UNIT 4 ENVIRONMENTAL LABELING

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4.0 INTRODUCTION

The population on Earth is increasing day by day especially in developing countries. This puts a tremendous pressure on every component of the environment. Industrial development is necessary for any country for livelihood and other requirements, but it creates a lot of environmental issues. The different environmental issues like climate change, global warming, ozone layer depletion, acid rain, loss of biodiversity, deforestation, depletion of natural resources are examples of some of the burning issues, which received international attention about 40 years back in the Stockholm conference, held on 5th June, 1972.

The quality of every component of environment is equally important for healthy life. Hence, one of the important issues is production of goods by using eco-friendly technique, which will create less environmental issues. By adopting this strategy we can save resources not only for future generation but can also achieve sustainable development. In the same context governments, nongovernmental organization and financial enterprises throughout the world initiated the program of eco-labeling to make the customer aware about

environment concern. The environmental-labeling is voluntary program of certification of a product in context to its environmental impacts from origin to end as waste. These environmental labels can play an important role in the conservation of natural resources and in sensitization of public about importance of natural resources.

This unit highlights the different issues related to issuing of eco-labels to a product, its necessity, objectives, principles and origin etc. Moreover, you will be learn more about Green claims and Ecomark scheme.

4.1 OBJECTIVES

After going through this unit you will be familiar with various topics related to ecolabeling:

- eco-labeling and their objectives
- classification of Eco-labels
- origin of the Eco-labeling
- guiding Principles for Eco-labeling
- ecomark Scheme of India
- objectives of Ecomark Scheme
- criteria for Ecomark Scheme

4.2 WHAT IS ENVIRONMENTAL-LABELING?

The environmental-labels are a group of labels based upon the environmental performance of product i.e. positive, negative or neutral impactsof a product on the environment. Eco-labels are subgroup and they respond to special criteria. The environmental preferences of a product or service within a specific product/service category can be identified by an eco-label. It is a tag, which represents the possible environmental impacts of a product/service during the course of manufacturing and use. The environmental labels are generally voluntary but may be mandatory in some cases. According to Environmental Protection Agency, the three most important components of environmental labelling are:

- Unbiased third party involvement is necessary during certification of a product
- There should be voluntary/mandatory participation by financial enterprises/ firms and
- The labelling can be positive or negative. If any product has positive environmental impact then it will be promoted and if any product has negative environmental impacts then warning will be issued.

International Standards Organization (ISO) is an autonomous body, which looks at the different goals to be achieved for effective implementation of these labels. List of some of the standards developed by International Standards Organization (ISO) is listed below in table 1.



Table 1: Some of the Standards Developed by International Standards Organization (ISO)

Sr. No.	Nomenclature of Standard	Used for following	
1.	ISO 14020	Deals with labelling standards	
		Product marks	
		Meanings of marks	
2.	ISO 14021	Used for providing guidelines for environmental/green claims	
3.	ISO 14022	Deals with standardization of environmental labels	
4.	ISO 14040 & ISO 14044	Deals with the guidelines for life cycle consideration	
5.	ISO 14000 family	Environmental management in industries	

Source: Porrini, D. (2005). Environmental policies choice as an issue of informational efficiency. *The Elgar companion to law and economics*, 350

Several steps are involved in implementation of different environmental labels. The different steps which have to be considered by certification agencyare listed in table 2.

Table 2: Steps Involved in Labeling and Certification Process

Phases	Steps	Issues to consider
Preparation and Launching Phase	Assignment of responsibilities	Clear assignment of who is responsible for defining criteria, certifying products, and generally administering the program
	Selection and determination of product categories	Selection of product categories and determination of certification criteria for these categories. Gathering of proposals for certification criteria and categories from industry, science, trade, consumers, environmental, and other public organizations (stakeholder process)
Negotiation Phase	Development of criteria, standards, or guidelines	Once product categories are selected, the next step is the establishment of requirements that an applicant must meet to be approved by the ecolabeling program. For example, if a labeling program is developed to overcome trade barriers, then the country's labeling requirements should

with consistent labeling be requirements in other countries. Criteria for granting an eco-label to a product or service can be limited, or without limits, as to the number of products that will qualify for the label. The group responsible for setting the criteria may include scientific and technical experts from both government and the private sector. Feedback and comments from interested stakeholders should be included before finalizing the list of criteria. This list should be periodically reassessed. Certification and Implemen-Producers, service providers, suppliers, tation Phase licensing retailers, distributors, importers, and legitimated institutions may apply for certification. The awarding process includes testing and compliance verification, applicant licensing, and monitoring (with periodic reexamination every 2 to 5 years). Applicants usually have to pay an application fee, the cost of verification, and an annual fee for use of the ecolabel; these fees depend on annual product turnover.

Source: Porrini, D. (2005). Environmental policies choice as an issue of informational efficiency. *The Elgar companion to law and economics*, 350

The different environmental labels by themselves may not modify customer attitude towards these products. However, it is observed that promotion by integrated campaigns through education and incentives are found to be effective in changing consumer attitude. More conscious clients tend to take into account environmental labels along with environmental safety and brand value while making purchasing decisions. Thus awareness among customer about environmental labels is most important component. Issues by themselves may not cause a consumer to use a particular product unless he or she realizes how buying choices will affect the relevant environmental issue. This is possible only if product characteristics are clearly presented to the consumers. In addition, these labels should indicate to consumers what they have read on the label.

There is always the challenge of the consumers getting confused because of ambiguity in the presented information. It is therefore essential to standardize existing labeling procedures. The International Standardization Organization (ISO) labeling standards try to achieve these goals. ISO 14020 focuses on labeling standards and deals with product marks and their meanings. Labeling standards are likely to affect sales and advertising functions.



4.3 CONCEPT OF ECO-LABELING

Eco-labeling is a technique of certification of a product/process for environmental concert throughout the world voluntary. Generally, assigning of an ecolabel to any product indicates that the product is more environmentally safe as compared to other products in the same category which is not assigned an ecolabel. Actually, ecolabel is awarded by an independent autonomous body to a manufacturer or service provider for particular product or service on the basis of their environmental impacts with due time assessed independently. Life cycle assessment (LCA) is an important tool, which is used to evaluate the positive and negative environmental impacts of a particular product. It is done by analyzing the various processes throughout the manufacturing of a product e.g. raw material used, energy, manufacturing process and other important factors related to the product. The various activities carried during LCA inform the customer regarding environmental stress reductions through origin to end of a product. Eco-labeling follow a systematic pattern i.e. setting of criteria, testing, monitoring and awarding of a certificate. The scheme of Eco-labeling not only encourage the development of environmentally sound and friendly techniques but also aware the public about environmental concern. Nowadays people prefer products with Eco label because of the rising awareness about environmental issues.

4.4 OBJECTIVES OF ECO-LABELING

It is well known fact that earth is the only planet where we can live. But due to activities of humans, the environment on earth is deteriorating day by day and as a result, humans have started to think about earth's environment since last 50 have minimum environmental impacts. Eco-labeling is not a very old concept; it emerged after the 1992 Rio conference. The different objectives of Eco-labeling are:

4.4.1 Environmental Protection

One of the most important objectives of eco-labeling is to encourage the consumer to think and prefer an environmentally safe product and service. In this regard, various possible important objective may be:

- Encouraging the people for efficient use of non-renewable resources so that future generation can also use these resources.
- Encouraging the people to manage of renewable resources so that they may remain available for present and future generation.
- Encouraging the people for proper handling and management of chemicals to minimize detrimental impacts.
- Encouraging the people to obey the principal of 3R' i.e. reduce, reuse and recycle the waste materials; and
- Promoting natural resource conservation and preserving biodiversity.

4.4.2 Inventing and Promoting Environmental Friendly Technologies

It is well-established fact that when an eco-label is awarded to any product, it indicates that this product has less environmental impact as compared to similar product without an eco-label.

- It motivates the manufacturer to invent and develop more and more ecofriendly products/services.
- These practices encourage the idea of green business with minimal environmental impacts and create new market for nature lover i.e. growing a market based upon natural resource products produced sustainably.

4.4.3 Sensitizing the Consumer About Environment Related Issues

The various countries of the world have adopted the policy of awarding ecolabel to a product with complete information of environmental impacts of that product.

- The concept of eco-labeling may also helpful in creation of awareness among the consumers about the environmental issues.
- People prefer to buy the product with eco-label due to environmental concerns.
- Moreover, it can be used to create awareness among the consumers where people are less bothered about environmental issues. Hence, awarding an eco-label to a product sensitize the customers.

4.5 CLASSIFICATION OF ECO-LABEL

There are different types of eco-label for different kinds of product but International Standards Organization (ISO) has developed three types of environmental labels and specified the preferential principles and procedures for each one of them. All the three types of eco-labels are briefed below in table 3.

Table 4.3: Environmental Labels developed by International Standards
Organization (ISO)

S.N.	Number	Type	Details	Parties
1.	ISO 14024	Type I	It is voluntary and third party programme of certification of a product, multiple criteria basis and life cycle assessment of a product; certificate is awarded by third party to a manufacturer by authorizing him to use this environmental label with environmental preferability within a particular product category and known as environmental labeling.	Third party certification



2.	ISO 14021	Type II	These types of claims are voluntary and self declared by a manufacturer, importer or distributor for a product and known as self declaration claims or green claims.	First party certification
3.	ISO 14025	Туре III	It is also a voluntary and third party programme of certification of a product. The environmental parameters are assessed by a third party and reported for product. This report is re-verified again by a competent and qualified third party and known as environmental declarations.	Third party certification

4.6 ORIGINS OF ECO-LABELING

Environmental degradation and depletion of natural resources have put a pressure on human to think about ecofriendly technology, energy efficient and alternate sources of energy. Nowadays, people are more concerned about environment protection as earth is the only planet where life exists at present. The issue of environmental concern has brought the government, industry and consumer on a common goal of environmental protection. We are celebrating national and international daysto give regard and to spread awareness for environmental issues. Some of these are celebration of world environment day, water day, earth day and ozone dayetc. The growing concern about environmental protection has led to origin of eco-labeling onthe part of governments, businesses enterprises and the people.

In late 1970s most of the developed nations initiated the process of eco-labeling for certain products. Germany was the first country of the world that initiated and implemented the concept of ecolabeling in 1977 and the 'Blue Angle' was the name of first eco-label. After the successful launch of this first eco-label various other countries e.g. USA, Sweden, Spain, Singapore, Norway, New Zealand, Korea, Japan, India, France, Austria, Canada etc. started their eco-labelling programmes. Moreover, at global level eco-labeling scheme is coordinated by Global Network of Countries (GEN) and India is also the member of same. The eco-labeling scheme launched by some of the pioneer countries along with year of starting is shown in table 4.

Table 4.4: Eco-labeling scheme launched by various countries

Country	Name of Programme	Year	Country	Name of Programme	Year
Germany	Blue Angel	1977	India	Ecomark	1991
Canada	Environmental Choice	1988	European Union	European Flower	1992
Japan	Ecomark	1989	France	NF-Environment	1992

Nordic Countries	White Swan	1989	South Korea	Ecomark	1992
New Zealand	Environmental Choice	1990	Singapore	Green Label	1992
Sweden	Good Environmental Choice	1990	The Netherlands	Stichting Milieukeur	1992
U.S.	Green Seal	1990	Croatia	Environmentally	1993
Austria	Austrian Eco-label	1991		Friendly	

Source: Singh, A.P., Raman, N.S. and Waghe, U.P., 2012. Ecomark Scheme in India. *International Journal of Pharma Medicine and Biological Sciences*, 1(2).

At present there are approximately 25 countries on the list of Global Network of Countries (GEN). The first eco-label of India was launched on June 2011 named as 'The Green Signal'. The list of different eco-labels along with their logo's available in India is presented in table 5.

Table 4.5: List of available Eco Labels in India

S.No.	Eco Label	Symbol	Description
1	Energy Efficiency Labeling	CONTROL OF THE PARTY OF T	Bureau of energy efficiency award star labels for energy efficiency of different appliances. It may be voluntary as well as mandatory.
2	Certification body forSustainable Development	EERD:	Certify organically grown agricultural products and to promote organic logo internationally as well at national level.
3	Forest Stewardship Council (FSC) Chain of Custody Certification	FSC	Promote forest management worldwide, voluntarily certify products derived from well-managed forests and allow manufacturer to promote their products.
4	Good Weave International	goodweave	Formerly known as RugMark, work for abolition of child labor and protecting rights of adult worker of handmade rug industry, providing education to children of South Asia



Environmental Standards

5	Green Globe Certification	CAST 2	Promote sustainable tourism, aware the people of tourist industry for saving water, energy, to improve the environment
6	Organic Certification	India Care	Certify organically produce agricultural products as per international standards, promote export of such products
7	UPS Carbon Neutral	CARBON NEUTRAL SHIPMENT	Promote in the reduction green house gases (GHG) by carbon neutral shipping programme in India through purchasing carbon credits.
8	The Green Signal	IGREEN SIGNAL	Developed by IIM, Ahmedabad for certification of environmental preferences of a product/service.
9	Ecotel Certification	EC TEL	Certificate is awarded to environmentally aware and sensitive hotels industry.
10	Fair Trade	FAIRTRADE	Work for empowering the marginal land holding farmers and farm workers of the poor nations of Asia.
11	Better Cotton Initiative	BCI Setter Cotton Indicative	Reducing environmental impacts through organic cotton production and improving social & economic conditions of cotton growing farmers throughout the world.
12	Global Organic TextileStandards (GOTS)	THE STANDER	Standardization & certification of organic fiber production, promotion of natural fibers and promotion and certification of eco textile processing techniques.

The business enterprises have observed that public is demanding environment friendly products due to environmental concerns. This gave an idea for eco-labeling and origin of new market of different product/services with a number of environmental declaration and claims, for example, '100% natural', 'biodegradable', 'eco-friendly', 'energy efficient', 'low energy' etc. The products/services with such labels engrossed the customers who want to lessen the environmental impacts through their buying habits for a particular product. Sometimes, these labels may threaten the consumers. Without guiding standards and analysis by an autonomous third party, consumers may not be convinced that the companies' assertions assured that each labeled product was an environmentally preferable substitute.

4.7 GUIDING PRINCIPLES FOR ECO-LABELING

The combined efforts of government, industry and non-governmental organizations are equally important for the development of an ecolabel to achieve a specific set of objectives. There are some guiding principles prescribed by International Standards Organization (ISO) on basis of their personnel experiences. These guiding principles are discussed in brief below:

- Voluntary participation: There must be voluntary participation in to an ecolabeling program by manufacturers, importers, service providers and other financial enterprises. It means there should not be mandatory condition of participation for financial enterprises.
- 2. Compliance to environmental and other relevant legislation: The environmental aspects and other legislative requirement must be taken in to consideration while implementing an eco-labeling program for a product/service. Moreover, before issuing of a license for this programme, compliance of environmental aspect is must.
- 3. Consideration of 'fitness for purpose' and level of overall performance: Along with legislative compliance, quality and performance of a product is to be addressed before awarding an ecolabel to a product.
- 4. Based on sound scientific and engineering principles: Before awarding an ecolabel to a product its life cycle assessment must be done scientifically and fairly which assures the consumers that they can trust the eco-label. It means ecolabel must be assigned after life cycle review of the product honestly.
- 5. Criteria must distinguish leadership: The type of criteria, which is developed and adopted, should be exclusive and represent leadership segment of a product category from the rest of the category.
- 6. Criteria must be credible, relevant, attainable, and measurable/ verifiable: It means safeguardingthestrictproceduralnecessities based upon good ecological science which assures the customers that they can belief the ecolabel and licensing applicants that they will be treated fairly.
- Independence: The organization authorized forecoleballing should be autonomous and must have no vested commercial or other interests while promoting a product.



- **8. Open and accountable process:** The program can be checked, monitored and questioned at any time of evaluation of a product i.e. it must be open and accountable process. Moreover, at each step fair, reliable and equally applied procedures must be established
- **9. Flexibility:** In order to be reliable and efficient, programs must run in a professional and cost-effective waysteady with market forces and necessities.
- **10.** Consistency with ISO 14020 and ISO 14024 guiding principles. Guiding Principles for Environmental Labeling according to ISO 14020:
 - i) Precision and accuracy
 - ii) Avoiding needless trade barriers
 - iii) Scientific element basis
 - iv) Provision of information on methodology
 - v) Life-cycle consideration approach
 - vi) Minimal administrative burden; open, consensual process provision of information on products.

4.8 GREEN CLAIMS

The green claims are voluntary and self declared by a manufacturer, importer or distributor for environmental quality of a product and known as self-declaration claims or environmental claims or green claims. The information related to environmental effects and qualities of products and how to use and dispose etc. are claimed by green claims. These claims help's consumer in decision making while buying a product. They also help to increase consciousness of the environmental issues, enhance consumer understanding and improve product standards overall.

Actually these statements are not verified by any third party/external source and not approved by government body. The product label and packaging, advertisement material, promotional events etc. are used to present environmental or green claims of a product/service. The various ways can be used to show claims e.g. words, slogans, symbols, graphics, logos, brand names etc. and print, electronic and digital media can be used to popularize the product. International Standards Organization (ISO) and other autonomous bodies have developed international standard for environmental claims i.e. ISO 14021. The examples of some of the green claims is mentioned below: recycled content, energy efficient, zero carbon footprint, water efficient, renewable materials, biodegradable, compostable, recyclable, reduced energy consumption, reduced resource use, reduced water consumption, reusable& refillable, non toxic and ozone friendly etc.

In a nut-shell, these green claims should be actual, truthful, accurate and verifiable by any autonomous organization. Moreover, the customer should not be misled by false environmental information of a product. It is pertinent to mention here that sometimes, financial enterprises/firms do not work honestly. They declare false information in the name of good environmental management and falsely claim the green claims this is known as 'greenwashing'.

The greenwashing is an unethical practice and misinform the consumers about the environmental preferences of a product. It not only affect the market share of green label products but also change the mindset of customer who is otherwise sensitive about green products. The right claim must be scientifically proven and information about the same should be availableeasily to those who want to enquire. Hence, if anyone wants to investigate about the accuracy of any claim, it would be tedious and time-consuming task.

The products with diverse type of sloganse.g. 'eco-friendly', 'green', 'environment friendly', 'non polluting', 'go-green', 'sustainable' etc and pictures of earth, globe, tree etc. have no meaning in true sense about environmental protection however, they may mislead the customer and society with false information i.e. claim should clearly indicate about the environmental component/issue covered. Therefore, an authentic green claim should follow the guidelines laid down by International Standards Organization e.g. ISO 14021.

The Basic Requirements for Green Claims

- Should not be misleading
- Should be accurate and verifiable
- Unlikely to result in misinterpretation

4.9 ECOMARK

Increasing concern about environmental issues has give rise to the concept of green marketing throughout the world. Now, literate and sentientcustomers demand environmentally compatible products. If manufacturers have to sell their products in the market then they have to develop it in eco-friendly way i.e. promoting the concept of green marketing. Moreover, manufacturers wishing to protect their present market and expand in to new ones may require green labels. To increase consumer awareness, the Government of India launched the eco-labeling scheme known as 'Ecomark' scheme. In this context government of India in co-operation with some autonomous organizations adopted 'Ecomark' scheme, and earthen pot i.e. 'matka' was selected as the symbol for the same.



Fig. 4.1 Indian Ecomark logo

The 'Ecomark' scheme was notified by Ministry of Environment and Forest, GOI in 1991regarding certification of environment friendly products. The scheme is employed to whole of India, voluntary in nature and any citizen/firm can apply for the labeling of their product/service. The ecomark labels is issued to the products/service which are environmental friendly and meet the quality requirements of Indian Standards and follow the approach of cradle to grave



i.e. extraction and refining of raw material, manufacturing and at last disposal of product. The product categories covered under Indian Ecomark Scheme is given in table 2.

Table 4.6: Product categories covered under Indian Ecomark Scheme

Sr. No.	Category	Sr. No.	Category
1	Batteries	2	Lubricating Oils
3	Coffee	4	Packaging Materials
5	Cosmetics	6	Paints and Powder Coatings
7	Electrical/Electronic Goods	8	Paper
9	Fire-extinguisher	10	Plastic Products
11	Food Additives	12	Soaps & Detergents
13	Food Items	14	Textiles
15	Leather	16	Wood Substitutes
17	Aerosol Propellants		

Source: http://cercenvis.nic.in/cited on21.04.2018.

4.9.1 Criteria for Ecomark Scheme

Basically it is based upon cradle to grave principal i.e. extraction and refining of raw material, manufacturing of a product and at lat disposal of product safely. The various factors identified while choosing a product for ecomarkare:

- Causing less environmental pollution as compare to other similar product.
- Made up of renewable natural resources as compare to other similar product.
- Can be recycled as compare to the other similar product which is not recyclable.
- Easily biodegradable as compare to other similar product which is not biodegradable.
- Consume less non renewable natural resources as compare to the other similar product.

4.9.2 Mechanism of the SCHEME

According to rule three committees are involved in criteria development for each product category and the award of Ecomark. The three different committees are as-

1. Steering Committee set up in the Ministry of Environment & Forest (MoEF)

This most important function of the committee is to decide the product categories for awarding Ecomark along with other important issues e.g. promotion, improvement and development of the scheme.

2. Technical Committee in the Central Pollution Control Board (CPCB).

The various functions of this committee include are- classifying environment friendly products, reviewing the existing criteria, product assessment and evaluation of environmental impact of a product.

3. Sectional Committee of the BIS and/or Directorate of Marketing.

The different functions of this committee include are- certification and award of Ecomark, to review the license, inspection and analysis of a sample/product etc. Initially label is issued for one year but latter on it may be continued on the basis of performance. The Bureau of Indian standards have power to withdraw the license at any time if firm found guilty or giving false information regarding the product. The scheme was developed for a good cause but does not gain desired popularity. Perhaps, it may be due to illiteracy, attitude and lack of knowledge about the importance of environment.

Check Your Progress 1

Note: a) Write your answer in about 50 words.

b) Check your progress with possible answers given at the end of the unit.

1.	What do you mean by eco-labeling? Discuss in brief about different type of eco-labels.
2.	Discuss in detail about steps involved in the process of awarding eco labels.
2	
3.	Write in brief about origin and objectives of the concept of eco-labels.
4.	Write a brief note on eco-labeling scheme launched by various countries

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5.	Write about eco-labels available in India with suitable diagrams and their detail.
6.	What are the guiding principles for eco-labeling? explain in detail.
7.	What are green claim? Describe the concept of green claim in brief.
8.	What is an eco-mark? Discuss about Indian eco-mark scheme.
9.	Explain in brief about criteria adopted for awarding an eco-mark.

4.10 LET US SUM UP

In this unit, you have studied about product developed by taking in to consideration environmental issues. It is now well established that all the products developed through extraction to refining have some environmental impacts through manufacturing, uses and disposal throughout their life. Ecolabeling follow a systematic pattern i.e. setting of criteria, testing, monitoring and awarding of a certificate. The scheme of Eco-labeling not only encourage the development of environmentally sound and friendly techniques but also aware the public about environmental concern. In today's world, people prefer the product with eco-label because of awareness about environmental issues. There are different agencies at international and national level which issue certificates to manufacturers for their environmental commitment in the form of eco-labels, eco-mark etc. The green claims are voluntary and self declared by a manufacturer, importer or distributor for environmental quality of a product and known as self declaration claims or environmental claims or green claims. The information related to environmental effects and qualities of products and how to use and dispose etc. are claimed by green claims. These environmental labels can play an important role in the conservation of natural resources and in sensitization of public about importance of natural resources. Beside these agencies product developer can also claim green or environmental claims at their own, but these claims should be accurate and authentic.

4.11 KEY WORDS

Ecomark

: To increase consumer awareness, the Government of India launched the eco-labeling scheme known as 'Ecomark' scheme.

Environmental-labels

: The environmental-labels are a group of labels based upon the environmental performance of product i.e. positive, negative or neutral impacts of a product on the environment.

4.12 REFERENCES AND SUGGESTED FURTHER READINGS

Devinder Pal Singh (2011). Consumers Attitude for Eco-labels in an Emerging Economy, Int. J. of Business Policy and Economics, Vol. 4 (1): pp 1-8.

Shekhar D Bhole1, U P Waghe and N S Raman (2013). Eco-marks Indicators in India. Int. J. Life Sc. Bt & Pharm. Res. Vol 2(4): pp 28-41.

http://cercenvis.nic.in/, www.cercindia.org.

A P Singh1, N S Raman1 and U P Waghe (2012). Eco-mark Scheme in India. Int. J. Pharm. Med. & Bio. Sc. Vol. 1(2): pp 109-122.

A guide to environmental labels for procurement practitioners of the United Nations system (2009). UNOPS 2009 available at www.ungm.org.

Environmental labels and declarations How ISO standards help, available at www.iso.org.

Michanne Haynes. Eco-labelling: Challenges and Opportunities for Small States and LDCs, Commonwealth trade hot topics issue 95.

Simi TB (2009). Eco-labels: Trade Barriers or Trade Facilitators, CUTS Centre for International Trade, Economics & Environment, India available at: www.cuts-citee.org.

Environmental Labeling Issues, Policies, and Practices Worldwide, EPA 1998.

Green Claims – Practical Guidance How To Make A Good Environmental Claim, available at : www.defra.gov.uk.

Introduction to Global Ecolabelling Network (GEN) InformationPaper, http://www.gen.gr.jp.

Environmental Labelling: An overview by Sustainable Business Associates Switzerland www.sba-int.ch.

CERC-ENVIS Centre www.cercenvis.nic.in, www.cercindia.org,



4.13 ANSWERS TO CHECK YOUR PROGRESS

Answers to Check Your Progress 1

Your answers should include the following points:

- 1. Eco-Labeling: It is a tag, which represents the possible environmental impacts of a product/service during the course of manufacturing and use.
- 2. Step involved in process of awarding eco labels. : Refer to Table 2
- 3. Objectives of Eco Labeling: (Elaborate on these points)

Environmental protection: One of the most important objectives of eco-labeling is to encourage the consumer to think and prefer an environmentally safe product and service. In this regard, various possible important objective may be:

Inventing and promoting environmental friendly technologies: It is well-established fact that when an eco-label is awarded to any product, it indicates that this product has less environmental impact as compared to similar product without an eco-label.

Sensitizing the consumer about environment related issues.

- 4. Refer Table4
- 5. Refer Table 5
- 6. Guiding principles for eco-labeling: Refer to 4.7
- 7. Green claim: The green claims are voluntary and self declared by a manufacturer, importer or distributor for environmental quality of a product and known as self declaration claims or environmental claims or green claims. The information related to environmental effects and qualities of products and how to use and dispose etc. are claimed by green claims
- 8. Eco-mark: To increase consumer awareness, the Government of India launched the eco-labeling scheme known as 'Ecomark' schemeThe ecomarklabels are issued to the products/service which are environmental friendly and meets the quality requirements of Indian Standards and follow the approach of cradle to grave i.e. extraction and refining of raw material, manufacturing and at lat disposal of product.
- 9. Criteria adopted for awarding an eco-mark:
 - Causing less environmental pollution as compare to other similar product.
 - Made up of renewable natural resources as compare to other similar product.
 - Can be recycled as compare to the other similar product which is not recyclable.
 - Easily biodegradable as compare to other similar product which is not biodegradable.
 - Consume less non renewable natural resources as compare to the other similar product