zoning, Design and Construction
7. Design and Construction – Compliance with Legal Requirements

## Sustainable Design and Construction of Buildings and Infrastructure – New and Existing Buildings

- Locally appropriate tools and materials that minimize environmental impact
- Locally appropriate technologies that is used in buildings and for construction, including indigenous materials and technologies
- Development of local capacity – education, knowledge and experience – to use the materials, technologies, tools for sustainable construction
- Local involvement of all concerned stakeholders in the process of adoption and implementation of sustainable construction principles.



## Green Globe Certified Member

Certification is confirmed annually when more than 50% of the criteria's related indicators are achieved.

### Green Globe Gold Member

Gold Member status is awarded to Green Globe members that are certified for **5 consecutive years**.

### Green Globe Platinum Member

Platinum Member status is awarded to Green Globe members that are certified for **10 consecutive years**.





## Green Business Certificate Program-The advantages of “going green”:

- By "going green", your business will be in alignment with local and international initiatives focused on sustainability.
- Greening your business will keep you at par and one step ahead of future laws. At some point, your business will have to be green.
- Business will enjoy lower rate of interest
- Business will enjoy lower duty and taxes
- You will improve profitability with cost savings
- Your business will retain and attract local and foreign customers
- You will have access to Certified Green Business logo to use in your marketing and advertising
- You will receive special recognition through Business Directory, and eligibility for “Green Business of the Year” contest
- You will be recognized as a leader in environmentally-sustainable business

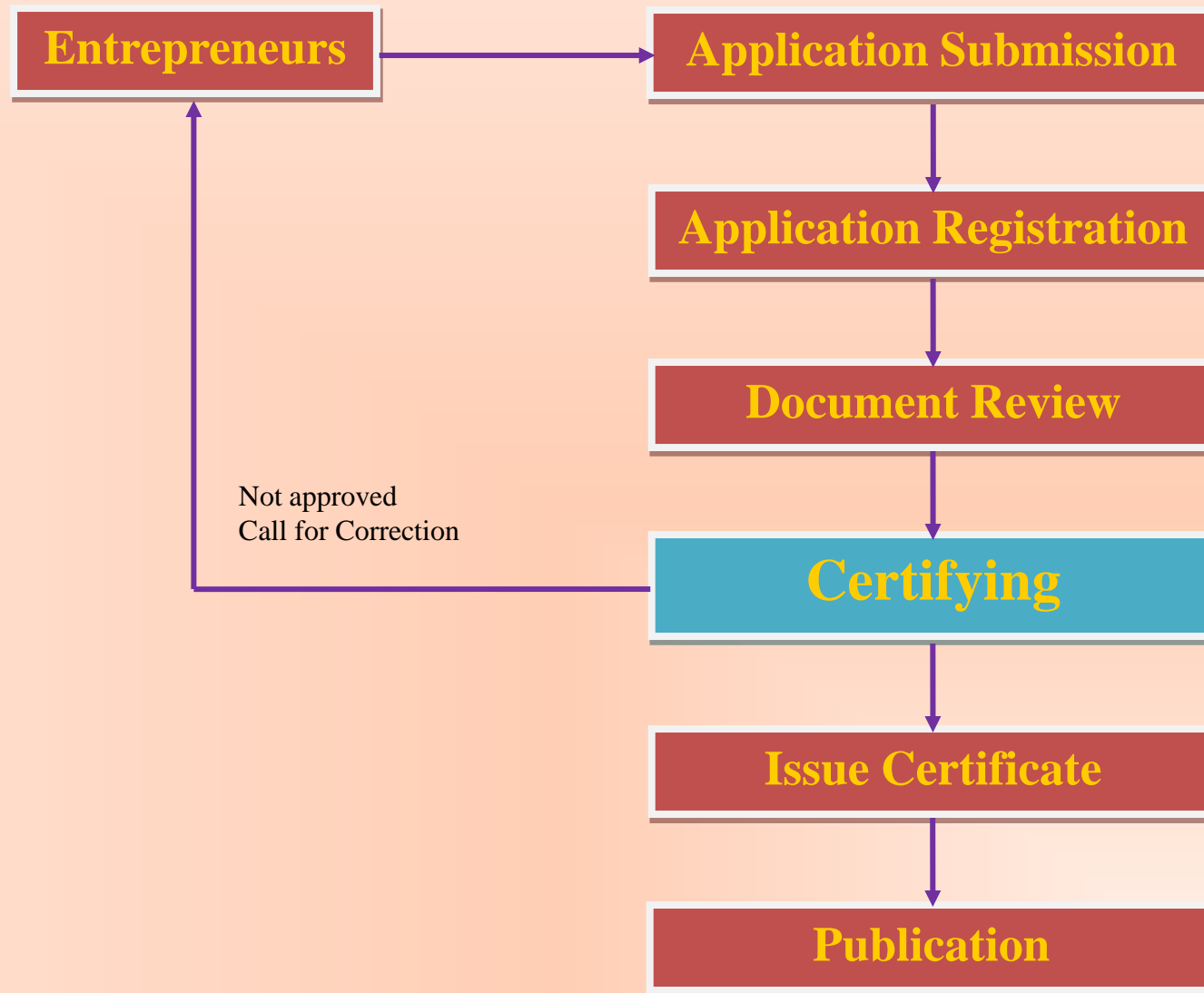


## 17 Elements of ISO 14001 Certification Process

1. An environmental policy supported by senior management;
2. The identification of environmental aspects and impacts;
3. Identification of environmental compliance requirements;
4. The development of objectives and targets, and their environmental management programs;
5. Defined resources, roles, responsibilities and authorities for environmental management;
6. The development of competence, training and awareness procedures;
7. A communication process of the EMS to all stakeholders and interested parties;
8. The development of EMS documentation as required by the standard;
9. The development of document control procedures;
10. The development of operational control procedures;
11. The development of emergency preparedness and response procedures;
12. The development of procedures to monitor and measure operations;
13. An evaluation of compliance procedure;
14. Procedures developed for the management of non-conformance, corrective and preventative actions;
15. The development of a records management procedure;
16. A program for completing internal EMS audits and corrective actions; and
17. The development of procedures for management review by senior management.



# PROCESS OF GREEN INDUSTRY ACCREDITATION







## UKAS Accreditation

The audit can be performed by a number of Certification Bodies, all ISO 14001 auditing organisations are not Accredited.

### Accredited Certification bodies.

1. ACS Registers Ltd
2. AJA Registrars Ltd
3. Bureau Veritas Certification Holding SAS - UK Branch
4. DNV GL Business Assurance UK Ltd
5. Japan Audit and Certification Organization for Environment & Quality
6. TUV UK Ltd
7. SGS etc.

### COST ISSUES

ISO 14001 EMS Third Party Certification Audit Costing

The cost is in between Taka 300000 to 5,00,000



## Green Product Certifications

A **certification** is a confirmation that a product meets defined criteria of a standard.

**The standard defines four levels of organic labeling:**

1. **“100% Organic”**. All components are organically grown and certified, including the sewing threads, and all processes used to manufacture the garment conform to the processing requirements stated in the standard;
2. **“Organic”**. At least 95% (by weight) of the agricultural fibers are organically grown and all processing adheres to the environmental processing requirements given in the document;
3. **“Made with organic (specified fiber products)”**. At least 70% (by weight) of the garment have been organically grown;
4. **“Less than 70% organically produced constituents”**. Maybe it has some organic fiber content, maybe not.

**The original seven *muda* are:**

Transport (moving products that are not actually required to perform the processing)

Inventory (all components, work in process, and finished product not being processed)

Motion (people or equipment moving or walking more than is required to perform the processing)



Waiting (waiting for the next production step, interruptions of production during shift change)

Overproduction (production ahead of demand)

Over Processing (resulting from poor tool or product design creating activity)

Defects (the effort involved in inspecting for and fixing defects)

"TIMWOOD" is formed.

**Respect:** Taking every stakeholders' problems seriously, and making every effort to build mutual trust. Taking responsibility for other people reaching their objectives.

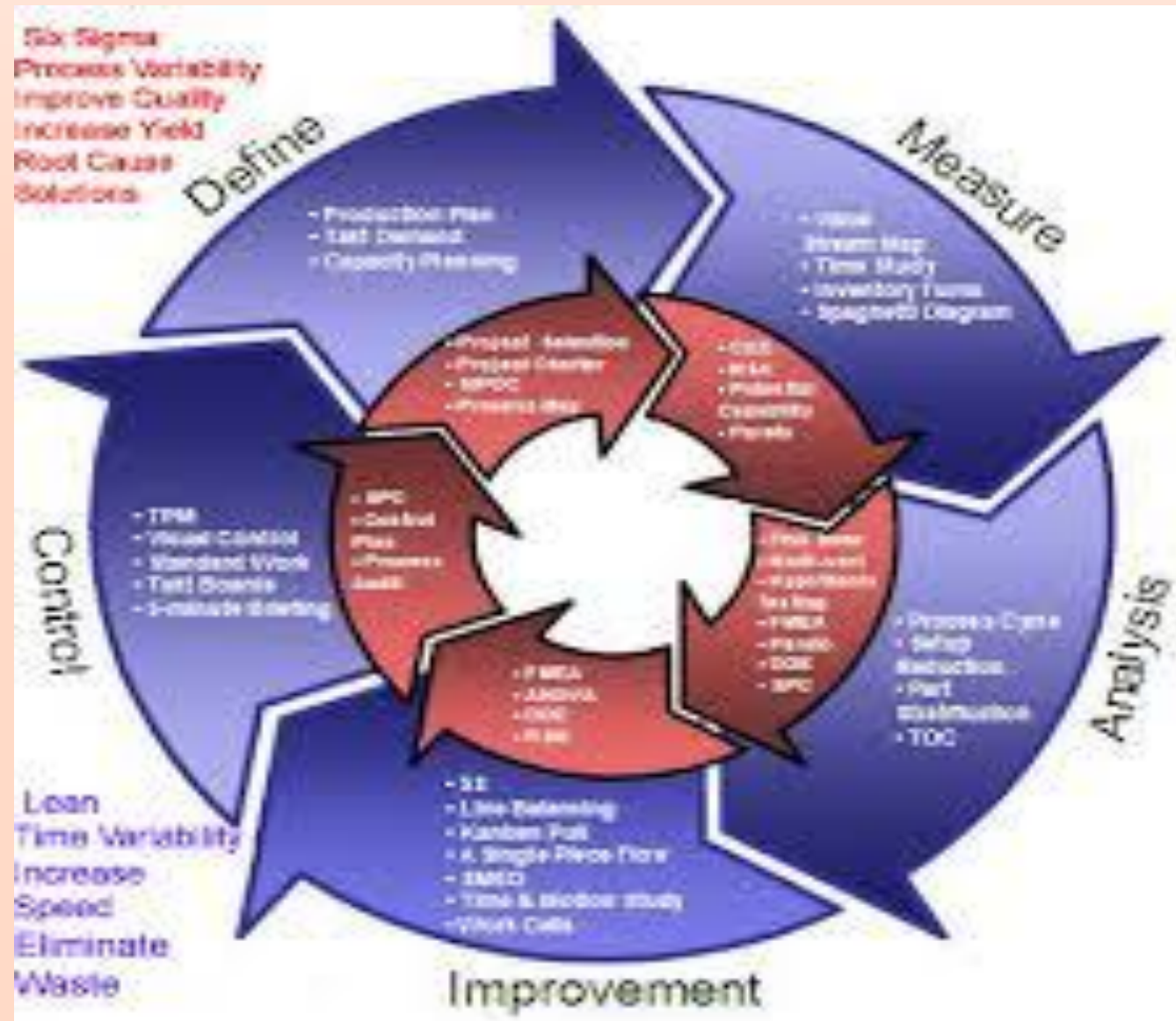
**Teamwork:** This is about developing individuals through team problem-solving. The idea is to develop and engage people through their contribution to team performance. Shop floor teams, the whole site as team, and team Toyota at the outset.





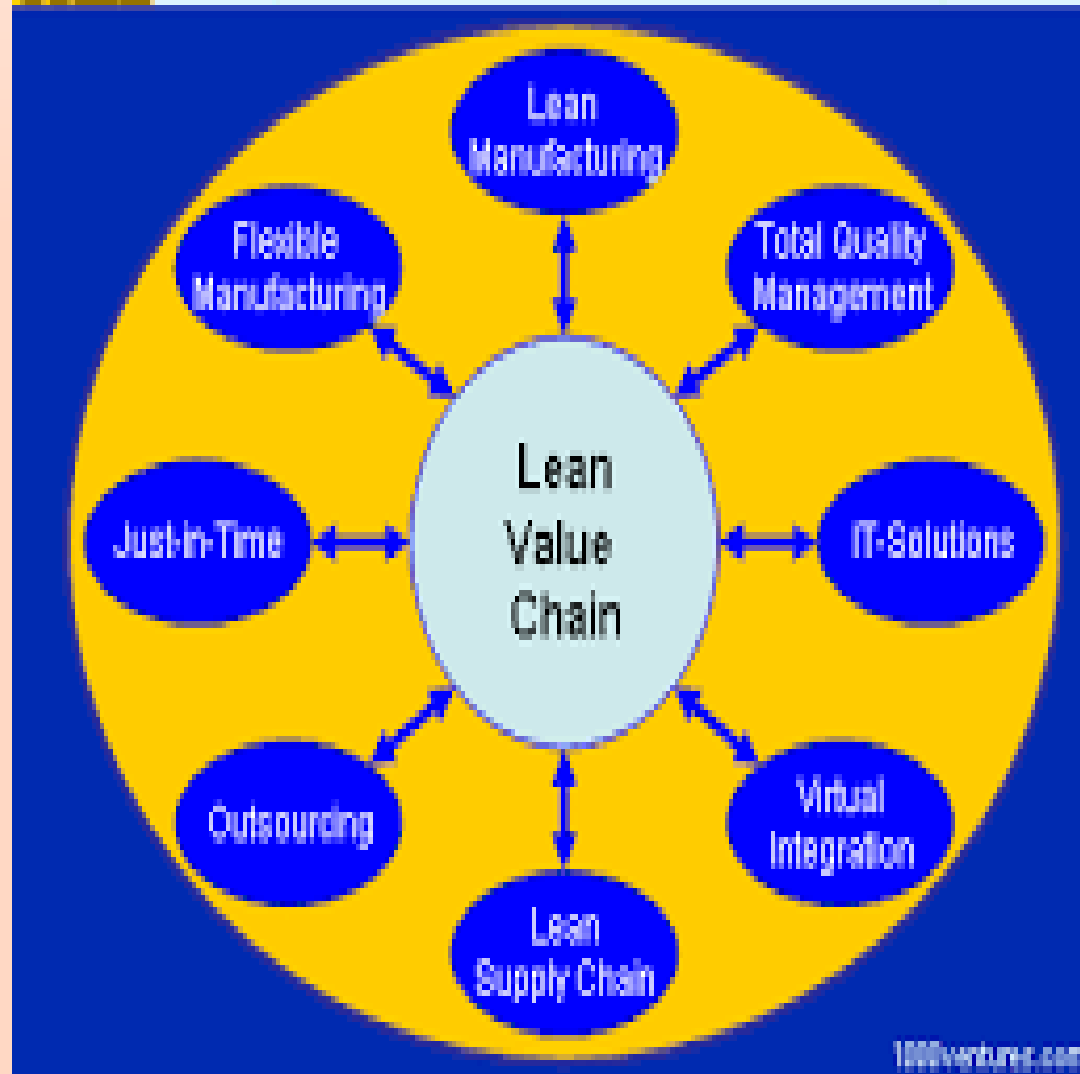
# 7 Steps for Creating World Class Organization







## Lean Production Components of Lean Production System







# EMS ISO 14001 CERTIFICATION PROCESS:

## **Step 1: Select Certification Body**

Select your Certification Body (CB). Some CBs will pay an initial visit to clients to explain their certification process and to understand the potential clients' activities on site in order to give the client an accurate quotation for the certification.

## **Step 2 : Complete Questionnaire and Establish Contract**

When applying for ISO 14001 certification, it is necessary to complete a questionnaire to allow CB to assess the nature, scale and complexity of your organisation. This will determine the skill and time allocation required to carry out a comprehensive and efficient assessment. From this a quotation will be produced confirming the cost of certification, ongoing surveillance and re-assessment. Following acceptance of the quotation, the CB will arrange certification schedule for your organisation.

## **Stage 3 : Document Review**

CB will ask you to provide your organisation's EMS document for auditor review. The purpose of document review is to check that the documented EMS fully reflects all necessary requirements and is capable of delivering full compliance with ISO 14001.

## **Stage 4 : First Stage Assessment**

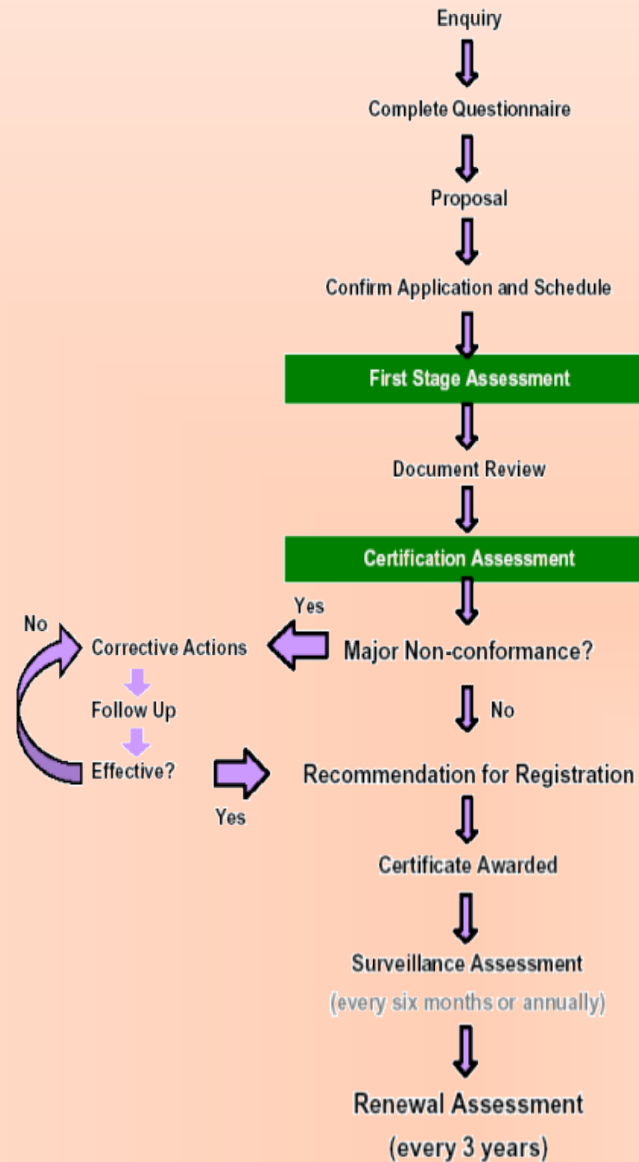
The first stage assessment (FSA) consists of a site tour and system overview to establish that your EMS relates to your environmental aspects. A detailed plan is provided in advance of the visit and a full report produced on-site, together with a plan for the certification assessment. Any nonconformity identified at this stage will require a corrective action plan.



<p><b>Stage 5 :</b> <b>Certification Assessment</b></p>	<p>The certification assessment, which normally follows approximately one month after the FSA, is a review of the effectiveness of the implemented EMS against ISO 14001 Standard and your organisation's own requirements. A full report is prepared at the end of the audit. This is reviewed with you at a closing meeting, and a recommendation for registration will be made if there is no major nonconformity found. Where necessary you will be requested to provide a corrective action and preventive action plan or follow-up visit before a recommendation is made.</p>
<p><b>Stage 6 :</b> <b>Award Certification</b></p>	<p>If satisfactory, an independent review will be conducted on the report. Following a satisfactory review, CB will award certification. Certificates are valid for three years, subject to satisfactory surveillance visits.</p>
<p><b>Step 7 :</b> <b>Surveillance Visit</b></p>	<p>Following certification, routine surveillance is carried out on a six to twelve month basis. The final visit in the certification cycle is termed a renewal visit.</p>
<p><b>Step 8 :</b> <b>Renewal Assessment</b></p>	<p>A recommendation is made from this review on certificate renewal, together with any adjustment required to the ongoing surveillance plan. The renewal package is then reviewed independently and if satisfactory, certification is renewed for another three-year period.</p>



# ISO 14001 Certification Process:





## Recommendations:

1. There must be a Accessories & Packaging Training Institute
2. There should be a Accessories & packaging research center and well equipped testing laboratory.
3. “Green Fund” should be created in the BPGMEA and in the Ministry of Industry and Commerce Separately.
4. Special and discounted rate of interest should be for Green Industry
5. Green Industry should have Tax Holiday for 10 years
6. Preferential treatment like Green Industry Commercially Important Person(GICIP)
7. Green Industry Registration, implementation, monitoring & evaluation cell should be in the Ministry of Industry as an statutory body
8. Green Reporting should be a part of Annual Report, which should be audited by the Green Auditors(ISO-1400, 50001 SA 8000 etc.) only
9. Sustainability Reporting and Auditing should be another part of the Annual report
10. Facilitate the sector for exporting of high end packaging products as well as low end
11. Resolving all trade barriers prevailing in the sector such as VAT, TAX, customs, bond, bank loan, high borrowing rate of interest
12. There must be packaging policy and exclusive accessories and packing industrial park
13. The global packaging market is about USD 600 billion and growth rate is 10% pa
14. The sector deserves cash incentives like other export sectors
15. Government must go for low cost motive power for lean/green industry
16. BPR to be a continual exercise for business performance improvement
17. Loan conditions are significantly not business friendly; it should be at par with other export industries like RMG and so.



## SAMPLE GREEN INDUSTRY CERTIFICATION

THIS CERTIFIES THAT..... XYZ COMPANY.....  
LOCATED AT ABCD.....

ACHIEVE

THE GREEN INDUSTRY CERTIFICATION:LEVEL 1/2/3/4/5

### GREEN COMMITMENT/GREEN ACTIVITY/GREEN SYSTEM/GREEN CULTURE/ GREENNETWORK

1. An organization shall have policy and commitment to reduce environmental impact and effectively communicate to the various levels of the organization
2. An organization shall establish and implement program(s) to reduce environmental impacts based on the policy and commitment from the green industry Level 1Green Commitment.
3. An organization shall have either systematic approach to environmental management or well recognized environmental management award/certificate
4. An organization shall demonstrate everyone's accountability on environmental and social concerns as an integral part of the organization's culture
5. An organization shall incorporate entities of their supply chains into the green industry umbrella

.....  
Authority

Issued on .....

Expiry .....

BIN/TIN .....

VAT REG. # .....



## SAMPLE GREEN INDUSTRY APPLICATION FORM

- a. Name of organization.....
- b. Address.....
- c. Telephone.....
- d. Factory Address.....
- e. E-mail.....
- f. BIN/TIN #.....
- g. VAT#.....
- h. Contact Person.....
- i. Fax #.....

### Wish to avail accreditation at level

1. Green Commitment
2. Green activity
3. Green System
4. Green Culture
5. Green Network

and attach the following documents:

1. Green Commitment: Policy on environment & evidences of communication on the policy
2. Green activity: Certified environmental activity of -----  
Action plan on environment & outcome report
3. Green System: Certified environmental activity of -----
4. Green Culture: Certified document of level 3 accreditation  
Report on Organization culture building on environment
5. Green Network: Certified document of level 4 accreditation  
Certified environmental activity of -----  
Report on Organization culture building on environment  
Report on environment activities, which is communicated to public  
Report on promotion, creation & interrelation of environmental  
activity with stakeholders & published outcome report

I certify that Information indicated in the application form and attached documents are correct. I will follow criteria and conditions for green industry accreditation.

For official Use only:

Application#..... Signature.....  
Received on..... Name.....  
Receiver's Name..... Position.....

