GREEN INDUSTRY SCHEME IMPLEMENTATION IN INDONESIA

By: Lintong Sopandi Hutahaean
Head of R & D Center for Green Industry and Environment
Ministry of Industry, Republic of Indonesia
Location: 6°08' N and 11°15' S, and between 94°45' E and 141°05’ E
Total Area: 5.193.250 sq km
Expanse Area: 3,977 miles
Number of Registered Island: 13,466
Population: 253,609,643
Ethnic Group: 1,340
RESOURCES METABOLISM OF INDONESIA

Source:
World Bank, 2015; UNEP, 2011; Statistic Indonesia, 2016
## INDUSTRIAL SECTOR ROLE IN NATIONAL ECONOMIC

### MANUFACTURING INDUSTRY

- **Contributes 19.16% of total GDP**, with growth rate at **5.04%**
- **Employs 15.25 million manpower**
- **Contributes for 61.97% of total national export**

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>MEDIUM TERM PROJECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015</td>
</tr>
<tr>
<td>GDP Growth (%)</td>
<td>5.8</td>
</tr>
<tr>
<td>Manufacturing Industry Growth (%)</td>
<td>6.1</td>
</tr>
<tr>
<td>Manufacturing Industry Contribution to total GDP (%)</td>
<td>20.8</td>
</tr>
<tr>
<td>Manufacturing Industry Export (Billion US$)</td>
<td>156.7</td>
</tr>
</tbody>
</table>

Source: National Medium-Term Development Plan 2015 - 2019
GHGs EMISSION AND TFC BY SECTOR IN INDONESIA

ACHIEVING GREEN GROWTH THROUGH DECOUPLING
GREEN INDUSTRY DEVELOPMENT
Definition:
“Green Industry shall be any Industry with a production process which places priority on efficiency and effectiveness in the sustainable use of resources, to enable harmonization between Industrial development and the preservation of environmental functions as well as to grant benefits to the community.”
(Article 1, Number 3)

Green Industry as one of national industry goal
“industry is organized with the goal of achieving self-sustaining, competitive and advanced industry, as well as green industry”
(Article 3 Point C)
WHY TRANSFORMS TO GREEN INDUSTRY

CONVENTIONAL MANUFACTURING SYSTEM

OLD AND OBSOLETE MACHINERY/TECHNOLOGY

- High Losses:
  - Energy Intensity >>
  - Water Intensity >>
  - Input Material >>
- In-efficient natural resources consumption
- Low Productivity
- High Waste Generation

GREEN INDUSTRY MANUFACTURING SYSTEM

ECO-FRIENDLY/LOW CARBON TECHNOLOGY

- Low Losses:
  - Energy Intensity <<
  - Water Intensity <<
  - Input Material <<
- Natural Resources Efficiency
- High Productivity
- Zero Waste

PARADIGM TRANSFORMATION

GREEN INVESTMENT

Cost Recovery
IMPLEMENTING GREEN INDUSTRY PRINCIPLES

EFFICIENCY IMPROVEMENT: LESS MATERIAL, ENERGY, MORE PRODUKTIVE, REDUCED REJECT PRODUCTS, LESS WASTE

GREEN INVESTMENT: EQUIPMENT, TRAINING

COMPETITIVE: SAVING, MARKET ACCEPTANCE

IMPROVEMENT OPPORTUNITIES

SUPPORTING

R & D, TECHNICAL SERVICE (WASTE MANAGEMENT, ENERGY MANAGEMENT, WATER MANAGEMENT)

HIGH EFFICIENT MACHINES, EQUIPMENTS

ESCO

POLICY/REGULATION
• STANDARD
• INCENTIVE
Formulation of Green Industry Standard

Formation of Certification Body
Certification on 8 Focused Sector
Certification for other industries

Formulation of Competency Standard

Formation of Accreditation Body
Accreditation of Green Industry Certification Body

Formulation of regulation framework for Green Industry Standard Provision
Formulation of regulation framework for Competency Standard

Formulation of regulation framework for Certification Body Establishment
Formulation of regulation framework for Accreditation Body Establishment

Development of National Green Industry Information System
Green Industry National Promotion
(Green Factory, Green Product, Green Investment, etc.)
Formulation of Priority R&D for Green Industry

R & D Development in Ministry of Industry’s R & D Units to support Green Industry Policy

Formulation of Priority Training for Green Industry

Development of supportive training of Green Industry Principle and Implementation

Machinery and technology Inventory

Technological need for Green Industry

Formulation of industrial sector revitalization priority

Industrial revitalization towards Green Industry

Formulation of technology transfer priority

Formulation of Technology Transfer Policy for Green Industry

Technology Transfer
Incentive Need Analysis for Green Industry

Formulation of incentive priority

Formulation of incentive policy

Implementation of Green Industry Incentive (Fiscal, non fiscal, monetary, license, market policy and etc.)

Dicentive need as supportive component

Formulation of Dicentive Policy

Implementation of Dicentive as the supportive tool for Green Industry Implementation

Funding Analysis for Green Industry Development

Identification of Funding Sources and Mechanism

Funding for Green Industry Development
GREEN INDUSTRY AWARD
GREEN INDUSTRY AWARD

LEGAL BASIS
- Ministry of Industry Regulation No. 18/M-IND/PER/3/2016 regards Green Industry Award
- Green Industry Award is given to industrial company who have implemented green industry principle in their production process

OBJECTIVE
Encourage and motivate industrial companies to implement the principles of green industries

EVALUATION ASPECTS
1. Production Process (70%)
2. Waste and Emission Management (20%)
3. Business management (10%)

RESULT
Since 2010 to 2015 the award has been given to 365 green industry companies
EVALUATION ASPECTS

PRODUCTION PROCESS (70%)
- Production efficiency program;
- Material inputs, energy, and water consumption;
- Technological Innovation;
- Human Resources competencies;
- Safety Health and Environment.

WASTE AND EMISSION MANAGEMENT (20%)
- CO2e emission reduction program;
- Environmental quality standards compliance;
- Waste and emissions management and facilities

BUSINESS MANAGEMENT (10%)
- Certification;
- CSR;
- Awards;
- The health of employees.
CEMENT INDUSTRY

- Raw Material Usage efficiency (1.70%)
- Raw Material Substitution Rate (10.11%)
- Energy Efficiency (6.15%)
- Alternative Energy Rate (5.79%)
- Water Ratio Reduction (10.25%)
GREEN INDUSTRY STANDARD
• Green Industry standard (GIS) is classified based on Business Group Classification Standard of Indonesia (KBLI) in 5 digits

• 8 standards has been ratified by the Minister of Industry i.e. Ceramic Tiles; Textile on Dyeing, Printing and Finishing; Portland Cement; Pulp and Integrated Pulp; Single Macro Nutrients Fertilizer; Milk Powder, Crumb Rubber; and Ribbed Smoked Sheet Rubber (RSS).

• 4 standards are on finalizing stage i.e. white sugar; Basic oleo chemicals, tanneries and glass sheet

• Currently Ministry of Industry is preparing the establishment of the Green Industry Certification Body (GICB) and Green Industry Authorization Committee (GIAC)

• GIS will initially be voluntary, but will be enforced compulsory with some terms and conditions.

• Industrial company who can comply with the GIS evaluation aspects and criteria will get a certificate of Green Industry and the right to use Green Industry Logo
Green Industry Standard specifically regulates on Industrial Process, starts from material extraction to packaging station.
**GREEN INDUSTRY CERTIFICATION SCHEME**

1. The company apply the green industry certification application to Green Industry Certification Body (GICB) cc Green Industry Authorization Committee (GIAC).

2. GICB assigns the Green Industry Auditor to the company.

3. GICB checks the completeness and validity of the documents as well as the adequacy of the auditee.

4. GICB reviewing and evaluating audit results.

5. Issuance of Green Industry Certificate (Valid for 3 years period).

- The Logo is formalized through Ministry of Industry Decree No. 448/M-IND/KEP/10/2015 regards Green Industry logo
- Industrial companies who have been awarded Green Industry Certificate is entitled to use the Green Industry logo
- Green Industry logo is expected to enhance the product’s brand value because the logo is a guarantee mark from the government that stated the company has implemented sustainable production process (green industry)
thank you