ISO14001:2015

EMS Awareness Training Course

About Qdot

Qdot managed by a team of experienced professionals, is committed to promote quality & excellence culture in GCC (UAE, QATAR, KSA, Oman, Kuwait, Bahrain)by providing below mentioned services.

Management System Services
- ISO 9001, ISO 14001, ISO 45001, HACCP, ISO 22000, FSSC 22000, BRC GS, Halal, ISO 22716 (GMP),Organic Certification, ISO 27001, ISO 41001, ISO 37001, ISO 50001, ISO 55001, ISO 17020 & ISO 17025 etc

Training Services
- IRCA Approved Lead Auditor
- Awareness & Trainings on ISO Standards

Product Registration
- SABER, SQM, SFDA, CITC, IECEE, ECAS, EQM, RoSH, EESL, SLCP, G-Mark etc

Social Compliance
- SEDEX-SMETA, SA 8000, amfori BSCI, ISO 26001, WRAP, GRLI, ESG, CTPAT etc

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Today's Agenda

- **Introduction to course**

- **EMS Overview**

- **Covering changes arising as a result of the adoption of Annex SL**

- **Covering changes arising as a result of changes to the standard specific content.**

- **ISO14001:2015 Requirements**
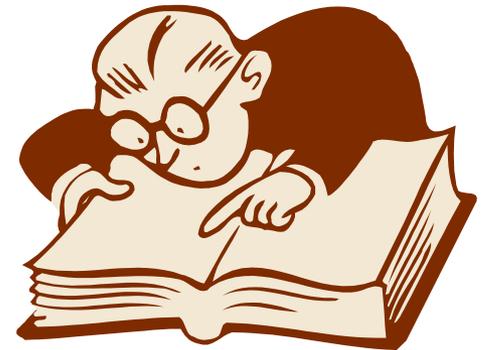
# Environmental Management an overview

Environmental Management System :

part of the management system used:

- ▪ **to manage environmental aspects,**
- ▪ **to fulfill compliance obligations,**
- ▪ **to address risks and opportunities**
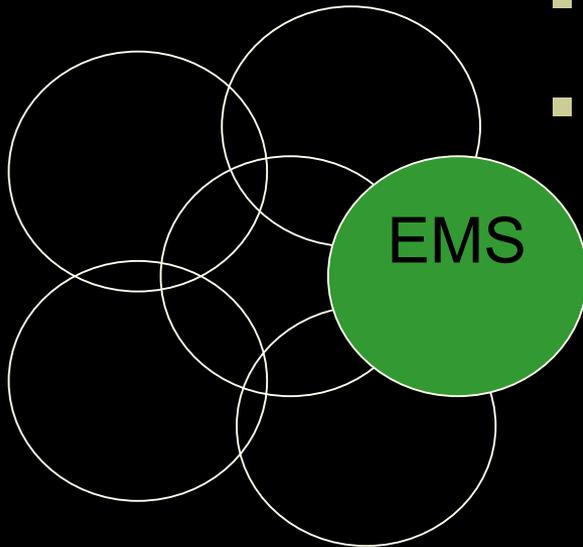
EMS

Interested Parties

STAKE HOLDER

LEGISLATOR

NGOs

CUSTOMER

Organization

INSURANCE

SUPPLIER

MEDIA

Environment

air

Natural
resources

human

flora

Organization

water

fauna

land
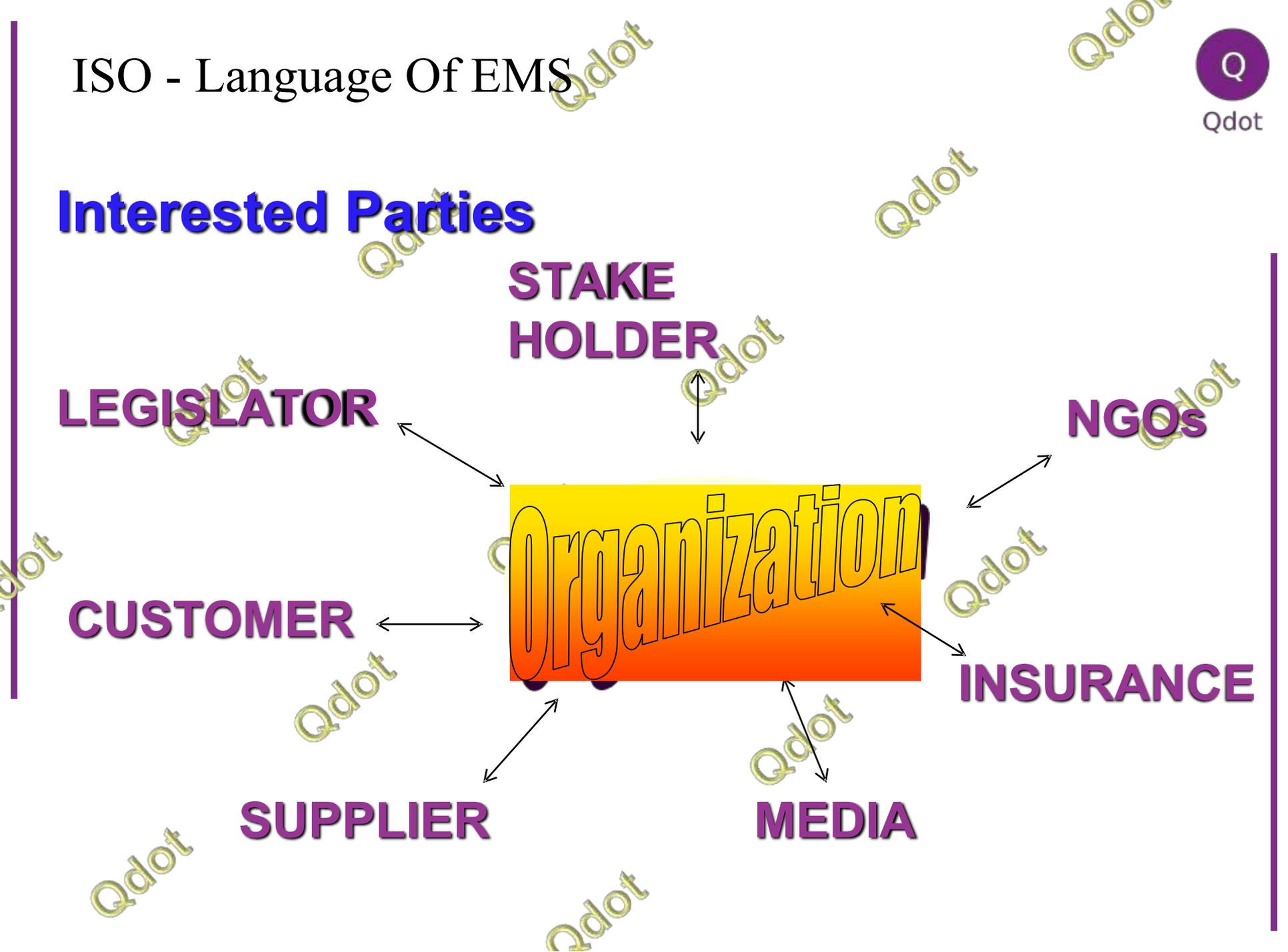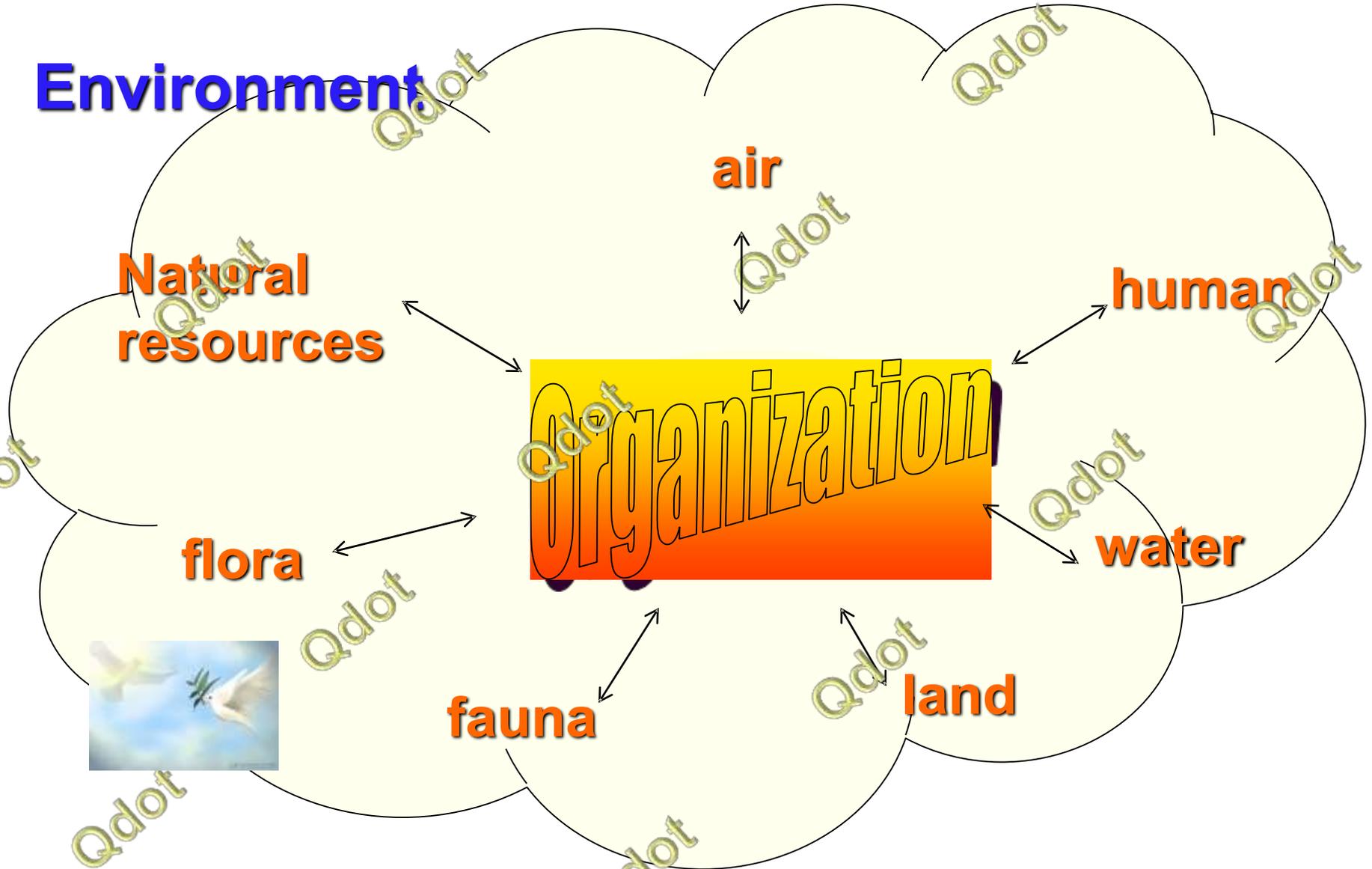
Prevention of Pollution -1

■ What? (ISO 14001)

Use of processes, practices, techniques materials, products, services or energy to avoid, reduce or control the creation, emission or discharge of any type of pollutant or waste, In order to reduce adverse environmental impacts

Note: Prevention of pollution can include source reduction or elimination, process, product or service changes, efficient use of resources, material and energy substitution, reuse, recovery, recycling, reclamation and treatment.
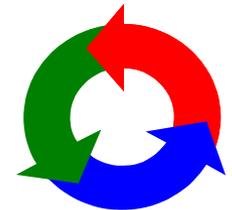
Prevention of Pollution -2

Material and
Energy Substitution

Source Reduction
or Elimination

Raw materials
&
natural resources

↓

Efficient Use
of Resources

Reuse
Recovery
Recycling
Reclamation

Production process

Process,
Product or
Service Changes

Pollutant / Waste

Product

Disposal

Treatment

ISO - Language Of EMS
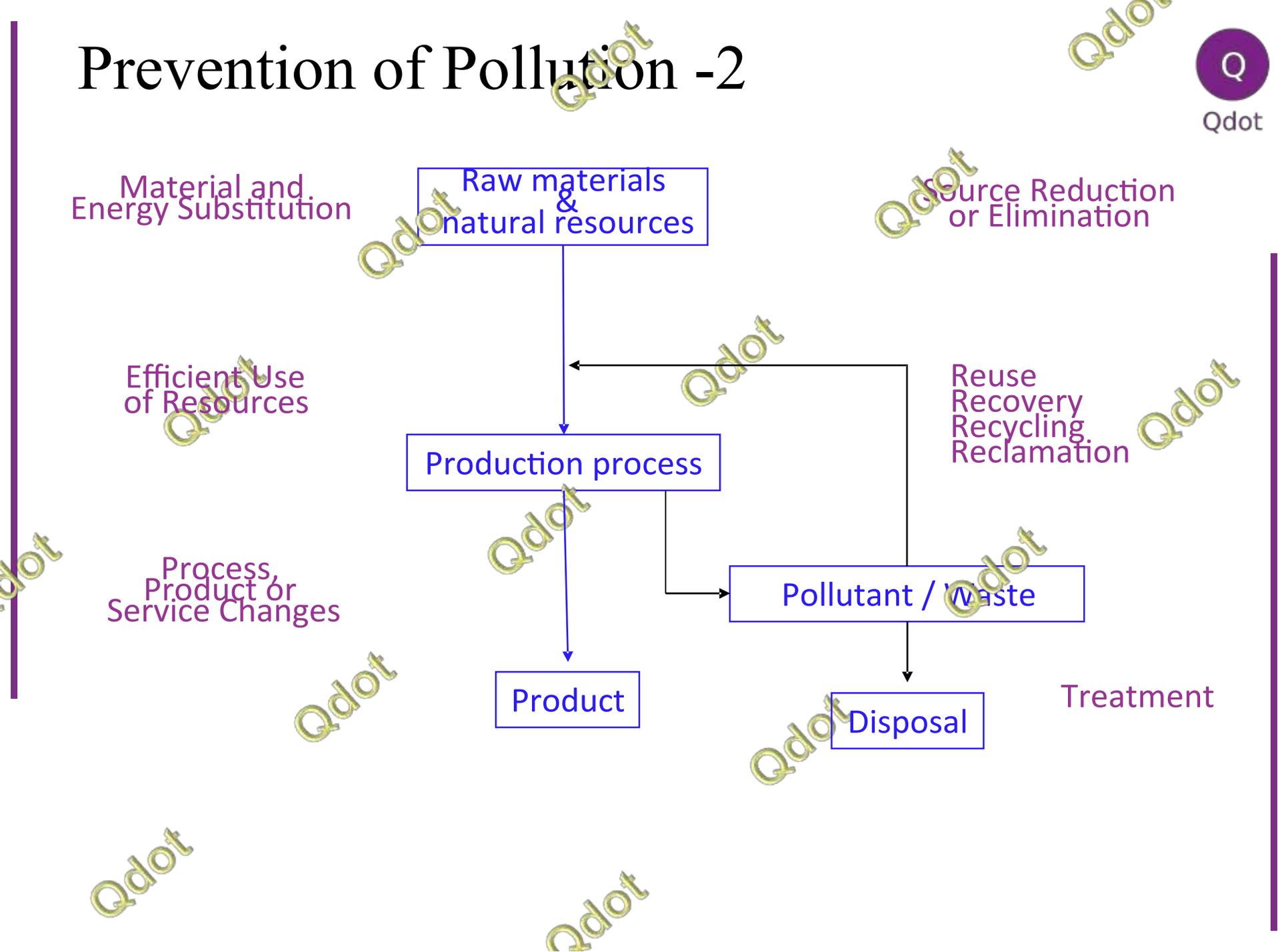
Continual Improvement

- *Recurring activities of enhance performance*

"Continual improvement should be a permanent objective of the organisation."

ISO 14000

Foundation & Familiarization

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What is it?------The History

- Need for common understanding of environmental management
- 1991: ISO Strategic Advisory Group on the Environment
- 1992: ISO Technical Committee 207
- 1996: First of ISO 14000 Series of Standards introduced
- 2004: First revision of the ISO14001
- **15 September 2015: Latest revision of the ISO14001**

ISO 14000 Series of Standards

ISO 19011
Management System Auditing

AUDITING

ISO 14031
Environmental Performance Evaluation

EPE

ISO 14001
Environmental Management Systems Specification

EMS

ISO 14004
General Guidelines

ISO 14040
ISO 14044
Life-cycle Assessment

LCA

ISO 14020 Series
Environmental Labels and Declarations

ISO 14064
ISO 14065
Greenhouse Gas

GHG

ISO 14050 Definitions

ISO 14001 : 2015

ENVIRONMENTAL MANAGEMENT SYSTEM

REQUIREMENTS

an overview
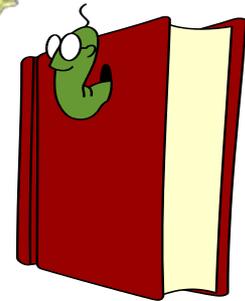
Purpose of the standard

- To provide organizations with a framework, in balance with socio-economic needs, to

  - protect the environment and

  - respond to changing environmental conditions.

- To enable an organization to achieve the intended outcomes it sets for its EMS

- Contain the requirements used to assess conformity

Annex SL

- This annex with the objective of delivering consistent and compatible MSSs.

- Previously ISO Guide 83

- Defines the framework for a generic management system

- All new ISO Management System Standard (MSS) will adhere to this framework

- All current Management system standard will migrate to the framework at their next revision

Discipline-Specific Standard (ISO 9001) — Annex SL (Common Structure, Terms & Text) — Discipline-Specific Standard (ISO 14001)

Purpose of the Annex SL Appendix

- To create a common text framework, which will be easier for organisations to utilise and for auditors to audit against.

- To improve the effectiveness, and value of management system standards generally by being more holistic.

PDCA Cycle

- **Plan:** Establish the system and its component needed

- **Do:** implement what is planned

- **Check:** Monitor and measure processes and the resulting products and services

- **Act:** take actions to improve process performance, as necessary

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High Level Structure

	Clauses	Topic
Plan	1	Scope
	2	Normative Reference
	3	Term and Definition
	4	Context of the organization
	5	Leadership
	6	Planning
Do	7	Support
	8	Operation
Check	9	Performance Evaluation
Act	10	Improvement

Purpose of the new framework

- **<u>Stable framework</u>** for next 10 years
- **<u>Generic</u>** but still relevant to **<u>all types</u>** and sizes of organisation
- Focus on effective process management
- To reflect changes in the increasingly complex and dynamic working environment
- To apply uniform structure
- Simplify effective implementation & compliance review
- Simple phrasing to ensure common understanding and consistent interpretation

Clause 4 : Context of the organization

4.1 Understanding the organization and its context

4.2 Understanding the needs and expectations

4.3 Determining the scope of the environmental management system

4.4 Environmental management system

External Context

External Context (PESTLE)	Example
Political	tax policy, political stability, nation election cause the change in government policy
Economic	Increasing fuel costs, exchange rates which reduces money for investing
Social	emphasis on workplace safety, influence by the government initiative (i.e OHSAS)
Technological	R&D activity, automation, technology incentives and the rate of technological change
Legal	Environmental law, Workplace Safety Act, and Labor Law
Environmental	Climate change causing flooding at the project location

Internal Context (Examples)

Internal Context (TECOP)	Example
Technical	Infrastructure and equipment and machinery used within the company for product and services
Economic	financial management systems, cash flow, capital reserves and commercial viability of the organization
Cultural	shared values (sustainability) and team works (bottom-up planning)
Organization	capabilities, policies, standards, guidelines strategies
Political (Internal)	Decision making by top down approach

Example

Architecture firm

1) External Context:

   i. Increase of local environmental awareness: incorporate sustainability concept in design of building

   ii. High bank interest rate: Reduction of investment from stakeholders

2) Internal Context:

   i. Due to low quotation: recycling materials are used to demonstrated the building model

   ii. Communication and decision making: Team discussion and sharing to promote creativity and innovation in design concept

Clause 5   Leadership

5.1 Leadership and commitment

5.2 Environmental policy

5.3 Organizational roles, responsibilities and authorities

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Clause 6 Planning

6.1 Actions to address risks and opportunities

→

6.1.1 General

6.1.2 Environmental Aspects

6.1.3 Compliance obligations

6.1.4 Planning action

6.2 Environmental objectives and planning to achieve them

6.2.1 Environmental objectives

6.2.2 Planning actions to achieve environmental objectives

Clause 7 Support

7.1 Resources

7.2 Competence

7.3 Awareness

7.4 Communication

7.4.1 General

7.4.2 Internal communication

7.4.3 External communication

7.5 Documented Information

7.5.1 General

7.5.2 Creating and updating

7.5.3 Control of documented information

EMS Documentation

- To maintain and control "documented information"

- "retain documented information as evidence of " (record)

- "maintain documented information" (other documents)

- Procedure : Emergency preparedness and response (8.2)

Policy

Procedures

Instructions & Forms

Records

Clause 8   Operation

8.1 Operation planning and control

8.2 Emergency preparedness and response

Clause 9   Performance evaluation

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

9.1.2 Evaluation of compliance

9.2 Internal audit

9.2.1 General

9.2.2 Internal audit programme

9.3 Management Review

Clause 10   Improvement

10.1 General

10.2 Nonconformity and corrective action

10.3 Continual improvement

Environmental Aspect Identification

Environmental Aspect Identification

Cause   →   Effect

Aspect   →   Impact

Normal?

Area / Source

↓

Activities

↓

Aspects

Abnormal?

Emergency?

Life cycle!

Change!

Environmental Issues

Pollution

| Environment | Resource → | **Operational System** | Products → Service → | People |

Manpower

Impact of pollution
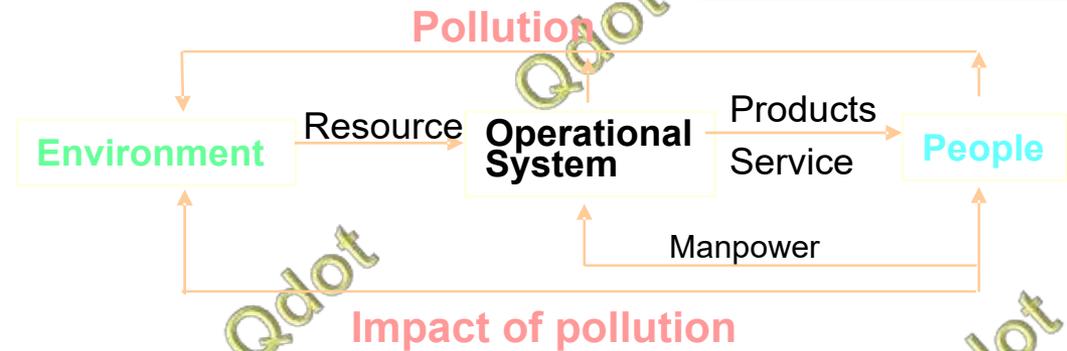
1. **Emission to air**
2. **Release to water**
3. **Release to land**
4. **Use of raw materials and natural resources**
5. **Use of energy**
6. **Energy emitted**
7. **Generation of waste & by-product**
8. **Use of space**

Material Balance Technique

INPUT (ASPECT - IMPACT)	PROCESS	OUTPUT (ASPECT - IMPACT)

INPUT
(ASPECT - IMPACT)

Material
Electricity } **Resource Usage**
Fuel
Water
Chemical — **Toxic Substances**

Package — **Resource Usage**
etc.

PROCESS

A C T I V I T I E S

OUTPUT
(ASPECT - IMPACT)

Product
Released Water — **Water Pollution**
Garbage — **Solid Waste**
Hazardous Waste — **Hazardous Waste**
Smog — **Air Pollution**
Chemical Fume
Noise } **Nuisance**
Heat
Odour
etc.

Evaluation significance of impacts

- **Factor to be considered:**

> Risk & Opportunity

Environmental concerns:	Business concerns:
- Scale of impact;	- regulatory and legal impact;
- severity of impact;	- changing the impact;
- probability of occurrence;	- interested parties;
- duration of impact;	- public image;

Example of evaluation criteria (Qualitative Analysis)

- Probability of occurrence ⎫ High
- Sensitivity of impact ⎬ Medium
- Severity of impact ⎭ Low

PROBABILITY			
	M	H	H
	L	M	H
	L	L	M

SEVERITY

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