



Japan's QSP Implementation Report



**National Environment Commission
Royal Government of Bhutan**

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Presentation Outline

- ❖ Introduction
- ❖ QSP Projects
- ❖ Findings of QSP Implementations
- ❖ Challenges
- ❖ Future QSP activities





INTRODUCTION

❖ Background

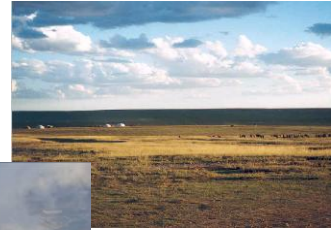
- *Situated in between China in the north and India on east-west and south;*
- *7,00,000.00 living in 38,389.4 sq. Km;*
- *Elevation from 100mtrs in the foothill to over 7500 mtrs in the north;*
- *80% population is engage is daily subsistence farming with weather pattern greatly influence by monsoon;*
- *Still blessed with 72 % of total area under forest cover, 27% dedicated protected area and 65% to maintain all time to come;*
- *Development philosophy govern by Gross National Happiness;*

INTRODUCTION

❖ Background

– Bhutan – Environmental Challenges

- By the standards of many other countries, Bhutan's environment is relatively unspoilt. However, emerging areas of concern include:
 - Growing population and changing lifestyles are intensifying pressure on the country's fragile ecosystems
 - Overgrazing is degrading significant areas and displacing wildlife from his habitats
 - Pollution from industrial and urban sources is negatively affecting environmental quality
 - Human and financial resources for environment and natural resources management are limited, and institutional capacity is weak





INTRODUCTION

❖ Background

- **Bhutan- Chemical Management challenges**
 - **Not producers of any chemical**
 - **Imports all the required chemicals**
 - **Major sector consuming chemicals are agriculture, Trade and Industries, and health**
 - **Chemicals are managed by sectors in isolations**

Environmental Governance Structure

- Article 5 of The Constitution of the Kingdom of Bhutan, 2008
- National Environment Commission, apex body(autonomous) on any matters relating to environment
- Represented by Multi-sector commission members with three Ministers, a member of parliament, civil society, a NGO, relevant ministries
- Prime Minister is the chairman of the commission;

Some Environmental Legislations

- *Waste Prevention and Management Act of Bhutan, 2009*
- *The National Environmental Protection Act 2007*
- *Environment Assessment Act, 2000*
- *Forest and Nature Conservation Act, 1995*
- *Mines and Mineral Management Act, 1995*

Institution and Legal Provision for Chemical Management

Institutions	Relevant legal provisions
NEC	Environmental Assessment Act 2000, Article number 8 & 9. Regulation for Environmental Clearance of projects, 2002 Regulation for Environmental Clearance of projects, 2002, Chapter 2. Environmental Codes of Practice for Hazardous Waste Management, 2002, Chapter 4, 5, 6, 7, 8. Regulation on Ozone Depleting Substances 2004-2008, Chapter 4. National Environment Protection Act 2007, Article 54, 55.
MoEA	Rules and Regulation for establishment of Industrial and Commercial Ventures in Bhutan 1995, Section 15. Rules of Procedures from Import from Third Countries 2002, Chapter 3.
MoAF	Pesticide Act of Bhutan 2000, Preamble and Article 2, 4. Plant and Quarantine Act ...
MoF	Sales Tax , Customs and Excise Act of the Kingdom of Bhutan 2000, Article 45, 46. Rules on the Sales Tax, Customs and Excise Act of the Kingdom of Bhutan 2000, Chapter 13.
MoH	Medicine Act, 2003, Chapter 6,7,8.
Bhutan Narcotics Control Authority	Narcotic Drugs, Psychotropic Substances and Substances Abuse Act 2005, Article 3-6. Rules and Regulation for Narcotic Drugs, Psychotropic Substances and Substances Abuse Act 2005, Chapter 3.



QSP Projects

1. Development of Bhutan's National Chemicals Management Framework (2010-2020)
2. Small/Pilot Project on interventions required for sound chemical management in Automobile Industry



Stockholm Convention



Rotterdam Convention



Basel Convention

SAICM

Kyoto Protocol

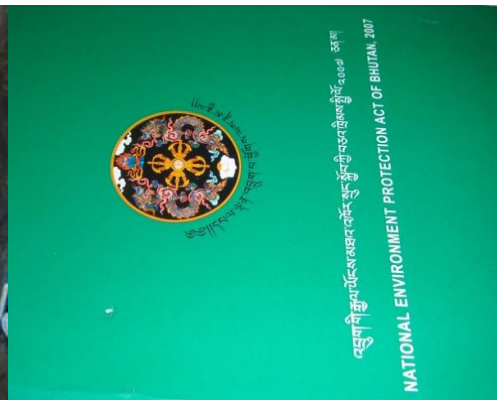
Montreal Protocol

ILO

Quick Start Programme 1: Framework Development

Activities for the QSP 1: Framework Development

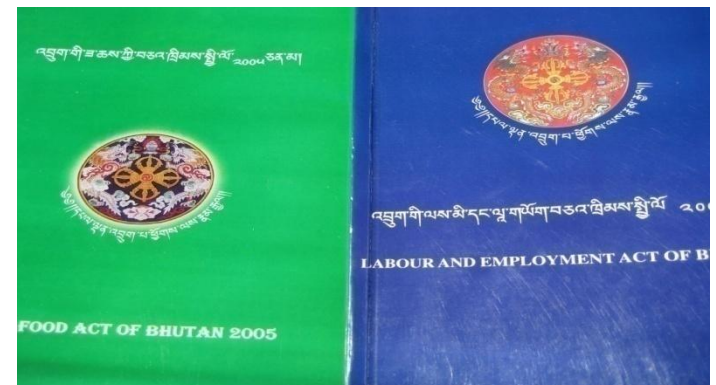
- Legal frameworks and regulation
- Institutional, organizational and administrative
- Capacity building and technical cooperation
- Risk reduction and safe guards
- Illegal trans-boundary movements
- Knowledge information and awareness



Purpose and objectives

Legal frameworks and regulations

- To identify the development of adequate legislative frameworks
- To develop appropriate institutional/ organizational/ administrative systems
- To strengthen enforcement and encourage the implementation of national laws and regulations



Purpose and objectives

Institutional organizational and administrative

- To achieve sound management of chemicals through appropriate national mechanisms
- To promote sound management of chemicals within each relevant sector and integrated programs for sound chemicals management across all sectors;
- To include capacity-building for the sound management of chemicals as a priority
- To ensure that national institutional frameworks address the prevention of illegal trans-boundary movement in chemicals

Purpose and objectives

Capacity building and technical cooperation

- To develop institutional capacity for the sound management of chemicals throughout their life cycle as needed, especially in strengthening adequate human resources and technical infrastructure
- To establish and strengthen partnerships and mechanisms for technical cooperation and provision of appropriate technical assistance and support with developmental partners



Purpose and objectives

Risk reductions and safeguards

- To minimize risks to human health, including that of workers, and to the environment throughout the life cycle of chemicals
- To ensure vulnerable humans and environment are taken in account while taking policy decisions
- To implement transparent, comprehensive, efficient and effective risk management strategies

Purpose and objectives

Illegal trans-boundary movements

- To prevent illegal trans-boundary traffic in toxic, hazardous, banned and severely restricted chemicals
- To strengthen implementation mechanisms and surveillance modalities
- To promote information sharing and to strengthen the capacity levels for the prevention and control of illegal international traffic

Purpose and objectives

Knowledge information and awareness

- To promote coordination of and access to information on capacity-building
- To promote awareness on the safe use and appropriate disposal of chemicals among policy makers, implementers, private sector and the general public
- To provide an open, transparent and objective source of synthesized awareness information

QSP Findings

General legislative framework relating to chemicals management

Constitution of the Kingdom of Bhutan (Art. 5.2b, Art. 5.3, Art. 5.4, Art. 7.1)

Waste Prevention and Management Act, 2009 (Ch. 3 Art. 13(a)&(b), Art. 14, Art. 22.

Environment Assessment Act 2000

NEPA 2009

ECOPS

QSP Findings cont'd...

General legislative framework relating to chemicals management

Pesticides Act of Bhutan 2000 (Art. 4 – import and distribution)

Bhutan Medicines Act of Bhutan 2003

Labor and Employment Act 2007 - Ch 9 Article 143 (a) (b) (c) (d) (e) (f)
and Article 144

National Forest Policy

Biodiversity Act

Local Government Act

QSP Findings cont'd...

Roles and responsibilities of agencies/ ministries

National Environment Commission

Ministry of Agriculture and Forests

Ministry of Health

Ministry of Labor and Human Resources

Ministry of Finance

Ministry of Education

Ministry of Home and Cultural Affairs

QSP Findings cont'd...

National Institutional Arrangements and Technical Infrastructure

NEC as the apex custodian

Pesticides Board

National Ozone Committee

Testing laboratories (MoH & MoAF)

QSP Findings cont'd...

Level of Knowledge, Awareness and Dissemination

Low level of awareness

General lack of reliable data and information on toxicity and safe use

No proper institutional set up for information management

Important gaps remain in the source of information and publication

QSP Findings cont'd...

Impediments towards sound management of chemicals

Insufficient coordination mechanism

Lack of adequate knowledge and technical expertise

Poor information base regarding chemical safety

Inadequate infrastructure – both testing and disposal

Lack of Chemicals Management

Uncontrolled waste disposal

.....lack of disposal facilities and collection systems



- ❖ open burning of waste
- ❖ spoiling the environment through polluting the soil, air and groundwater

Challenges

Chemical legislation is a recent phenomenon

Comprehensive approach lagging behind

Insufficient resources

Technology and capacity issues

Fragmentation of existing legislature, overlaps and inconsistencies

Gaps in existing legal infrastructure

Challenges...

Lack of appropriate administrative infrastructure

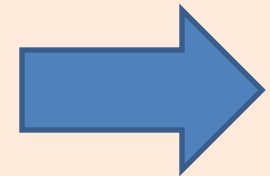
Roles and responsibilities in life-cycle management unclear

Dearth in technical expertise and human resources

Lack of awareness and knowledge

Ongoing activity:

Bhutan's National Chemicals Management Framework



Framework Development

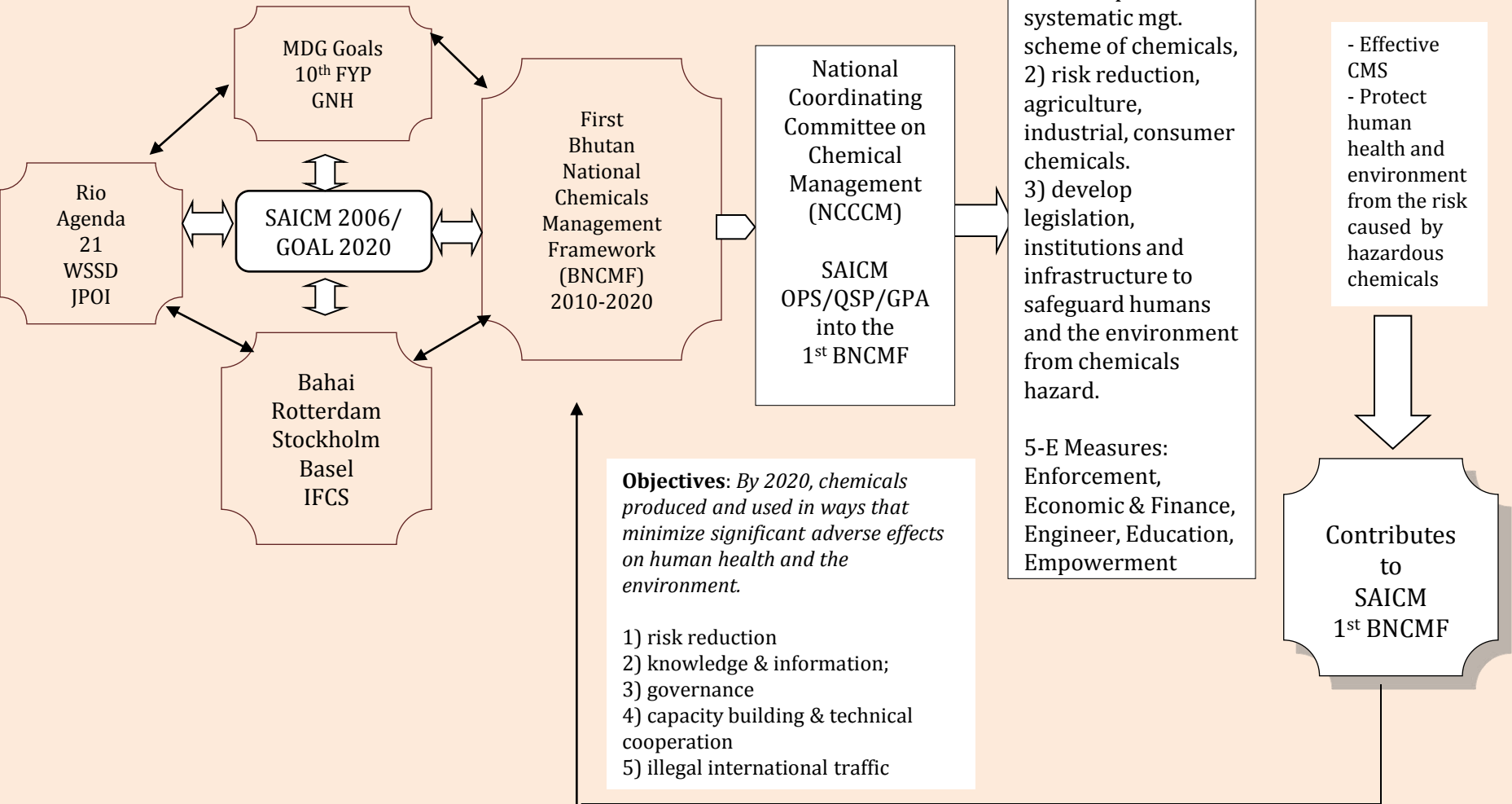
- The Draft guide on the framework is under preparation;
- National Consultation Workshop was held in March, 2010;
- Recognizes need of harmonized system of chemical management is crucial
- The Workshop agreed to form a technical working group, representing members for relevant sectors to develop the framework

Principle/Rationale

Objective

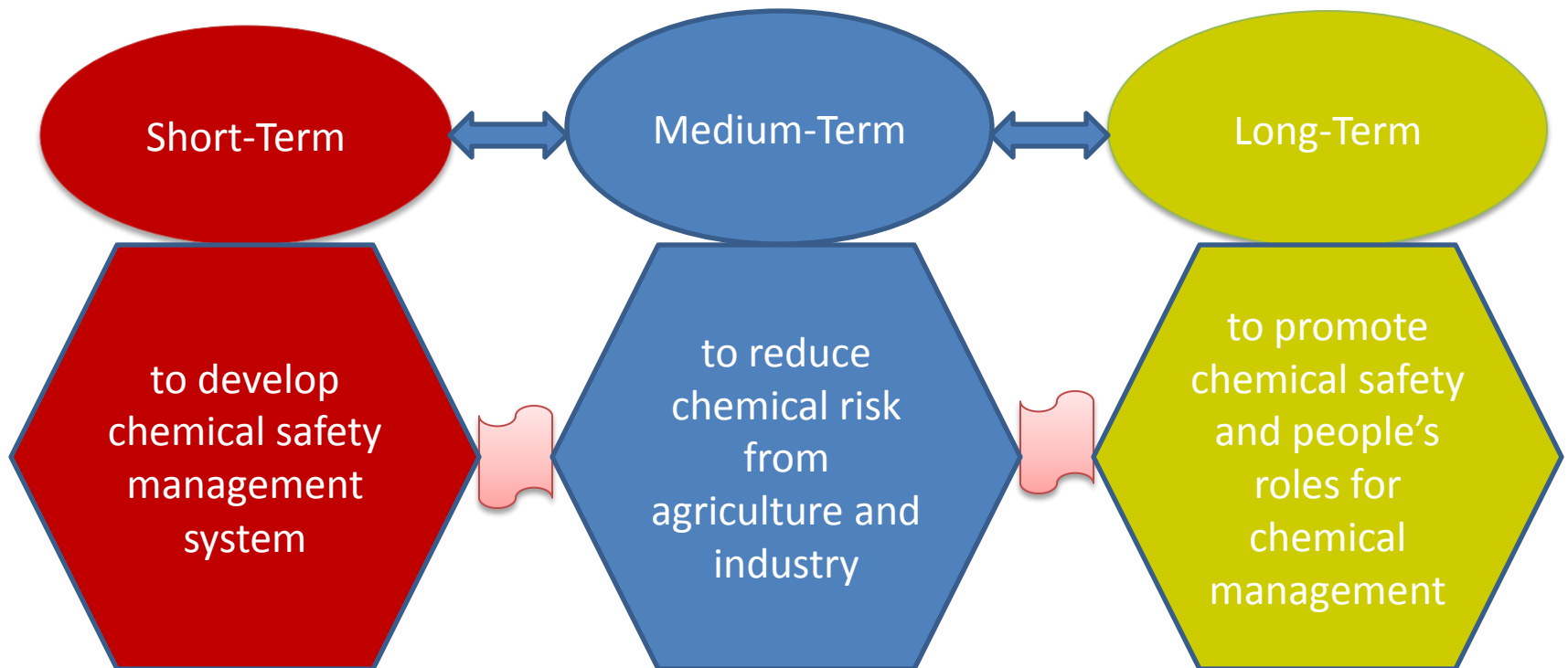
Strategies/measures

Expected Outcomes



Conceptual framework and direction

Bhutan's National Chemicals Management Framework



**Quick Start Programme 2:
Small/Pilot Project on
interventions required for sound
chemical management in
Automobile Industry**

Sound Chemical Management in Automobile Industry

Broad objectives of the pilot study

1. To develop a systematic management scheme of chemicals in Olarongchu workshop and propagate in other workshops and sectors
2. Risk reduction from exposure to chemicals in automobile workshop
3. To develop ideal legal frameworks, institutions, infrastructure to safeguard humans and the environment from chemicals hazard
4. Plans for the development of body of knowledge and human resource

Sound Chemical Management in Automobile Industry

Activities undertaken

Study was commissioned to understand the basic chemical management practices in the workshop area

Sound Chemical Management in Automobile Industry

Findings of the study

Inadequate infrastructure for disposal, treatment and testing

Low level of awareness

Insufficient coordination mechanism

Lack of adequate knowledge and technical expertise

Poor information base regarding chemical safety

Sound Chemical Management in Automobile Industry

Identified Interventions

Short term/immediate

- Training and awareness materials to be developed for chemicals
- Awareness created in the sector
- The institutional capacity building
- A voluntary documentation system instituted
- State of the art equipment provided as a pool resource to the operators in the cluster for the collection of used engine oil, vehicle antifreeze and air conditioning gases
- A system for segregation hazardous and non- hazardous waste

Sound Chemical Management in Automobile Industry

Identified Interventions

Medium Term

- Training materials incorporated in the regular curriculum of the vocational training institutes.
- Chemical waste disposal mechanism instituted.
- Legislation amended/policy incorporated.

Sound Chemical Management in Automobile Industry

Identified Interventions

Long Term

- The pilot project is replicated in other automobile service industries.
- The project modalities are used for sound chemicals management in the other sectors.

An aerial photograph of a mountain valley. A river flows through the center of the valley, surrounded by lush green forests. A small settlement with several buildings is visible near the river. The background shows misty, rolling hills. The text "ANOTHER STEP FOR BETTER TOMORROW" is overlaid in the upper half of the image.

**ANOTHER STEP FOR BETTER
TOMORROW**

TASHI DELEK