



BOARD OF INVESTMENTS



Date

MR. PRESIDENT

President

Company Name

Address

Dear Mr./Ms. President:

The Office for Industrial Policy of the Board of Investments (BOI), Department of Trade and Industry (DTI), is implementing *The Study on Environmental Management with Public and Private Sector Ownership (EMPOWER)*, a project assisted by the Japan International Cooperation Agency (JICA) and one undertaken together with a JICA Study Team.

The project aims to formulate an action plan on industrial environmental management (IEM) in the Philippines and to strengthen the capacities of government agencies and private industrial associations for supporting IEM. One activity of this project is the survey of dedicated firms representing the different types of industries in the Philippines. Your company has been chosen as one of the respondents to this survey.

The survey aims to determine the: (1) Current level of integration of IEM onto business management; (2) Manufacturers' current motives to promote IEM and the factors that would effectively promote IEM in the future; (3) Current level of implementation of IEM elements; and (4) Future agenda for further enhancing IEM.

The JICA Study Team has engaged the services of Woodfields Consultants, Inc. (WCI), a local environmental consultancy firm, to conduct the said survey. In this regard, the BOI would like to request for your kind cooperation with the JICA Study Team and WCI when they contact your office. WCI, together with a BOI staff and a JICA Study Team Member, will visit your office to conduct an interview to collect the necessary information for the survey.

At this juncture, kindly allow us to assure your office that all data and information obtained from the survey will be treated with strictest confidentiality. Should you require further information, please feel free to contact **Mr. Adonis Marinay** at the WCI office at telephone numbers **9253621** or **4367360**.

We thank you for your kind attention and we look forward to receiving your strong support and cooperation for success of the study.

Very truly yours,

ERLINDA F. ARCELLANA

OIC-Director

Office for Industrial Policy

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Questionnaire on environmental management in the manufacturing sector

Industry Sector		Date	
Name of Company		Interviewer	
Main Products		Interviewee (Executive)	Name
			Position
Brief Description of Main Production Process		Interviewee (PCO)	Name
			PCO Level

Questions for Business Executive

	Question	Answer																	
1. Business Management																			
1-1 Business Environment	Q1. How would you see the current performance of your products at the market?	1. Good 2. Fair 3. Poor 4. Mixture of the above																	
	Q2. Has the current profit of your company been increasing during the past five years?	1. Yes 2. No → Q2-1. What would be major reasons for that? <div style="text-align: center; border-left: 1px solid black; border-right: 1px solid black; height: 20px; width: 80%; margin: 5px auto;"></div>																	
	Q3. What are important issues for business management in your company? Please rank the following options.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Rank</th> <th style="width: 90%;">Issue</th> </tr> </thead> <tbody> <tr><td></td><td>1. Improvement of productivity</td></tr> <tr><td></td><td>2. Improvement of product quality</td></tr> <tr><td></td><td>3. Promotion of environmental management</td></tr> <tr><td></td><td>4. Expansion of production</td></tr> <tr><td></td><td>5. Development of new products/technology development for the future</td></tr> <tr><td></td><td>6. Enhancement of sales and marketing strategy/network</td></tr> <tr><td></td><td>7. Improvement of financial status</td></tr> <tr><td></td><td>8. Other ()</td></tr> </tbody> </table>	Rank	Issue		1. Improvement of productivity		2. Improvement of product quality		3. Promotion of environmental management		4. Expansion of production		5. Development of new products/technology development for the future		6. Enhancement of sales and marketing strategy/network		7. Improvement of financial status	
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	Question	Answer
1-2. Productivity Improvement	Q4. Is there a section or department in your company that is specifically assigned to work on productivity improvement?	1. Yes → Q4-1. How many employees are assigned to the section/department? Full-time: () Part-time: () 2. No
	Q5. Is there a company-wide committee comprised of employees to work on productivity improvement?	1. Yes → Q5-1. How long has it been active? ()years Q5-2. How many employees are participating the committee? Full-time: () Part-time: () Q5-3. How often is the committee held? ()times/month 2. No
	Q6. What information does your company collect to monitor resource productivity? Please select one from the following options.	1. All the input (energy, water, raw materials) and output (emissions, effluent, solid waste) by each process or production line 2. All the input (energy, water, raw materials) and output (emissions, effluent, solid waste) by plant (not by each process or production line) 3. Some of the input (energy, water, raw materials) and output (emissions, effluent, solid waste) by each process or production line 4. Some of the input (energy, water, raw materials) and output (emissions, effluent, solid waste) by plant (not be each process or production line) 5. None
1-3. Quality Control	Q7. Is there a section or department in your company that is specifically assigned to work on quality control?	1. Yes → Q7-1. How many employees are assigned to the section/department? Full-time: () Part-time: () 2. No
	Q8. Is there a company-wide committee comprised of employees to work on quality control?	1. Yes → Q8-1. How long has it been active? ()years Q8-2. How many employees are participating the committee? Full-time: () Part-time: () Q8-3. How often is the committee held? ()times/month 2. No

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	Question	Answer			
1-3. Quality Control	Q9. What activities does your company take to assure product quality? Please check all the actions that your company takes.	1. Identification of crucial factors that affect quality of products 2. Development and continuous improvement of quality assurance policy 3. Development and continuous improvement of standard procedures for operation of production line (specifying quality and amount of input materials, operation time and temperature, etc. for each production activity) 4. Using checklist or keeping records to assure actual operation follows the standard procedures 5. Inspection of products 6. Other ()			
	Q10. Has your company obtained ISO 9000 (quality management)?	1. Yes → Q10-1. When did your company obtain it? () 2. No → Q10-2. Is there any plan to obtain it? Yes / No			
1-4. Investment	Q11. How much has your company invested in the following items during the past five years? Please give us approximate percentage of the total investment for each item.	Item		Ratio (%)	
		Land for factories and offices			
		Facilities for production expansion			
		Facilities/equipment for environmental protection			
		Facilities/equipment for energy-saving			
		Facilities/equipment for information management			
	Other ()				
		Total		100%	
Q12. Have you considered overall changes in production processes or technologies that would increase resource productivity and environmental performances and subsequently reduce production costs? If there are, what are the processes/technologies? What are the overall investment costs? Are you going to make such investment? If not, what are preventing reasons?	1. Yes → Please fill the table below.				
	2. No				
	Process/ Technology	Investment Costs (MPHP)	Decision on Investment	Reason to prevent investment	

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	Question	Answer
2. Business Management and Environment		
2-1. Recognition of environmental management	Q13. Would you think efforts to meet environmental standards decreases company's competitiveness?	1. Yes → Q13-1. Please give us the reasons why you think so. 2. No → Q13-2. Please give us the reasons why you think so.
	Q14. Is there a unit or section in your company that is specifically assigned to work on environmental management?	1. Yes → Q14-1. How many employees are assigned to the unit/section? Full-time: () Part-time: () 2. No
	Q15. Is there a company-wide committee comprised of employees to work on environmental management?	1. Yes → Q15-1. How long has it been active? ()years Q15-2. How many employees are participating the committee? Full-time: () Part-time: () Q15-3. How often is the committee held? ()times/month 2. No
2-2. Motive for Promotion of IEM	Q16. What are the driving-forces for your company to promote environmental management? Please rank the following options.	Rank
		Driving-force for promoting environmental management
		1. Request from shareholders
		2. Request from financial institutions that provide loan to your company
		3. Request from your parent company or commercial buyers of your products
		4. Request from consumers association or consumers
		5. Request from environmental NGOs
		6. Involvement by your competitors (determination by industry association)
		7. Internal motivation as part of social responsibility/corporate ethics
		8. Cost saving due to reduction in use of energy and raw materials
		9. Improved productivity
10. Legal requirements (regulatory compliance)		
11. Other ()		

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	Question	Answer			
	Q17. What would be most powerful incentive to your company to further promote environmental management?	(Multiple answer) 1. Tax break for good environmental performance 2. Reduction in permission fees or other charges 3. Reduction in governmental procedures such as reporting 4. Social recognition (award, publicity) 5. Reduction in production costs 6. Other ()			
2-3. Implementation of Environmental Management	Q18. Which items from the following have been implemented in your company? If not implemented, which would you like to adopt in the future?		Item	Now	Future
			1. ISO 14001 Certification		
			2. Identification of environmental load (emissions, effluents, wastes,)		
			3. Setting numerical targets for reduction in environmental load		
			4. Facility investment to control emissions and effluents		
			5. Implementation of waste minimization		
			6. Implementation of energy-saving		
			7. Evaluation of environmental performance of the company (target monitoring)		
			8. Preparation and dissemination of environmental reports		
			9. Environmental accounting		
			10. Green purchasing		
			11. Green product design		
			12. Staff training on environmental management		
	13. Other ()				
2-4. Recognition of Results of Practicing Environmental Management	Q19. What are positive results of practicing environmental management in your company? Please rank the following options.	Rank	Positive result		
			1. Improved productivity (less input for the same output)		
			2. Cost reduction		
			3. Improved company image		
			4. Increased market competitiveness		
	5. Other ()				

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	Question	Answer		
	Q20. What factors would hinder your company's efforts to promote environmental management?	(Multiple answer, but put "*" to the most serious factor) 1. Lack of information and know-how about cost-effective measures to improve environmental performance 2. Lack of financial resources to implement necessary measures 3. Lack of staff with necessary knowledge and skills to plan and implement necessary measures 4. Lack of affordable external environmental services such as sampling/analysis, technical advices, planning on IEM, and environmental auditing 5. Lack of information about credible environmental service providers 6. Other ()		
2-5. Future Agenda for Promoting Environmental Management	Q21. What would be the issues whose solution would increase both environmental performance and productivity of your company? What actions would you plan to take in order tackle the issues? What kind of assistance or support would be helpful to your company to take the actions?	Issue	Action	Assistance

Questions for PCO

	Question	Answer																														
1. General Information																																
1-1. Production Input	Q1. What are major energy source for production?	1. Diesel oil /Kerosene 2. Heavy oil 3. Natural gas/ Propane gas 4. Coal 5. Electricity 6. Other ()																														
1-2. Characteristics of Environmental Impacts	Q2. Please rank the environmental impacts of your corporate activities based on your concern and briefly describe characteristics of each impact.	<table border="1"> <thead> <tr> <th>Rank</th> <th>Environmental Impact</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td></td> <td>Green house gas emission</td> <td></td> </tr> <tr> <td></td> <td>Air pollution (SOx, NOx, PM)</td> <td></td> </tr> <tr> <td></td> <td>Water pollution (BOD, COD, SS)</td> <td></td> </tr> <tr> <td></td> <td>Non-hazardous industrial solid waste generation</td> <td></td> </tr> <tr> <td></td> <td>Industrial hazardous waste generation</td> <td></td> </tr> <tr> <td></td> <td>Chemical releases to air & water</td> <td></td> </tr> <tr> <td></td> <td>Noise, vibration</td> <td></td> </tr> <tr> <td></td> <td>Offensive odor</td> <td></td> </tr> <tr> <td></td> <td>Other</td> <td></td> </tr> </tbody> </table>	Rank	Environmental Impact	Description		Green house gas emission			Air pollution (SOx, NOx, PM)			Water pollution (BOD, COD, SS)			Non-hazardous industrial solid waste generation			Industrial hazardous waste generation			Chemical releases to air & water			Noise, vibration			Offensive odor			Other	
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2. Institution and organization																																
2-1. Environment Section	Q3. Is there a section or department that is working on environmental issues?	1. Yes → Q5-1. What are its responsibilities? 2. No []																														

	Question	Answer			
		PCO I	PCO II	PCO III	Total
2-2. PCO	Q4. How many PCOs are working in your company?	Full-time			
		Part-time			
	Q5. What are the responsibilities of PCOs in your company other than those specified by DAO 92-26 (new guideline for PCO accreditation)?	1. Advice cooperate managers on environmental issues for the company 2. Develop an environmental management plan for the company 3. Train other employees on environmental issues 4. Chair a company-wide committee comprised of employees to work on environmental issues 5. Coordinate different sections/departments of the company for environmental issues 6. Other ()			
3. Environmental Management System (EMS)					
3-1. EMS	Q6. Has EMS been established in your company? (not necessarily require ISO 14001)	1. Yes → Q6-1. How was it established? a) Mainly by in-staff efforts b) Mainly by external consultants work c) Collaboration between in-house staff and external consultants 2. No			
3-2. Environmental report	Q7. Does your company prepare an annual environmental report?	1. Yes → Q7-1. Who prepares the report? a) PCO b) In-house staff other than PCO c) External consultant d) Collaboration of in-house staff and external consultants Q7-2. Is the report disclosed to the public? Yes / No 2. No			
4. Activities for Enhancing Environmental Performance					
4-1. Energy saving	Q8. What measures does your company implement to save energy?	1. Identification of energy consumption by facility and energy type 2. Proper operation control (checking temperature, O ₂ %, fuel feed rate, leakage, etc.) 3. Rationalization of lighting 4. Installation of facilities to recover waste heat 5. Installation of energy efficient facilities (burners, furnace, boilers, etc.) 6. Change in production process with less energy requirement 7. Other ()			

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	Question	Answer
	Q9. Has your company estimated actual cost reduction due to energy conservation?	1. Yes 2. No
4-2. Water conservation/ Effluent control	Q10. What measures does your company implement to reduce water consumption?	1. Minimize water consumption by reviewing operation 2. Recycle used water 3. Utilize rainwater 4. Other () 5. None
	Q11. Has your company estimated actual cost reduction due to water conservation?	1. Yes 2. No
	Q12. What measures does your company implement to reduce water pollutants?	1. Reduce raw materials by reviewing production processes and lines 2. Use input materials with less toxic substances or precursors of pollutants 3. Reduce input materials by introducing cleaner production technology 4. Recycle pollutants as input materials to your company 5. Recycle pollutants as input materials to other companies 6. Install wastewater treatment facility 7. Other () 8. None
4-3. Emission Control	Q13. What measures does your company implement to reduce air pollutants?	1. Reduce raw materials by reviewing production processes and lines 2. Use input materials with less toxic substances or precursors of pollutants 3. Use fuels with less toxic substances or precursors of pollutants 4. Reduce input materials by introducing cleaner production technology 5. Recycle pollutants as input materials to your company 6. Recycle pollutants as input materials to other companies 7. Install gas treatment facility/ equipment 8. Other () 9. None

	Question	Answer
4-4. Non-hazardous Industrial Solid Waste and Hazardous Industrial Waste Management	Q14. What measures does your company implement to minimize generation of waste?	<ol style="list-style-type: none"> 1. Proper stock management (matching supply to needs) 2. Proper process control 3. Use of less toxic chemicals (for hazardous waste) 4. Change in production processes 5. Process integration 6. Segregation and recycling 7. Other () 8. None
	Q15. Has your company estimated actual cost reduction due to waste minimization?	<ol style="list-style-type: none"> 1. Yes 2. No
	Q16. What actions has your company been taking to properly manage waste?	<ol style="list-style-type: none"> 1. Measure and record quantity of waste generated by waste type 2. Analyze chemical characteristics of wastes 3. Package and label HW for storage and transportation 4. Treat waste at on-site facilities 5. Select authorized transporters and treaters for off-site treatment/disposal of wastes 6. Check the off-site treaters to ensure proper final disposal of waste 7. Other () 8. None
4-5. Management of Toxic Chemicals	Q17. What actions has your company been taking to properly manage toxic chemicals?	<ol style="list-style-type: none"> 1. Identification of types and quantity of chemicals used and emitted/discharged 2. Preparation of MSDS 3. Dissemination of knowledge about proper use of chemicals and emergency response 4. Other () 5. None
4-6. Noise/Vibration	Q18. What measures does your company implement to prevent or minimize noise and vibration?	<ol style="list-style-type: none"> 1. Measurement of noise and vibration 2. Periodical check on performance of plant facilities 3. Installation of noise insulation 4. Other () 5. None

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	Question	Answer										
4-7.Green Products	Q19. Is your company selling or making efforts to develop green products?	1. Yes → Q19-1. What characteristics do they have? a) Toxic chemical free b) Longer life c) Easy for recycling d) Simple packaging e) Produced from recycled materials f) Requires less energy while it's in use g) Other () 2. No										
4-8.Green Purchasing	Q20. Does your company have green purchasing policy/criteria?	1. Yes → Please provide the written policy/criteria. 2. No → Q20-1. Is there a plan to adopt such policy/criteria? Yes / No										
4-9. Other Environmental Management	Q21. What other tools is your company employing to enhance environmental performance of your company?	1. Proper stock management 2. Rationalization of distribution system 3. Life cycle assessment of the products 4. Environmental accounting 5. Establishment of a take back system of the used products 6. Other () 7. None										
4-10. Issues	Q22. What are the most critical environmental issues including achieving existing environmental standards in your company? What are the hurdles to tackle each issue?	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Issue</th> <th style="width: 50%;">Hurdle</th> </tr> </thead> <tbody> <tr> <td>1. Energy conservation</td> <td></td> </tr> <tr> <td>2. Water conservation</td> <td></td> </tr> <tr> <td rowspan="2">3. Effluent control</td> <td>Meeting standards/ requirements</td> </tr> <tr> <td>Other</td> </tr> </tbody> </table>		Issue	Hurdle	1. Energy conservation		2. Water conservation		3. Effluent control	Meeting standards/ requirements	Other
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